zadara

Zadara Cloud Services - Compute User Guide

Release 24.03

Zadara

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CONTENTS

CHAPTER

ONE

INTRODUCTION TO ZCOMPUTE

zCompute is an elastic cloud compute service, that scales to meet business demands, is secure, dependable, and available wherever needed. Whether moving to the cloud, leaving the cloud, or simply accessing compute resources closer to the data source, zCompute delivers access to cloud compute capacity and scales on demand.

CHAPTER

TWO

ZCOMPUTE UI

2.1 zCompute UI Language support

By default, the zCompute UI display language is English.

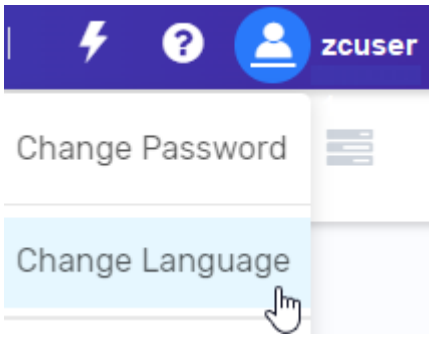
From version 23.08.1, the zCompute UI supports the following languages:

- English (default)
- German
- Japanese
- Korean
- Portuguese
- Spanish

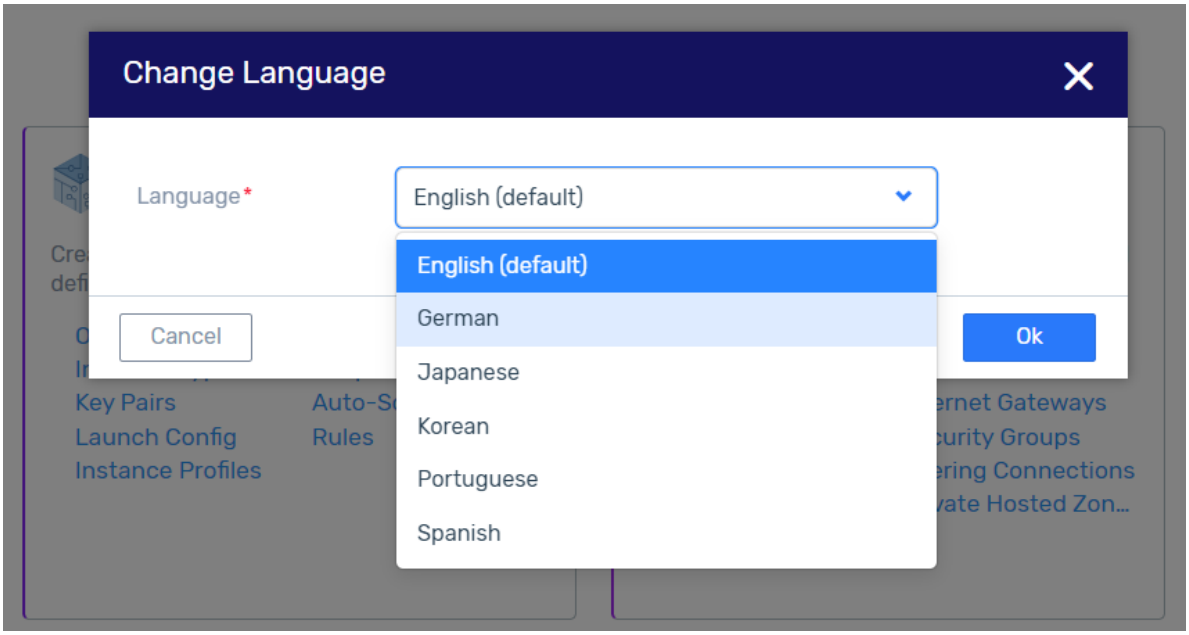
To change the UI display language:

1. Click the user icon at the top right.

   In the dropdown, select **Change Language**.



   The **Change Language** dialog opens.



2. In the **Change Language** dialog, expand the **Language** dropdown, scroll and select your preferred display language.
3. Click **OK**.

   The zCompute UI display will appear in the selected language.

2.2 zCompute UI Navigation

The zCompute UI provides a rich user experience for cloud compute management.

See zCompute's main user resources and interaction features in the zCompute UI Navigation video:

CHAPTER

THREE

QUICK START - BASIC

3.1 Upload Your Own Image

Images provide the information required to launch an instance. A single image can be used to launch multiple instances with the same configuration. You can create multiple images to allow various instance configurations. There are multiple ways to creates an image:

- File Upload
- URL
- Using a volume or a snapshot of existing instance

Learn more about Image Requirements.

See the video on the basics of zCompute Images and ISOs:

3.2 Create a Compute Instance

An instance is a virtual machine hosted on Zadara Cloud Services. An instance is launched using a copy of image or volume of your choice, which provides an initial configuration for that instance. There are multiple instance types of which you can choose when you launch an instance. An instance type determines the used resources required by your instance. Instance's type can also be changed after launch.

Start Creating VM Instances.

See the video demonstrating the basics of creating and management of zCompute Instances:

3.3 Add a Data Disk to Your VM

Volumes are block devices which you can mount as devices on your instances, and persist independently from the life of the instance. You can create a file system on top of these volumes, or use them in any way you would use a block device. Volumes can also be used to launch new instances.

See Adding Storage to VM Instances.

See the zCompute Volumes, Snapshots and Protection Groups overview video:

3.4 Make Your Instance Accessible

By default, your instances do not have a public IP address, which makes them unreachable from the internet. Elastic IP is a public IP which is accessible to the internet. Elastic IPs can be attached and detached to your instance as you choose, to allow internet access.

Start Associating Security Groups with VM Instances.

See the video demonstrating the basics of creating and configuring zCompute Security Groups and Source/Destination checks:

CHAPTER

FOUR

QUICK START - ADVANCED

4.1 Add Load Balancer

Load Balancer allows you to automatically distributes incoming traffic across multiple targets, such as instances, or IP addresses. There are two types of load balancers:

- **Application Load Balancer (ALB)** - Distributes HTTP or HTTPS traffic using application layer protocol based routing.
- **Network Load Balancer (NLB)** - Distributes TCP traffic regardless of the application layer protocol.

Learn more about zCompute's Load Balancing capabilities.

See the video demonstrating the basics of creating and configuring zCompute Load Balancers, Target Groups and Listeners:

4.2 Create Your Own Virtual Private Cloud

Virtual Private Cloud allows you to create an isolated section of the Zadara Cloud Services where you can launch resources in a virtual network that you define. VPC offers you a complete control of you network environment, including selection of an IP address range of your choice, creation of subnets, and configuration of route tables, network gateways and security groups.

Learn more about VPCs and zCompute networking capabilities.

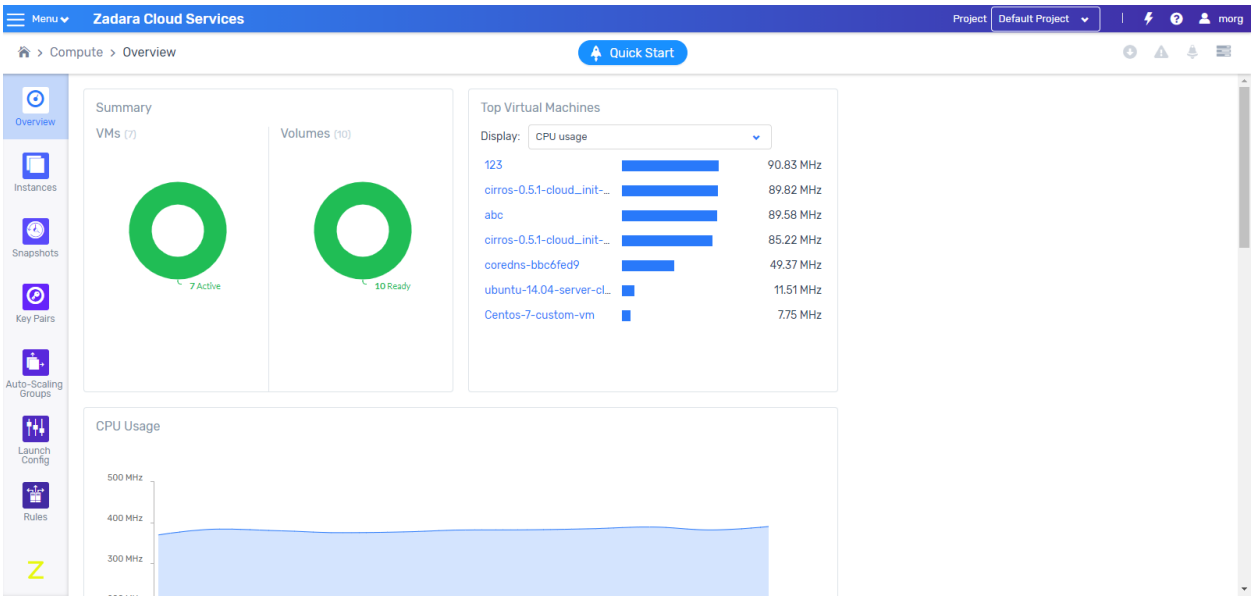
See the video demonstrating the basics of creating and configuring zCompute VPCs:

Explore our user guide to manage and use your zCompute account

4.2.1 Compute Project Overview

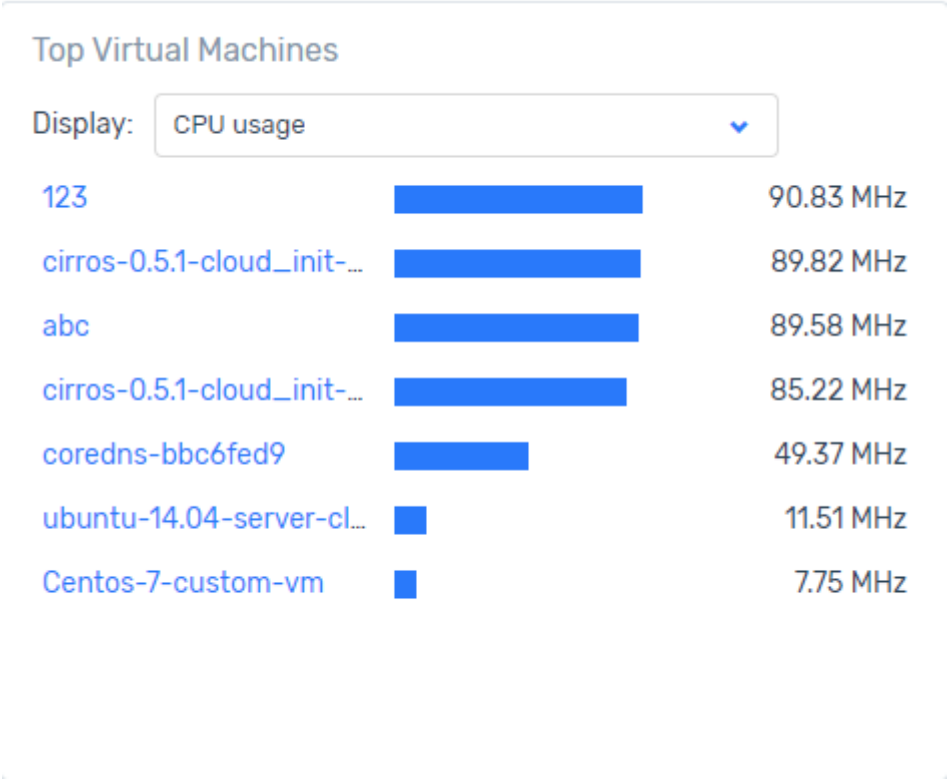
Zadara Cloud Services enables creating, configuring, running, accessing, and managing Virtual Machines (VMs).

The **Compute Project Overview** provides a number of widgets and graphs which summarize key resource usage statistics of VM instances used in your project.

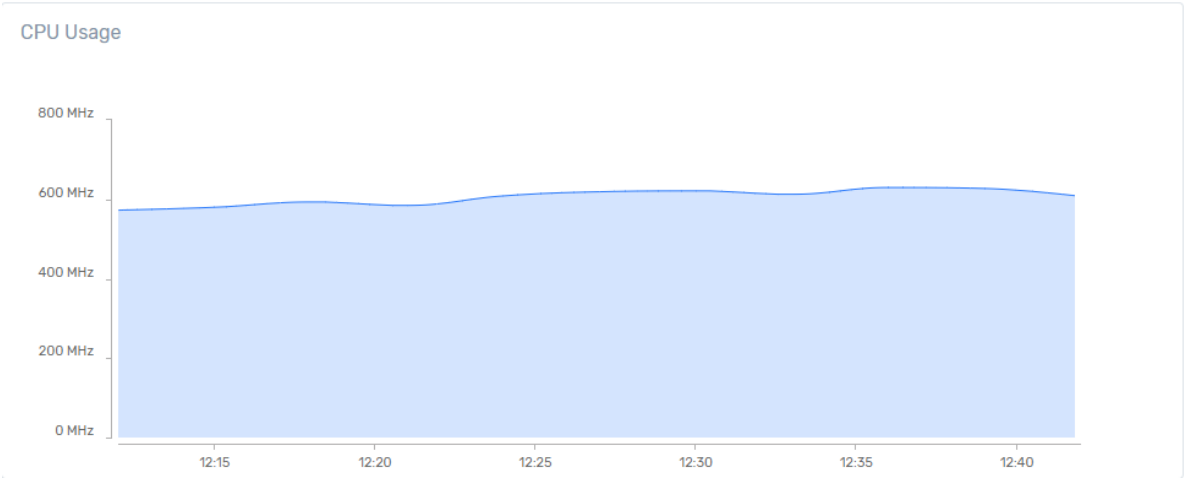


1. **Summary - VMs** - provides the number of VM instances used, including a count per VM instance state (running, active, error, shutoff).
2. **Summary - Volumes** - provides the number of volumes used and their status.

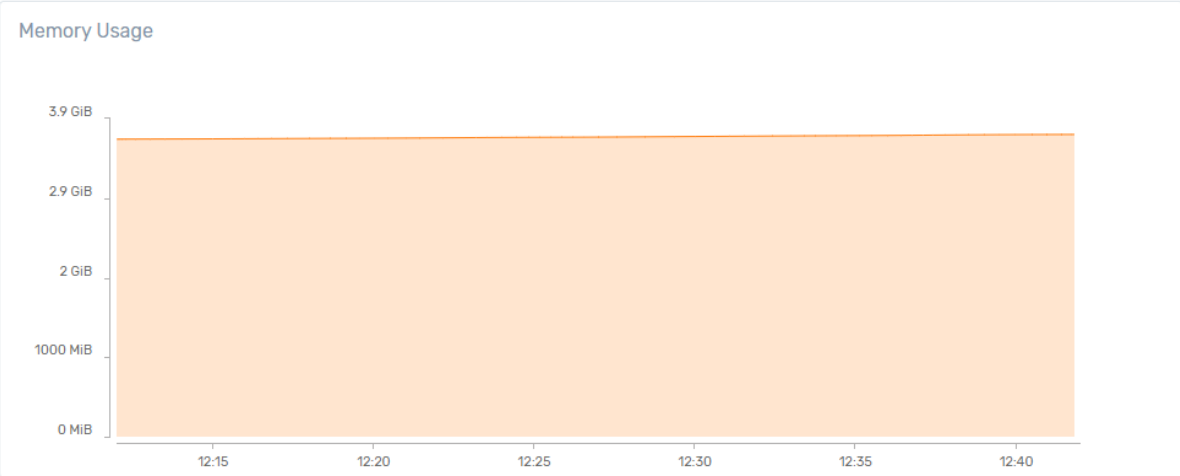
3. **Top Virtual Machines** - displays the top 10 VM instances based on resource usage: CPU Usage, Memory Usage. Network usage (receive), Network usage (send).



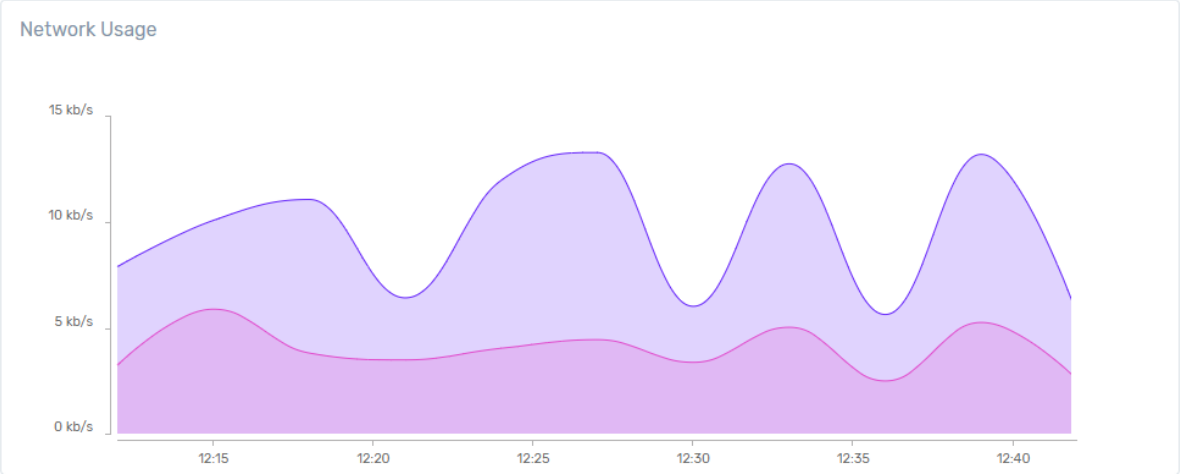
4. **CPU Usage** - displays the total CPU usage of all VM instances in your project.



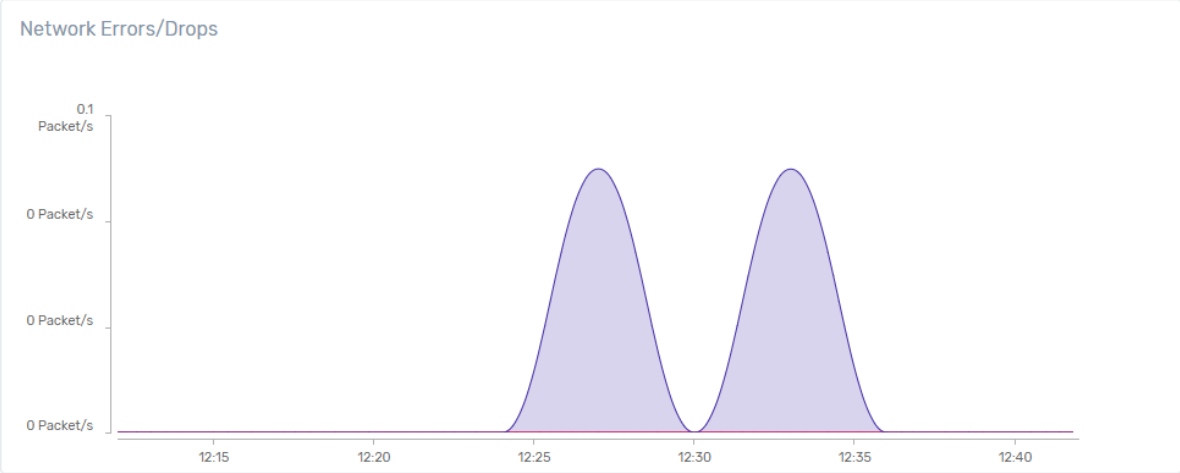
5. **Memory Usage** - displays the total memory usage of all VM instances in your project.



6. **Network Usage** - displays the total network transmit and receive rates.



7. **Network Drop** - displays the total network packet drops.



4.2.2 Initial Deployment Operations

This section describes steps used to create a VM instance with the Create VM Instance wizard. In addition, operations commonly used immediately following VM instance creation are also described.

See the video demonstrating the basics of creating and management of zCompute Instances:

Creating VM Instances

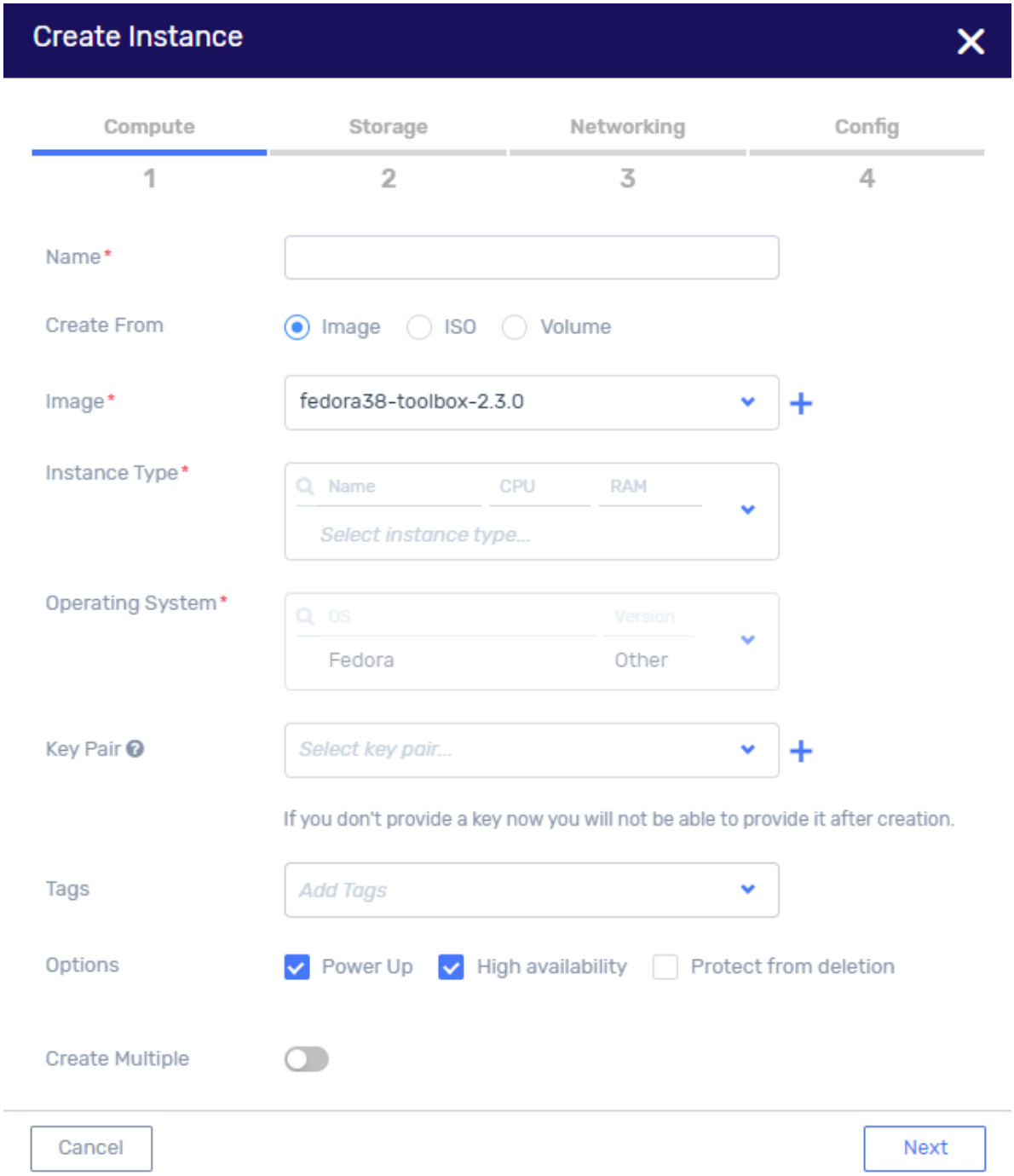
To create VM instances:

1. Navigate to the **Compute** > **Instances** view.
2. Click **Create**.

> ✔ **Note:** Fields marked with a red asterisk are mandatory.

The Create VM Instance wizard starts including the following four tabs: **Compute**, **Storage**, **Networking**, **Config**.

1. **Compute** - defines the VM instances, their type, activation and quantity.



In the **Compute** tab, configure:

- **Name** - the display name for the VM instance.
- **Create From** - the source of the new VM instance. When you select one of the source options, the next field is updated as follows:
  - **Image** - select an image from available list. See Image Creation to create new image.
  - **ISO** - select Installation ISO from available list.
  - **Volume** - select Boot Volume from available list.

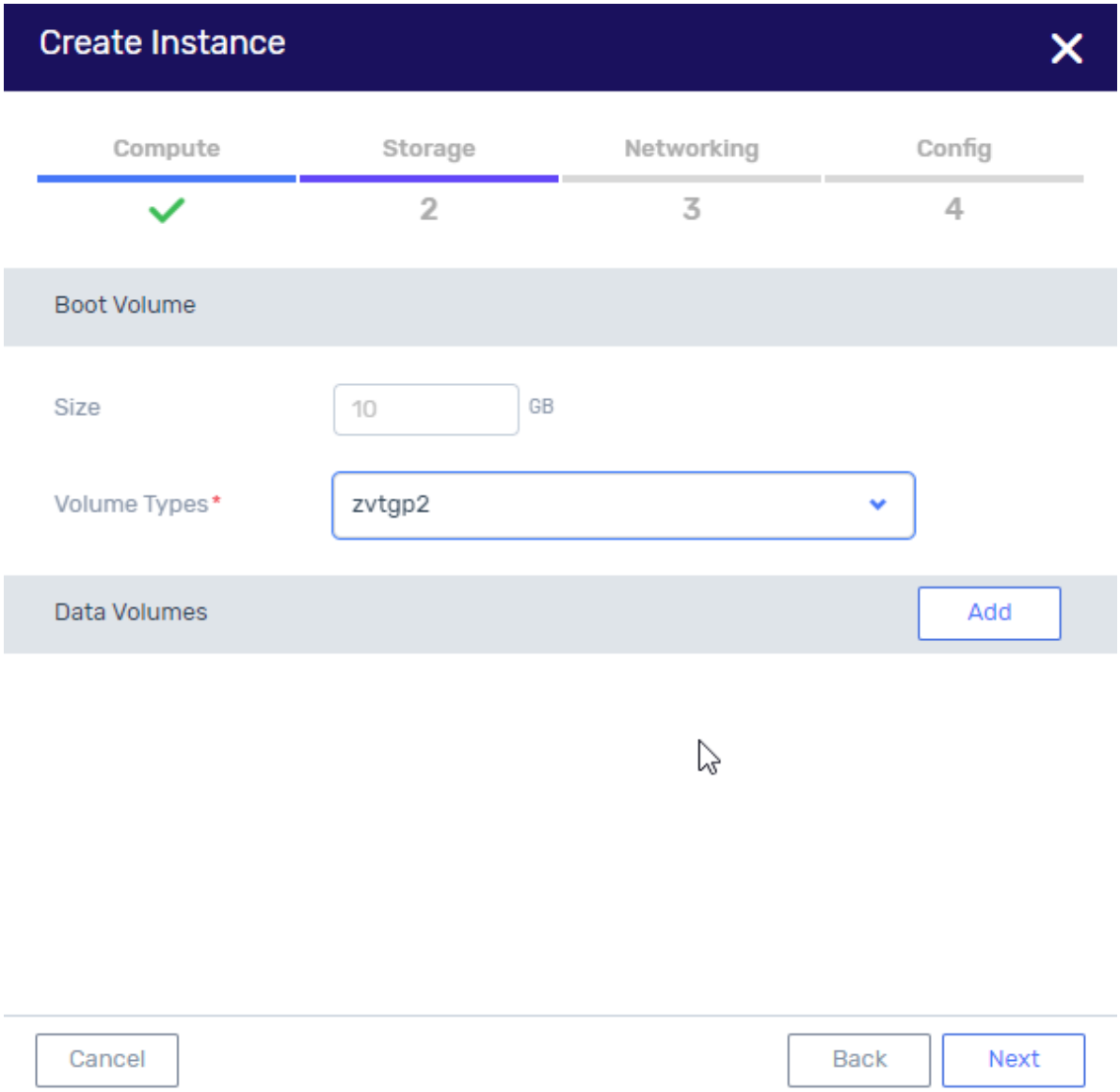
✔ **Note:** From version 24.03, zCompute automatically populates the **Operating System** field, by detecting the OS of the selected source **Image**, **ISO** or **Volume**.

The **Operating System** field is read-only.

In the event of mismatch or undetected OS, open a ticket for Zadara support to override the auto-populated **Operating System**.

- **Instance Type** - defines the amount of compute resource of the VM instance (CPU and RAM).
- **Key Pair** - set of security credentials for ensuring the identity of the user connecting to the VM instance. Select existing key pair from pull down list or see Create a new key pair to generate or upload a new key.
- **Tags** - select an existing tag or create a new tag.
- **Options**:
  - **Power Up** - launches the VM instance post creation.
  - **High Availability** - ensures the VM instance is restarted in case of failure.
  - **Protect from deletion** - protects the VM instance from accidental deletion.
- **Create Multiple** - drag the button to the right to create multiple VM instances.
- Click **Next**.

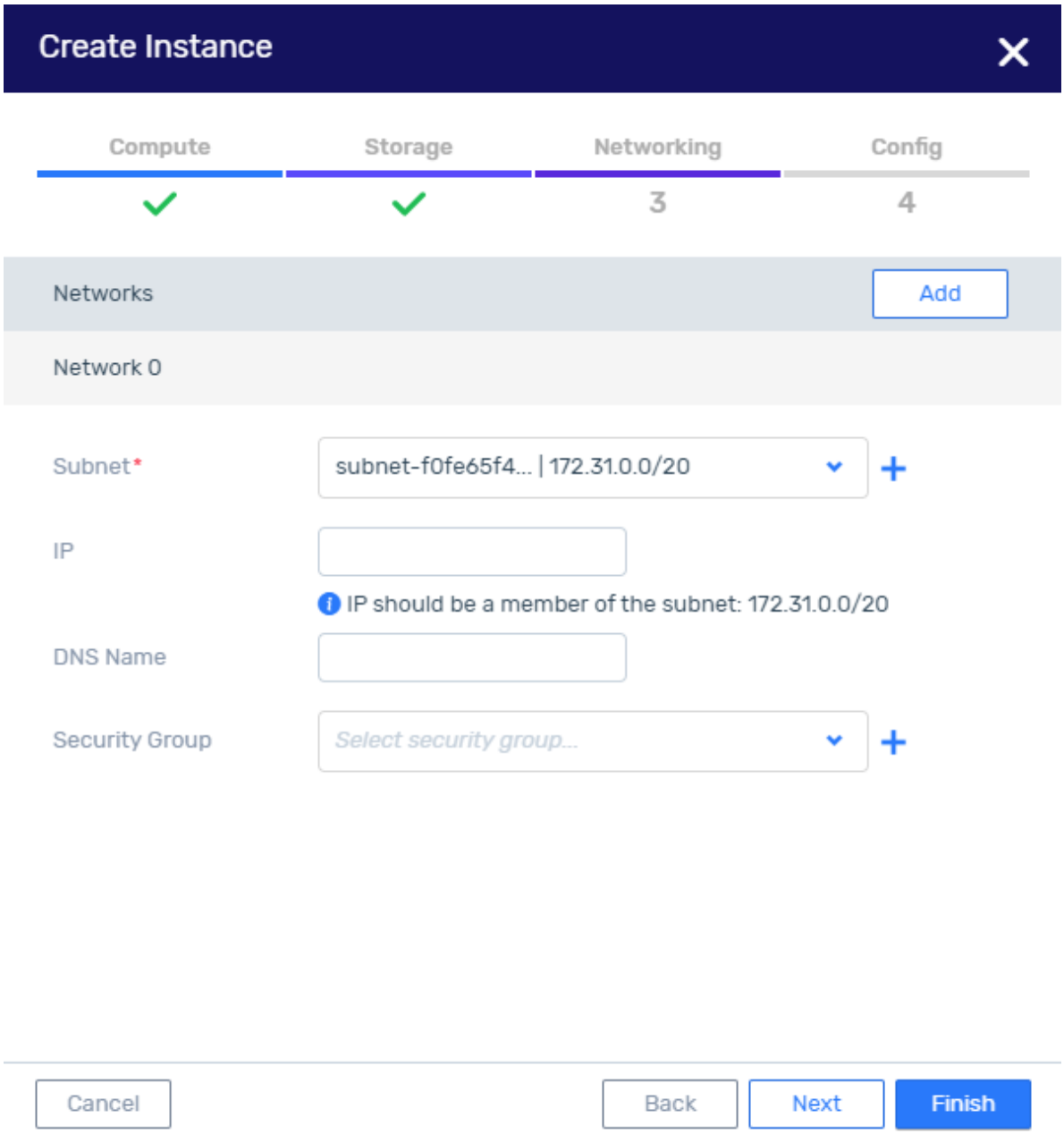
2. **Storage** - defines the storage requirements for the new VM instance.



In the **Storage** tab, configure:

- **Boot Volume** - disk size (GB) and Volume Type that will be used for the boot volume of the VM instance.
- **Data Volumes (optional)** - add new or existing data volumes. To add a new volume, click **Add** and **+** and configure the following:
  - **Name** - volume name.
  - **Description** - description of volume.
  - **Volume Type** - select the Volume Type from the dropdown list.
  - **Size** - volume size (GB).
  - **Protection Group** - protection group for the volume.
- Click **Next**.

3. **Networking** - defines the networking requirements for the new VM instance. For each VM instance, at least one network (Network 0) must be defined. Other networks can also be added to the VM instance by clicking **Add**.



For each network configure:

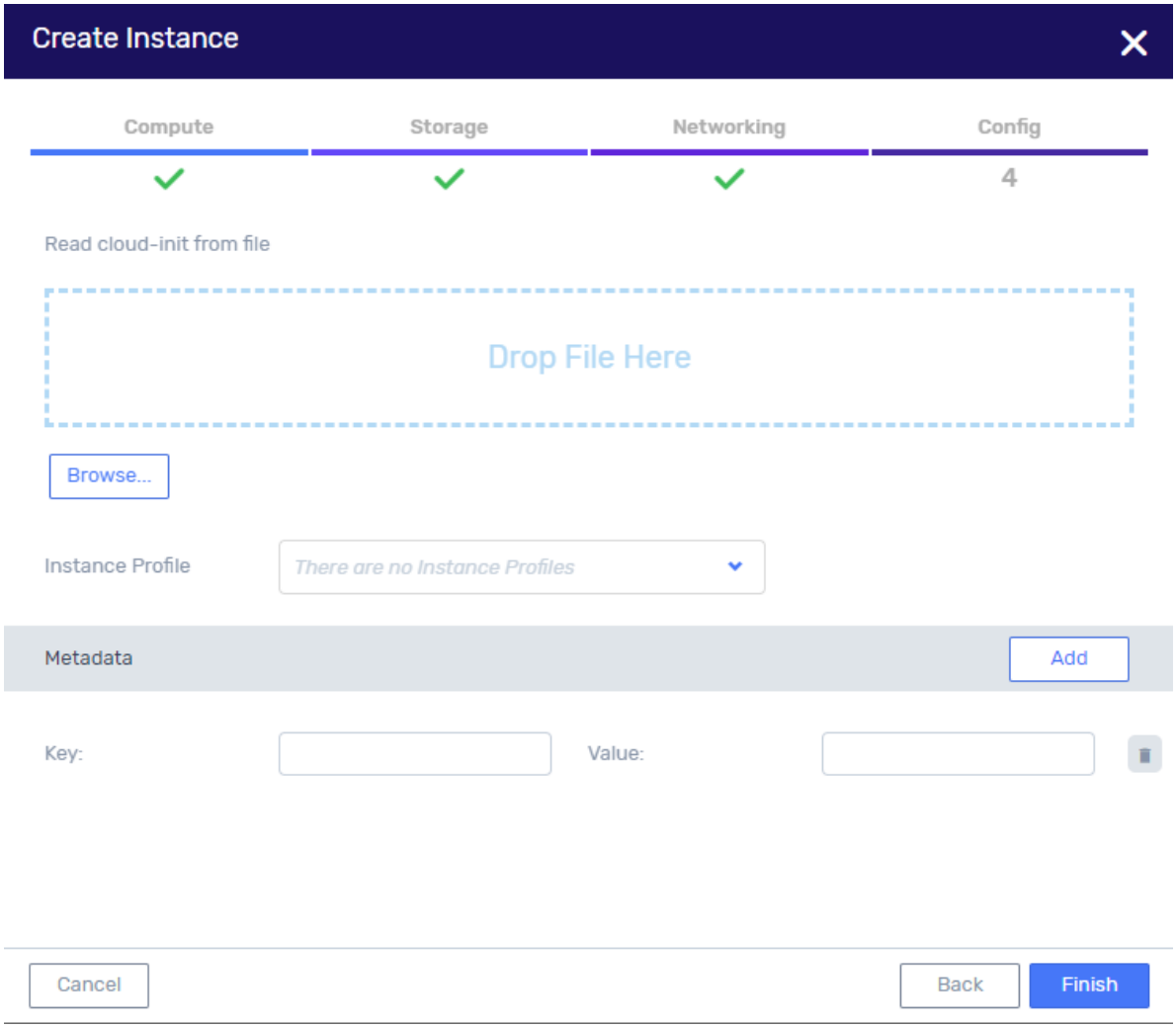
- **Subnet** - subnet used for VM instance connectivity. Select from the existing list of subnets or create a new subnet.
- **IP** - IP address for the interface. The IP must be within the entered subnet.
- **DNS Name** - DNS name for the new instance.
- **Security Group** - security group that will be used to limit/allow connectivity to the VM instance.

✔ **Note:** If a security group is not specified, a port is associated with a default security group. The default security group allows both ingress and egress traffic. Security rules can be added to the default security group to change the traffic behavior.

Important: The MTU size for VM Instances with a Windows OS that use VxLAN-based networks, must not be greater than 1450.

- Click **Next**.

4. **Config** - allows configuration of optional settings for the new VM instance.



In the Config tab, enter the following optional settings:

- **Cloud-init** - drag and drop a cloud-init file to be used to initialize the VM instance post-creation.
- **Instance Profile** - to pass role information to an instance when the instance starts, select an instance profile from the dropdown.

  To create an instance profile, and for further details about instance profiles, see Instance Profiles in the **Identity & Access** guide.
- **Metadata** - key-value set for additional metadata configuration.
- Click **Finish** to end the create instance wizard.

Starting VM Instances

To start a VM instance:

1. In the **Compute > Instances** view, select the VM instance to run.
2. Click **Start**.

The status on the selected VM Instance changes to **Spawning**, and **VM started** appears. The selected VM instance is automatically placed on one of the nodes in the cluster and starts running, and its status changes to **Active**.

Connecting to a VM Instance

Connect and access a VM instance in Active state by using VNC.

To connect to a VM instance:

1. In the **Compute > Instances** view, select the VM instance to which to connect.
2. Click **Connect**.
3. In the displayed VM instance, click **Send Ctrl-Alt-Del**.
4. The VNC window is displayed.

✔ **Note:**

- Operating System login credentials are required.
- Only the US-EN layout keyboard is supported with the VNC VM view.

  It is possible to work around this by changing the keyboard layout to access the VM using VNC.

  It is possible to use SSH for Linux VMs or Remote Desktop (RDP) for Windows VMs without changing the keyboard's layout.

Attach Elastic IP to a VM Instance

If an elastic IP is required, add it to the VM instance after creation as follows:

1. Navigate to **Compute > Instances**.
2. Select the desired VM instance from the displayed list to open the detailed view.
3. Click the **Elastic IPs** tab.
4. Click **Attach** and select a Elastic IP from the list.

Secure SSH Access to a VM Instance

To connect via SSH to a VM instance, enter the following:

```
$ ssh -i <private_key_file> <default_username_for_image>@<elastic_ip>
```

Example: `$ ssh -i id_rsa fedora@192.237.248.66`

In the above example, the private key file is `id_rsa`, the default username for the image is `fedora` and the Elastic IP is `192.237.248.66`.

Creating Snapshots of VM Instances

> **Caution:** Snapshots configured in the VM and Storage UI are individual, and not crash-consistent.
>
> For crash-consistent backups, we highly recommend configuring snapshots using Data Protection using Protection Groups.

To create a VM instance snapshot:

1. Navigate to the **Compute**> **Instances** view.
2. From the displayed list, select the VM instance for which the snapshot is to be created and click **More**.
3. In the More menu, select **Snapshot**.
4. In the displayed **Create Snapshot** window, enter a name for the new snapshot or accept the default name consisting of the original VM instance name and the date-time stamp of the snapshot creation.
5. (Optional) Enter the description of the snapshot.
6. Click **OK**. A new snapshot is created. It is displayed in the **Compute** > **Snapshots** view.

Protecting VM Instances

After creating a VM instance, protect it by assigning it to a Protection Group.

Protecting VM Instances via the Zadara Cloud Services GUI

1. Navigate to the **Compute** > **Instances** view.
2. From the displayed list, select the VM instance to protect and click **More**.
3. In the More menu, click **Protect**.
4. In the **Protect Resource** window, select a protection group from the dispalyed list and click **OK**.
5. In the **Compute** > **Instances** view, the protection column will be checked for the VM instance.

> **Note:** This window can also be used to remove a protection group from a VM instance.

Protecting VM Instances via the Zadara Cloud Services CLI

To protect a VM instance resource, assign it to a protection group as shown in the example below for 'VM-1' assigned to Protection_Group-1'.

> **Note:** The resource and the protection group must belong to the same project.

1. Retrieve the ID of the VM instance,'VM-1', together with its project_id.

```
Zadara @ user1/cloudacc1> `vm list -m columns='^id|^name|^project_id'`

+--------------------------------------+------+----------------------------------+
| id                                   | name | project_id                       |
+======================================+======+==================================+
| c4d017cf-04f4-4f85-9e21-1d067e1d384e | VM-1 | 08459aa189e849d0a47ddd985db594bd |
+--------------------------------------+------+----------------------------------+
```

2. Retrieve the ID of the protection group, Protection-Group-1, together with its project_id.

```
Zadara @ user1/cloudacc1 > *\ `protection groups list  -m columns='^id|^name|^project_id'`
```

3. Verify that the VM instance and protection group belong to the same project.
4. Protect the VM instance VM-1 by assigning it to the protection group Protection_Group-1.

```
Zadara @ user1/cloudacc1 > protection memberships create  0d6df1eb-0e3b-4b59-9669-
↪ed620b6ad65d instance c4d017cf-04f4-4f85-9e21-1d067e1d384e

=============== ==========================================
Field           Value
=============== ==========================================
| id            | ff25527a-7b08-4b76-bbc7-b5715f9182c0
| account_id    | cloudacc1
| created_at    | 2019-02-06T08:36:01.401731
| group_id      | **0d6df1eb-0e3b-4b59-9669-ed620b6ad65d**
| project_id    | 6666cfcf840f4a788cecfa6a3a00b2ee
| resource_id   | **c4d017cf-04f4-4f85-9e21-1d067e1d384e**
| resource_type | instance
| triggered_at  | none
| user_id       | user1
=============== ==========================================
```

5. The VM instance, 'VM-1' will now be protected according to the local backup schedule found in the protection group, 'Protection-Group-1'.

4.2.3 Common VM Instance Management Operations

After a VM instance has been created, various operations allow you to stop, modify, or delete it.

Stop a VM Instance

To stop a VM instance:

1. Navigate to the **Compute** > **Instances** view.
2. From the displayed list, select a VM instance.
3. In top toolbar, click **Stop**.

The VM instance will stop, and its status will change from **Active** to **Shutoff**.

✔ **Note:** When a VM instance is stopped by using the UI controls, it has 60 seconds to complete a graceful shutdown.

If the VM's OS isn't shutdown in 60 seconds, zCompute forcibly shuts it down. This might lead to issues for VMs that take longer than 60 seconds to shut down, for example, a VM with a large database.

Best recommended practice

The best practice is to do a graceful shutdown on the VM from within its OS. For example (Linux):

```
sudo shutdown --poweroff
```

Modify a VM Instance

Modification of size and other parameters associated with a VM instance can only be done when the VM instance is in shutoff state.

To modify a VM instance:

1. Navigate to the **Compute > Instances** view.
2. From the displayed list, select the VM instance to be modified.

   The VM's detail screen displays.
3. If the VM not in the **Shutoff** state, in the VM's top toolbar, click **Stop**.
4. In top toolbar, click **Modify**.
5. In the **Modify VM** dialog, you can modify the following:
   - **Instance Type**: Defines the amount of compute resources of the VM instance (CPU and RAM).

     ✔ **Note: Instance Type** is modifiable only when the VM is shut down.

   - **Firmware Type**: The software that provides low-level control of computing device hardware.

     One of:

     - **BIOS**: The legacy Basic Input/Output System. The first software that runs after a computer starts, BIOS performs hardware initialization during the booting process and provides runtime services for operating systems, applications and IO devices (keyboard, mouse, display).
     - **UEFI**: The newer Unified Extensible Firmware Interface, that replaces legacy BIOS. UEFI has more features. Its main advantages are faster boot times, better security, and larger disk support.

     ✔ **Note: Firmware Type** is modifiable only when the VM is shut down.

   - **Protect from deletion**: Protects the VM instance from accidental deletion.
   - **VNC Admin Access**: Determines whether admins can access the VM's VNC console.

Deleting VM Instances

A VM instance may only be deleted in Shutoff status.

To delete a VM instance:

1. Navigate to the **Compute** > **Instances** view.
2. From the displayed list, select the VM instance to be deleted. The selected VM instance details appear at the bottom of the window.
3. If the VM instance is running, click **Stop**.

4. In top toolbar, click **Delete**.
5. The following appears: **Are you sure you want to delete the VM?**. Click **OK**.

Managing Networks for a VM Instance

VM instances cannot be created without a network, but networking changes can be made after creation. One network can be attached to numerous VM instances, and one VM instance can be attached to numerous networks.

Attaching Networks to VM Instances

1. Navigate to the **Networking > Networks Interfaces** view.
2. From the displayed list, select a network.
3. In the top toolbar, click **Attach**.
4. The **Attach Network** window is displayed with the VM instance list.
5. Select the VM instance to which the network should be attached and click **OK**.

The selected VM instance is now attached to this network, in addition to the network to which it was attached during creation.

Detaching Networks from VM Instances

Before detaching a network from a running VM instance, it is recommended to stop the instance. The network can be detached using the **Networking** view or **Compute** view.

To detach network using the **Networking** view:

1. Navigate to the **Networking > Networks Interfaces** view.
2. From the displayed list, select a network.
3. In the **Networks** view, select the **VMs** tab and then click **Detach**. The Network is detached from the current VM.

To detach network using the **Compute** GUI:

1. Navigate to the **Compute** > **Instance** view.
2. From the displayed list, select the VM instance to be detach from a network.
3. In the Actions menu, select **Detach**. The VM instances will be detached from the network.

Adding Storage to VM Instances

During VM instance creation, volumes can be attached to a VM instance. If additional storage is required after VM instance creation, new volumes can be created and attached to the VM instance, or the boot volume size may be extended.

See the zCompute Volumes, Snapshots and Protection Groups overview video:

Create New Volumes

To create a new volume:

1. Navigate to the **Storage** > **Block Storage** view.
2. Click **+**.
3. In the **Create Volume** window, enter volume name, description, Volume Type, size, and protection group.
4. Click **OK**.

Adding Volumes

To attach an additional volume to a VM instance:

1. Navigate to the **Storage** > **Block Storage** view.
2. From the diplayed volume list, select the volume to attach to a VM instance.
3. In the top toolbar, click **Attach**. The **Attach** icon is available only for unmapped volumes.
4. In the **Attach Volume** window, select the VM instance to which the volume should be attached.
5. Click **OK**.
6. The VM instance must now be stopped and restarted. To stop the VM instance, navigate to **Compute** > **Instances**. Select the VM instance to be stopped and click **Stop** in the top toolbar.
7. Once the VM instance is stopped, click **Start**.

✔ **Note:** A maximum of 24 volumes can be attached to an instance.

Extend the size of the volume

The size of an existing volume can be extended after creation whether or not it is attached to a VM instance. This can be performed using either the GUI or CLI.

Using the GUI

1. Navigate to the **Storage > Block Storage** view.
2. From the displayed list, select the name of the volume to extend.
3. In the **More** menu, click **Extend.**
4. In the **Extend Volume** window, specify the new size of the volume in GB. **Note**: The size cannot be decreased.
5. Click **OK**. The volume will be extended to its new size.

Using the CLI

1. If the volume is not attached to a VM instance, it may be extended to a new size greater than the previous size by entering the following:

```
volume extend volume_id size
```

2. If the volume is attached to a VM instance, use the 'vm resize' command, as follows:

```
vm resize vm_id [--volume-id VOLUME_ID] [--disk-size DISK_SIZE]
```

If the volume is attached to a VM instance, there is no need to stop and restart the VM instance after extension. Nevertheless, depending on the software application running on the VM instance, user action such as resizing partitions, logical volumes, and/or file systems may be necessary before the new capacity can be used.

Changing a volume's type (retyping)

One or multiple volumes can be retyped in an online operation.

When a volume is created, its specified Volume Type determines the volume's performance attributes and the particular platform (storage class) that hosts it.

At a later stage, various considerations could drive a decision to change a volume's Volume Type.

For example, a user wants a volume for a particular application to have increased performance. Assuming that the volume is hosted on an HDD storage class, one possible performance improvement decision could be to change the volume's Volume Type to a Volume Type for volumes hosted on an SSD storage class. In the background, the volume retype operation effectively runs a process that configures a destination volume with all of its updated attributes on the new type of hosting platform, and migrates the volume from the source hosting platform to the destination.

To change the Volume Type for an individual volume or multiple volumes:

1. Navigate to **Storage > Block Storage**.

   The list of volumes displays.

2. Select the volumes to retype by marking their checkboxes in the volumes list.

   If multiple volumes are selected, the **Change Volume Type** option appears in the top menu bar.

   For an individual volume, the **Change Volume Type** option appears in the top menu bar's **More** submenu.

3. Click **Change Volume Type**.

   In the **Change Volume Type** dialog, from the dropdown select the new **Volume Type** to apply.

   ✔ **Note:** If multiple volumes were selected, a message displays an alert indicating the number of volumes that will be affected by the volume retype operation.

   Hovering over the alert symbol displays the list of the affected volumes.

   ---

4. Click **OK** to confirm changing the Volume Type.

Important: The system changes a volume's Volume Type by a background process running an online migration from the source volume to a destination volume of the requested type.

Snapshots triggered by a Protection Group's schedule do not occur for a volume during the online migration. However, snapshots continue to be triggered for other protected resources in the Protection Group that are not part of the volume retype operation, such as VMs and other volumes.

An event log entry records whether snapshots were triggered for the protected resource.

With these considerations in mind, the recommended best practice is to manually trigger a snapshot before and/or after the volume retype operation. See Backup Protection Group Trigger Now.

After being retyped across storage classes, volumes that are protected by a Protection Group with B2OS will have their full content recopied to the Object Storage bucket, in the same way as an initial copy.

Associating Security Groups with VM Instances

Security Groups can be associated with a VM instance after creation, in addition to the association included in the Create VM Instance wizard.

To associate a security group with a VM instance after creation:

1. Navigate to the **Compute > Instances** view.
2. From the displayed list, select a VM instance.
3. Click **More** > **Attach** > **Security Group**.
4. In the **Attach Security Groups** window, select the desired security group from the pull down list.
5. Click **OK**. The VM instance is now associated with the selected security group.

Recovering Windows VM Instances

If storage or network drivers do not inject properly for a Windows-based VM instance which was imported from VMware or Hyper-V, the VM instance will not start properly (it will start in a blue screen). When this happens, the VM instance must first be recovered.

Driver Recovery Mode allows starting a VM with legacy IDE virtual hardware.

This is useful for such VMs that don't have the required VirtIO drivers installed, and because of that fail to boot (for example, VMs imported from other platforms). As most Linux distributions have VirtIO drivers available even with older versions, this feature is mostly useful with Windows VMs that for some reason don't have the VirtIO drivers installed.

To recover a Windows VM Instance:

1. Navigate to the **Compute > Instances** view.
2. From the Instances list, select the VM instance to be recovered.
3. Click **More > Driver Recovery Mode**.
4. Click **OK** in the **VM Driver Recovery Mode** confirmation window.

   The storage and network drivers will be installed on the VM instance.
5. Click **Start** to restart the VM instance.

4.2.4 Placement Rules

Overview

Zadara Cloud Services supports the creation of placement rules which determines how a VM Instance is placed on physical nodes.

Defining a rule is a 3-stage process:

1. Use the tags attached to the VM instances and nodes to choose the placement rule type and set its parameters. There are three placement rule types:
   1. **Same-tagged VM rule** - VM instances with the same tag can be configured to be placed on either the same or different nodes.
   2. **Different-tagged VM rule** - VM instances with a specific tag can be configured to be placed on either the same nodes or different nodes as VM instances with a different tag.

3. **VM and Node tags** - VM instances with a specific tag can be configured to be placed on a node with the same or different tag.

> ✔ **Note:** The **VM and Node tags** rule can be created only by an Admin user.

2. Define the level of rule enforcement. There are two options:
    1. **Hard** - VM instance placement will only be performed if the rule constraints can be satisfied.
    2. **Soft** - If possible, VM instance placement will be performed according to the rules. If the rules cannot be satisfied, the placement will be done anyway.
3. Define the scope of this rule as either system-wide or for a specific project.

✔ **Note:** The option to define a rule with a system-wide scope is limited to an admin user. For a regular user, the scope is that of the currently displayed project.

Placement Rule Main Window Display

1. Navigate to the **Compute** > **Rules** view. A list of all placement rules is displayed.
2. The following information is displayed for each rule:
    1. **Description** of rule type.
    2. **Tags** used within rule.
    3. **Enforcement** level of rule (hard/soft).
    4. **Scope** of rule (system/project).
    5. **Enabled**
    6. **Creation Date**

Add a Placement Rule

To add a Placement Rule:

1. Navigate to the **Compute**> **Rules** view and select **Add Rule**. The **Create VM Placement Rule** window is displayed.
2. Select the rule type (same-tagged, different-tagged, or VM and Node tagged).

> ✔ **Note:** Select existing tags or create new tags in any of the Tag fields.

> ✔ **Note:** VM and Node tagged rule type is available to admin user only.

3. Select **Hard** or **Soft** enforcement.
4. Select system or project scope.

> ✔ **Note:** System scope is available to admin user only.

5. Select **OK**. The new VM Placement Rule will appear in the Rules view.

Simulating a Placement Rule

1. Navigate to the **Compute**> **Rules** view. A list of the placement rules is displayed.
2. Select the row of the desired placement rule. A **Simulate Rule** icon appears in the top menu bar.
3. Select **Simulate Rule**.
4. The **Simulate Rule** information window will appear showing a list of VM instances potentially affected by the rule.
5. Click **OK**.

Applying a Placement Rule

To apply a Placement Rule to a VM instance:

1. Navigate to the **Compute**> **Rules** view. A list of the placement rules is displayed.
2. Select the row of the desired placement rule. An **Apply Rule** icon appears in the top menu bar.
3. Select **Apply Rule**.
4. The **Apply Rule** confirmation window will appear showing a list of VM instances potentially affected by the rule.
5. For VM instances which are covered by the rule, but which cannot be placed accordingly, select one of the following options:
    1. Stop the VM instance
    2. Leave the VM instance running in its current placement
6. Click **OK**. A message confirming the application of the placement rule will pop-up in the upper right corner of the screen.

✔ **Note:** Apply as many placement rules as needed, provided that the rule does not either duplicate, contradict or override any other rule, or that the rule itself is not overridden by any other rule.

Removing a Placement Rule

1. Navigate to the **Compute**> **Rules** view. A list of the placement rules is displayed.
2. Select the row of the placement rule to be removed. A **Remove** icon appears in the top menu bar.
3. Click **Remove**. The **Remove Rule** confirmation window appears.
4. Click **OK**. A message confirming the removal of the placement rule will pop-up in the upper right corner of the screen.

4.2.5 Auto-Scaling Groups

Overview

Auto-scaling provides an automated mechanism for managing the number of VM instances. Instances will automatically be created or deleted in case of failure or changes in application load, thus assuring that the right number of instances are always available.

To implement auto-scaling, create collections of VM instances, called scaling groups. A simple auto-scaling group can be created with a specified number of instances. The auto-scaling group will maintain the specified number of instances by creating a new instance to replace an instance which fails.

Policies can be added to an auto-scaling group in order to instruct the group to maintain a performance metric as close as possible to a threshold. For example, if a threshold is set for 50% CPU load, the auto-scaling group will automatically create or terminate instances as the application load changes, so that CPU usage will not exceed the specified threshold.

An auto-scaling group can also detect faulty instances, terminate them, and create new instances to replace them.

Auto-scaling can be implemented on target groups, so that instances created through auto-scaling, are automatically associated with the same target group. This ensures that traffic load forwarded to a target group will include instances created with auto-scaling.

For easier classification of VMs, tags can be created and applied to auto-scaling groups. Based on the auto-scaling group configuration, tags can be automatically propagated to VM instances during their launch.

✔ **Note:** In zCompute 23.08 tag propagation is available using Symp APIs and AWS APIs. In later versions, the UI will support tag propagation.

Implementing Auto-scaling Groups

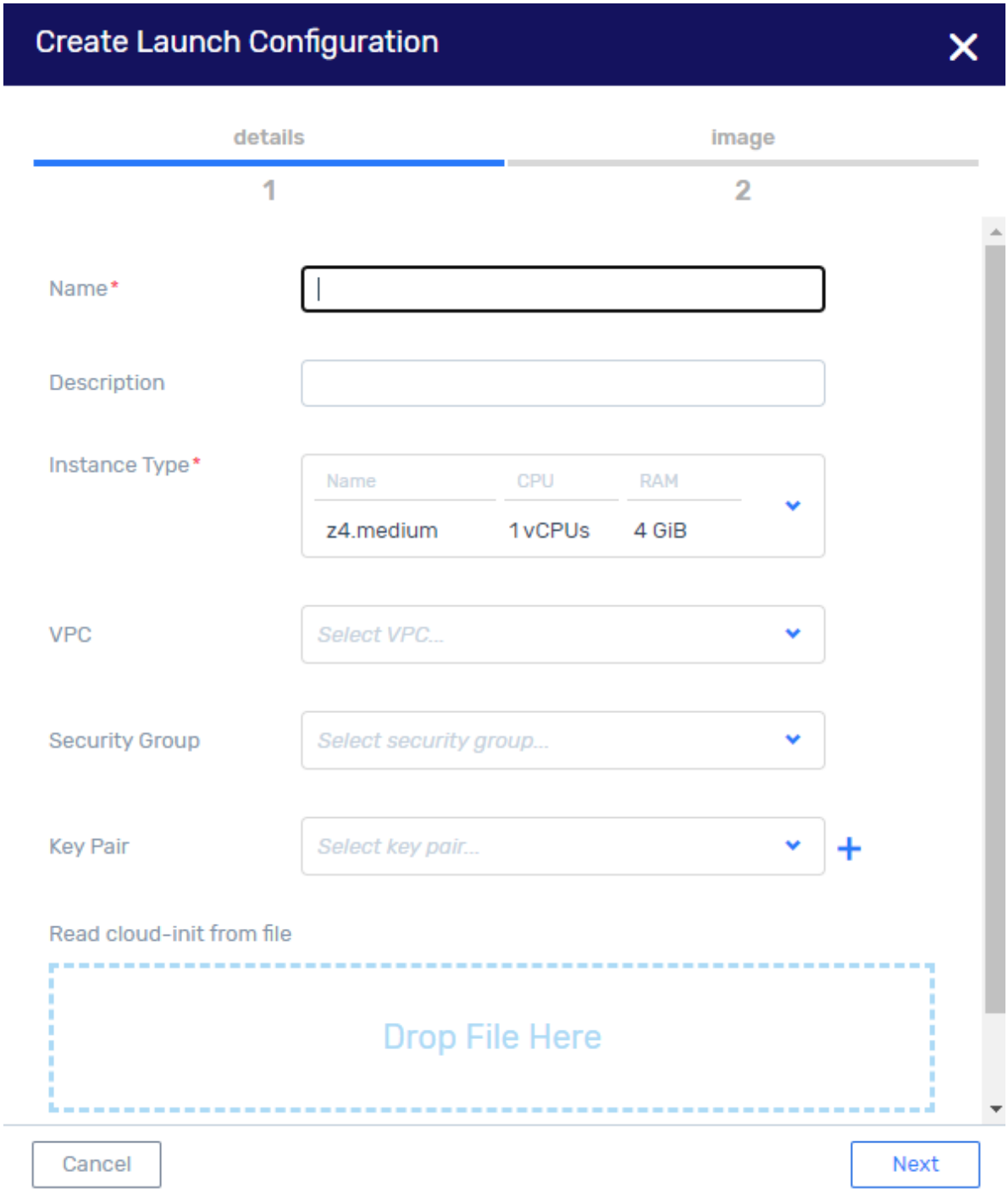
Auto-scaling group implementation includes the following:

1. Creation of a launch configuration template which specifies the type of VM instances created with auto-scaling. For example, a launch configuration would specify the image to be used, instance type, key pairs, and security groups. When an auto-scaling group automatically adds a new VM instance, the new VM inherits the characteristics defined in the scaling group's launch configuration.
2. Specification of parameters related to the auto-scaling group such as the number of instances that are available to the group, the metrics to monitor when determining appropriate group size, the type of health checks to use, and various other settings.

Creating Launch Configurations

To create a launch configuration:

1. Navigate to the **Compute** > **Launch Config** view and select **Create**. The Create Launch Configuration window is displayed with two tabs: **details** and **images**.

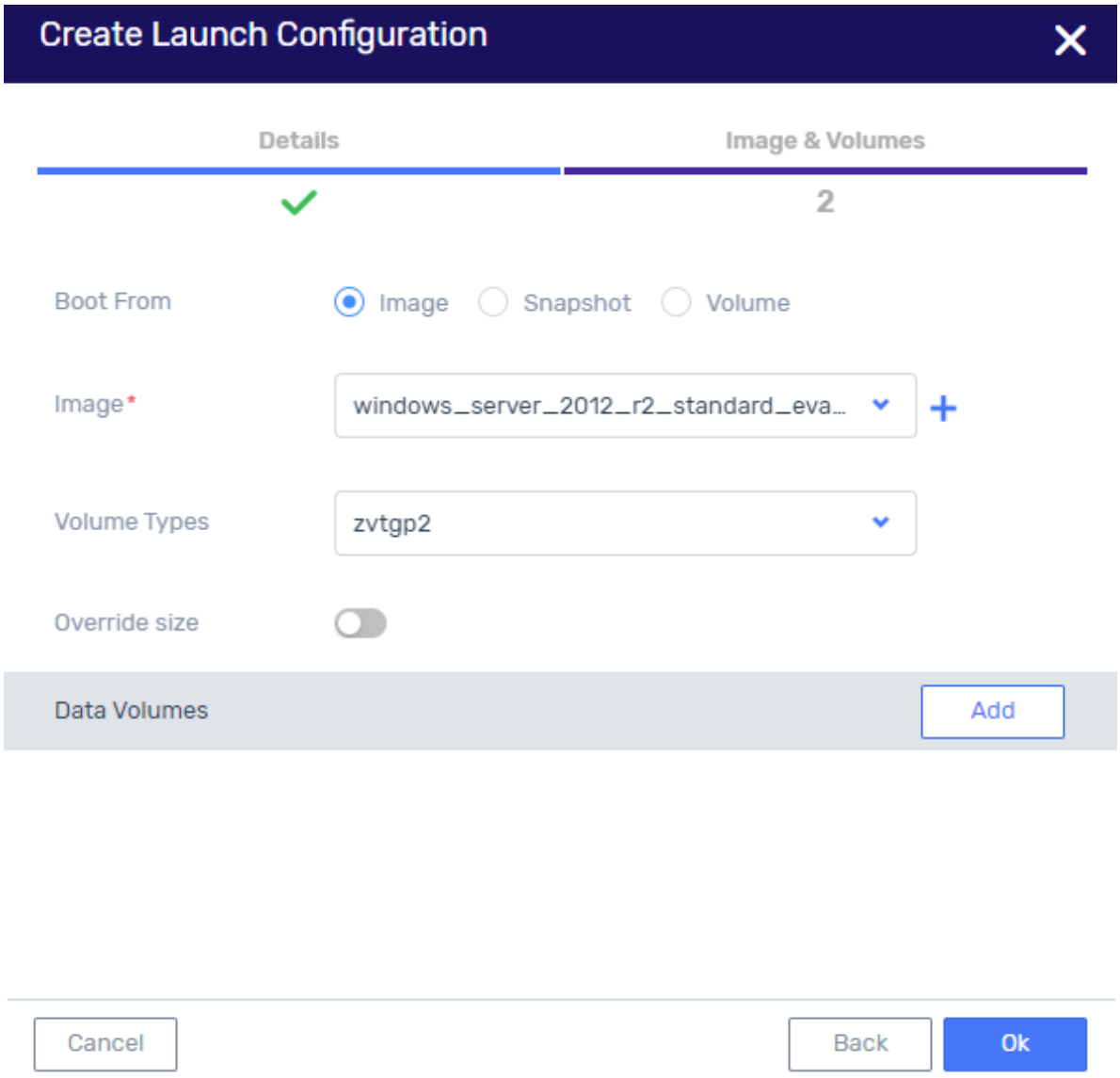


2. In the **details** tab, configure:

   - **Name** - name of the launch configuration to be created.
   - **Description** - description that will help identify the launch configuration.
   - **Instance Type** - defines the compute resources (CPU and RAM).
   - **VPC** - subnet of VPC in which the VM instances will be created. An IP address in this range will automatically be assigned to the VM instance upon creation, thus enabling the instances to communicate with other instances in the VPC.

- **Security Groups** - (Optional) security group that will be used to limit/allow connectivity to the launched VM instance.
- **Key Pair** - (Optional) the set of security credentials that will be used to ensure the identity of the user when connecting to the launched VM instance. You may either generate a new key or upload a key generated from another tool.
- **Read cloud-init from file** - (Optional) drag and drop a cloud-init file to be used to initialize the launched VM instance post creation.

3. Click **Next**. The Image tab is displayed.
4. Select an image from available list or click **+** to create a new source image.



5. Use the **Override Block Device Mapping** option to either use the default block device mapping associated with the selected image, or slide the selector to the right position to override the default mapping. When override option is selected, configure the following:
   - **Snapshot-Volume** – select the Snapshot/Volume to be used for the block device mapping.

- **Volume Type** - select the volume type from the dropdown list.
- **Override Size** - option to keep default size, or slide the selector to override the default, and enter the new size.
- To add **Data Volumes** click **Add**, and select a volume from the dropdown list or create a new volume.

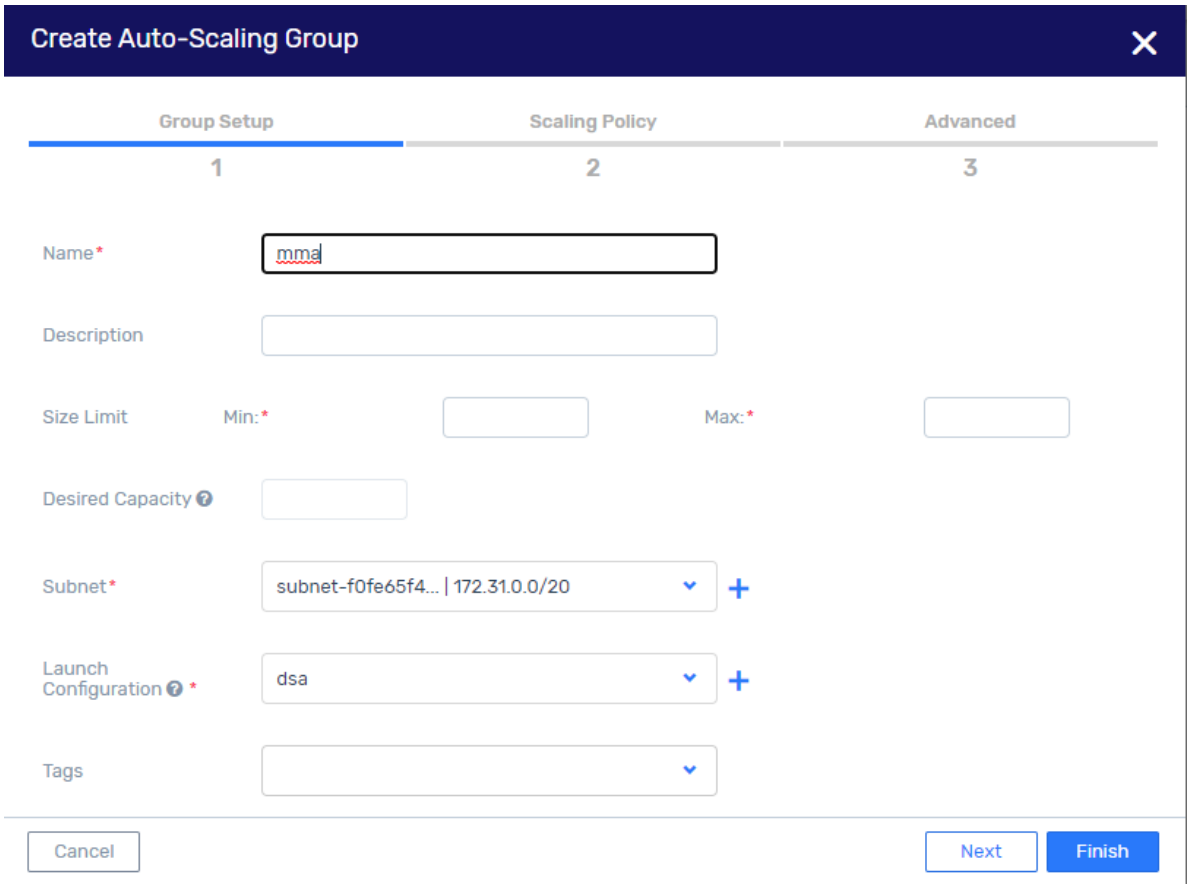
6. Click **OK**. The image creation begins and its progress is displayed. When completed, the **Action Succeeded** message is displayed in the top right of the window, and the image is displayed in Launch Configuration list.

Creating Auto-scaling Groups

Creating Auto-scaling Groups (UI)

To create an auto-scaling group in the zCompute UI:

1. Navigate to the **Compute** > **Auto-Scaling Groups** view and select **Create**. The **Create Auto-Scaling Group** window is displayed with three tabs: **Group Setup**, **Scaling Policy**, and **Advanced**.



2. In the **Group Setup** tab, configure:
   - **Name** - name of the auto-scaling group.
   - **Description** - description that will help identify the auto-scaling group.
   - **Size Limit** - minimum and maximum numbers of instances that the group can contain.
   - **Desired Capacity** - target number of VM instances in the group. Use of this field depends on scaling policy configuration in the following tab as follows:

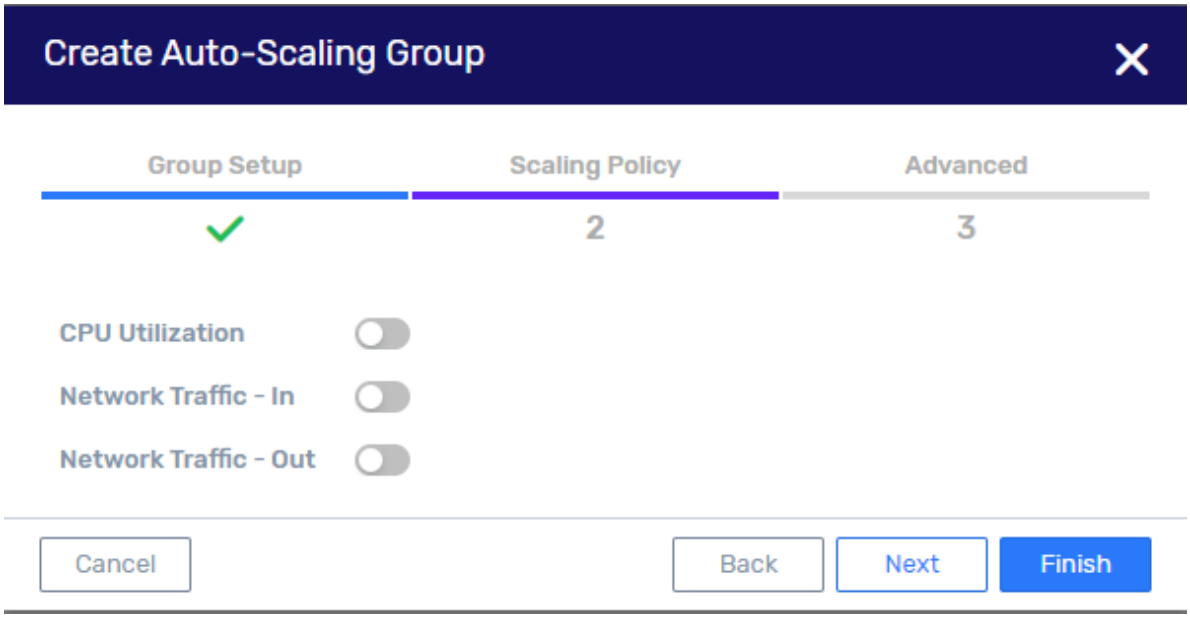
- **When no scaling policy is set**: The desired capacity is the number of instances to be created in the group. It must be within the limits of the defined minimum and maximum. If no capacity is specified when the group is created, the system sets **Desired Capacity** to the minimum size in the **Size Limit** field.
- **When scaling policy is set**: The desired capacity is the initial number of instances, after which the scaling policies can change the number of instances in the group.

✔ **Note:** There are several situations when the desired capacity can equal zero:

1. If a new group is currently not needed, the desired capacity may be set to zero. In this case, the group still exists but without consuming resources. If the group is needed in the future, simply change the desired capacity value.
2. To forcibly delete an existing group with VM instances, the system automatically sets desired capacity to zero, and starts removing VM instances. When all are removed, the group is deleted.

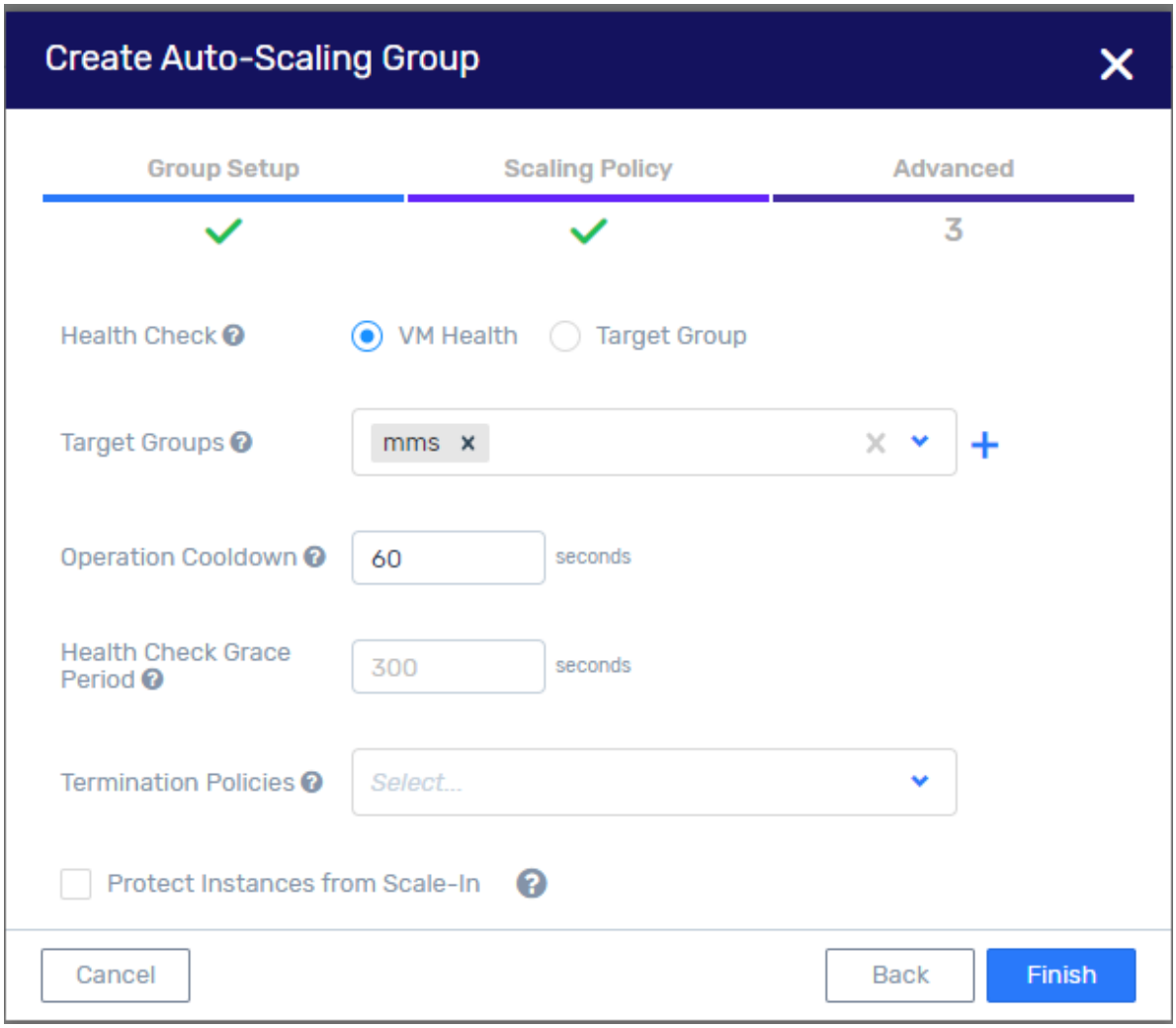
- **Subnet - select the subnet from the drop-down list or select + to** define a new subnet.
- **Launch Configuration** - select the launch configuration from the drop-down list or select **+** to define a new one.
- **Tags** - select tag from the drop-down list or select **+** to define a new tag.

3. Click **Next**. The **Scaling Policy** tab is displayed. A policy can be set separately for **CPU Utilization**, **Network Traffic - In**, or **Network Traffic - Out**. If no scaling policy is desired, leave the slider in the default, left position. To set a scaling policy for any of the metrics, move the slider to the right and configure as follows:



- **Estimated Warm-up** - time (in seconds) until newly launched VM instance contributes to the scaling group aggregated metrics.
- **Target** - above which alarm will trigger the scaling policy.
- **Disable Scale-in** - disable scale-in (deletion of VM instances).

4. Click **Next**. The **Advanced** tab is displayed. Configure as follows:



- **Health Check** - mechanism used to determine the health of a VM instance in the scaling group.
  - **VM Health** - use VMware's VM Monitor tool.
  - **Target Group** - use ELB health checks. This choice is available only if scaling group is associated with a load balancer target group.
- **Target Groups** - select the target group from the drop-down list or select **+** to define a new one.
- **Operation Cooldown** - minimal number of seconds between the completion of one scaling activity and the commencement of any other scaling activity. The cooldown period helps to ensure that auto-scaling doesn't launch or terminate additional instances before the previous scaling activity takes effect.
- **Health Check Grace Period** - minimal length of time before checking the health status of an instance.
- **Termination Policies** - policies to determine which instances will be terminated in case of a scale-in event. Select one of the following from the drop-down list.
  - **Default** - terminate instances that have the oldest launch configuration.
  - **Newest Instance** - terminate the newest instance in the group. This policy is recommended when testing new launch configurations which should not be left in production.
  - **Oldest Instance** - terminate the oldest instance in the group. This policy is recommended when upgrading VM instances in the auto-scaling group to a new VM instance type. With this policy, older VM

instances will gradually be replaces with new ones.

- **Oldest Launch Configuration** - terminate the instance with the oldest launch configuration. This policy is recommended when updating a group and phasing out instances from a previous configuration.

- **Protect Instances from Scale-In** - when selected, newly launched instances are protected from termination during scale-in.

✔ **Note:** If all VM instances are protected from scale-in, the group will not be able to reach its desired capacity because it cannot terminate of any VM instances.

---

5. Click **Finish**. When scaling policy creation is completed, the **Action Succeeded** message is displayed in the top right of the window, and the policy is displayed in the **Compute** > **Auto-Scaling Group** list.

Creating Auto-scaling Groups (CLI)

This example details the Symp CLI commands to create an auto-scaling group that will propagate tags to VM instances on their launch.

It assumes an existing launch configuration.

✔ **Note:** Existing tags can be listed, using the Symp command:

```
tag list
```

If a desired tag does not exist, it will be created as part of the `autoscaling-groups group create` process.

---

1. At the Symp command line, list the projects to retrieve the project ID.

```
 project list -c id -c name

+----------------------------------+---------------------------+
| id                               | name                      |
+==================================+===========================+
| 7ff34832b6754f7d91a918302af3e77f | vpcproj1                  |
| 983e87bd7687406dab90d0cda917233e | dvsproj1                  |
+----------------------------------+---------------------------+
```

2. List the launch configurations for the project, to retrieve the ID of the launch configuration that will be used by the new auto-scaling group:

```
autoscaling-groups launch-configuration list -c id -c name -c project_id -m grep-i=<project ID>
```

For example:

```
autoscaling-groups launch-configuration list -c id -c name -c project_id -m grep-
↪i=7ff34832b6754f7d91a918302af3e77f

+--------------------------------------+----------+----------------------------------+
| id                                   | name     | project_id                       |
+======================================+==========+==================================+
| 19be0309-7159-440b-a537-b08475ed96d5 | launchc1 | 7ff34832b6754f7d91a918302af3e77f |
| a59a72f5-2067-4fdf-bf0e-fa5420848628 | launchc2 | 7ff34832b6754f7d91a918302af3e77f |
+--------------------------------------+----------+----------------------------------+
```

3. Create a new autoscaling group that will use the launch configuration ID retrieved in the earlier step.

```
autoscaling-groups group create <new auto-scaling group name> <launch_configuration_id> <min_size>
↪<max_size> --propagated-tags <tag name1> <tag name2>
```

For example:

```
autoscaling-groups group create vpcgroup1 19be0309-7159-440b-a537-b08475ed96d5 1 3 --propagated-
↪tags vpctag1 vpctag2

+--------------------------------------+--------------------------------------------+
| id                                   | 8e248f96-637e-44ee-8161-0ff3e999e137       |
| name                                 | vpcgroup1                                  |
| status                               | active                                     |
| account_id                           | default                                    |
| availability_zones                   | []                                         |
| created_at                           | 2023-10-31T13:20:41                        |
| default_cooldown                     | 60                                         |
| description                          |                                            |
| desired_capacity                     | 1                                          |
| health_check_grace_period            | 300                                        |
| health_check_type                    | vm_monitor                                 |
| honor_cooldown                       | true                                       |
| instance_count                       | 0                                          |
| instances                            | []                                         |
| launch_configuration_id              | 19be0309-7159-440b-a537-b08475ed96d5       |
| max_size                             | 3                                          |
| min_size                             | 1                                          |
| new_instances_protected_from_scale_in | false                                      |
| placement_policy                     | none                                       |
| project_id                           | 7ff34832b6754f7d91a918302af3e77f           |
| scaling_policies                     | []                                         |
| service_linked_role                  | none                                       |
| subnets                              |  6ff5209c-edd4-4620-9d81-e342f5e0d79d      |
| suspended_processes                  | []                                         |
|                                      +--------------------------------------------+
| tags                                 |  7ff34832b6754f7d91a918302af3e77f:vpctag1  |
|                                      |  7ff34832b6754f7d91a918302af3e77f:vpctag2  |
|                                      +--------------------------------------------+
| target_group_ids                     | []                                         |
| termination_policies                 |  default                                   |
| updated_at                           | 2023-10-31T13:20:41                        |
| user_id                              | 7918794e5d9849de90b3a8986d1085e6           |
+--------------------------------------+--------------------------------------------+
```

Load Balancing and Auto-scaling Groups

Auto-scaling groups can be associated with a load balancer's target group to guarantee there will be a sufficient number of VM instances to which an application's load can be distributed.

For example, consider a scenario with the following sample entities:

- MyApplication
- LoadBalancerA
- TargetGroupA
- ScalingGroupA

Scenario Description:

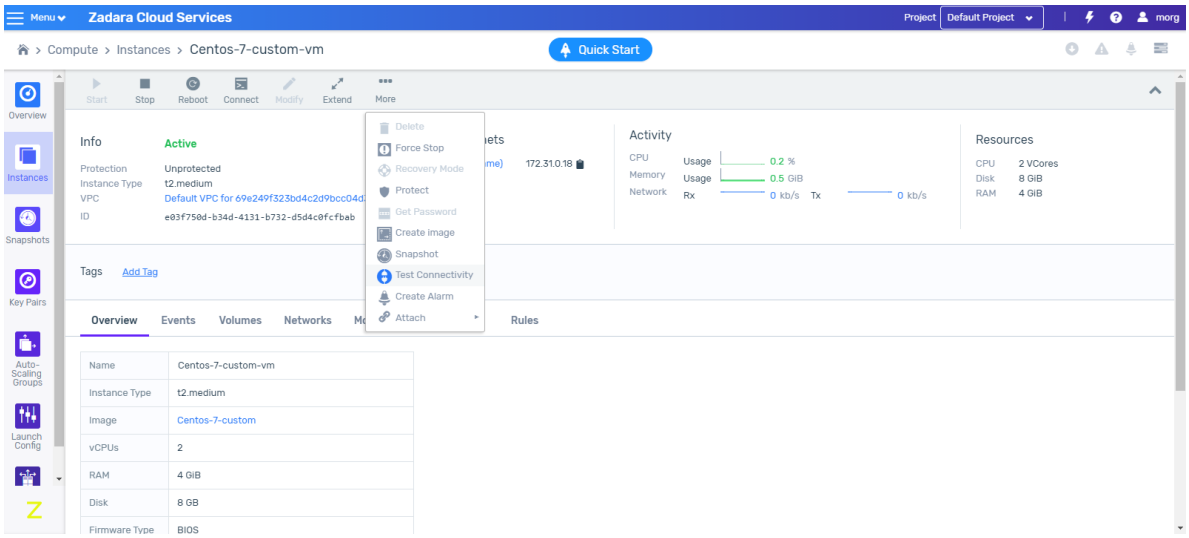
1. MyApplication directs its requests to LoadBalancerA.
2. LoadBalancerA is associated with TargetGroupA. TargetGroupA has just one instance.
3. ScalingGroupA is managing 20 instances and scaling the number of VM instances if needed. ScalingGroupA is also associated with TargetGroupA.
4. Because of this association, LoadBalancerA can distribute the workload of MyApplication among 21 instances; one in TargetGroupA and 20 in ScalingGroupA.

4.2.6 Testing VM Connectivity

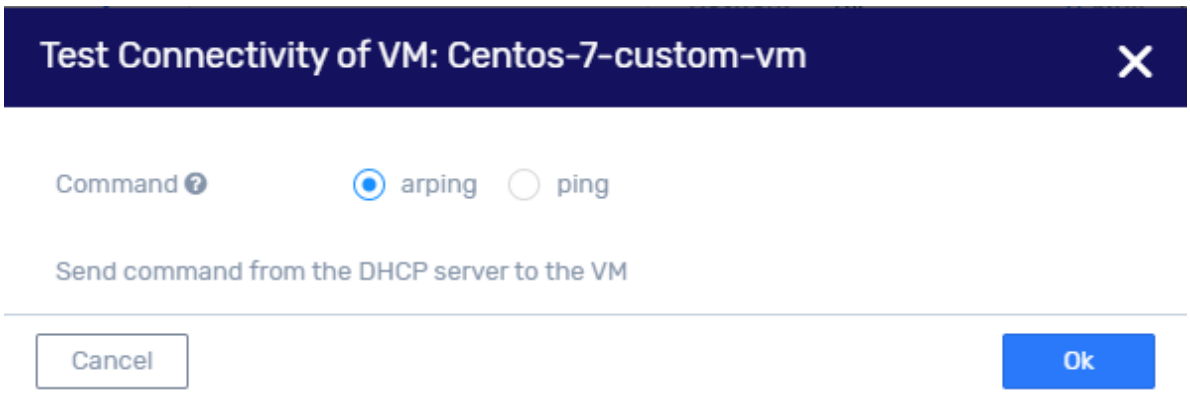
Connectivity to a specific VM instance can be tested by ping from DHCP server using either the GUI or CLI.

Test Connectivity with GUI

1. Navigate to the **Compute** > **Instances** view.
2. Select a specific instance and select **More** from the top menu.



3. Select **Test Connectivity**. The Test Connectivity window is displayed.



4. Select either **arping** or **ping** for the connectivity test.

> ✔ **Note:** Ping checks layer 3 connectivity and is blocked by security-group filtering, if traffic is not allowed from any IP in the subnet. Arping check layer 2 connectivity and bypasses security-group filtering.

5. Click **OK**. A message is displayed that the connectivity test is taking place.
6. A few seconds later, the test results will be displayed indicting success or failure as well as other relevant details. This status report is also available in the right-hand sidebar.

Test Connectivity with CLI

1. The 'guestnet-admin-tool ping-vm create' command which tests the VMs connectivity requires the ID of the given VM. Note: '–command-type' is either 'ping' (default) or 'arping'

```
guestnet-admin-tool ping-vm create [-h]
                                   [-f {adaptive_table,json,shell,table,value,yaml}]
                                   [-c COLUMN] [--max-width <integer>]
                                   [--noindent] [--prefix PREFIX]
                                   [-m [NAME=VALUE [NAME=VALUE ...]]]
                                   [--command-type COMMAND_TYPE]
                                   [--name NAME]
                                   vm_id
```

2. Run the 'vm list' command to locate the ID of VM-1.

```
vm list -c id -c name
```

3. This returns a list of VMs and their IDs.

```
+--------------------------------------+-------------------------------------------------------+
| id                                   | name                                                  |
+======================================+=======================================================+
| cfdb1753-f8e6-4d32-8ec8-e22d76fbc11e | VM-1                                                  |
+--------------------------------------+-------------------------------------------------------+
```

4. Test connectivity for VM-1.

```
guestnet-admin-tool ping-vm create cfdb1753-f8e6-4d32-8ec8-e22d76fbc11e
```

5. This returns a temporary, pending status of the VM's connectivity.

```
+--------------+--------------------------------------+
| id           | a8c3ee99-8966-4f7c-b127-6ce31c397b2d |
| name         | none                                 |
| status       | pending                              |
| command_type | ping                                 |
| created_at   | 2019-05-07T13:40:02.132361           |
| output       | -                                    |
| project_id   | bd616bd0a58f467cb0e96eeb5af6b53c     |
| updated_at   | 2019-05-07T13:40:02.132369           |
| user_id      | admin                                |
| vm_id        | cfdb1753-f8e6-4d32-8ec8-e22d76fbc11e |
+--------------+--------------------------------------+
```

6. Wait a few seconds and then request the final status of this VM connectivity test using the 'guestnet-admin-tool ping-vm get ping_vm_id'.

```
guestnet-admin-tool ping-vm get a8c3ee99-8966-4f7c-b127-6ce31c397b2d
```

7. This returns the final, succeeded/failed status of the VM connectivity test with relevant output details.

```
+--------------+------------------------------------------------------------------+
| id           | a8c3ee99-8966-4f7c-b127-6ce31c397b2d                             |
| name         | none                                                             |
| status       | succeeded                                                        |
| command_type | ping                                                             |
| created_at   | 2019-05-07T13:40:02                                              |
|              +------------------------------------------------------------------+
| output       | PING 10.11.12.10 (10.11.12.10) 56(84) bytes of data.             |
|              | 64 bytes from 10.11.12.10: icmp_seq=1 ttl=64 time=2.33 ms        |
|              | 64 bytes from 10.11.12.10: icmp_seq=2 ttl=64 time=0.369 ms       |
|              |                                                                  |
|              | --- 10.11.12.10 ping statistics ---                              |
|              | 2 packets transmitted, 2 received, 0% packet loss, time 1001ms   |
|              | rtt min/avg/max/mdev = 0.369/1.350/2.332/0.982 ms                |
|              |                                                                  |
|              +------------------------------------------------------------------+
| project_id   | bd616bd0a58f467cb0e96eeb5af6b53c                                 |
| updated_at   | 2019-05-07T13:40:04                                              |
| user_id      | admin                                                            |
| vm_id        | cfdb1753-f8e6-4d32-8ec8-e22d76fbc11e                             |
+--------------+------------------------------------------------------------------+
```

Note: This information is automatically deleted after approximately one hour.

Additional Commands for VM Connectivity Testing

1. Delete a specific VM connectivity test

```
guestnet-admin-tool ping-vm delete ping_vm_id
```

2. List all VM connectivity tests for a specific VM

```
guestnet-admin-tool ping-vm list --vm-id VM_ID
```

3. List all VM connectivity tests for all VMs

```
guestnet-admin-tool ping-vm list
```

4.2.7 AWS API

zCompute provides compatibility with the following tables of APIs that list the required, optional, ignored and unsupported parameters.

Important: Although zCompute ignores the region parameter, a valid AWS region is a required parameter. Some tools can fail or return errors without the region parameter.

The following Terraform snippet demonstrates an example definition of a required valid AWS region that is ignored by zCompute:

```
provider "aws" {
    access_key = var.access_key
    secret_key = var.secret_key
    # shared_credentials = var.credentials_file
    version = "=3.0.0"
    endpoints {
        elb = "https://${var.zCompute_ip}/api/v2/aws/elb"
        ec2 = "https://${var.zCompute_ip}/api/v2/aws/ec2"
    }

    insecure                    = true
    skip_metadata_api_check     = true
    skip_credentials_validation = true
    skip_requesting_account_id  = true

    # Required valid AWS region, currently ignored by zCompute
    region = "us-east-2"
}
```

AWS EC2

AWS API Reference	Ignored Param	Optional Parameters
AllocateAddress	[]	Address
AssociateAddress	[]	InstanceId NetworkInterfaceId PrivateIpAddress
AssociateIamInstanceProfile	[]	[]
AuthorizeSecurityGroupIngress	[]	GroupId GroupName IpPermissions CidrIp FromPort IpProtocol ToPort Sour
CreateImage	[]	Description BlockDeviceMapping NoReboot
CreateKeyPair	[]	[]
CreateSecurityGroup	[]	[]
CreateTags	[]	[]
DeleteKeyPair	[]	[]
DeleteSecurityGroup	[]	GroupId GroupName
DeleteTags	[]	[]
DeregisterImage	[]	[]
DescribeAccountAttributes	[]	AttributeName
DescribeAddresses	[]	AllocationId PublicIp Filter
DescribeAvailabilityZones	[]	[]
DescribeIamInstanceProfileAssociations	[]	AssociationIds
DescribeImageAttribute	[]	[]
DescribeImages	[]	ExecutableBy Filter ImageId Owner

AWS API Reference	Ignored Param	Optional Parameters
DescribeInstanceAttribute	[]	[]
DescribeInstanceCreditSpecifications	[]	[]
DescribeInstances	[]	InstanceId Filter MaxResults NextToken
DescribeKeyPairs	[]	KeyName Filter
DescribeRegions	[]	[]
DescribeSecurityGroups	[]	GroupId GroupName Filter
DescribeSpotInstanceRequests	[]	[]
DescribeTags	[]	Filter MaxResults NextToken
DisassociateAddress	[]	[]
DisassociateIamInstanceProfile	[]	[]
GetConsoleOutput	[]	[]
GetPasswordData	[]	[]
ImportKeyPair	[]	[]
ModifyImageAttribute	[]	Attribute Description LaunchPermission OperationType ProductCode UserG
ModifyInstanceAttribute	[]	Attribute Value InstanceType DisableApiTermination SourceDestCheck Grou
RebootInstances	[]	[]
RegisterImage	[]	Architecture BillingProduct BlockDeviceMapping Description EnaSupport Im
ReleaseAddress	[]	[]
ResetImageAttribute	[]	LaunchPermission
ResetInstanceAttribute	[]	[]
RunInstances	[]	InstanceType KeyName NetworkInterface PrivateIpAddress SecurityGroup
StartInstances	[]	[]
StopInstances	[]	Force
TerminateInstances	[]	[]

AWS-Import/Export VMs

AWS API Reference	Ignored Param	Optional Parameters	Required Parameters	Unsupported Params
DescribeImportImageTasks	[]	Filters ImportTaskId MaxResults NextToken	[]	[]
ImportImage	[]	Architecture ClientData ClientToken Description DiskContainer Hypervisor LicenseType Platform RoleName	[]	[]

AWS-EC2-AutoScalingGroups

AWS API Reference	Ignored Param	Optional Parameters	Required Parameters	Unsupported Params
AttachInstances	[]	[]	AutoScalingGroupName InstanceIds	[]
AttachLoadBalancerTargetGroups	[]	[]	AutoScalingGroupName TargetGroupARNs	[]
CreateAutoScalingGroup	[]	AvailabilityZones DefaultCooldown DesiredCapacity HealthCheckGracePeriod HealthCheckType NewInstancesProtectedFromScaleIn ServiceLinkedRoleARN Tags TargetGroupARNs TerminationPolicies VPCZoneIdentifier	AutoScalingGroupName LaunchConfigurationName MaxSize MinSize	InstanceId LaunchTemplate LifecycleHookSpecificationList LoadBalancerNames PlacementGroup
CreateLaunchConfiguration	RamdiskId InstanceMonitoring EbsOptimized AssociatePublicIpAddress PlacementTenancy	KeyName InstanceType SecurityGroups UserData BlockDeviceMappings RamdiskId InstanceMonitoring EbsOptimized AssociatePublicIpAddress PlacementTenancy	LaunchConfigurationName ImageId	InstanceId ClassicLinkVPCId ClassicLinkVPCSecurityGroups IamInstanceProfile KernelId SpotPrice
CreateOrUpdateTags	[]	Tags	[]	[]
DeleteAutoScalingGroup	[]	ForceDelete	AutoScalingGroupName	[]
DeleteLaunchConfiguration	[]	[]	LaunchConfigurationName	[]
DeletePolicy	[]	[]	PolicyName AutoScalingGroupName	[]
DeleteScheduledAction	[]	[]	AutoScalingGroupName ScheduledActionName	[]
DeleteTags	[]	Tags	[]	[]
DescribeAutoScaling-	[]	AutoScalingGroupNames	[]	MaxRecords NextToken

AWS-EBS

AWS API Reference	Ignored Param	Optional Parameters	Required Parameters	Unsupported Params
AttachVolume	[]	[]	Device InstanceId VolumeId	[]
CreateSnapshot	[]	Description TagSpecification	VolumeId	[]
CreateVolume	[]	Size SnapshotId TagSpecification VolumeType	AvailabilityZone	[]
DeleteSnapshot	[]	[]	SnapshotId	[]
DeleteVolume	[]	[]	VolumeId	[]
DescribeSnapshots	[]	SnapshotId Owner Filter MaxResults	[]	[]
DescribeVolumes	[]	VolumeId Filter MaxResults	[]	[]
DetachVolume	[]	Device InstanceId Force	VolumeId	[]
ModifyVolume	[]	Iops Size VolumeType	VolumeId	[]

AWS-SNS

AWS API Reference	Ignored Param	Optional Parameters	Required Parameters	Unsupported Params
CreateTopic	[]	[]	Name	[]
DeleteTopic	[]	[]	TopicArn	[]
GetTopicAttributes	[]	[]	TopicArn	[]
ListSubscriptions	[]	NextToken	[]	[]
ListTagsForResource	[]	[]	ResourceArn	[]
ListTopics	[]	NextToken	[]	[]
Publish	[]	MessageAttributes MessageStructure PhoneNumber Subject TargetArn TopicArn	Message	[]
SetTopicAttributes	[]	[]	TopicArn	[]
Subscribe	[]	Attributes Endpoint Protocol ReturnSubscriptionArn	TopicArn Protocol	[]
Unsubscribe	[]		SubscriptionArn	[]

AWS-CloudWatch

AWS API Reference	Ignored Param	Optional Parameters	Required Parameters	Unsupported Params
DeleteAlarms	[]	[]	AlarmNames	[]
DescribeAlarmHistory	[]	AlarmName EndDate HistoryItemType MaxRecords NextToken StartDate	[]	[]
DescribeAlarms	[]	ActionPrefix AlarmNamePrefix AlarmNames MaxRecords NextToken StateValue	[]	[]
DisableAlarmActions	[]	[]	AlarmNames	[]
EnableAlarmActions	[]	[]	AlarmNames	[]
ListMetrics	[]	MetricName Namespace	[]	[]
ListTagsForResource	[]	[]	ResourceARN	[]
PutMetricAlarm	[]	ActionsEnabled AlarmActions AlarmDescription DatapointsToAlarm Dimensions EvaluateLowSampleCountPercentile ExtendedStatistic InsufficientDataActions OKActions Statistic TreatMissingData Unit	AlarmName ComparisonOperator EvaluationPeriods MetricName Namespace Period Threshold	[]
SetAlarmState	[]	StateReasonData	AlarmName StateReason StateValue	[]

4.2.8 Boto3 for EC2

Creating VMs - Creating Volumes - Attaching Volumes to VMs

This is a walk-through section for a script that does the following:

- Creates a connection to your AWS-compatible Zadara region.
- Creates a VM instance.
- Creates a volume.
- Attaches the volume to the VM instance.

Note: In the examples in this section, variables are enclosed in <angle_brackets>.

1. **Import the boto3 and sys packages**:

```
import boto3
import sys
```

2. **Define a main() function**:

```
def main():
 """
 This script shows an example of Boto3 integration with Zadara Cloud
 Services. The scenario is as follows:
      1. Instantiate an instance from an AMI.
      2. Create a 20 GB volume.
      3. Attach the volume to the created AMI.
 """
```

3. **Create a connection to your Zadara region**:

   This snippet creates the connection by using the boto `Session` resource to create a custom session. This custom session contains the following configuration values and credentials:

   - **Service name**: In order to create VMs, set the service name to `ec2`.
   - **Region**: When connecting to Zadara, set the region name to `symphony`.
   - **Endpoint URL**: This is the IP of the installed Zadara region, followed by `/api/v2/ec2/.`
   - **AWS access key and secret access key**: These are the keys from the Zadara Cloud Services GUI.

   ✔ **Note:** Although the keys are hard coded strings in this example, the best practice is to configure these credentials using environment variables, a shared credentials file, or other methods described in the boto documentation.

```
# creating a connection to Zadara Cloud Services AWS Compatible region
client = boto3.Session.client(boto3.session.Session(), service_name="ec2",
      region_name="symphony",
      endpoint_url="https://<cluster ip>/api/v2/ec2/",
      verify=False,
      aws_access_key_id="<key>",
      aws_secret_access_key="<secret>")
```

4. **Get the image ID** of the image that will be used for creating a VM instance in a later step. This machine image was uploaded using the Zadara Cloud Services UI.

   1. Use the EC2 `describe_images()` method to list the images in the Zadara Cloud Service.
   2. Search the list of images to find the image whose `Name` attribute matches the name your image was given when it was uploaded through the Zadara Cloud Services UI. In this example, assume you named your image **centos**.
   3. Once the image to use is found, retrieve the image ID stored in its `ImageId` attribute and print out a status message.

```
# finding our Centos image, grabbing its image ID
images = client.describe_images()
image_id = next(image['ImageId'] for image in images if 'centos' in image['Name'])
print "Found desired image with ID: " + image_id
```

5. **Create a new VM**:

   Use the `run_instances()` method, passing the image ID and count values. Output a status message.

```
# running a new instance using our Centos image ID
ec2_instance = client.run_instances(
   ImageId=image_id,
   MinCount=1,
   MaxCount=1
)

# check if EC2 instance was created successfully
if ec2_instance['ResponseMetadata']['HTTPStatusCode'] == 200:
   print "Successfully created instance! " + ec2_instance['Instances'][0]['InstanceId']
```

6. **Create a Volume**:

   1. Use the `create_volume()` method.

      Note that you need to set the `AvailabilityZone` to `symphony`.

   2. Get the volume ID of the newly created volume and assign it to the `volume_id` variable.

   3. Output a status message.

```
# create an EBS volume, 20G size
    ebs_vol = client.create_volume(
        Size=20,
        AvailabilityZone='symphony'
    )

    volume_id = ebs_vol['VolumeId
# check that the EBS volume has been created successfully
    if ebs_vol['ResponseMetadata']['HTTPStatusCode'] == 200:
        print "Successfully created Volume! " + volume_id
```

7. **Attach the volume to the VM**, using the `attach_volume()` method. Pass in the `VolumeId` and the VM's `InstanceId`. Set the `Device` name to `/dev/sdm`.

```
# attaching EBS volume to our EC2 instance
    attach_resp = client.attach_volume(
        VolumeId=volume_id,
        InstanceId=ec2_instance['Instances'][0]['InstanceId'],
        Device='/dev/sdm'
    )
```

Exit.

```
if __name__ == '__main__':
sys.exit(main(sys.argv[1:]))
```

Full Script for Creating VMs

```
import boto3
import s
def main():
    """
    This script shows and example of Boto3 integration with Zadara Cloud Services.
    The scenario is as such:
         1. Instantiate an instance from an AMI,
         2. Create a 20 GB volume,
         3. Attach the volume to the created AMI.
    "
    # creating a connection to Zadara Cloud Services AWS Compatible region
    client = boto3.Session.client(boto3.session.Session(), service_name="ec2", region_name="symphony",
                                  endpoint_url="https://<cluster ip>/api/v2/ec2/",
                                  verify=False,
                                  aws_access_key_id="<key>",
                                  aws_secret_access_key="<secret>"
                                  )
    # finding our Centos image, grabbing its image ID
    images = client.describe_images()
    image_id = next(image['ImageId'] for image in images if 'centos' in image['Name'])
    print "Found desired image with ID: " + image_id
    # running a new instance using our Centos image ID
    ec2_instance = client.run_instances(
        ImageId=image_id,
        MinCount=1,
        MaxCount=1
    )

    # check if EC2 instance was created successfully
    if ec2_instance['ResponseMetadata']['HTTPStatusCode'] == 200:
        print "Successfully created instance! " + ec2_instance['Instances'][0]['InstanceId']

    # create an EBS volume, 20G size
    ebs_vol = client.create_volume(
        Size=20,
        AvailabilityZone='symphony'
        )

    volume_id = ebs_vol['VolumeId']

    # check that the EBS volume had been created successfully
    if ebs_vol['ResponseMetadata']['HTTPStatusCode'] == 200:
       print "Successfully created Volume! " + volume_id

    # attaching EBS volume to our EC2 instance
    attach_resp = client.attach_volume(
        VolumeId=volume_id,
        InstanceId=ec2_instance['Instances'][0]['InstanceId'],
        Device='/dev/sdm'
    )

    if __name__ == '__main__':
    sys.exit(main(sys.argv[1:]))
```

Creating VPCs and Security Groups

This snippet displays how to do the following:

- Create a Virtual Private Cloud (VPC) and subnet.
- Create a security group with ingress rules.
- Create a VM that resides in the subnet and uses the security group.

```
# create VPC
vpc = boto.create_vpc(CidrBlock='10.0.0.0/24')
vpc_id = vpc['Vpc']['VpcId']

# create subnet
subnet = boto.create_subnet(VpcId=vpc_id, CidrBlock='10.0.0.0/24')

# create security group
response = boto.create_security_group(GroupName='my_group_name', Description='my_description', VpcId=vpc_
↪id)
security_group_id = response['GroupId']

# add two ingress rules to the newly created security group,
# CIDR notation "0.0.0.0/0" allows access from anywhere
boto.authorize_security_group_ingress(GroupId=security_group_id, IpPermissions=},
    {'FromPort': 4000, 'ToPort': 4000, 'IpProtocol': 'tcp', 'IpRanges': [{'CidrIp': '0.0.0.0/0'}]}])

# create instance assuming that the image id is image_id
i1 = self.boto.run_instances(ImageId=image_id, MinCount=1, MaxCount=1,
                             NetworkInterfaces=[{'SubnetId': subnet_id, 'Groups': , 'DeviceIndex': 0}])
```

Creating Key Pairs and Floating IPs

This snippet displays how to create a key pair and floating IP address.

```
# create a new key pair for your account
key = boto.create_key_pair(KeyName="my_key_name")

# get the unencrypted PEM encoded RSA private key
# these will later be added to the machine
# from which to access the instance
pem = key['KeyMaterial']

i1 = boto.run_instances(KeyName='my_key_name', ImageId=image_id, MinCount=1, MaxCount=1,
                        NetworkInterfaces=[{'SubnetId': subnet_id, 'Groups': , 'DeviceIndex': 0}])

# create a floating IP in our VPC
allocation = sboto.allocate_address(Domain='vpc')
allocation_id = allocation['AllocationId']

# associate address with instance after getting its ID
boto.associate_address(InstanceId=i1_instance_id, allocation_id)
```

Boto 3 Quick Ref for EC2

```
import boto
client = boto3.client('ec2')
+-------------------------------------------------------------------------------------------------------------------
↪-------------------------------------+
| Commonly used methods                                                                                            
↪                                     |
+=================================================================================================================
| `run_instances <http://boto3.readthedocs.io/en/latest/reference/services/ec2.html#EC2.Client.run_
↪instances>`__ (create one or more instances) |
+-------------------------------------------------------------------------------------------------------------------
↪-------------------------------------+
| `describe_instances <http://boto3.readthedocs.io/en/latest/reference/services/ec2.html#EC2.Client.
↪describe_instances>`__                      |
+-------------------------------------------------------------------------------------------------------------------
↪-------------------------------------+
| `start_instances <http://boto3.readthedocs.io/en/latest/reference/services/ec2.html#EC2.Client.start_
↪instances>`__                              |
+-------------------------------------------------------------------------------------------------------------------
↪-------------------------------------+
| `stop_instances <http://boto3.readthedocs.io/en/latest/reference/services/ec2.html#EC2.Client.stop_
↪instances>`__                               |
+-------------------------------------------------------------------------------------------------------------------
↪-------------------------------------+
| `reboot_instances <http://boto3.readthedocs.io/en/latest/reference/services/ec2.html#EC2.Client.reboot_
↪instances>`__                             |
+-------------------------------------------------------------------------------------------------------------------
↪-------------------------------------+
| `terminate_instances <http://boto3.readthedocs.io/en/latest/reference/services/ec2.html#EC2.Client.
↪terminate_instances>`__                      |
+-------------------------------------------------------------------------------------------------------------------
↪-------------------------------------+
| `create_volume <http://boto3.readthedocs.io/en/latest/reference/services/ec2.html#EC2.Client.create_
↪volume>`__                                  |
+-------------------------------------------------------------------------------------------------------------------
↪-------------------------------------+
| `attach_volume <http://boto3.readthedocs.io/en/latest/reference/services/ec2.html#EC2.Client.attach_
↪volume>`__                                  |
+-------------------------------------------------------------------------------------------------------------------
↪-------------------------------------+
| `create_image <http://boto3.readthedocs.io/en/latest/reference/services/ec2.html#EC2.Client.create_
↪image>`__                                   |
+-------------------------------------------------------------------------------------------------------------------
↪-------------------------------------
```

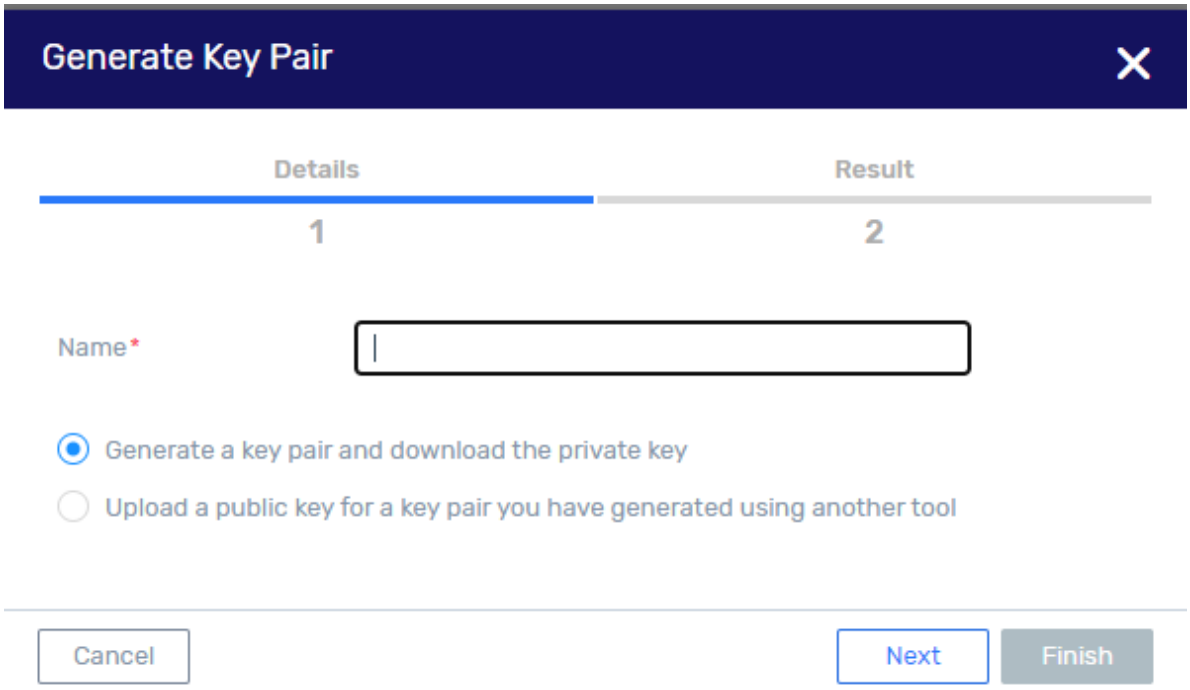
✔ **Note:** **Other EC2 methods** are documented here.

4.2.9 Key Pairs

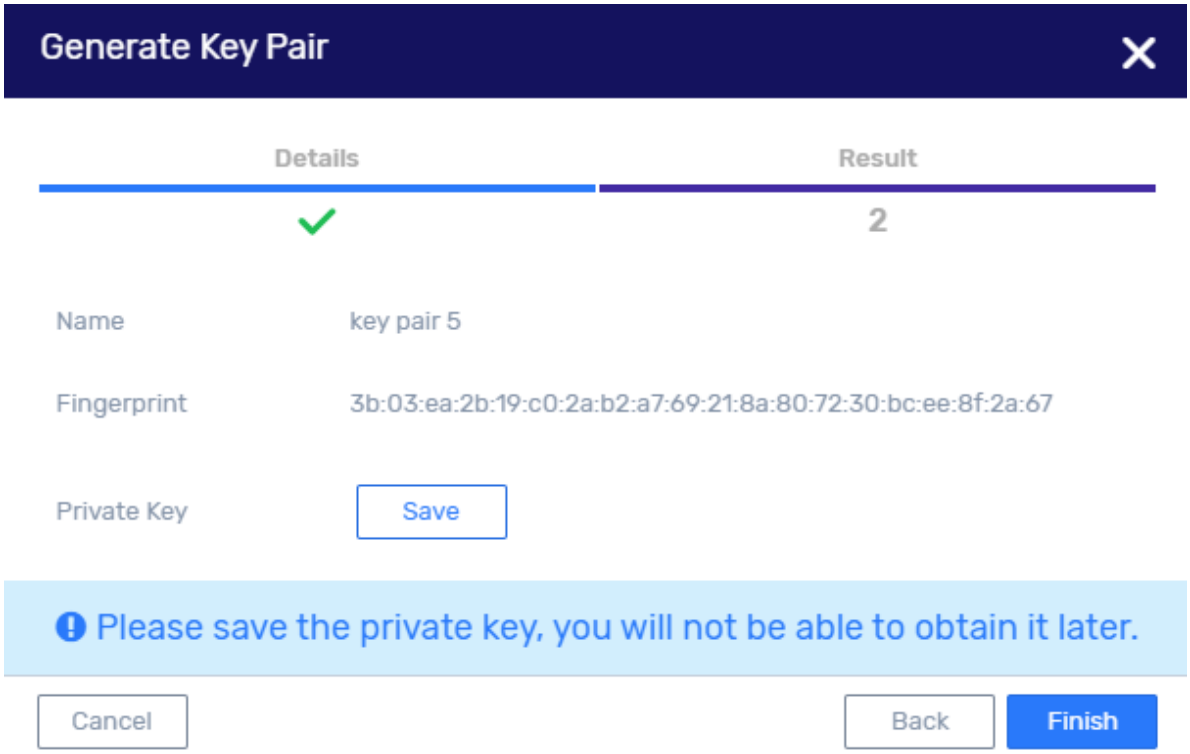
Key pairs refer to security credentials used for ensuring the identity of a user connecting to a VM instance.

Create a new key pair

1. Navigate to the **Main menu > Compute > Key Pairs** view.
2. Click **Create** in the top toolbar.
3. In the **Generate Key Pair > Details** tab, select **Generate a key pair and download the private key**.



4. Enter a unique name consisting of letters, numbers, spaces, underscores, periods and dashes. It must begin and end with a letter, number or an underscore.
5. Click **Next**.
6. In the **Generate Key Pair > Result** tab, the following is displayed:
   - **Name** of key pair.
   - **Fingerprint** of public key.



7. Click **Save** to download the private key to your browser's default download location. The private key file is named: `<name>.pem` where `<name>` is that specified for the key pair in the **Details** tab.
8. Click **Finish**.

Upload an externally generated key pair

1. Use a tool of your choice to generate a key pair (public and private key), and change the file permissions on the private key to 400 or 600 to secure the key.

✔ **Note:**

- From version 23.08.1, zCompute supports use of ECDSA keys for VMs.

  For key pair creation, it is possible to import and successfully use a public key in SSH or RSA (PEM) formats.
- In version 23.08.0 and earlier, zCompute does not accept keys for VMs in SSH formats, but only in RSA (PEM) format.

Examples of `ssh-keygen` commands:

- To generate keys in RSA and EDCSA formats:

  Usage: `ssh-keygen -t <type> -b <bits> -f <output file>`

```
ssh-keygen -t rsa -b 4096 -f id_rsa_4096
ssh-keygen -t rsa -b 3072 -f id_rsa_3072
ssh-keygen -t rsa -b 2048 -f id_rsa_2048
ssh-keygen -t rsa -b 1024 -f id_rsa_1024
ssh-keygen -t ecdsa -f id_ecdsa
ssh-keygen -t ed25519 -f id_ed25519
```

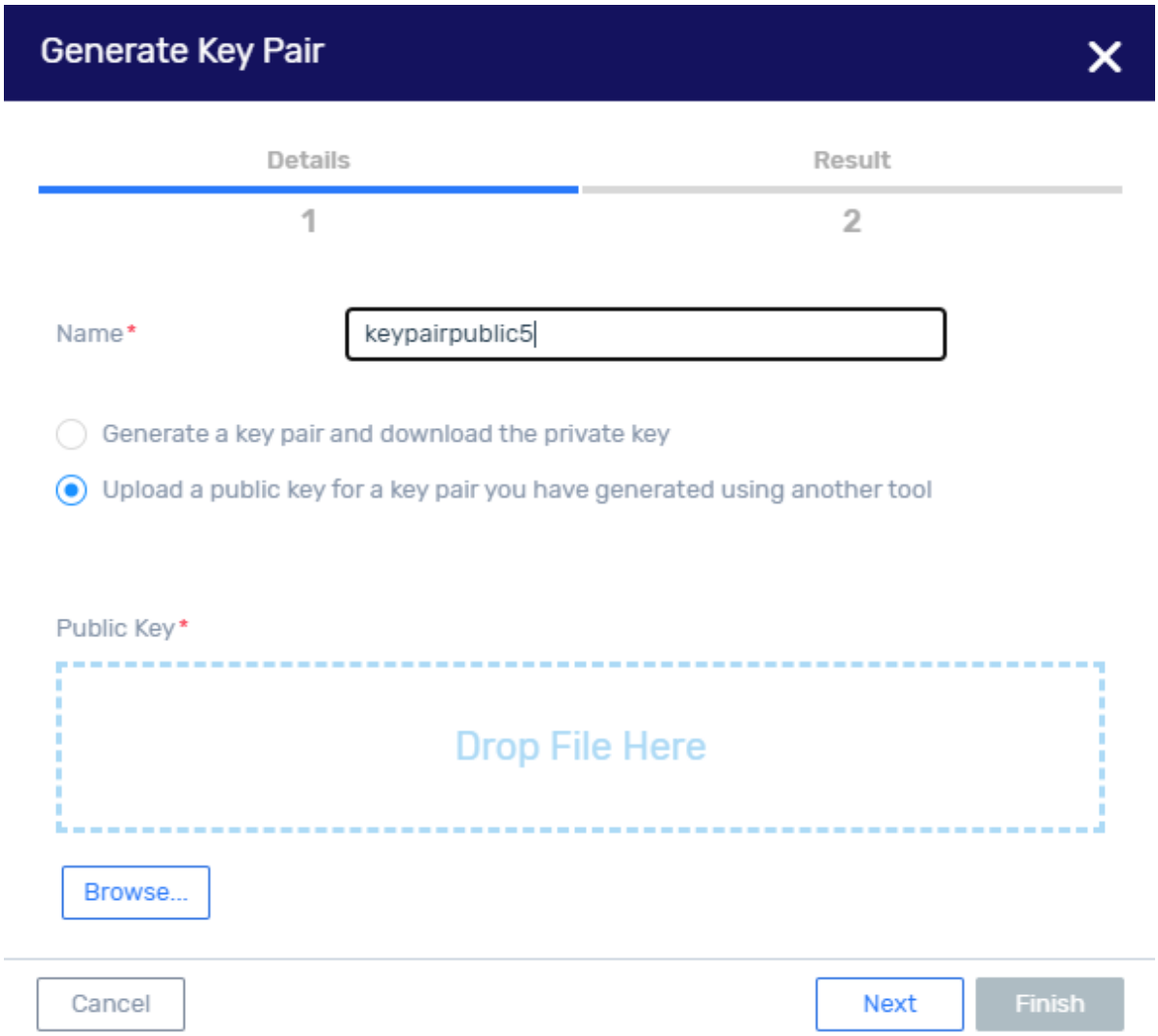
- To convert a key to RSA format, run the following command. This will update the key in place:

```
ssh-keygen -p -N "" -m pem -f <path_to_private_key_file>
```

- To generate and secure (read-only) a 3KB RSA key:

```
ssh-keygen -t rsa -b 3072 -f id_rsa_3072
chmod 400 id_rsa_3072
```

2. Navigate to the **Main menu > Compute > Key Pairs** view.
3. Click **Create** in the top toolbar.
4. In the **Generate Key Pair > Details** tab, select **Upload a public key for a key pair you have generated using another tool**.



5. Drag and drop the public key file into the window, or click **Browse** and navigate to it.
6. Click **Next**. The system displays the **Result** tab.
7. Click **Finish**.

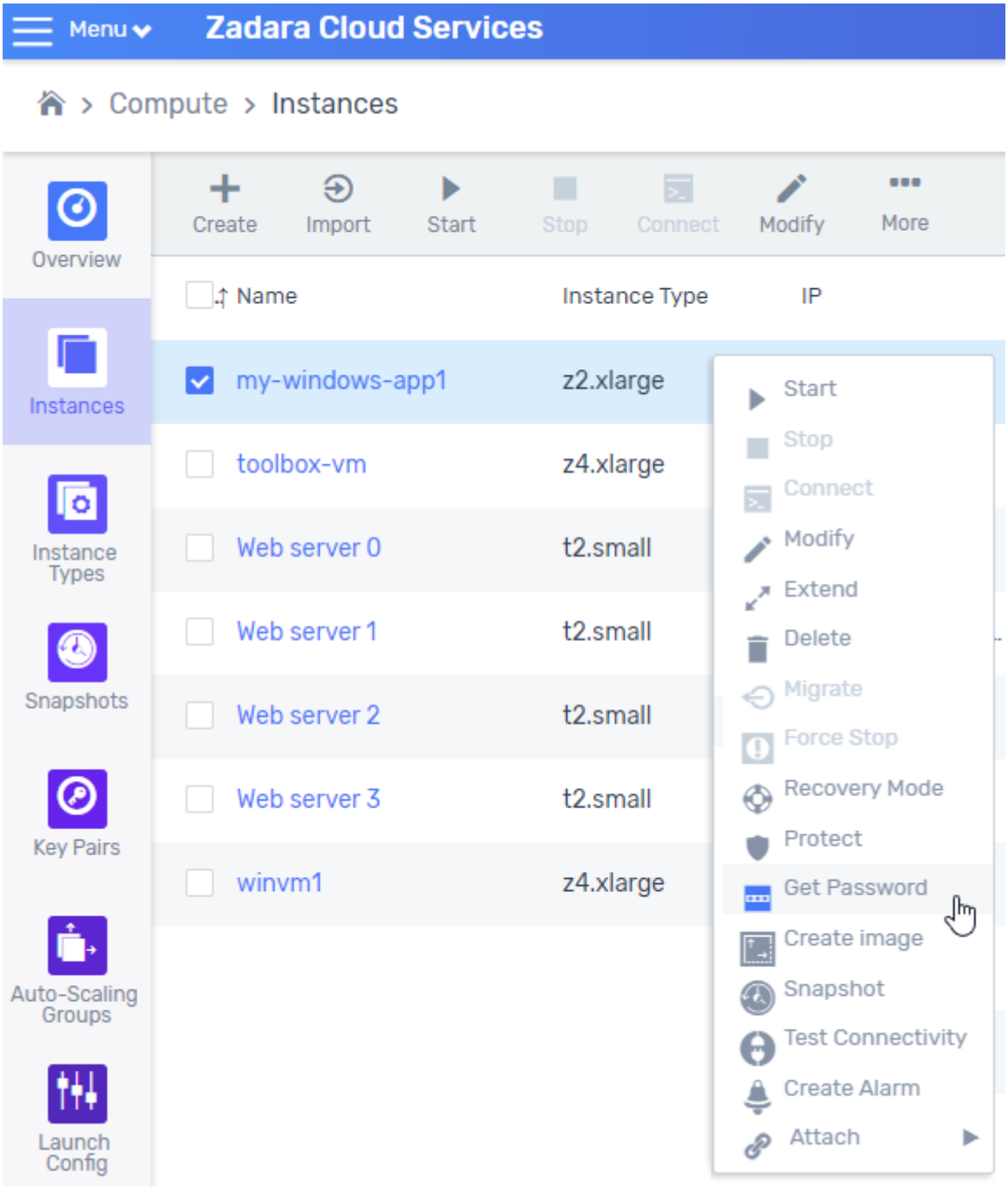
Get a Windows instance password

Important:

- For Windows password recovery (**Get Windows Password** dialog), the UI only accepts keys in RSA (PEM) format.
- To be able to get a Windows instance password, a key pair must be associated with the the Windows instance at creation of the instance. See Creating VM Instances.
- This flow returns the admin password of the Windows instance, which is a long and complex string. The zCompute UI Instance Connect option does not permit pasting the password at the login prompt. It requires manual entry of the password, which is not recommended, due to the complexity and length of the string. Instead, **it is highly recommended to connect to the VM instance via a Remote Desktop client** using an Elastic IP, which will allow pasting the password.

---

1. Go to **Compute > Instances**.
2. Locate the Windows instance.



3. Right-click on the Windows instance row and click **Get Password** on the context menu, or go to **... More > Get Password**. The **Get Windows Password** dialog opens.
4. Locate the private key file (`<name>.pem`) of the key pair associated with the Windows instance. Either upload the private key file, or copy and paste its contents in the place provided.

   Click **Next**. The **Retrieve Password** tab displays the Windows instance's admin password.
5. Copy the admin password string.
6. Either:

   - In your RDP client admin user session configuration, paste and save the copied password.

- In your RDP session, on signing on as the admin user in the Windows VM instance, paste the copied admin password at the password prompt.

Convert a private PEM key to PPK (PuTTY) format

To connect to a Linux VM instance using the PuTTY terminal emulator, your private key must be converted to PuTTY's PPK format. The PuTTY download package includes the PuTTYgen utility for this purpose.

1. In PuTTYgen, under **Actions > Load an existing private key file** click **Load**.
2. In the File Explorer that opens:
    1. Change the file type selection filter from **PuTTY Private Key Files (*.ppk)** to **All Files (*.*)**, so that `*.pem` files are displayed.
    2. Select the PEM file to convert to PPK format, and click **Open** to return to the PuTTYgen screen.

       A message displays that the PEM file was loaded successfully.
3. In PuTTYgen, for **Parameters > Type of key to generate** select **RSA**. If your version of PuTTYgen does not include this option, select **SSH-2 RSA**.
4. Click **Save private key**.
    1. In the dialog that opens, warning about saving the key without a protective passphrase, click **Yes**.
    2. In the **Save private key** dialog:
        1. **File name**: Enter the same name that was used for the key pair.
        2. **Save as type**: Select **PuTTY Private Key Files (*.ppk)** (default).
        3. Click **Save**.

Using PuTTY, you can connect to your Linux VM instance with the PPK key.

Generate a public key from a private key

A public key can be derived from a private key, using the `ssh-keygen` utility. This can be useful when there is a requirement to move the public key of a key pair between zCompute clusters. By default, `ssh-keygen` generates the public key output to standard output, which can be redirected to a file.

Usage:

```
ssh-keygen -y -f <private_key_file> > <public_key_file>
```

For example:

```
ssh-keygen -y -f $HOME/.ssh/mykeyfile > $HOME/.ssh/mykeyfile.pub
```

Generate a public key in PEM format

To generate a public key in PEM format from a private key, use the `ssh-keygen` utility with the `-e -m pem` options.

Usage:

```
ssh-keygen -y -f <private_key_file> -e -m pem > <public_key_file.pem>
```

For example:

```
ssh-keygen -y -f $HOME/.ssh/mykeyfile > $HOME/.ssh/mykeyfile.pem
```

4.2.10 Machine Images

Machine images are a fundemental part of Compute services. A machine image is a single file which contains a virtual disk on which a bootable operating system is installed. It allows a user to create a VM instance with any OS.

Image Requirements

Machine images can be created from the following source formats:

- VMware OVA image.
- KVM compatible image in RAW or QCOW2 formats.

> ✔ **Note:** Openstack KVM images can be used with the KVM compatible image option.

Supported images must meet the following requirements:

- The image must be a single bootable system disk.
- The image must be configured to receive a network address via DHCP.
- User access to the VM instance is required and depends on the image type:
  - **Windows Image** - use VNC or enable Remote Access Service.
  - **Linux Image** - use SSH server service.

Image Creation

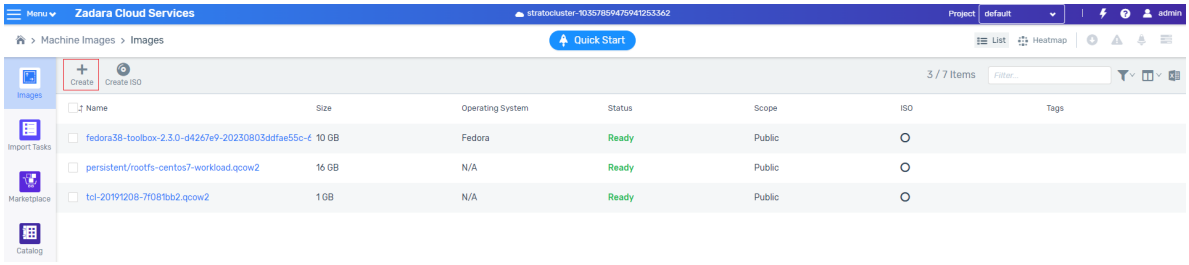
See the video on the basics of zCompute Machine Images and ISOs:

Images can be created from different UI views.

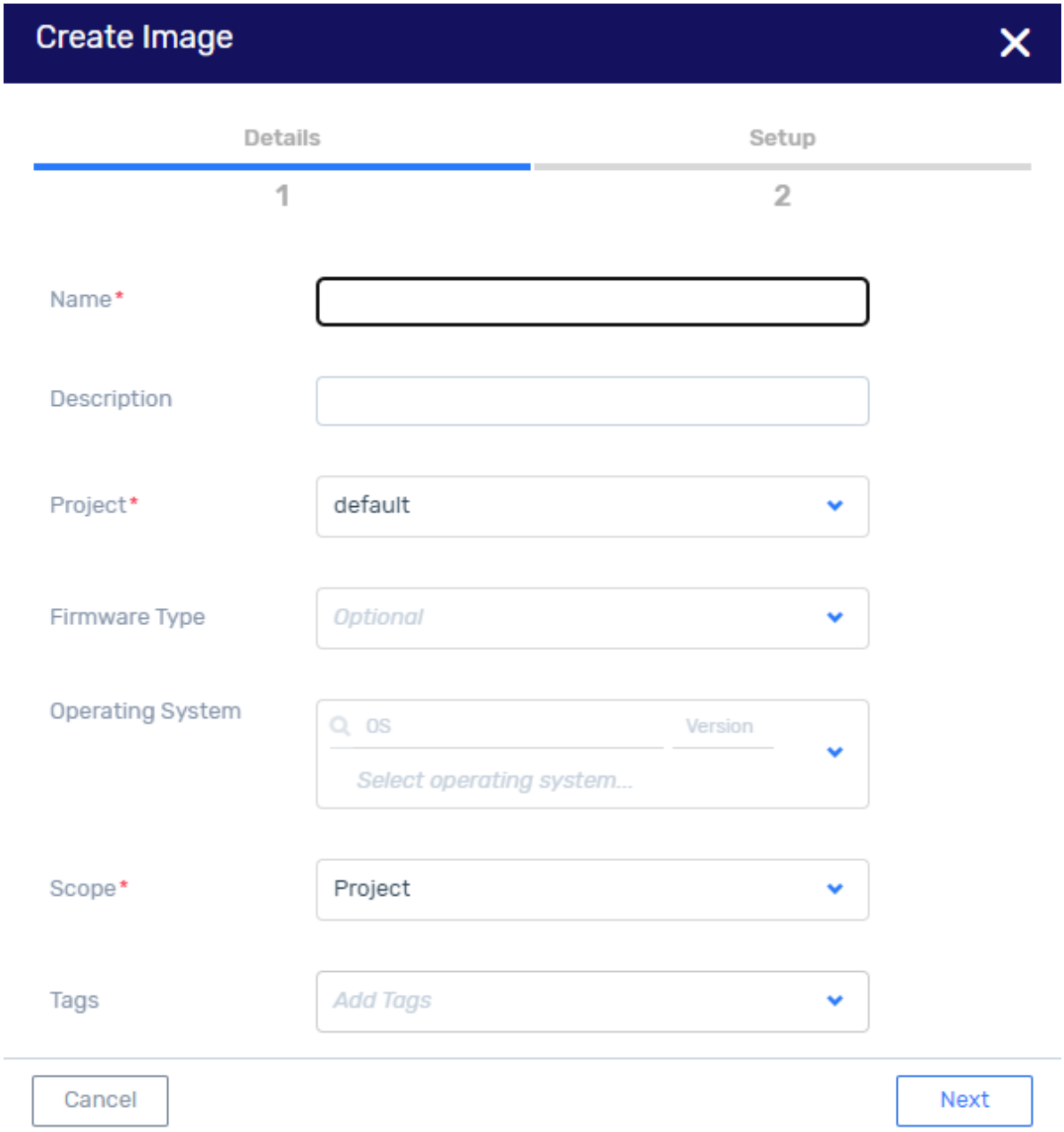
Create Images from Machine Image View

To create image from Machine Image view:

1. Navigate to the **Main menu > Machine Images** view and select **Images**.



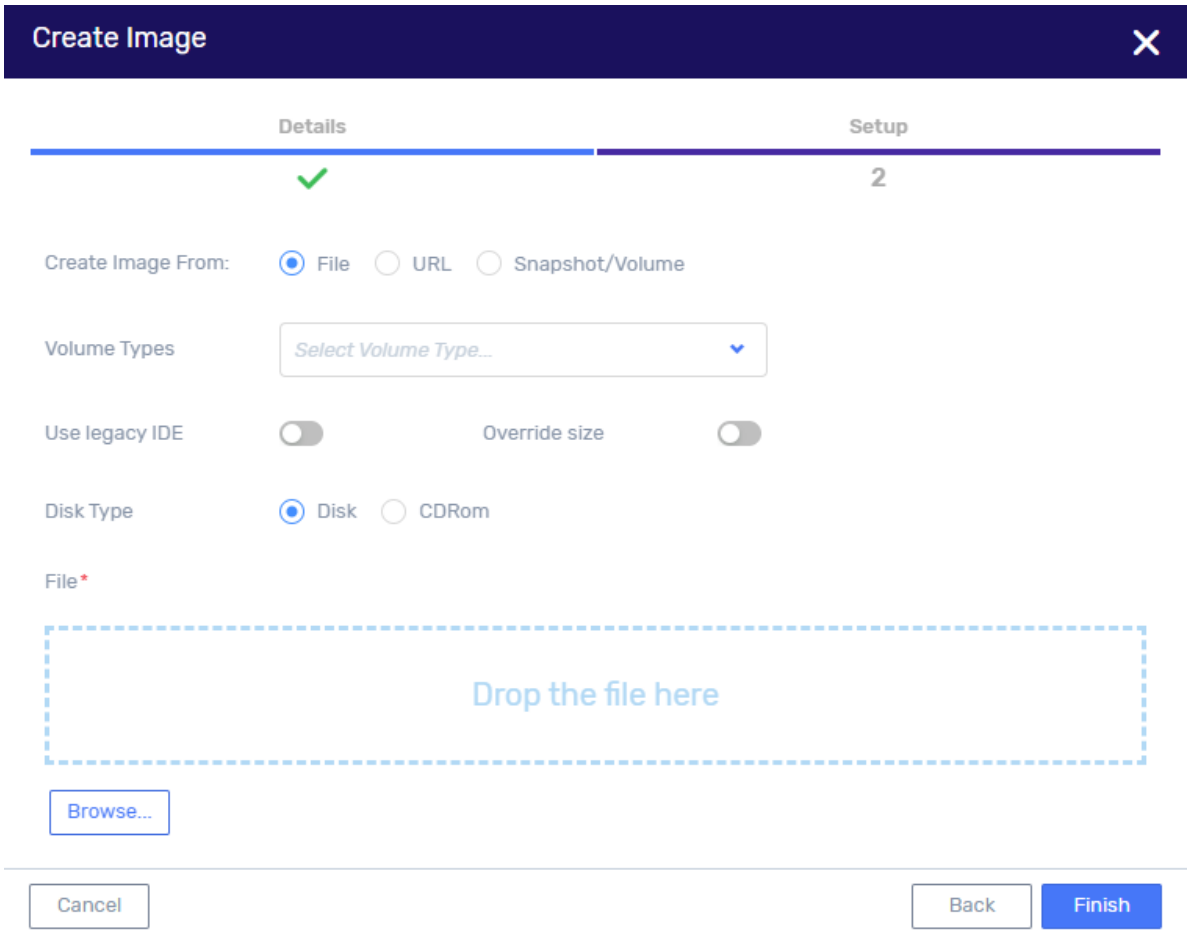
2. In the displayed image list view, click **Create** in the top toolbar.



3. In the **Create Image** window, configure the following:
   - **Name** - name that will identify the image.
   - **Description** - description that will help identify the image purpose.
   - **Project** (cloud admin view only) - select the project from the dropdown.
   - **Firmware Type** - select UEFI or BIOS.
   - **Operating System** - select the required operating system.
   - **Scope** - determines which users can access this image:
     - **Project** - only users with access to the project.
     - **Account** - all account users.

- **Tags** - attach one or more tags to the image.

4. Click **Next**.

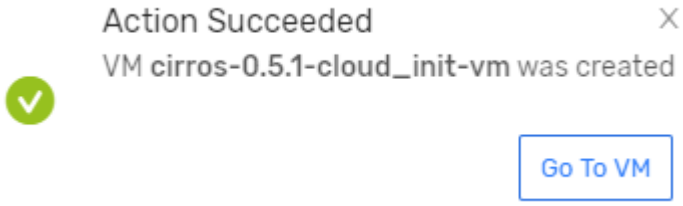


5. In the **Setup** tab, configure:

   - **Create Image From:** - the source to use for creating the new image. When you select one of the source options, the next field is updated as follows:
     - **File** - configure:
       - **Volume Type** - select the volume type from the dropdown list.
       - **File** - drag the image file into the **File** box, or browse to the file and select it.
     - **URL** - configure:
       - **Volume Type** - select the volume type from the dropdown list.
       - **Use Legacy IDE** - select legacy IDE or native IDE.
       - **Override Size** - select whether to keep the image the same size or to override it. To override the size, enter the new size.
       - **Disk Type** - select whether to attach the image file as a Disk or CDROM.
       - Click **Add** to configure an additional mapping.
     - **Snapshot/Volume** - configure:
       - **Snapshot/Volume** - source to be used to create image.

- **Volume Type** - select the volume type from the dropdown list.
- **Use Legacy IDE** - select legacy IDE or the native IDE.
- **Override Size** - select whether to keep the image the same size or to override it. To override the size, enter the new size.
- **Disk Type** - select whether to attach the image file as a Disk or CDROM.
- Click **Add** to configure an additional mapping.

6. Click the **Finish** button. The image begins to be created. When the uploading progress is completed, the **Action Succeeded** message is displayed.

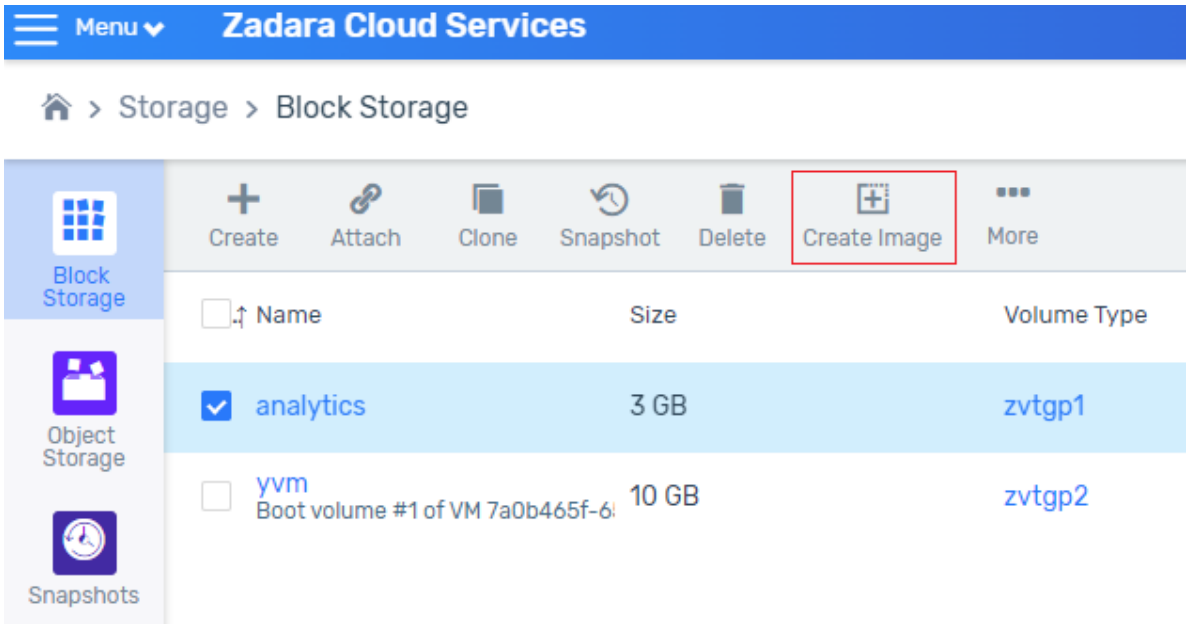


Create Images from Storage View

New image creation from an existing volume can be done from the storage view as well. Create an image from a volume, either directly from the volume or by using a snapshot of the volume. If the volume is currently not attached to a running VM instance, create an image as described below. If the volume is attached to a running VM instance which can not be stopped, first detach the volume and create a snapshot, and then create an image from the snapshot.

To create an image from a volume in storage view

1. Navigate to the **Storage > Block Storage** view.
2. In the displayed list, select the volume to be used to create the image.
3. In the top toolbar, select **Create Image**.



4. In the displayed **Create Image From Volume** window, configure the following:
   - **Name** - name that will identify the image.
   - **Description** - description that will help identify the image purpose.
   - **Tags** - attach one or more tags to the image.
   - **Operating System** - select the required operating system.
5. Click **OK**. The new image is displayed in the **Machine Images > Images** list.

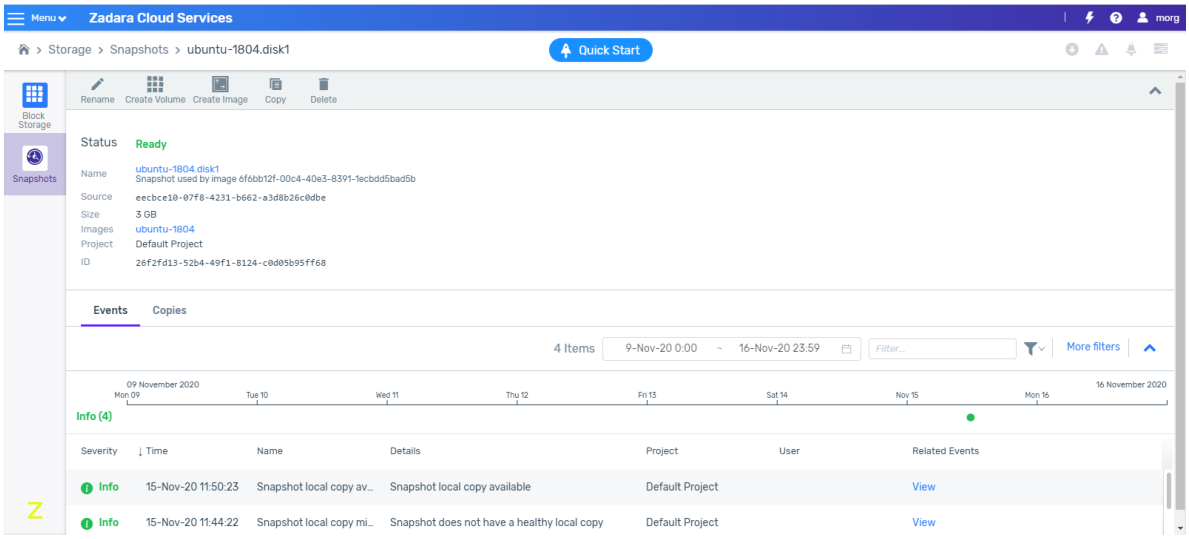
Note: If you select a non-bootable volume as the source of an image, the OS will not boot.

Create Images from Snapshot View

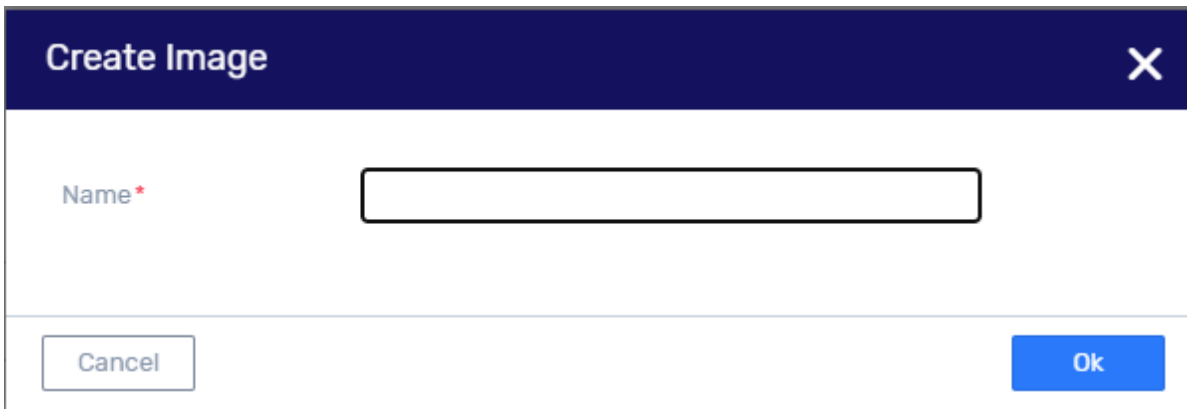
The system permits creation of images from a volume snapshot. Using a volume snapshot as the image source allows the user to create the image without stopping the VM instance or detaching the volume.

To create an image from a snapshot:

1. Navigate to the **Storage > Snapshots** view.
2. In the displayed list, select the snapshot to be used for creating the image and click **Create Image** from the top toolbar.



3. In the displayed **Create Image** window is displayed, enter the **Name** of the new image.

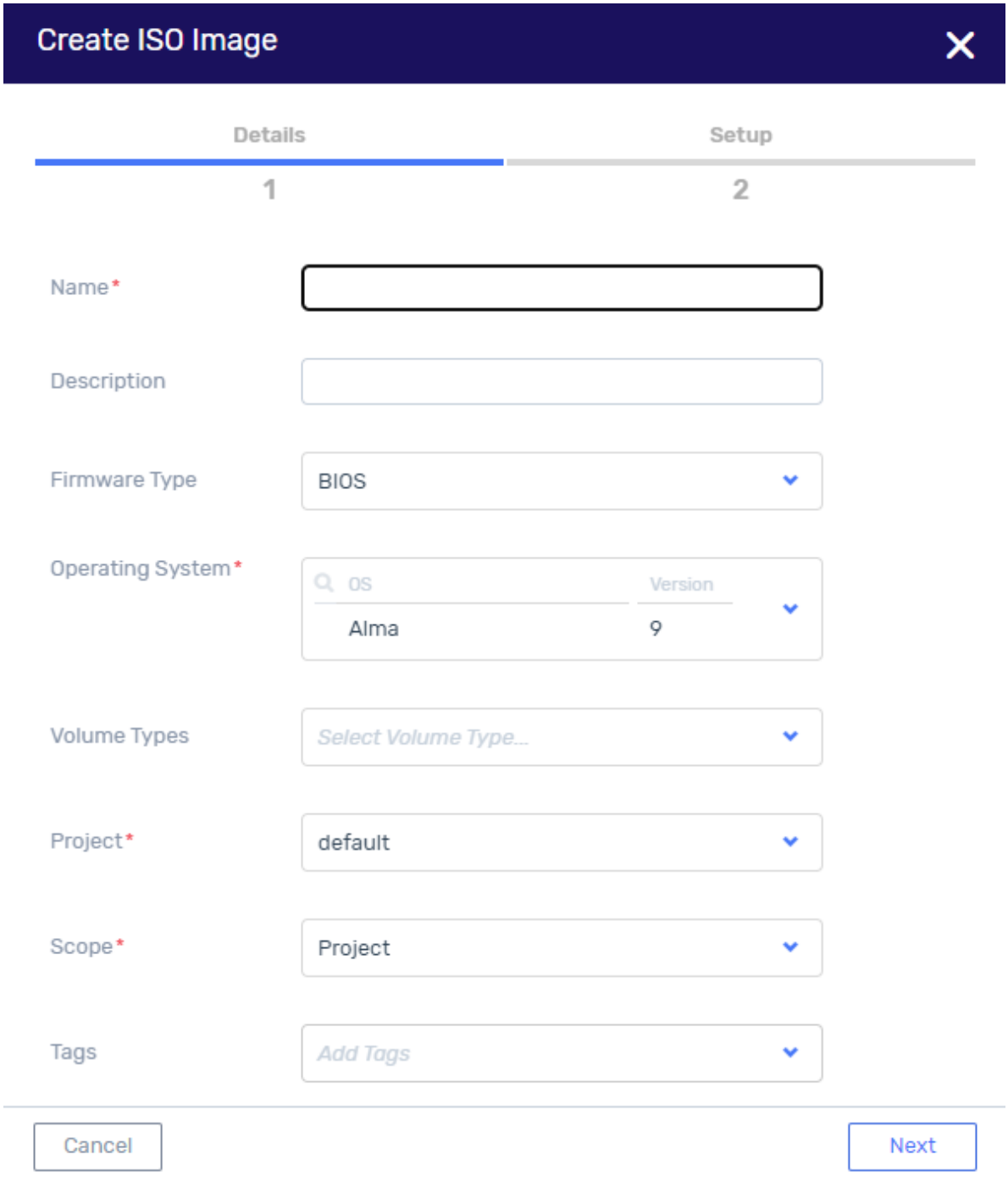


4. Click **OK**. The new image is displayed in the **Machine Images > Images** list.

Creating ISO Images

ISO images can only be created from the **Machine Images** UI view.

1. Navigate to the **Main menu > Machine Images** view and select **Images**.
2. In the dispalyed image list view, click **Create ISO** from the top toolbar.
3. In the displayed **Create ISO Image** window, configure the following:



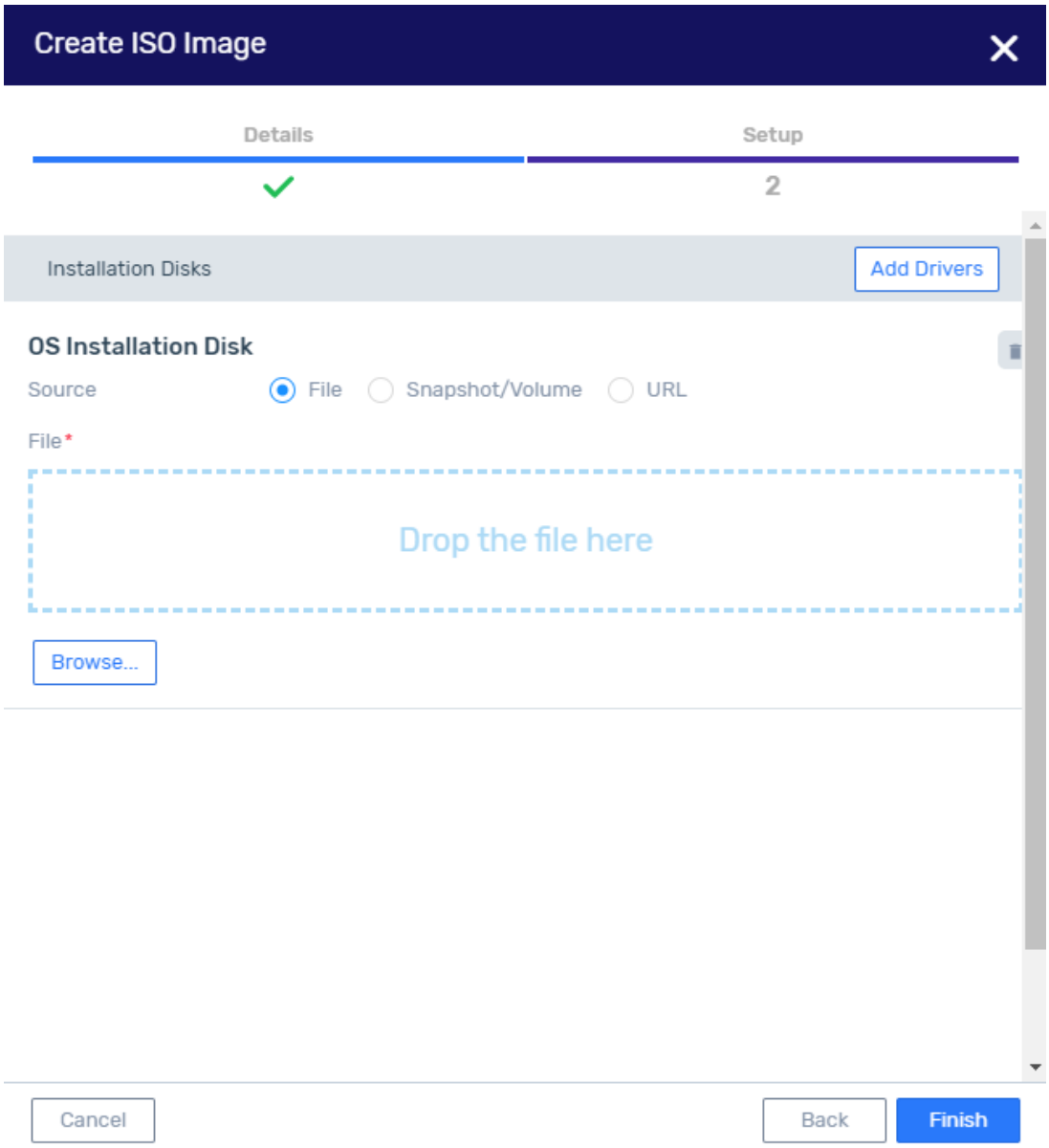
- **Name** - name that will identify the image.

Note: When creating an ISO image in Zadara Cloud Services, the name of the image must end with the '.iso' extension.

- **Description** - description that will help identify the image purpose.
- **Firmware Type** - select UEFI or BIOS.
- **Operating System** - select the required operating system.

- **Volume Type** - select the volume type from the dropdown list.
- **Scope** - determines which users can access this image:
  - **Project** - only users with access to the project.
  - **Account** - all account users.
- **Tags** - attach one or more tags to the image.

4. Click **Next**. The **Setup > OS Installation Disk** window is displayed.



5. Depending on the selected source option, configure the next field as follows:
   - **File** - drag the image file into the **File** box, or browse to the file and select it.
   - **Snapshot/Volume** - configure the source snapshot/volume to be used to create image.
   - **URL** - enter the URL of the image file and check **Skip SSL verification** if needed.

6. For ISO image creation, select **Add Drivers** to include drivers for use during and after the operating system installation. The additional drivers disk can be created from an existing file or snapshot/volume.
7. Click **Finish**. The ISO Image is displayed in the Images list.

Windows Server VM Instance Creation

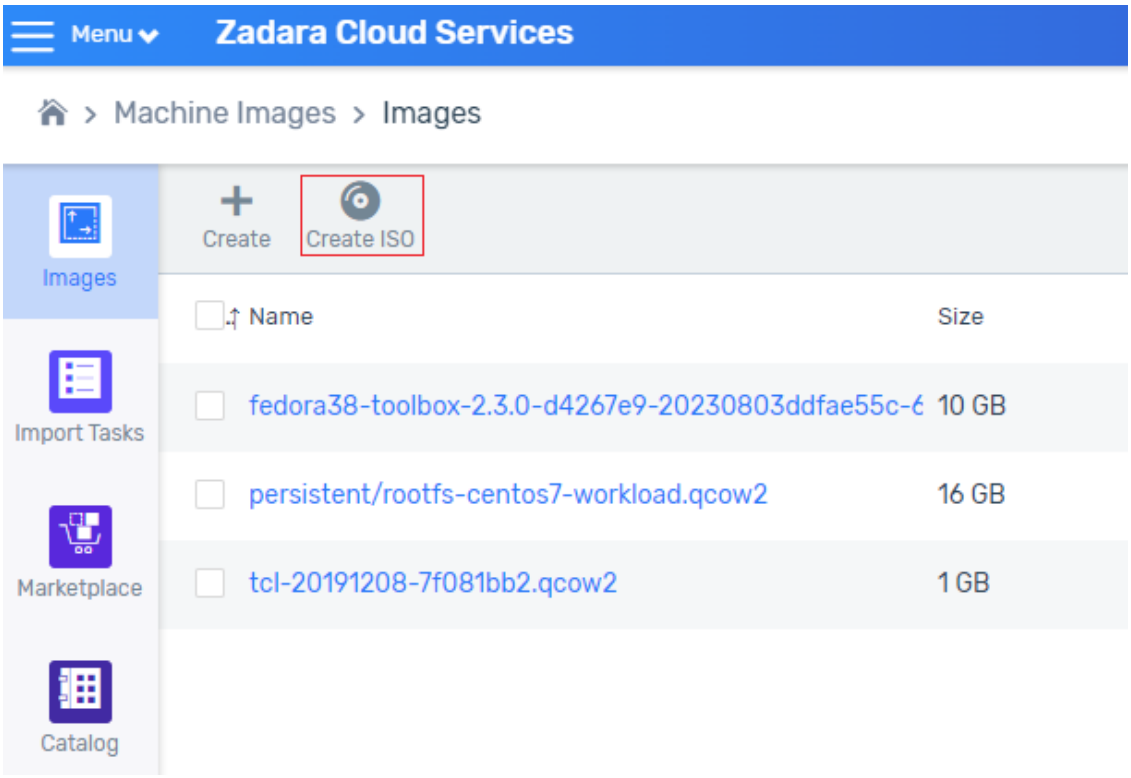
✔ **Note:** The recommended best practice is to use a Zadara or partner-provided Windows Server image, which is already preinstalled with virtio drivers and Cloudbase-init.

The following section describes how to create a new Windows Server 2019 VM Instance from an ISO in the zCompute Compute Cloud.

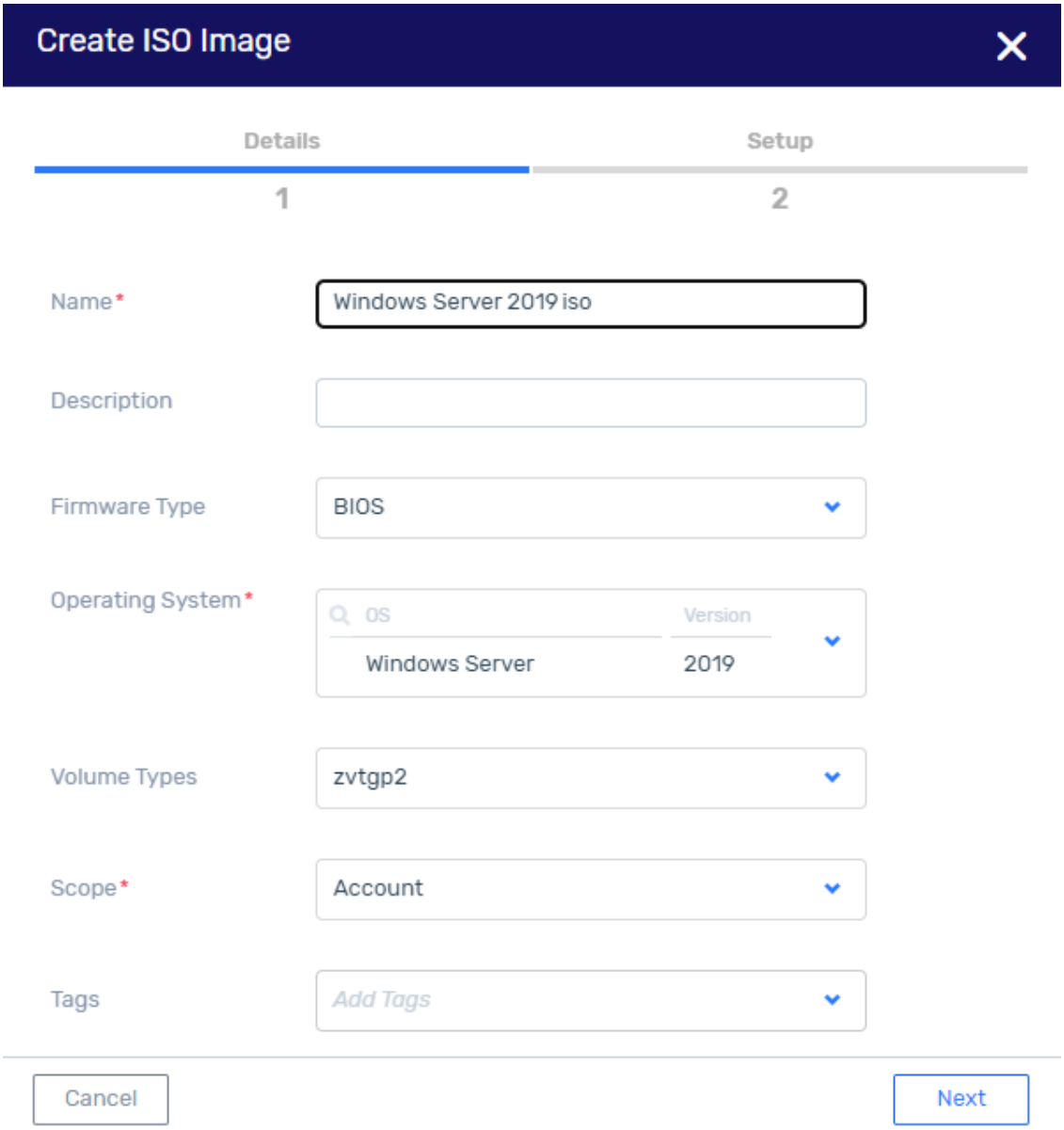
The latest version of virtio drivers has an installer to simplify the installation.

To create a Windows Server Instance:

1. Create the Image.
    1. Navigate to **Machine Images > Images**.
    2. From top toolbar, click **Create ISO**.

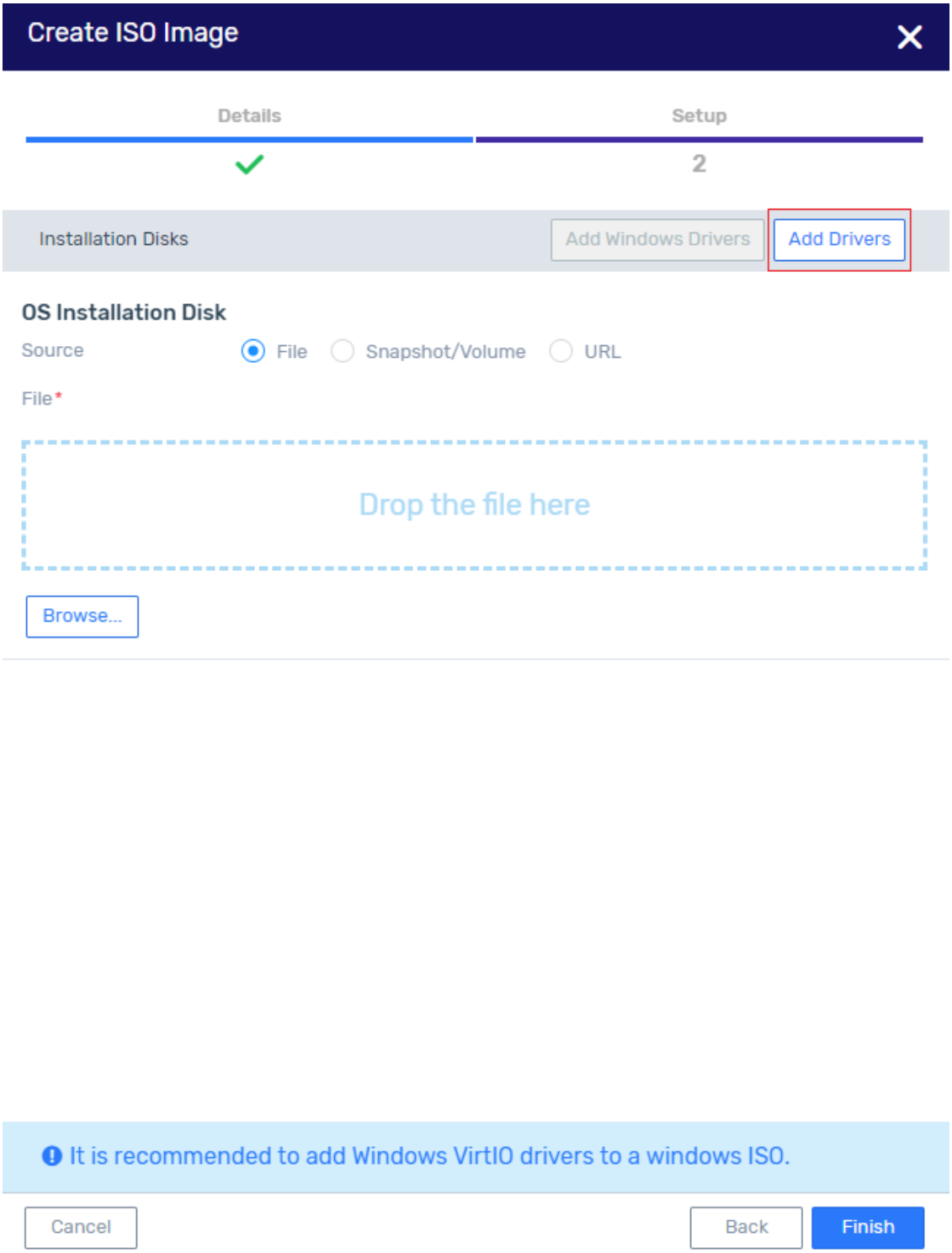


    3. In the **Create ISO Image** dialog **Details** tab, enter the following:

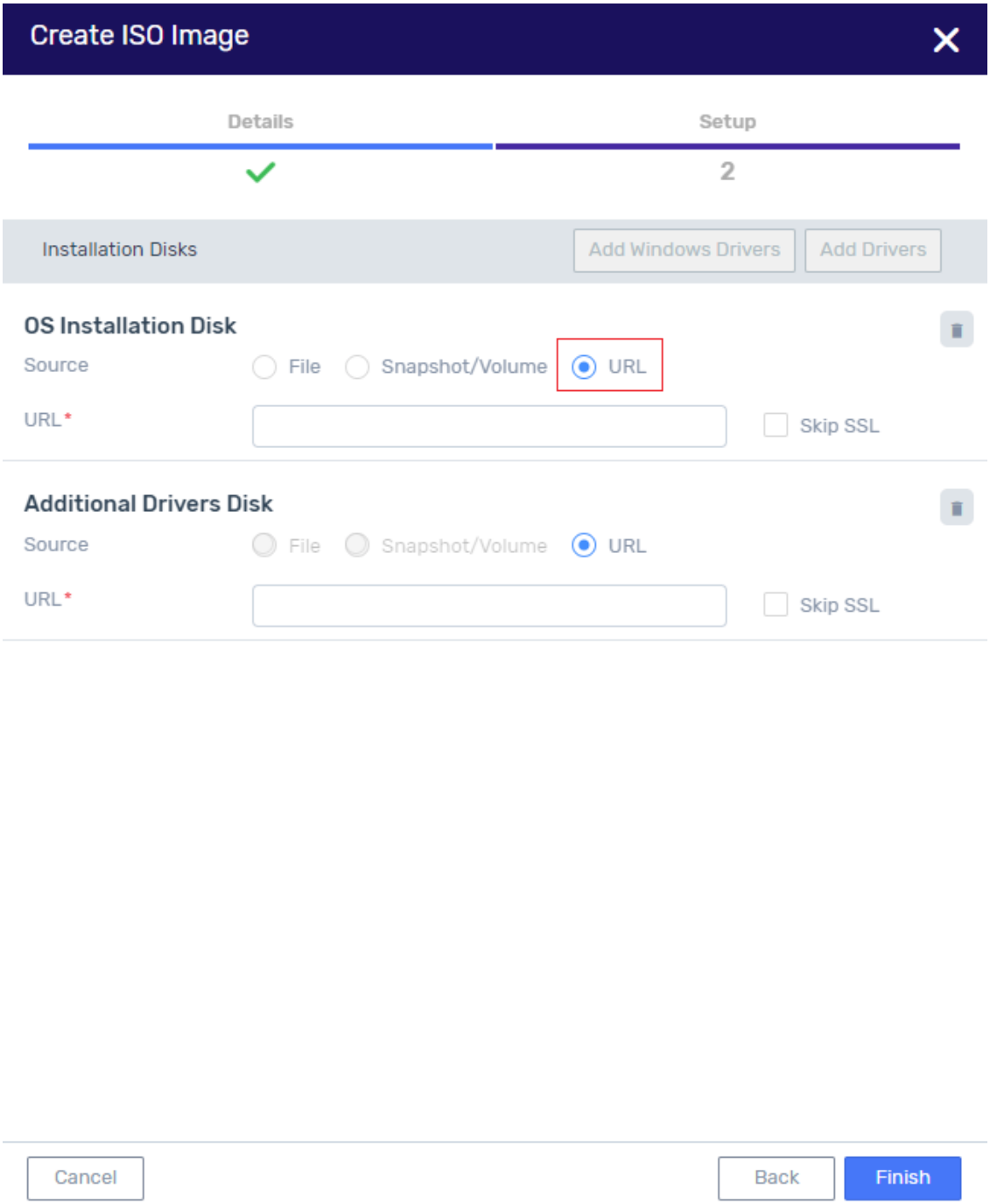


- **Name**
- **Firmware Type** - select **BIOS**.
- **Operating System** - select the Windows OS version.
- **Volume Type** - select the volume type from the dropdown list.
- **Scope** (cloud admin view only) - select **Account**.

4. Click **Next**.
5. In the **Setup** tab, click **Add Drivers**.



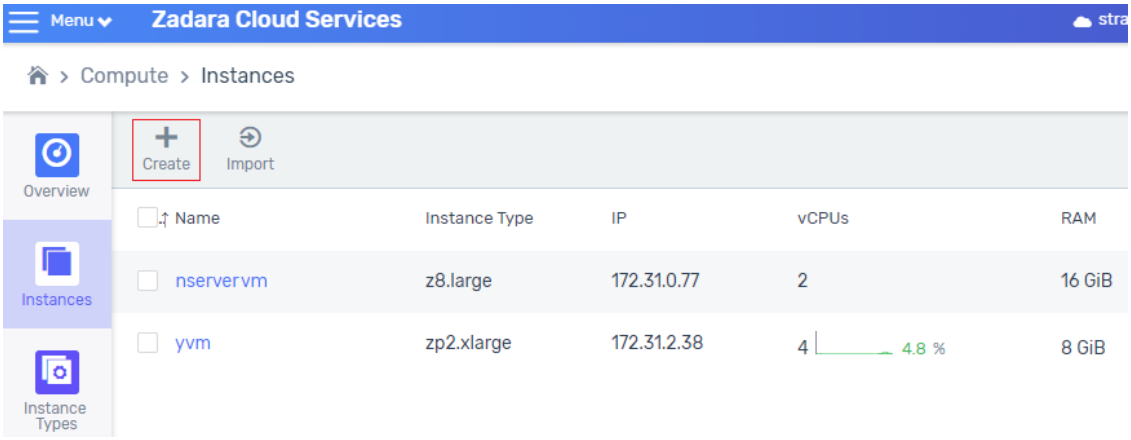
6. Select **URL** (or **File** if images are availably locally), and enter the following URLs:



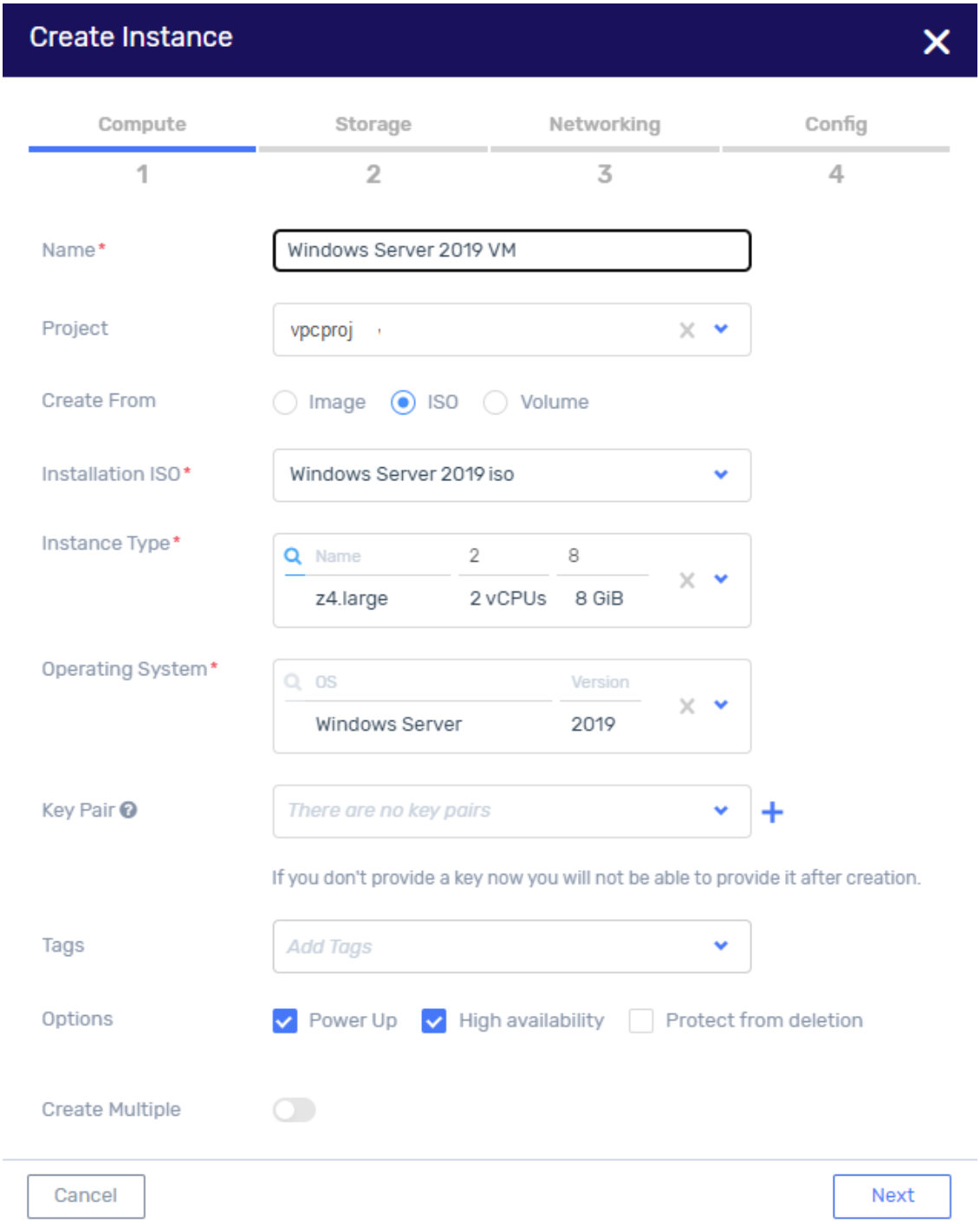
- **OS Installation Disk** - Windows ISO.
- **Additional Drivers Disk** - <https://zadarastorage-software.s3.us-east-1.amazonaws.com/Windows-ISOs/virtio-win-1.9.15.iso>

7. Click **Finish**.

2. After the upload has completed, navigate to **Compute > Instances**.
    1. From the top toolbar, click **Create**.



2. In the **Create VM** dialog **Setup** tab, enter the following:

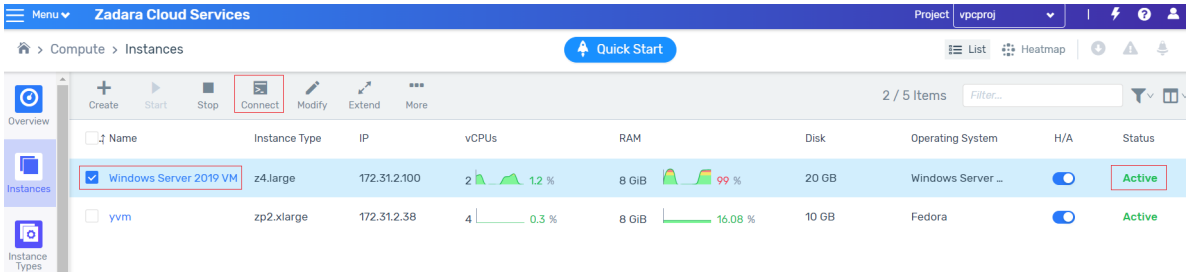


- **Name** - a name that will identify the VM instance.
- **Project** - the VM instance must be created within a project.
- **Create From** - select **ISO**.
- **Installation ISO** - select the ISO image.
- **Instance Type** - select the instance type with the desired instance size.
- **Operating System** - select the image's operating system.

3. Click **Next** through the **Storage** and **Network** tabs, and **Finish** on the **Config** tab.

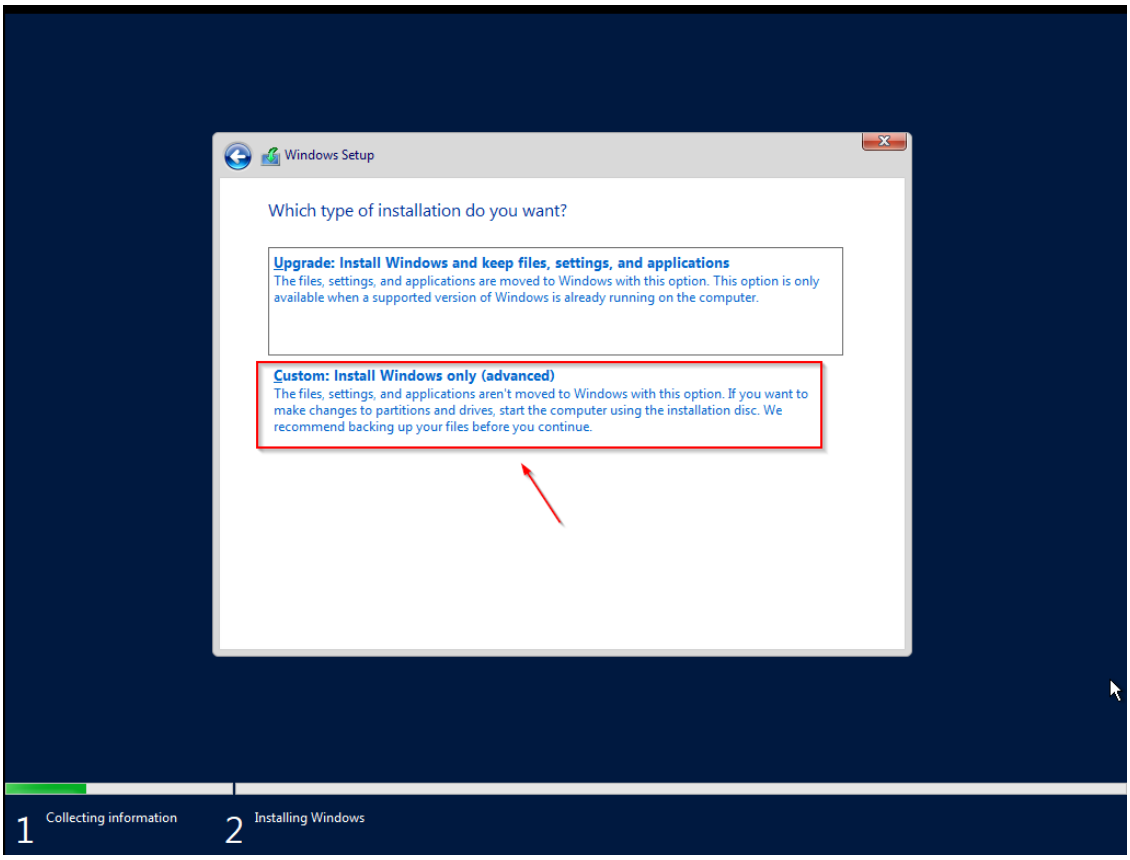
3. After the instance has been spawned and has the status **Active**, navigate to **Compute > Instances**.

4. Select the image and click **Connect** from top toolbar.

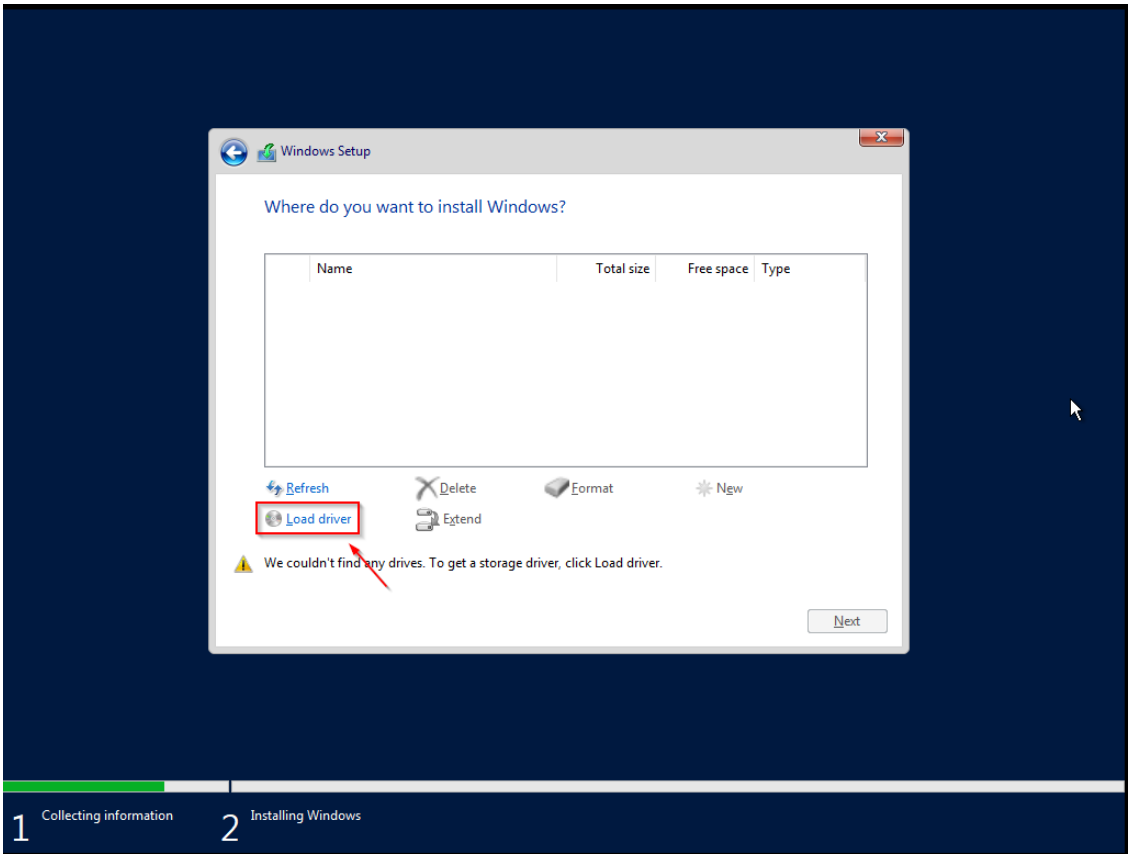


5. Run **Windows Setup** to continue with the Windows Server installation.

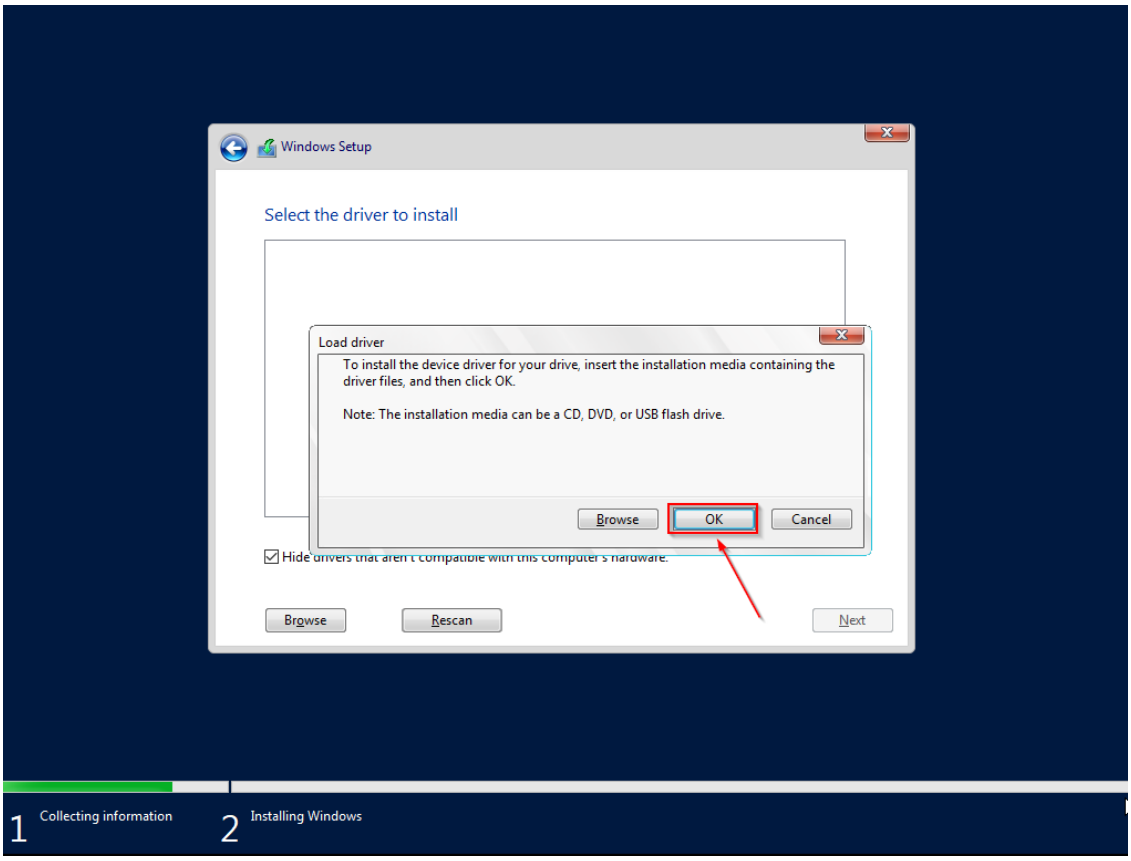
    1. When prompted for **Type of Installation**, select **Custom**.



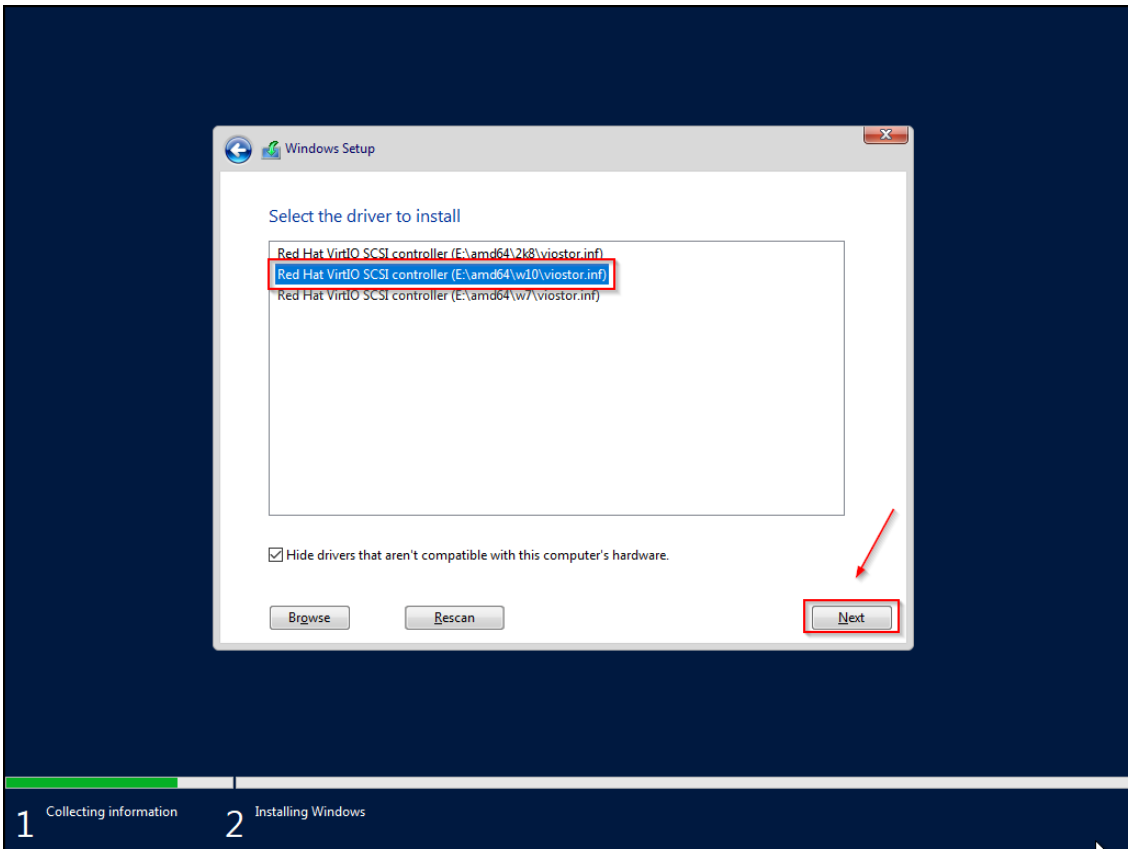
    2. When prompted with **Where do you want to install Windows**, select **Load Driver**.



3. When prompted to **Load Driver** click **OK**.



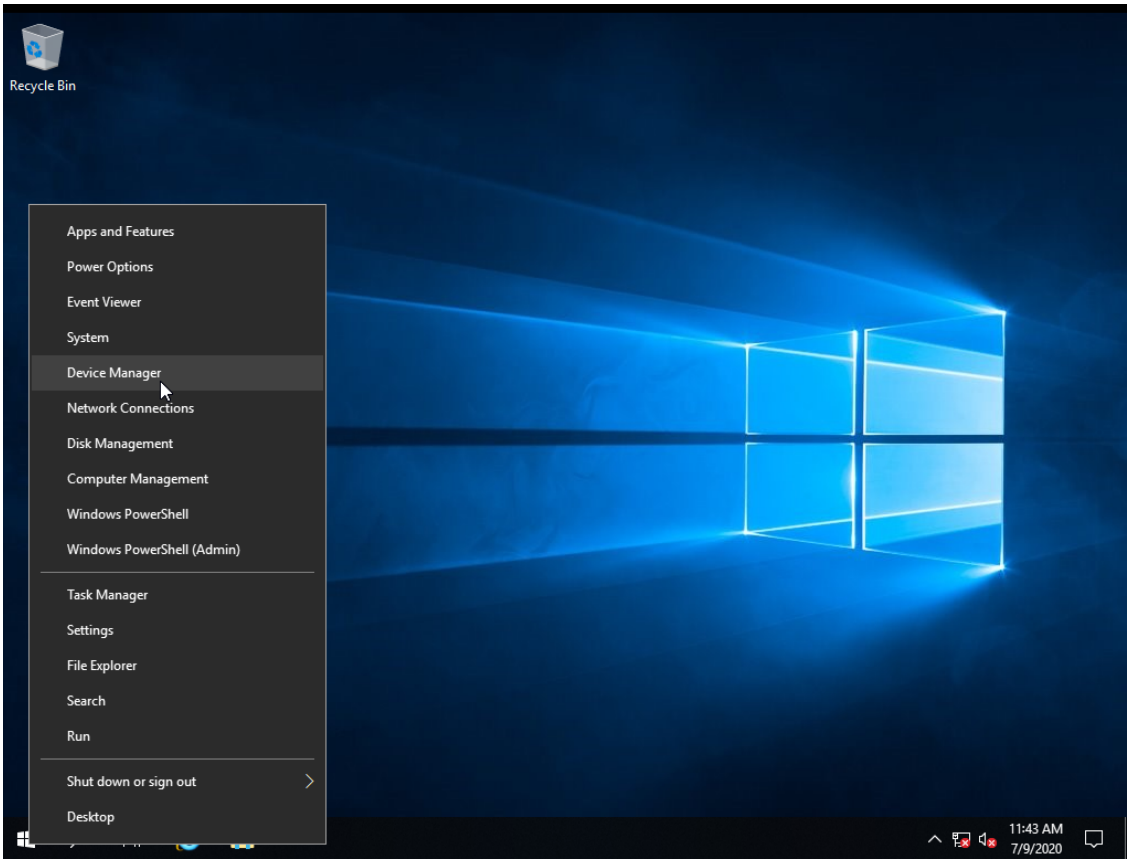
4. Select the Red Hat VirtIO SCSI controller (E:\amd64\w10\viostor.inf) option and select **Next**.



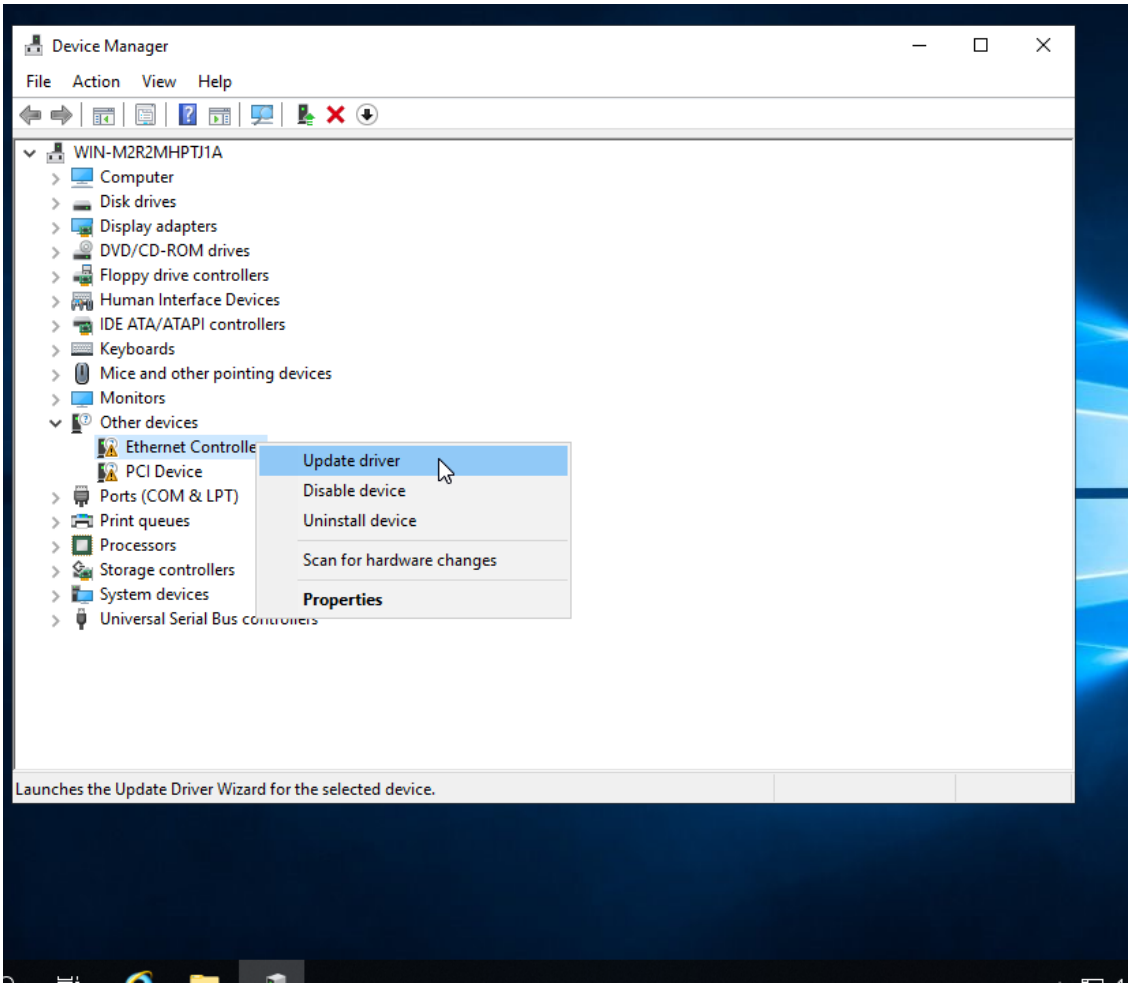
5. Continue as prompted by install wizard for the rest of the installation.

6. After Windows has been installed, log into Windows as Administrator.

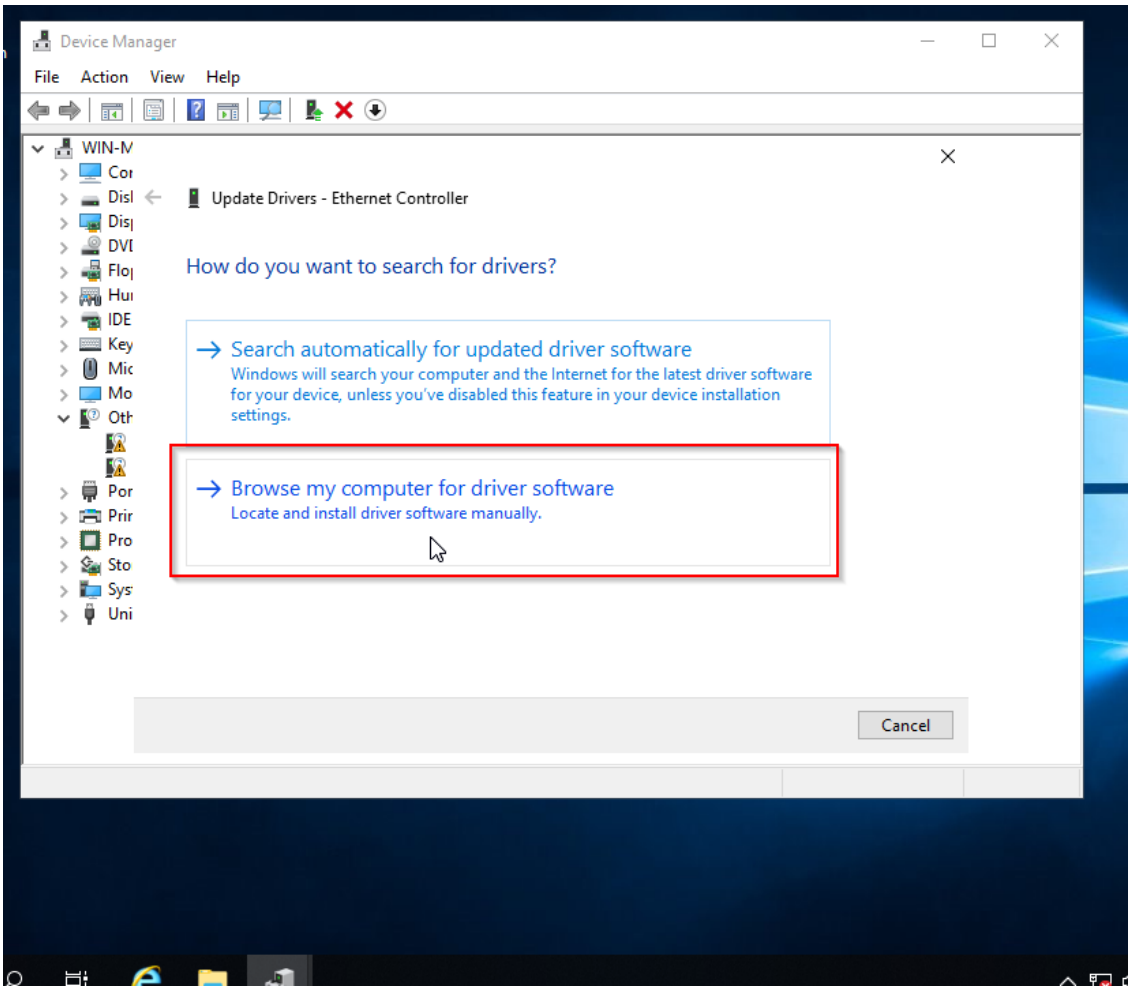
    1. Right-click on the **Start Menu** and select **Device Manager**.



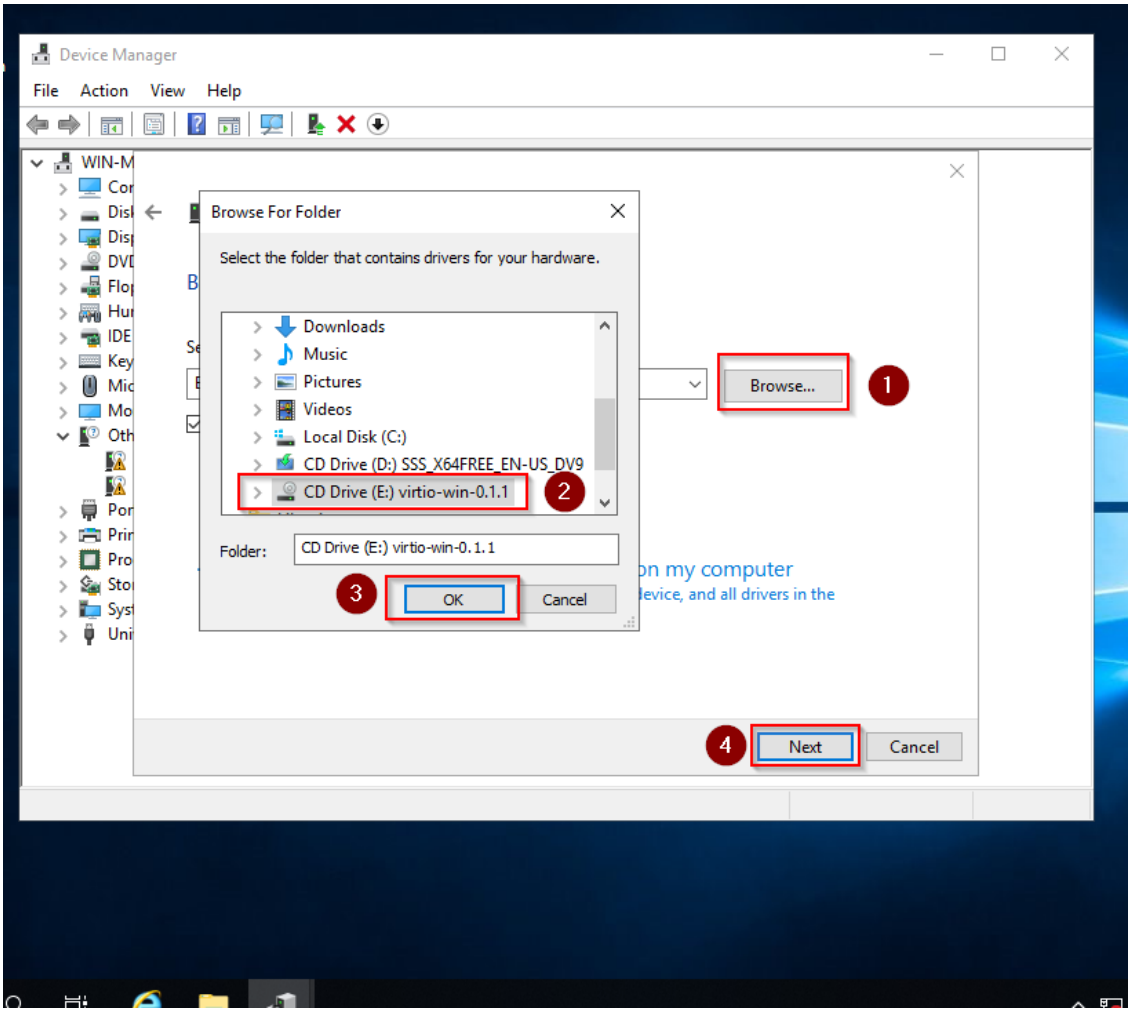
2. Right-click on **Ethernet Controller** and select **Update driver**.



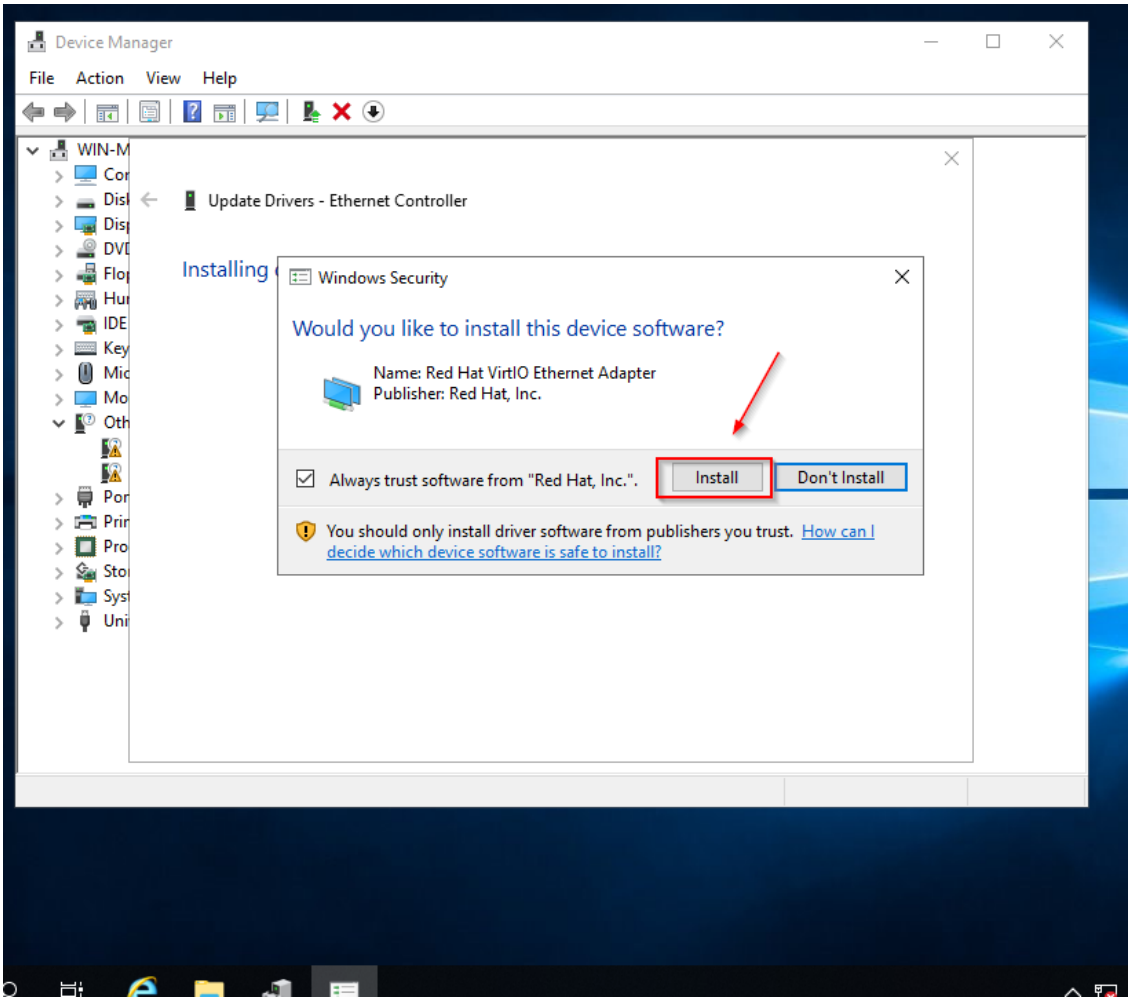
3. Select **Browse my computer for driver software**.



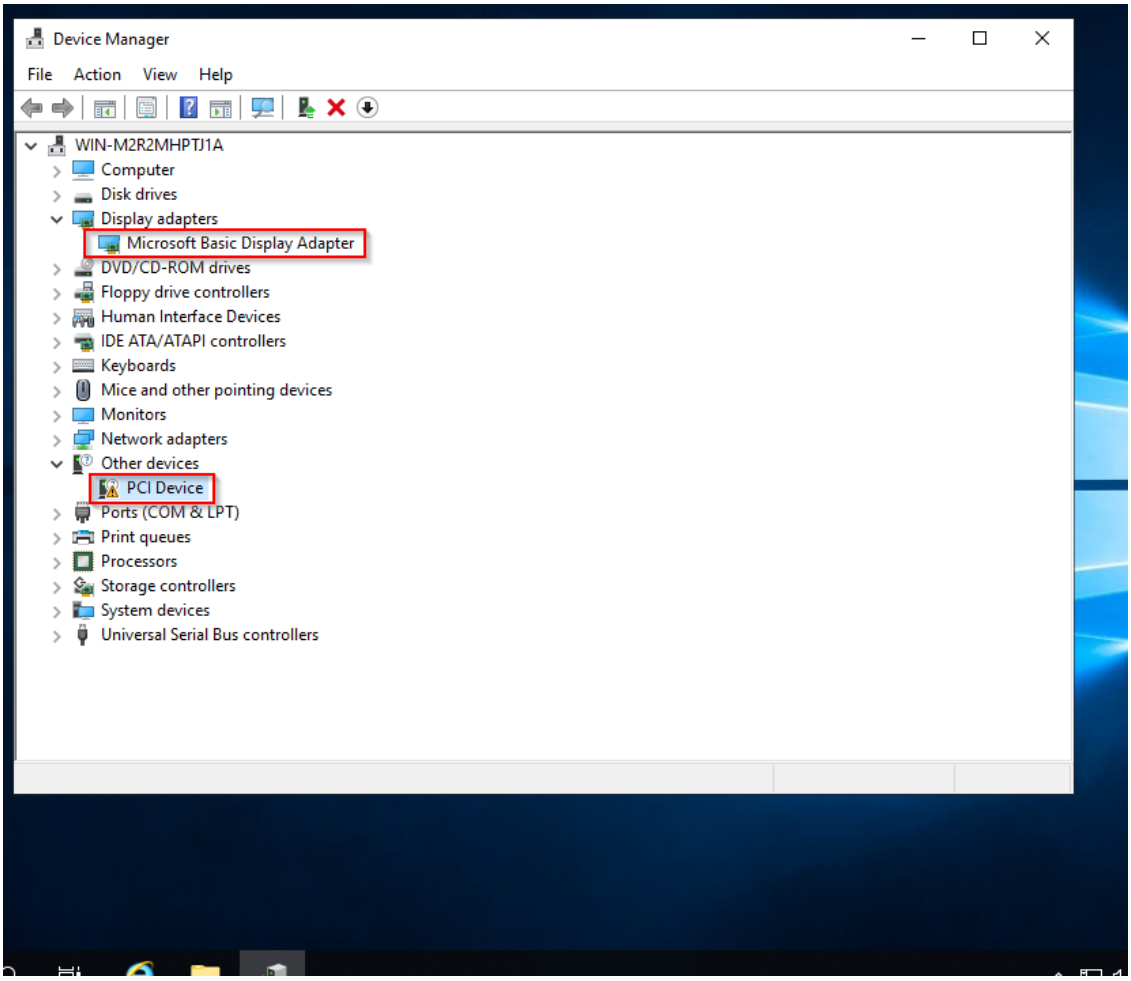
4. Select **Browse** and select the **CD Drive (virtio-win-x.x.x)**.



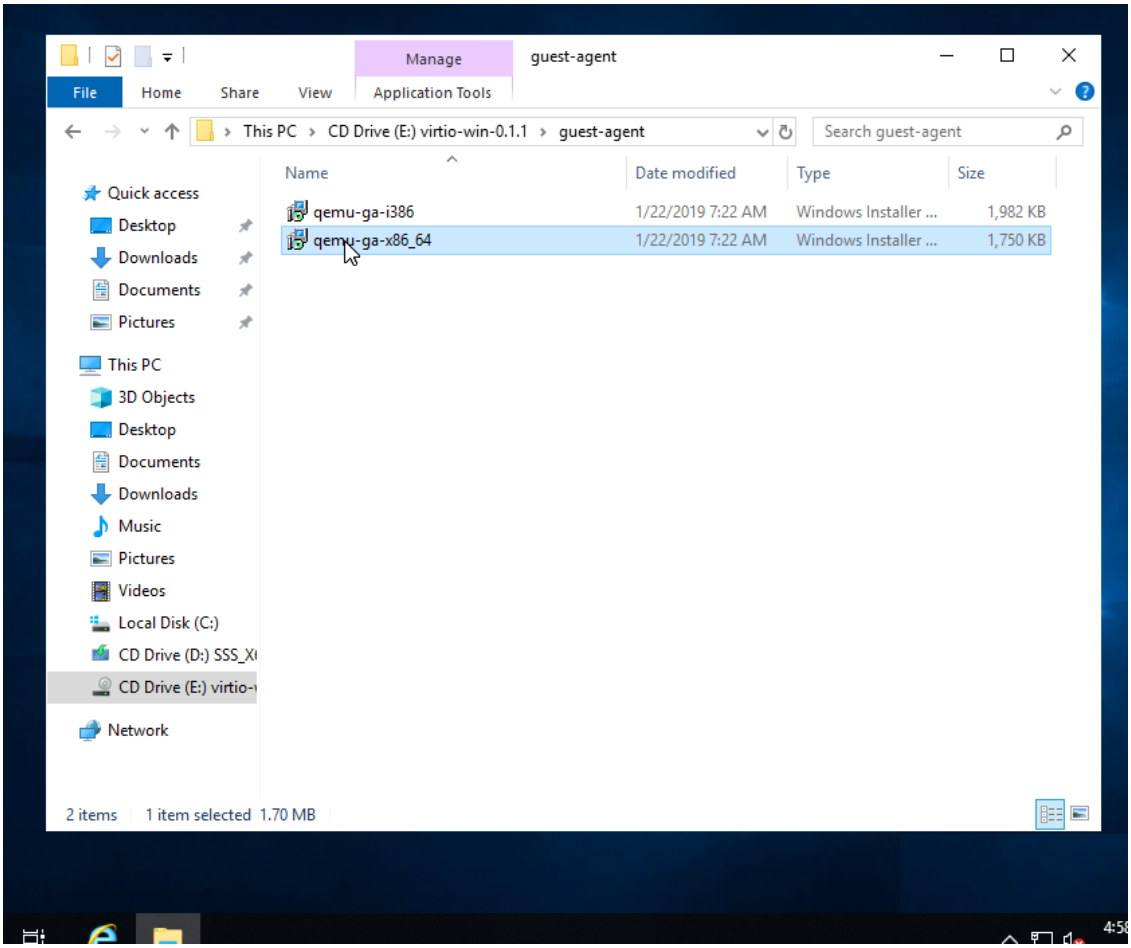
5. CLick **OK**.
6. Click **Next**.
7. When prompted by **Windows Security**, select **Install**.



8. Repeat this process for the **Display Adapter** and also for **Other Device > PCI Device**.



9. To complete installation, open Windows Explorer and install **QEmu agent**.

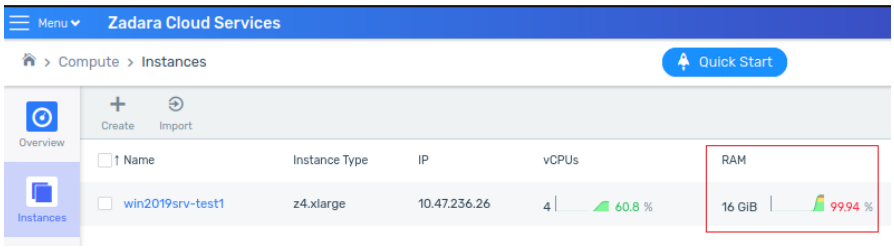


Correcting Windows VM RAM consumption display in zCompute

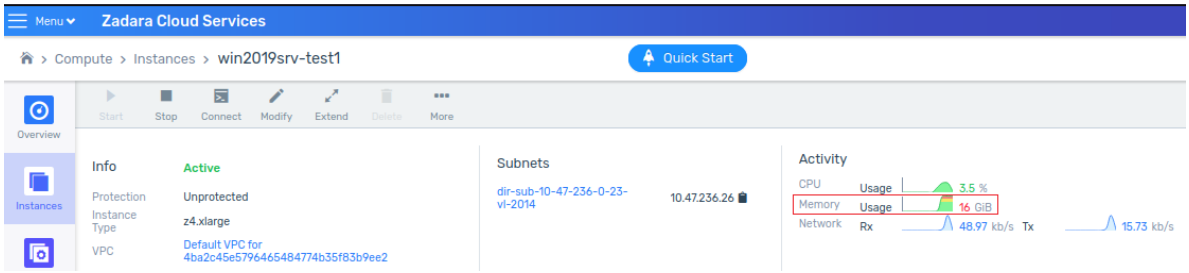
It is common to see that zCompute UI **Compute > Instances** reports Windows VMs consuming 100% of the RAM allocated to them, although the OS actually uses much less RAM.

For example, an incorrect reflection of a VM's RAM consumption:

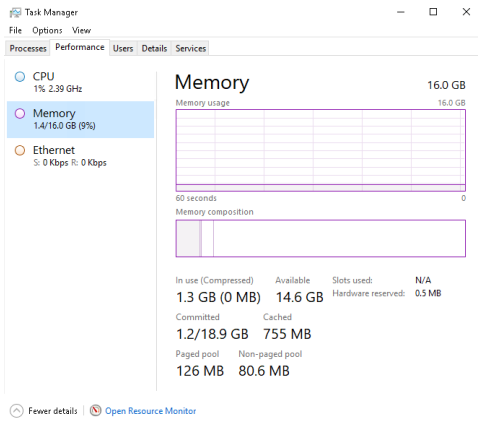
- In the **Compute > Instances** list:



- In the **Compute > Instances >** <VM> detail screen:



- The actual RAM consumption according to the VM's Windows **Task Manager** screen:



In most cases, the reason for this discrepancy is that the guest VM OS doesn't have the Windows VirtIO Balloon driver and service properly installed, or that they're outdated.

To rectify the display, you must download and install the Win VirtIO Guest Tools package, which installs the Balloon driver and service together with any other missing VirtIO drivers on the VM:

1. Sign in to the Windows VM.
2. Download the VirtIO Guest Tools MSI installer from the Win-VirtIO archives website:

   https://fedorapeople.org/groups/virt/virtio-win/direct-downloads/stable-virtio/virtio-win-gt-x64.msi
3. Right click the downloaded installer and click Install.
4. Accept the terms.
5. In the **Custom Setup** screen select only the following components to install:
   - Balloon
   - Network
   - Viostor

   Disable the installation of all other components.

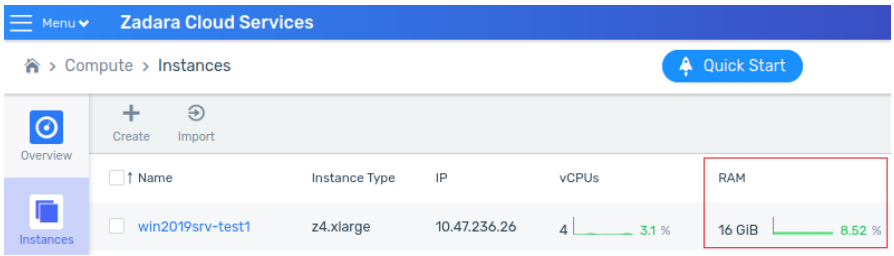
   > **Warning:** Do not install the rest of the MSI installer components.
   >
   > They are not in use and not tested, and could only expose the guest VM to potential threats, by adding to the VM's attack surface.
6. Allow the VM to reboot when prompted by the Installer.
7. In the zCompute UI, stop the VM:

1. Go to **Compute > Instances >** <VM instance>.
2. Click **Stop** and wait for the VM instance to reach the **Shutoff** status.

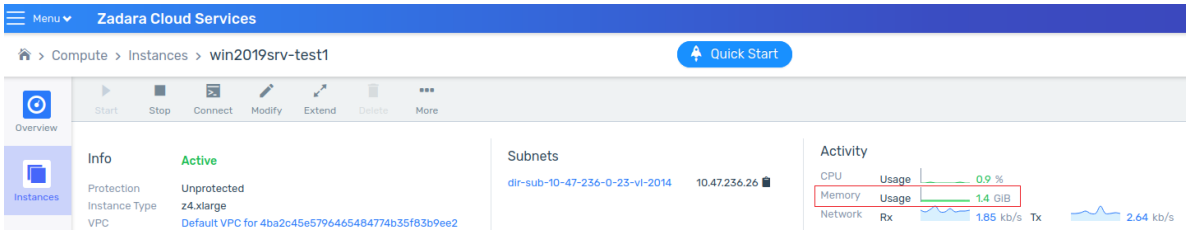
8. In the zCompute UI, restart the VM:
   1. Go to **Compute > Instances >** <VM instance>.
   2. Click **Start** and wait for the VM instance to reach the **Active** status.

The zCompute UI should now report the VM's correct RAM consumption for example:

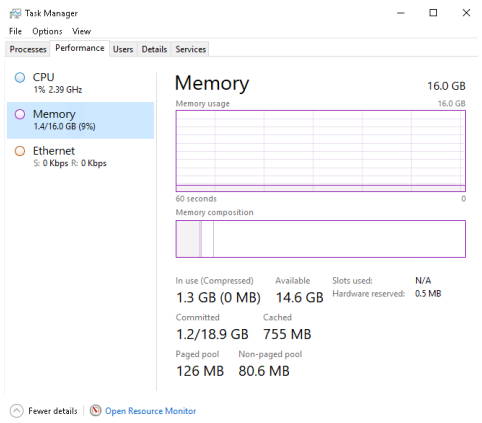
- In the **Compute > Instances** list:



- In the **Compute > Instances >** <VM> detail screen:



The zCompute UI's VM RAM usage values in this example now correctly reflect the actual RAM consumption according to the VM's Windows **Task Manager** screen:

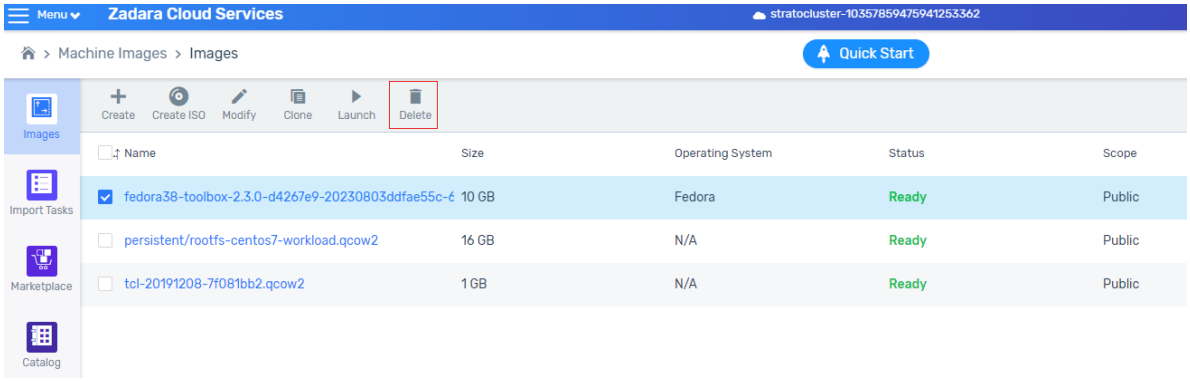


✔ **Note:** Installation of the Win VirtIO Balloon driver and service has no effect on memory reserved by the system for VMs.

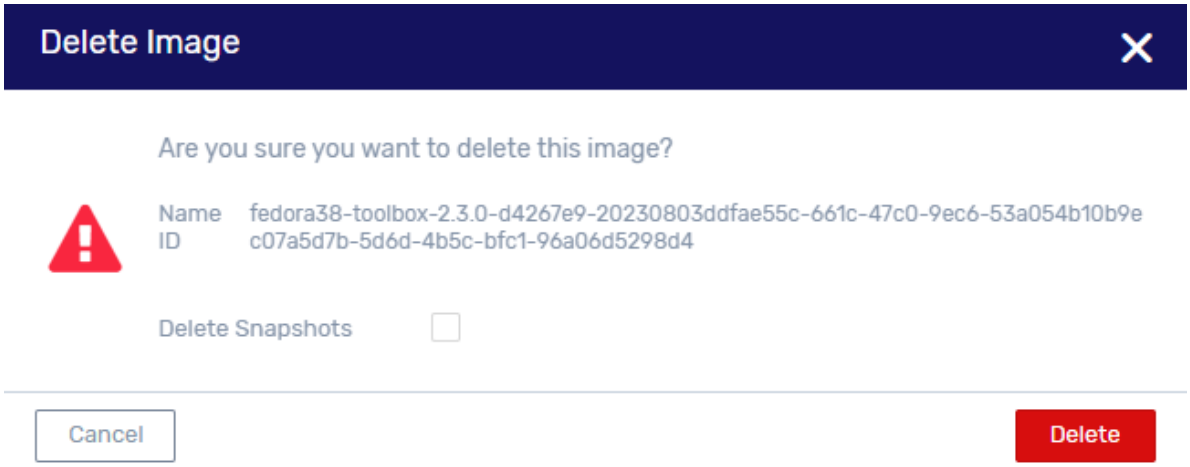
Memory reserved by the system is the size of the VM, without over-commitment or over-allocation.

Deleting Images

1. Navigate to the **Main menu > Machine Images** view and select **Images**.
2. From the displayed list, select an image and click **Delete** from the top toolbar.



3. In the **Delete Image** window, click **Delete**.



4. The Image is deleted, and the following message is displayed: **Action Succeeded**.

Machine Images Marketplace

The following tested images can be downloaded from the **Machine Images > Marketplace** view.

Zadara

- Zadara EKS-D ver. 1.28, ver. 1.29, ver. 1.30
- Zadara zCompute Toolbox Fedora ver. 2.3.5

Managed Services Partners

- Taikun Advanced Managed Kubernetes 22.04

Operating Systems: Cloud Images

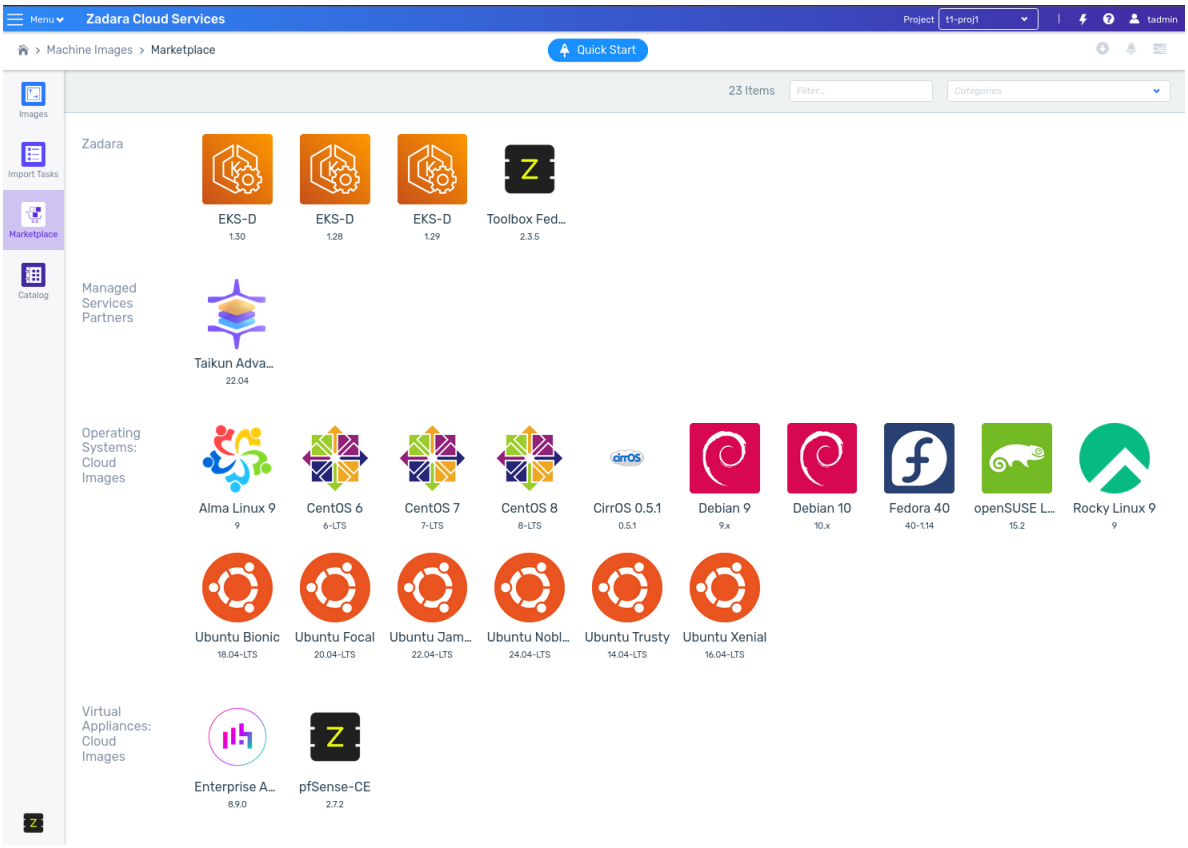
- Alma Linux ver. 9
- CentOS ver. 6, ver. 7, ver. 8
- CirrOS ver. 0.5.1
- Debian ver. 9, ver. 10
- Fedora ver. 40
- OpenSUSE ver. 15.2
- Rocky Linux ver. 9
- Ubuntu Bionic ver. 18.04-LTS
- Ubuntu Focal ver. 20.4-LTS
- Ubuntu Jammy ver. 22.04-LTS
- Ubuntu Noble Numbat ver. 24.04-LTS
- Ubuntu Trusty ver. 14.04-LTS
- Ubuntu Xenial ver. 16.04-LTS

Virtual Appliances: Cloud Images

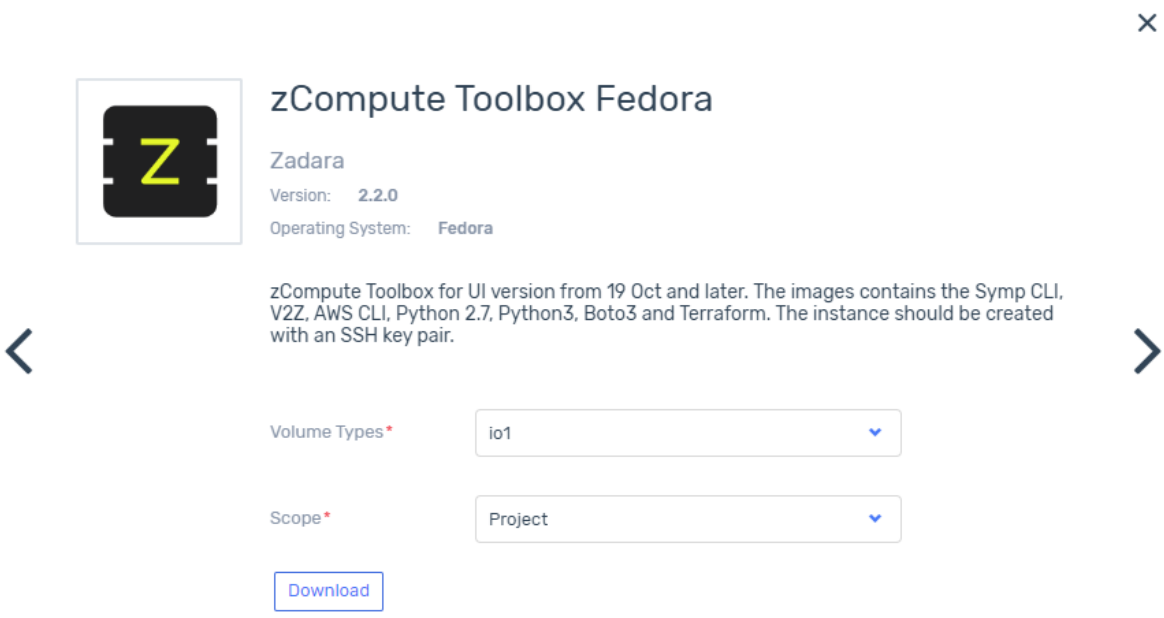
- Loadbalancer Enterprise ADC ver. 8.9.0
- pfSense-CE ver. 2.7.2

To download an image from the Zadara Marketplace:

1. Navigate to the **Machine Images > Marketplace** view.



2. Select the image to download.



3. In the window which opens, enter the following:

   - **Volume Type** - select the volume type from the dropdown list.

- **Scope** - determines which users can access this image:
  - **Project** - only users with access to the project.
  - **Account** - all account users.
- Click **Download**. A new image is registered in the system and will appear in the image list.

AWS Image Import API

The following table describes the supported AWS APIs for Image operations:

AWS API Name	Ignored Params	Optional Params	Required Params	Unsupported Params
DescribeImportImageTasks		ImportTaskId MaxResults NextToken		
ImportImage	[]	Architecture ClientData ClientToken Description DiskContainer Hypervisor LicenseType Platform RoleName	[]	[]

4.2.11 Snapshots

Snapshots can be taken of a specific volume or a VM instance which can include a boot volume and multiple data volumes. The snapshot takes a copy of the volume or a VM instance at a specific time, and then subsequent snapshots create a change log thus allowing for restoration of a single volume or an entire VM instance. Volume snapshots can also be used to create images.

> **Caution:** Snapshots configured in the VM and Storage UI are individual, and not crash-consistent.
>
> For crash-consistent backups, we highly recommend configuring snapshots using Data Protection using Protection Groups.

For remote snapshots, see Remote Snapshots under Backup to Object Storage (B2OS).

Creating Snapshots of VM Instances

1. Navigate to the **Compute > Instances** view.
2. From the displayed list, select the VM instance for which the snapshot is to be created and click **More**.
3. In the More menu, select **Snapshot**.
4. In the displayed **Create Snapshot** window, enter a name for the new snapshot or accept the default name consisting of the original VM instance name and the date-time stamp of the snapshot creation.
5. Enter the description of the snapshot.
6. Click **OK**. A new snapshot is created. It is displayed in the **Compute** > **Snapshots** view.

Recover VM Instances from Snapshots

1. Navigate to the **Compute > Snapshots** view.

   To recover from Object Storage, select the **Remote Snapshots** tab.
2. From the displayed list, select a VM instance snapshot.
3. From the top toolbar, click **Restore**.
4. In the **Restore Instance > Compute** tab, enter the following:
   - **Name** - the display name for the VM instance.
   - **Instance Type** - defines the amount of compute resource of the VM instance (CPU and RAM).
   - **Key Pair** - set of security credentials for ensuring the identity of the user connecting to the VM instance.
   - **Options:**
     - **Power Up** - launches the VM instance post-creation.
   - **High Availability** - check this option to ensure the instance is restarted in the event of a failure.
   - **Protect from Deletion** - check this option to protect the instance from accidental deletion.
5. In the **Restore Instance > Storage** tab, enter the following:
   - **Boot Volume** - size of boot volume in GB.
   - **Volume Type** - from the dropdown list, select the volume type that will be used for the boot volume of the VM instance.
6. In the **Restore Instance > Networking** tab, select from the following options:
   - **Same Network + IP** - the recovered VM instance will have the same IP as that in the snapshot.
   - **Same Network** - the recovered VM instance will be on same network as that in snapshot, but with different IP.
   - **Manual** - select any network.
7. In the **Restore Instance > Config** tab, enter the following:
   - **Tags** - attach one or more tags to this VM instance.
   - **Add** - to enter metadata key and value pairs.
8. Click **Finish**.

Other VM Instance Snapshot Operations

The following other operations are available from top toolbar in **Compute > Snapshots** view.

- **Modify** - create updated snapshot.
- **Delete** - delete a snapshot.
- **Copy** - copy a snapshot.

Volume Snapshot Operations

1. Navigate to the **Storage > Snapshots** view.

   To recover from Object Storage, select the **Remote Snapshots** tab.

2. Select a snapshot from the displayed list.

   The following operations are available from the top toolbar.

   - **Create** - create updated snapshot.
   - **Rename** - rename existing snapshot.
   - **Create Volume** - restore volume from a snapshot.
   - **Create Image** - create image from a snapshot.
   - **Delete** - delete a snapshot.

4.2.12 Data Protection using Protection Groups

Introduction

Backup Protection Groups are backup policies that define backup schedule intervals and retention periods.

VMs and volumes that are a protection group's protected resources are backed up according to the group's backup schedule and retention settings.

A Protection Group can optionally be configured to back up local snapshots to a Remote Object Storage.

There are no prerequisites for the creation of a Protection Group.

Protected resources such as volumes and VM instances can be added to a Protection Group at any time.

✔ **Note:** To configure a Protection Group to back up local snapshots to a remote Object Storage on completing local snapshot creation, an External Endpoint for the Object Storage container must first be configured, if it does not already exist.

See Creating an External Endpoint.

Restore Protection Groups are required only when restoring to another site (restore only, without backup) or when restoring to another account on the same cloud.

Backup Protection Group Operations

✔ **Note:** Backup Protection Groups back up and recover within the same project.

Restore Protection Groups are intended only for recovery from a remote Object Store to a different project, account or cloud.

Viewing Backup Protection Groups

1. Navigate to **Protection > Protection Groups**.
2. Click the **Backup Protection Groups** tab.

   A list of configured Backup Protection Groups displays, with the following columns:

Column	Description
Name	The Protection Group's name
Remote Retention Days	Number of days the backup is retained in the remote Object Storage
Local Retention Days	Number of days the local backup is retained
Last Triggered	The last date and time a snapshot was taken
User	The user that triggered the last snapshot
Resources	The number of protected resources backed up in the last snapshot
Enabled	Indicator whether the Protection Group is currently enabled
External Endpoint	Name of the External Endpoint to Object Storage
Admin Only	Indicator whether the Protection Group is managed only by the MSP
Health	The Protection Group's health status
State	The Protection Group's readiness status for triggering snapshots

3. To view a Backup Protection Group's details, click its **Name**, to display the following:

   - **Top Menu Bar**

     The Backup Protection Group's top menu bar displays the following option buttons:

     - **Disable**: See Enabling or Disabling a Backup Protection Group.
     - **Modify**: See Modifying a Backup Protection Group.
     - **Schedule**: See Rescheduling a Backup Protection Group.
     - **Trigger Now**: See Backup Protection Group Trigger Now.
     - **Delete**: See Deleting a Backup Protection Group.

     If the Backup Protection Group is not configured for backup to remote Object Store, the top menu bar also display's the following option button:

     - **Associate Object Storage**: See Associating a Backup Protection Group with an Object Storage.

   - **Top Pane**

     The Backup Protection Group's top pane displays the following sections:

     - **Backup Protection Group** basic information: Name, Description, Status and Health
     - **Schedule** details for local Snapshots and Remote Object Storage Snapshots
     - **Protected Resources** summary count of protected resources, grouped by type (VMs, volumes)
     - **External Endpoint** parameter values

   - **Lower Pane** tabs:

     The Backup Protection Group's lower pane has the following tabs:

     - **Overview** tab:

       Basic information about the Backup Protection Group:

Column	Description
Name	The Protection Group's name
Type	The type of Protection Group (Backup or Restore)
Creation Date	The date and time the Protection Group was created
Last Update	The date and time of the last change to the configuration
External Endpoint	Name of the External Endpoint to Object Storage
Enabled	Indicator whether the Protection Group is currently enabled
Admin Only	Indicator whether the Protection Group is managed only by the MSP
ID	The Protection Group's UUID

- **Events** tab

  Allows applying filters to view selections of the Protection Group's events log.

- **Protected Resources** tab

  See Adding or Removing Protected Resources.

- **Local Protection Group Snapshots** tab

  List of the Protection Group's local snapshots, with the option for authorized users to select and delete snapshots.

- **Remote Protection Group Snapshots** tab

  List of the Protection Group's snapshots on remote Object Storage, with the option for authorized users to select and delete snapshots.

Creating a Backup Protection Group

To create a Backup Protection Group and configure its backup snapshot schedule:

1. Navigate to **Protection > Protection Groups**.

   A list of configured Backup Protection Groups displays in the **Backup Protection Groups** tab.

2. In the top menu bar, click **+ Create**.
3. In the **Create Backup Protection Group** dialog:
   1. In the **Group** tab, enter the parameters:
      - **Name**: A unique meaningful name for the Backup Protection Group.
      - **Description**: Optional description.
      - **Backup to Object Store**: Toggle switch determining whether local snapshots are backed up to a remote Object Store.

        Select:

        - **Off** (default): The snapshots are created locally.
        - **On**:

          If selected, from the **External Endpoint** dropdown select the B2OS endpoint for the remote Object Storage backup container.

          The snapshots are created locally.

          Local snapshots are backed up to the selected remote Object Storage destination container, as specified in the selected remote Object Storage's External Endpoint.

Click **Next**.

2. In the **Schedule** tab, enter the parameters:

   Local Snapshots:

   - **Recurrence**: The frequency interval units, as one of:
     - **Minute**
     - **Hour**
     - **Day**
     - **Week**
     - **Month**
   - **Every**: The frequency interval as a number of the selected unit, between each snapshot.
     - For **Week** intervals, click the days of the week that weekly snapshots are scheduled.
     - For **Month** intervals, select one of the **Repeat by** options, and the **Start date**:

       Day of the month:

       Snapshots are scheduled for the selected day of the month, starting from the **Start date**, and repeating according to the interval defined as the number of months (n) in **Every** n **Month(s)**.

       For example, if **Every** = 2 and **Start date** = 17 Jan 2025, snapshots are scheduled for the 17th of every second month, starting 17 Jan 2025.

       Day of the week:

       Snapshots are scheduled for the selected day of the week, and week of the month, starting from the **Start date**, and repeating according to the interval defined as the number of months (n) in **Every** n **Month(s)**.

       For example, if **Every** = 2 and **Start date** = Fri 17 Jan 2025, since the start date occurs on the 3rd Friday of the month, snapshots are scheduled for the 3rd Friday of every second month, starting 17 Jan 2025.

     - **Start Time**: The start time of the schedule, in Hours and Minutes in 12-hour format, and either AM or PM.
     - **Retention for Local snapshots**: The duration in **days** to retain local snapshots.

       Local snapshots are deleted automatically after this duration.

       ✔ **Note:** A maximum of 50 accumulated local snapshots can be stored.

   Additional parameters for Backup Protection Groups that are configured for **Backup to Object Store**:

   - **Remote Object Storage Snapshots**:
     - **Remote snapshots every**: The number oflocal snapshots that accumulate, after which they are backed up to the remote Object Store.
     - **Retention for Remote snapshots**: The duration in **days** to retain Remote snapshots.

       Remote snapshots are deleted automatically after this duration.

       ✔ **Note:** A maximum of 100 accumulated remote snapshots can be stored.

Click **Finish**.

✔ **Note:** Continue at any time with Adding or Removing Protected Resources.

Adding or Removing Protected Resources

1. Navigate to **Protection > Protection Groups**.

   A list of configured Backup Protection Groups displays in the **Backup Protection Groups** tab.

   ✔ **Note:** Volumes that are attached to a VM instance are automatically included in that VM's Backup Protection Group.

   Similarly, volumes attached to a VM that is in a Backup Protection Group are automatically removed from the Backup Protection Group upon removal of that VM.

   If a volume is independently protected in a Protection Group and also attached to a VM that is later added to the same Protection Group, the volume's Protection Group snapshots will be deleted. However, you can still recover an individual volume from a VM snapshot or from the Protection Group.

   ⚠ **Caution:** Attempting to add a VM to a Protection Group will fail, if a volume on that VM is already previously defined as a (standalone) protected resource in the **same** Protection Group.

   In this case, to successfully add the VM and all of its volumes to the Protection Group, it is necessary to first **Remove Protection** of the conflicting volume from the Protection Group. Then, adding the VM to the Protection Group automatically includes all its volumes.

2. Click the Backup Protection Group to add or remove protected resources.

   The Backup Protection Group's details display.

3. In the lower pane, click the **Protected Resources** tab.

   The Backup Protection Group's protected resources are listed.

   - **Adding a VM instance to the Backup Protection Group**
     1. In the lower pane menu bar click **+ Add VM**.
     2. In the **Add instance to protection group** dialog, from the **VMs** dropdown, select the VM instance to add to the Backup Protection Group, and click **OK**.

        The VM instance appears in the Backup Protection Group's protected resources list.

        Future snapshots of the Backup Protection Group will include the VM instance and its attached volumes.
   - **Adding a Volume to the Backup Protection Group**
     1. In the lower pane menu bar click **+ Add Volume**.
     2. In the **Add volume to protection group** dialog, from the **Volumes** dropdown, select the volume to add to the Backup Protection Group, and click **OK**.

        The volume appears in the Backup Protection Group's protected resources list.

        Future snapshots of the Backup Protection Group will include the volume.

- **Removing a VM or Volume from the Backup Protection Group**

  To remove a protected resource:

  1. On the row of the VM or volume to remove from the Backup Protection Group, click anywhere **except** on the Resource Name.

     The **Remove Protection** option appears on the lower pane menu bar.

  2. Click **Remove Protection**.

     In the **Remove Protection** confirmation dialog, click **OK** to proceed with removing the selected VM or volume from the Backup Protection Group.

     The VM or volume disappears from the Backup Protection Group's protected resources list.

     Future snapshots of the Backup Protection Group will no longer include the removed VM or volume.

Enabling or Disabling a Backup Protection Group

1. Navigate to **Protection > Protection Groups**.

   A list of configured Backup Protection Groups displays in the **Backup Protection Groups** tab.

   The **Enabled** column displays the Backup Protection Group's Enabled or Disabled status.

2. Click a Backup Protection Group to select it for Enabling or Disabling.

   The Backup Protection Group details display.

3. In the top menu bar, click the **Enable/Disable** toggle.

   The **Enabled** status field displays the Backup Protection Group's updated Enabled or Disabled status.

Modifying a Backup Protection Group

To modify a Backup Protection Group:

1. Navigate to **Protection > Protection Groups**.

   A list of configured Backup Protection Groups displays.

2. Click a Backup Protection Group to modify it.

   The Backup Protection Group details display.

3. In the top menu bar, click **Modify**.

4. In the **Update Backup Protection Group** dialog, optionally modify one or more of the modifiable parameters:

   - **Name**: A unique meaningful name for the Backup Protection Group.
   - **Description**: Optional description.
   - **Backup to Object Store**: Toggle switch determining whether local snapshots are backed up to a remote Object Store.

     ✔ **Note:** If the Protection Group is not already associated with a remote Object Storage, it is also possible to configure backup to remote Object Storage.

A Protection Group that is associated with a remote Object Storage cannot be disassociated with its remote Object Storage, except for deletion, which also removes all accumulated local snapshots.

Select:

- **Off** (default): The snapshots are created locally.
- **On**:

  The snapshots are created locally.

  Local snapshots are backed up to the selected remote Object Storage destination container, as specified in the selected remote Object Storage's External Endpoint.

  If selected, the **Associate Object Storage** dialog opens.

  Group tab:

  1. From the **External Endpoint** dropdown select the B2OS endpoint for the remote Object Storage backup container.
  2. Click **Next** to continue to the **Schedule** tab.

  Schedule tab:

  1. Optionally modify the **Local Snapshots** schedule parameters as described in Rescheduling a Backup Protection Group.
  2. Accept or modify the **Remote Object Storage Snapshots** parameters, as described in Rescheduling a Backup Protection Group.
  3. Click **Finish**.

Rescheduling a Backup Protection Group

To change the frequency or time of a Backup Protection Group's local or remote Object Storage snapshots:

1. Navigate to **Protection > Protection Groups**.

   A list of configured Backup Protection Groups displays.

2. Click a Backup Protection Group to select it for snapshot rescheduling.

   The Backup Protection Group details display.

3. In the top menu bar, click **Schedule**.
4. In the **Schedule Backup Protection Group** dialog, modify the relevant parameters:
   - **Local Snapshots**:
     - **Recurrence**: The snapshot frequency interval units, as one of:
       - **Minute**
       - **Hour**
       - **Day**
       - **Week**
       - **Month**
     - **Every**: The snapshot frequency interval as a number of the selected unit, between each snapshot.
       - For **Week** intervals, click the days of the week that weekly snapshots are scheduled.

        * For **Month** intervals, select one of the **Repeat by** options, and the **Start date**:

          day of the month:

          Based on the **Start date**, snapshots are scheduled to repeat on the selected day of the month at the interval frequency of the number entered for **Every** number of months.

          For example, if **Every** = 2 and **Start date** = 24 Jan 2025, snapshots are scheduled for the 24th of every second month, starting 24 Jan 2025.

          day of the week:

          Based on the **Start date**, snapshots are scheduled to repeat on the selected day of the week, and week of the month, at the interval frequency of the number entered for **Every** number of months.

          For example, if **Every** = 2 and **Start date** = Fri 24 Jan 2025, since the start date occurs on the 4th Friday of the month, snapshots are scheduled for the 4th Friday of every second month, starting 24 Jan 2025.

      - **Start Time**: The start time of the schedule, in Hours and Minutes in 12-hour format, and either AM or PM.
      - **Retention for Local snapshots**: The duration in **days** to retainlocal snapshots.

        Local snapshots are deleted automatically after this duration.

  Additional parameters for Backup Protection Groups that are configured for **Backup to Object Store**:

  - **Remote Object Storage Snapshots**:
    - **Remote snapshots every**: The number of local snapshots that accumulate, after which they are backed up to the remote Object Store.
    - **Retention for Remote snapshots**: The duration in **days** to retain remote snapshots.

      Remote snapshots are deleted automatically after this duration.

  Click **Finish**.

Backup Protection Group Trigger Now

To trigger an immediate snapshot of a Backup Protection Group's protected resources, in addition to its scheduled snapshot:

1. Navigate to **Protection > Protection Groups**.

   A list of configured Backup Protection Groups displays.

2. Click a Backup Protection Group to select it for triggering an immediate snapshot.

   The Backup Protection Group details display.

3. In the top menu bar, click **Trigger Now**.

4. In the **Trigger Backup Protection Group** dialog:

   1. Optionally, enable **Remote Object Storage Snapshots** to send the snapshot to remote Object Storage.
   2. Click **OK** to progress with creating the snaphot of the protected resources immediately.

      The snapshot and its progress are listed in the Backup Protection Group's **Local Protection Group Snapshots** tab in the lower pane.

      If **Remote Object Storage Snapshots** is enabled, the snapshot and its progress are also listed in the Remote Protection Group's **Local Protection Group Snapshots** tab in the lower pane.

Deleting a Backup Protection Group

To delete a Backup Protection Group:

1. Navigate to **Protection > Protection Groups**.

   A list of configured Backup Protection Groups displays.

2. Click a Backup Protection Group to select it for deletion.

   The Backup Protection Group details display.

3. In the top menu bar, click **Delete**.

4. In the **Delete Protection Group** dialog, click **Delete** to confirm deletion of the Backup Protection Group.

Associating a Backup Protection Group with an Object Storage

If a Backup Protection Group is configured for **Local Snapshots** only, it is also possible to configure backup to remote Object Storage by associating the Backup Protection Group with an Object Storage:

✔ **Note:** A Protection Group that is associated with a remote Object Storage cannot be disassociated with its remote Object Storage, except for deletion, which also removes all accumulated local snapshots.

To associate a Backup Protection Group with an Object Storage:

1. Navigate to **Protection > Protection Groups**.

   A list of configured Backup Protection Groups displays.

2. Click a Backup Protection Group to select it for association with an Object Storage.

   The Backup Protection Group details display.

3. In the top menu bar, click **Associate Object Storage**.

   The **Associate Object Storage** dialog opens:

   In the **Group** tab:

   1. From the **External Endpoint** dropdown select the B2OS endpoint for the remote Object Storage backup container.

      ✔ **Note:** On completion of snapshot creation, local snapshots are backed up to the remote Object Storage destination container, as configured in the remote Object Storage's External Endpoint.

      ---

   2. Click **Next** to continue to the **Schedule** tab.

   In the **Schedule** tab:

   1. Optionally modify the **Local Snapshots** schedule parameters as described in Rescheduling a Backup Protection Group.
   2. Accept or modify the Remote Object Storage Snapshots parameters, as described in Rescheduling a Backup Protection Group.

4. Click **Finish**.

Restoring from a Backup Protection Group

Restoring a VM instance

To restore a **VM instance**, see Recover VM Instances from Snapshots in the Snapshots page.

The VM's attached volumes are restored as an integral part of the VM instance's recovery process.

Restoring a Volume

To restore a **volume**:

1. Navigate to **Storage > Snapshots**.
2. Select the **Local Snapshots** tab.
3. Click **Create Volume** in the upper menu bar.
    1. In the **Create Volume** dialog, accept or update the values for:
        - **Name**: Volume name
        - **Volume Type**
    2. Click **OK**.

The restored volume displays in the **Storage > Block Storage** list.

See Volume Snapshot Operations in the Snapshots page for other snapshot operations.

Restore Protection Group Operations

✔ **Note:** Restore Protection Groups are intended only for recovery from a remote Object Store to a different project, account or cloud. In contrast, Backup Protection Groups back up and recover within the same project.

Viewing Restore Protection Groups

1. Navigate to **Protection > Protection Groups**.
2. Click the **Restore Protection Groups** tab.

   A list of configured Restore Protection Groups displays, with the following columns:

   Name, **User**, **External Endpoint**, **Health** and **State**.
3. To view a Restore Protection Group's External Endpoint details, click a Restore Protection Group.

   The Restore Protection Group's External Endpoint details display in the lower pane.

Creating a Restore Protection Group

To create a Restore Protection Group:

1. Navigate to **Protection > Protection Groups**.
2. Click the **Restore Protection Groups** tab.

   A list of configured Restore Protection Groups displays.
3. In the top menu bar, click **+ Create**.
4. In the **Create Restore Protection Group** dialog:
   1. Enter the parameters:
      - **Name**: A unique meaningful name for the Restore Protection Group.
      - **Description**: Optional description.
      - **External Endpoint**: From the dropdown, select the remote Object Storage from the list of B2OS endpoints.
   2. Click **Finish**.

Modifying a Restore Protection Group

To modify a Restore Protection Group:

1. Navigate to **Protection > Protection Groups**.
2. Click the **Restore Protection Groups** tab.

   A list of configured Restore Protection Groups displays.
3. Click a Restore Protection Group to modify it.

   The Restore Protection Group details display.
4. In the top menu bar, click **Modify**.
5. In the **Update Restore Protection Group** dialog:
   1. Optionally modify one or both modifiable parameters:
      - **Name**: A unique meaningful name for the Restore Protection Group.
      - **Description**: Optional description.
   2. Click **Finish**.

Deleting a Restore Protection Group

To delete a Restore Protection Group:

1. Navigate to **Protection > Protection Groups**.
2. Click the **Restore Protection Groups** tab.

   A list of configured Restore Protection Groups displays.
3. Click a Restore Protection Group to select it for deletion.

   The Restore Protection Group details display.

4. In the top menu bar, click **Delete**.
5. In the **Delete Protection Group** dialog, click **Delete** to confirm deletion of the Restore Protection Group.

Restoring from a Restore Protection Group

✔ **Note:** A VM's attached volumes are restored as an integral part of the VM instance's recovery process.

If a Protection Group comprises more than one VM instance (e.g. 2 VMs and two unattached volume), in the UI, each VM instance and each unattached volume must be recovered individually, separately.

The UI does not provide a wizard or dialog for recovering all of a Protection Group's Protected Resources in a single-phase interaction or transaction.

Restoring a VM instance from Object Storage

To restore a **VM instance** from a remote Object Storage, see Recover VM Instances from Snapshots in the Snapshots page.

The VM's attached volumes are restored as an integral part of the VM instance's recovery process.

Restoring a Volume from Object Storage

To restore a **volume** from a remote Object Storage:

1. Navigate to **Storage > Snapshots**.
2. Select the **Remote Snapshots** tab.
3. Click **Create Volume** in the upper menu bar.
    1. In the **Create Volume** dialog, accept or update the values for:
        - **Name**: Volume name
        - **Volume Type**
    2. Click **OK**.

The restored volume displays in the **Storage > Block Storage** list.

See Volume Snapshot Operations in the Snapshots page for other snapshot operations.

4.2.13 Backup to Object Storage (B2OS)

zCompute Backup to Object Storage (B2OS) extends backup and restore capabilities beyond local block storage. It enables backing up and restoring VMs and volumes that are protected by protection-group to and from Zadara Object Storage systems.

These Zadara Object Storage systems can also reside in different physical locations than the source zCompute cloud, allowing recovery to any zCompute cloud in the event of a site-level failure.

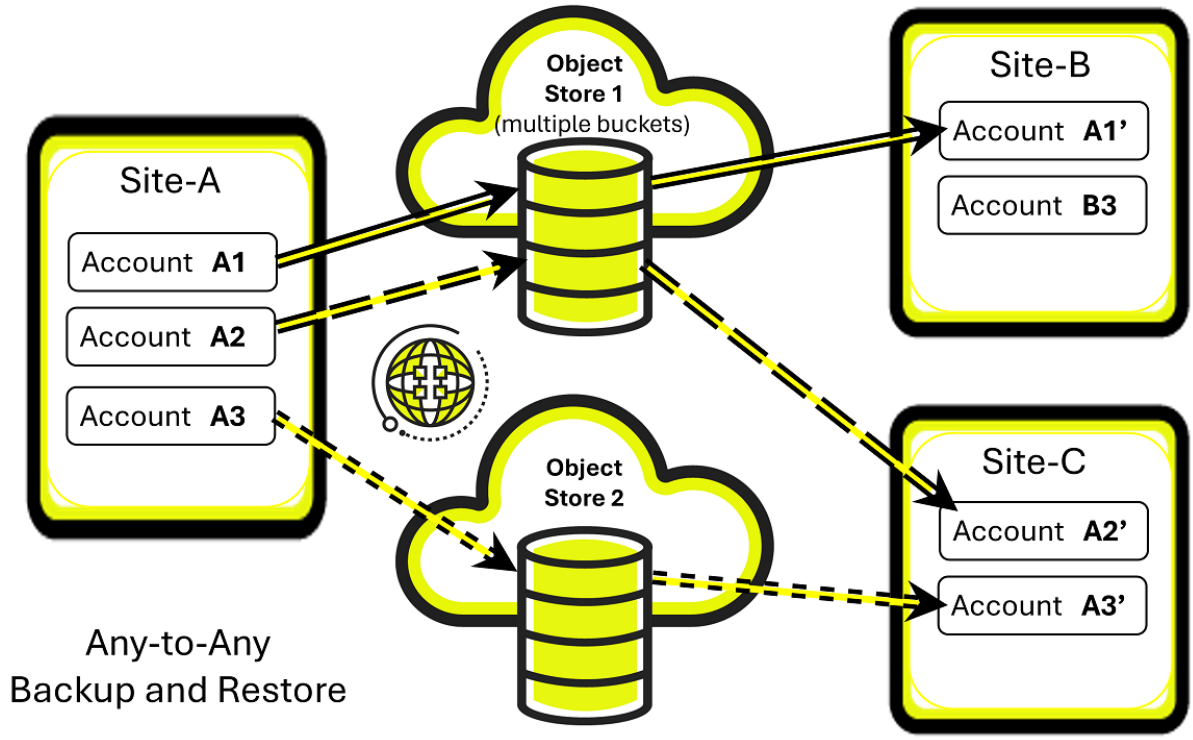
On top of this capability, from zCompute v24.03, Protection Groups also provide VM-level crash-consistent backups. Backup snapshots are taken as an atomic operation on all volumes of a protected VM, treating the VM's volumes as a consistency group.

zCompute B2OS is an integral feature of zCompute. It provides full backup and restore functionality without requiring third-party software or installing software agents on protected VMs.

Protection groups are backup policies that define the backup schedule for protected VMs and volumes, including the backup interval and retention period.

With the introduction of B2OS, you can optionally configure protection groups to back up protected VMs and volumes to Zadara Object Storage.

The following diagram depicts an example scenario of zCompute's B2OS any-to-any backup and restore capability:



In this example, Site-A is a site that has several zCompute accounts. Each account has one or multiple Data Protection using Protection Groups. Snapshots of a Protection Group's VM instances and volumes are taken according to schedules and stored locally.

Individual, multiple or all of an account's Protection Groups local snapshots can also be scheduled for backup to an Object Storage.

Each Protection Group has an exclusive Object Storage bucket or container, used solely for that Protection Group's snapshots.

An account's backups can be restored from the Object Storage back to the original account or to other sites, maintaining full data integrity and crash-consistency.

In the example in the diagram above, Site-A's selected accounts' Protection Groups are restored to Site-B and Site-C. Each Protection Group's VM instances and volumes are restored as an integral unit from a snapshot in the Protection Group's dedicated Object Storage container.

Backup to Object Storage (B2OS) Configuration Flow

The zCompute Backup to Object Storage (B2OS) configuration high-level flow:

1. Create an External Endpoint to the Object Storage.

   See Creating an External Endpoint.

2. Create a Backup Protection Group:

   See Creating a Backup Protection Group.

3. Verify that Protection Group's Backup to Object Storage is enabled.

   See Enabling or Disabling a Backup Protection Group.

4. Add VMs and volumes to a Backup Protection Group.

   See Adding or Removing Protected Resources.

   Snapshots of the Protected Resources of the Backup Protection Group occur according to the configured schedule.

5. Optionally, take an initial immediate snapshot with Backup Protection Group Trigger Now.

Remote Snapshots

Tenant administrators can configure External Endpoints for the purpose of saving snapshots to remote Object Storage destinations.

Tenant administrators can use Data Protection using Protection Groups to configure sets of protected resources comprising volumes and VM instances for scheduled backups at the same specified periodic intervals for all members of a group. They can also trigger additional immediate backups of a group.

External Endpoints

Viewing External Endpoints

1. Navigate to **Configuration > External Endpoints**.

   A list of configured External Endpoints displays.

2. Click an External Endpoint to display its details.

   The External Endpoint's details display in the lower pane.

Creating an External Endpoint

✔ **Note:**

- At the cloud level, accessing an Object Storage container via an External Endpoint requires the combination of the container name and the Object Storage user's Access Key to be unique within the cloud.

  To create more than one External Endpoint for the same Object Storage container within a cloud, you must configure the additional External Endpoint with the Access Key and Secret of a different user in the Object Storage.

  A separate external B2OS endpoint must be defined for each backup protection group, forming a one-to-one mapping.

  Backup protection groups are project-scoped. Each protection group belongs to a single project and protects only the VMs and volumes within that project.

- Before creating an External Endpoint, consult with your MSP regarding configuration values, in particular, **Network Topology** and **Endpoint URL**.

---

1. Navigate to **Configuration > External Endpoints**.

   A list of configured External Endpoints displays.

2. In the top menu bar, click **+ Create**.
3. In the **Create External Endpoint** dialog, enter the External Endpoint's parameters:
   - **Name**: A unique meaningful name for the External Endpoint.
   - **Description**: Optional description.
   - **Endpoint Type**: From the dropdown, select **B2OS**.

     Currently, B2OS only supports Zadara Object Storage (NGOS).

     > ⚠ **Caution:** To create a new External Endpoint for the purpose of Backup to Object Store, the target Zadara Object Store container must already exist and must be empty.
     >
     > Any object in the container, including empty folders, will cause the creation of a B2OS endpoint to fail.

     Provide the following details from the Zadara Object Storage's **User Information** and **Console** screens.

     - **Network Topology**: Based on input from your MSP, select the topology:
       - **Frontend Network**
       - **Outbound Network**
     - **Region**: Copy the **User Information > Authentication > Region**.
     - **Endpoint URL**:

       Typically, copy the **User Information > Connectivity - Public Network > Public API Endpoint**.

       Consult and verify this with your MSP, as this endpoint value can depend on your **Network Topology**.

Important: The configuration requires a URL beginning with `https://`.

Prefix the B2OS **Endpoint URL** string with `https://`, if it is missing in the URL copied from the Zadara Object Storage's **Public API Endpoint** configuration.

For example:

If Zadara Object Storage's **Public API Endpoint** is `abc00000123-public-zadara.zadarazios.com` then the B2OS **Endpoint URL** is `https://abc00000123-public-zadara.zadarazios.com`

     - **Bucket**: Enter the **Container** name as it appears in the **Console** screen.
     - **Access Key**: Copy the **User Information > Authentication > S3 Access Key**.
     - **Secret**: Copy the **User Information > Authentication > S3 Secret Key**.
     - **Verify SSL**: Toggle switch to enable or disable checking whether the SSL certificate is valid.

Modifying an External Endpoint

1. Navigate to **Configuration > External Endpoints**.

   A list of configured External Endpoints displays.

2. Click an External Endpoint to display its details.
3. In the top menu bar, click **Modify**.
4. In the **Modify External Endpoint** dialog, the following fields can be updated:
   - **Name**: A unique meaningful name for the External Endpoint.
   - **Description**: Optional description.
   - **Access Key**: Object Storage user's S3 Access Key
   - **Secret**: Object Storage user's S3 Secret Key

4.2.14 Instance Types

Instance types, also referred to as flavors, are templates defining the resources to be used by a VM instance. When creating a VM instance, an instance type is selected.

✔ **Note:**

- New custom instance types can only be created after receiving Zadara approval, and after getting pricing.

  The available instance types, sizes and pricing are calculated for optimal use of Zadara's hardware resources.

- Amazon instance types are supported, and are mapped to the closest zComute instance type.

  Cloud admins can remap an Amazon instance type to a different zCompute instance type, on condition that no instances have been defined and configured on the old instance type.

- NVMe instance types

  Zadara offers instance types with NVMe, based on the premium types.

  NVMe storage is a local passthrough device, meaning:

  - VMs using NVMe disks cannot be migrated for maintenance.
  - NVMe devices are ephemeral.
  - Zadara only offers complete NVMe devices and does not partition a device between VMs.

The following instance type families are available:

zCompute Standard instance types (Zx family)

Z2 Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
Z2	z2.medium	1	2	0	0
Z2	z2.large	2	4	0	0
Z2	z2.xlarge	4	8	0	0
Z2	z2.3large	6	12	0	0
Z2	z2.2xlarge	8	16	0	0
Z2	z2.5large	10	20	0	0
Z2	z2.3xlarge	12	24	0	0
Z2	z2.7large	14	28	0	0
Z2	z2.4xlarge	16	32	0	0
Z2	z2.9large	18	36	0	0
Z2	z2.5xlarge	20	40	0	0
Z2	z2.11large	22	44	0	0
Z2	z2.6xlarge	24	48	0	0
Z2	z2.13large	26	52	0	0
Z2	z2.7xlarge	28	56	0	0
Z2	z2.15large	30	60	0	0
Z2	z2.8xlarge	32	64	0	0
Z2	z2.17large	34	68	0	0
Z2	z2.9xlarge	36	72	0	0
Z2	z2.19large	38	76	0	0
Z2	z2.10xlarge	40	80	0	0
Z2	z2.21large	42	84	0	0
Z2	z2.11xlarge	44	88	0	0
Z2	z2.23large	46	92	0	0
Z2	z2.12xlarge	48	96	0	0

Z4 Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
Z4	z4.medium	1	4	0	0
Z4	z4.large	2	8	0	0
Z4	z4.xlarge	4	16	0	0
Z4	z4.3large	6	24	0	0
Z4	z4.2xlarge	8	32	0	0
Z4	z4.5large	10	40	0	0
Z4	z4.3xlarge	12	48	0	0
Z4	z4.7large	14	56	0	0
Z4	z4.4xlarge	16	64	0	0
Z4	z4.9large	18	72	0	0
Z4	z4.5xlarge	20	80	0	0
Z4	z4.11large	22	88	0	0
Z4	z4.6xlarge	24	96	0	0
Z4	z4.13large	26	104	0	0
Z4	z4.7xlarge	28	112	0	0
Z4	z4.15large	30	120	0	0
Z4	z4.8xlarge	32	128	0	0
Z4	z4.17large	34	136	0	0
Z4	z4.9xlarge	36	144	0	0
Z4	z4.19large	38	152	0	0
Z4	z4.10xlarge	40	160	0	0
Z4	z4.21large	42	168	0	0
Z4	z4.11xlarge	44	176	0	0
Z4	z4.23large	46	184	0	0
Z4	z4.12xlarge	48	192	0	0

Z8 Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
Z8	z8.medium	1	8	0	0
Z8	z8.large	2	16	0	0
Z8	z8.xlarge	4	32	0	0
Z8	z8.3large	6	48	0	0
Z8	z8.2xlarge	8	64	0	0
Z8	z8.5large	10	80	0	0
Z8	z8.3xlarge	12	96	0	0
Z8	z8.7large	14	112	0	0
Z8	z8.4xlarge	16	128	0	0
Z8	z8.9large	18	144	0	0
Z8	z8.5xlarge	20	160	0	0
Z8	z8.11large	22	176	0	0
Z8	z8.6xlarge	24	192	0	0
Z8	z8.13large	26	208	0	0
Z8	z8.7xlarge	28	224	0	0
Z8	z8.15large	30	240	0	0
Z8	z8.8xlarge	32	256	0	0
Z8	z8.17large	34	272	0	0
Z8	z8.9xlarge	36	288	0	0
Z8	z8.19large	38	304	0	0
Z8	z8.10xlarge	40	320	0	0

Z16 Instance Types

Product Type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
Z16	z16.medium	1	16	0	0
Z16	z16.large	2	32	0	0
Z16	z16.xlarge	4	64	0	0
Z16	z16.3large	6	96	0	0
Z16	z16.2xlarge	8	128	0	0
Z16	z16.5large	10	160	0	0
Z16	z16.3xlarge	12	192	0	0
Z16	z16.7large	14	224	0	0
Z16	z16.4xlarge	16	256	0	0
Z16	z16.9large	18	288	0	0
Z16	z16.5xlarge	20	320	0	0
Z16	z16.11large	22	352	0	0
Z16	z16.6xlarge	24	384	0	0
Z16	z16.13large	26	416	0	0
Z16	z16.7xlarge	28	448	0	0
Z16	z16.15large	30	480	0	0
Z16	z16.8xlarge	32	512	0	0
Z16	z16.17large	34	544	0	0
Z16	z16.9xlarge	36	576	0	0
Z16	z16.19large	38	608	0	0
Z16	z16.10xlarge	40	640	0	0
Z16	z16.21large	42	672	0	0
Z16	z16.11xlarge	44	704	0	0
Z16	z16.23large	46	736	0	0
Z16	z16.12xlarge	48	768	0	0
Z16	z16.25large	50	800	0	0
Z16	z16.13xlarge	52	832	0	0

zCompute Premium instance types (ZPx family)

ZP2 Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
ZP2	zp2.medium	1	2	0	0
ZP2	zp2.large	2	4	0	0
ZP2	zp2.xlarge	4	8	0	0
ZP2	zp2.3large	6	12	0	0
ZP2	zp2.2xlarge	8	16	0	0
ZP2	zp2.5large	10	20	0	0
ZP2	zp2.3xlarge	12	24	0	0
ZP2	zp2.7large	14	28	0	0
ZP2	zp2.4xlarge	16	32	0	0
ZP2	zp2.9large	18	36	0	0
ZP2	zp2.5xlarge	20	40	0	0
ZP2	zp2.11large	22	44	0	0
ZP2	zp2.6xlarge	24	48	0	0

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Table 2 – continued from previous page

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
ZP2	zp2.13large	26	52	0	0
ZP2	zp2.7xlarge	28	56	0	0
ZP2	zp2.15large	30	60	0	0
ZP2	zp2.8xlarge	32	64	0	0
ZP2	zp2.17large	34	68	0	0
ZP2	zp2.9xlarge	36	72	0	0
ZP2	zp2.19large	38	76	0	0
ZP2	zp2.10xlarge	40	80	0	0
ZP2	zp2.21large	42	84	0	0
ZP2	zp2.11xlarge	44	88	0	0
ZP2	zp2.23large	46	92	0	0
ZP2	zp2.12xlarge	48	96	0	0
ZP2	zp2.25large	50	100	0	0
ZP2	zp2.13xlarge	52	104	0	0
ZP2	zp2.27large	54	108	0	0
ZP2	zp2.14xlarge	56	112	0	0
ZP2	zp2.29large	58	116	0	0
ZP2	zp2.15xlarge	60	120	0	0
ZP2	zp2.31large	62	124	0	0
ZP2	zp2.16xlarge	64	128	0	0
ZP2	zp2.33large	66	132	0	0
ZP2	zp2.17xlarge	68	136	0	0
ZP2	zp2.35large	70	140	0	0
ZP2	zp2.18xlarge	72	144	0	0
ZP2	zp2.37large	74	148	0	0
ZP2	zp2.19xlarge	76	152	0	0
ZP2	zp2.39large	78	156	0	0
ZP2	zp2.20xlarge	80	160	0	0
ZP2	zp2.41large	82	164	0	0
ZP2	zp2.21xlarge	84	168	0	0
ZP2	zp2.43large	86	172	0	0
ZP2	zp2.22xlarge	88	176	0	0
ZP2	zp2.45large	90	180	0	0
ZP2	zp2.23xlarge	92	184	0	0
ZP2	zp2.47large	94	188	0	0
ZP2	zp2.24xlarge	96	192	0	0
ZP2	zp2.49large	98	196	0	0
ZP2	zp2.25xlarge	100	200	0	0
ZP2	zp2.51large	102	204	0	0
ZP2	zp2.26xlarge	104	208	0	0
ZP2	zp2.53large	106	212	0	0
ZP2	zp2.27xlarge	108	216	0	0
ZP2	zp2.55large	110	220	0	0
ZP2	zp2.28xlarge	112	224	0	0

ZP4 Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
ZP4	zp4.medium	1	4	0	0
ZP4	zp4.large	2	8	0	0
ZP4	zp4.xlarge	4	16	0	0
ZP4	zp4.3large	6	24	0	0
ZP4	zp4.2xlarge	8	32	0	0
ZP4	zp4.5large	10	40	0	0
ZP4	zp4.3xlarge	12	48	0	0
ZP4	zp4.7large	14	56	0	0
ZP4	zp4.4xlarge	16	64	0	0
ZP4	zp4.9large	18	72	0	0
ZP4	zp4.5xlarge	20	80	0	0
ZP4	zp4.11large	22	88	0	0
ZP4	zp4.6xlarge	24	96	0	0
ZP4	zp4.13large	26	104	0	0
ZP4	zp4.7xlarge	28	112	0	0
ZP4	zp4.15large	30	120	0	0
ZP4	zp4.8xlarge	32	128	0	0
ZP4	zp4.17large	34	136	0	0
ZP4	zp4.9xlarge	36	144	0	0
ZP4	zp4.19large	38	152	0	0
ZP4	zp4.10xlarge	40	160	0	0
ZP4	zp4.21large	42	168	0	0
ZP4	zp4.11xlarge	44	176	0	0
ZP4	zp4.23large	46	184	0	0
ZP4	zp4.12xlarge	48	192	0	0
ZP4	zp4.25large	50	200	0	0
ZP4	zp4.13xlarge	52	208	0	0
ZP4	zp4.27large	54	216	0	0
ZP4	zp4.14xlarge	56	224	0	0
ZP4	zp4.29large	58	232	0	0
ZP4	zp4.15xlarge	60	240	0	0
ZP4	zp4.31large	62	248	0	0
ZP4	zp4.16xlarge	64	256	0	0
ZP4	zp4.33large	66	264	0	0
ZP4	zp4.17xlarge	68	272	0	0
ZP4	zp4.35large	70	280	0	0
ZP4	zp4.18xlarge	72	288	0	0
ZP4	zp4.37large	74	296	0	0
ZP4	zp4.19xlarge	76	304	0	0
ZP4	zp4.39large	78	312	0	0
ZP4	zp4.20xlarge	80	320	0	0
ZP4	zp4.41large	82	328	0	0
ZP4	zp4.21xlarge	84	336	0	0
ZP4	zp4.43large	86	344	0	0
ZP4	zp4.22xlarge	88	352	0	0
ZP4	zp4.45large	90	360	0	0
ZP4	zp4.23xlarge	92	368	0	0

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Table 3 – continued from previous page

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
ZP4	zp4.47large	94	376	0	0
ZP4	zp4.24xlarge	96	384	0	0
ZP4	zp4.49large	98	392	0	0
ZP4	zp4.25xlarge	100	400	0	0
ZP4	zp4.51large	102	408	0	0
ZP4	zp4.26xlarge	104	416	0	0
ZP4	zp4.53large	106	424	0	0
ZP4	zp4.27xlarge	108	432	0	0
ZP4	zp4.55large	110	440	0	0
ZP4	zp4.28xlarge	112	448	0	0

ZP8 Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
ZP8	zp8.medium	1	8	0	0
ZP8	zp8.large	2	16	0	0
ZP8	zp8.xlarge	4	32	0	0
ZP8	zp8.3large	6	48	0	0
ZP8	zp8.2xlarge	8	64	0	0
ZP8	zp8.5large	10	80	0	0
ZP8	zp8.3xlarge	12	96	0	0
ZP8	zp8.7large	14	112	0	0
ZP8	zp8.4xlarge	16	128	0	0
ZP8	zp8.9large	18	144	0	0
ZP8	zp8.5xlarge	20	160	0	0
ZP8	zp8.11large	22	176	0	0
ZP8	zp8.6xlarge	24	192	0	0
ZP8	zp8.13large	26	208	0	0
ZP8	zp8.7xlarge	28	224	0	0
ZP8	zp8.15large	30	240	0	0
ZP8	zp8.8xlarge	32	256	0	0
ZP8	zp8.17large	34	272	0	0
ZP8	zp8.9xlarge	36	288	0	0
ZP8	zp8.19large	38	304	0	0
ZP8	zp8.10xlarge	40	320	0	0
ZP8	zp8.21large	42	336	0	0
ZP8	zp8.11xlarge	44	352	0	0
ZP8	zp8.23large	46	368	0	0
ZP8	zp8.12xlarge	48	384	0	0
ZP8	zp8.25large	50	400	0	0
ZP8	zp8.13xlarge	52	416	0	0
ZP8	zp8.27large	54	432	0	0
ZP8	zp8.14xlarge	56	448	0	0
ZP8	zp8.29large	58	464	0	0
ZP8	zp8.15xlarge	60	480	0	0
ZP8	zp8.31large	62	496	0	0
ZP8	zp8.16xlarge	64	512	0	0
ZP8	zp8.33large	66	528	0	0

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Table 4 – continued from previous page

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
ZP8	zp8.17xlarge	68	544	0	0
ZP8	zp8.35large	70	560	0	0
ZP8	zp8.18xlarge	72	576	0	0
ZP8	zp8.37large	74	592	0	0
ZP8	zp8.19xlarge	76	608	0	0
ZP8	zp8.39large	78	624	0	0
ZP8	zp8.20xlarge	80	640	0	0
ZP8	zp8.41large	82	656	0	0
ZP8	zp8.21xlarge	84	672	0	0
ZP8	zp8.43large	86	688	0	0
ZP8	zp8.22xlarge	88	704	0	0
ZP8	zp8.45large	90	720	0	0
ZP8	zp8.23xlarge	92	736	0	0
ZP8	zp8.47large	94	752	0	0
ZP8	zp8.24xlarge	96	768	0	0
ZP8	zp8.49large	98	784	0	0
ZP8	zp8.25xlarge	100	800	0	0
ZP8	zp8.51large	102	816	0	0
ZP8	zp8.26xlarge	104	832	0	0
ZP8	zp8.53large	106	848	0	0
ZP8	zp8.27xlarge	108	864	0	0
ZP8	zp8.55large	110	880	0	0
ZP8	zp8.28xlarge	112	896	0	0

ZP16 Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe Devices	NVMe GB
ZP16	zp16.medium	1	16	0	0
ZP16	zp16.large	2	32	0	0
ZP16	zp16.xlarge	4	64	0	0
ZP16	zp16.3large	6	96	0	0
ZP16	zp16.2xlarge	8	128	0	0
ZP16	zp16.5large	10	160	0	0
ZP16	zp16.3xlarge	12	192	0	0
ZP16	zp16.7large	14	224	0	0
ZP16	zp16.4xlarge	16	256	0	0
ZP16	zp16.9large	18	288	0	0
ZP16	zp16.5xlarge	20	320	0	0
ZP16	zp16.11large	22	352	0	0
ZP16	zp16.6xlarge	24	384	0	0
ZP16	zp16.13large	26	416	0	0
ZP16	zp16.7xlarge	28	448	0	0
ZP16	zp16.15large	30	480	0	0
ZP16	zp16.8xlarge	32	512	0	0
ZP16	zp16.17large	34	544	0	0
ZP16	zp16.9xlarge	36	576	0	0
ZP16	zp16.19large	38	608	0	0
ZP16	zp16.10xlarge	40	640	0	0

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Table 5 – continued from previous page

Product type	Name	vCPU	Memory [GIB]	NVMe Devices	NVMe GB
ZP16	zp16.21large	42	672	0	0
ZP16	zp16.11xlarge	44	704	0	0
ZP16	zp16.23large	46	736	0	0
ZP16	zp16.12xlarge	48	768	0	0
ZP16	zp16.25large	50	800	0	0
ZP16	zp16.13xlarge	52	832	0	0
ZP16	zp16.27large	54	864	0	0
ZP16	zp16.14xlarge	56	896	0	0
ZP16	zp16.29large	58	928	0	0
ZP16	zp16.15xlarge	60	960	0	0
ZP16	zp16.31large	62	992	0	0
ZP16	zp16.16xlarge	64	1024	0	0
ZP16	zp16.33large	66	1056	0	0
ZP16	zp16.17xlarge	68	1088	0	0
ZP16	zp16.35large	70	1120	0	0
ZP16	zp16.18xlarge	72	1152	0	0
ZP16	zp16.37large	74	1184	0	0
ZP16	zp16.19xlarge	76	1216	0	0
ZP16	zp16.39large	78	1248	0	0
ZP16	zp16.20xlarge	80	1280	0	0
ZP16	zp16.41large	82	1312	0	0
ZP16	zp16.21xlarge	84	1344	0	0
ZP16	zp16.43large	86	1376	0	0
ZP16	zp16.22xlarge	88	1408	0	0
ZP16	zp16.45large	90	1440	0	0
ZP16	zp16.23xlarge	92	1472	0	0
ZP16	zp16.47large	94	1504	0	0
ZP16	zp16.24xlarge	96	1536	0	0
ZP16	zp16.49large	98	1568	0	0
ZP16	zp16.25xlarge	100	1600	0	0
ZP16	zp16.51large	102	1632	0	0
ZP16	zp16.26xlarge	104	1664	0	0
ZP16	zp16.53large	106	1696	0	0
ZP16	zp16.27xlarge	108	1728	0	0
ZP16	zp16.55large	110	1760	0	0
ZP16	zp16.28xlarge	112	1792	0	0

zCompute Premium instance types with NVMe (ZDx and ZDxA families)

ZD2 Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
ZD2	zd2.4xlarge	16	32	1	1920
ZD2	zd2.8xlarge	32	64	2	3840
ZD2	zd2.12xlarge	48	96	3	5760
ZD2	zd2.16xlarge	64	128	4	7680

ZD2A Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
ZD2A	zd2a.7xlarge	32	64	1	1920
ZD2A	zd2a.14xlarge	64	128	2	3840
ZD2A	zd2a.21xlarge	96	192	3	5760
ZD2A	zd2a.28xlarge	128	256	4	7680

ZD4 Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
ZD4	zd4.4xlarge	16	64	1	1920
ZD4	zd4.8xlarge	32	128	2	3840
ZD4	zd4.12xlarge	48	192	3	5760
ZD4	zd4.16xlarge	64	256	4	7680

ZD4A Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
ZD4A	zd4a.7xlarge	28	112	1	1920
ZD4A	zd4a.14xlarge	56	224	2	3840
ZD4A	zd4a.21xlarge	84	336	3	5760
ZD4A	zd4a.28xlarge	112	448	4	7680

ZD8 Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
ZD8	zd8.4xlarge	12	96	1	1920
ZD8	zd8.8xlarge	24	192	2	3840
ZD8	zd8.12xlarge	36	288	3	5760
ZD8	zd8.16xlarge	48	384	4	7680

ZD8A Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe devices	NVMe GB
ZD8A	zd8a.7xlarge	28	224	1	1920
ZD8A	zd8a.14xlarge	56	448	2	3840
ZD8A	zd8a.21xlarge	84	672	3	5760
ZD8A	zd8a.28xlarge	112	896	4	7680

ZD16 Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe Devices	NVMe GB
ZD16	zd16.4xlarge	16	256	1	1920
ZD16	zd16.8xlarge	32	512	2	3840
ZD16	zd16.12xlarge	48	768	3	5760
ZD16	zd16.16xlarge	64	1024	4	7680

ZD16A Instance Types

Product type	Name	vCPU	Memory [GIB]	NVMe Devices	NVMe GB
ZD16A	zd16a.7xlarge	28	448	1	1920
ZD16A	zd16a.14xlarge	56	896	2	3840
ZD16A	zd16a.21xlarge	84	1344	3	5760
ZD16A	zd16a.28xlarge	112	1792	4	7680

4.2.15 Migrating VMs to zCompute

The V2Z migration tool supports easy migration from supported virtualization platforms to zCompute VPC projects, with enhanced logging, human readable error messages and a complete rollback on migration failure.

Supported virtualization platforms

- Hyper-V 2019
- vSphere 6.7, 7.0 and later.

Supported guest VM OSes

- Windows 2016 and 2019
- Ubuntu 20.04
- CentOS 7

V2Z migration prerequisites

Important: Migration using the V2Z tool requires infrastructure preparations.

Contact Zadara's Operations team for coordinating the migration's planning and infrastructure setup stages.

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zCompute importer VM prerequisites

The V2Z migration process runs on a VM instance referred to as the importer VM, configured on the destination cluster for the purpose of the migration.

- The importer VM must have free space that amounts to double the used capacity of the VMs that are being migrated.
- The importer VM must have network connectivity to the customer hypervisor as specified below.
- The importer VM's username and password must be configured in the V2Z config file.

Network prerequisites

The V2Z migration tool requires that the importer VM has access to the importer VM's own zCompute API address or URL. This can be done by:

- Using an Elastic-IP on the VM so it can access the cloud's API via a public IP.
- Using a direct subnet configured with an external router attached to it, and routing through this external router defined on the VPC's route table.
- Using a NAT gateway:
  - Creating a NAT gateway in a public facing subnet
  - In the private route table, add an entry with the NAT gateway as the 0.0.0.0/0 destination

To run the migration, SSH access is required from the end user's workstation to the importer VM. To enable SSH access, the security group associated with the importer VM must be updated, by adding an ingress rule that allows port 22/TCP (SSH port) from the end user's workstation IP. See Security Groups in the Networking Guide.

Prerequites for migrating from VMware

- Required port: 443

  V2Z migration via the vSphere API requires HTTP/S access between the zCompute toolbox VM and the vCenter and the ESXi hosts that are hosting the VMs to be migrated. This method uses HTTP GET to migrate the vmdk directly from the VMware environment.
- The VMs to be migrated must be without snapshots.
- The VMs to be migrated must be **gracefully shut down** from the VM guest operating system, as opposed to being forced power-off from the VMware management, for the migration process to succeed.

  If the NFS share (see below) option is implemented, the VM can be shut down after the NFS phase, reducing downtime.

The fastest migration option requires an NFS volume accessible to both the source virtualization platform (e.g. as a datastore for VMware ESXi hosts) and to the importer VM over a direct subnet to which it's attached.

✔ **Note:** In order to reduce downtime, as an optional pre-import phase you can run storage vMotion to an NFS share residing on a VPSA, which will then be mounted as read-only onto the importer VM. Note that this will require accessing the NFS share via a direct subnet.

Using the NFS share option does not require the migrating VM to be shut down during this phase, as a result, reducing downtime.

Other, slower options involve copying the source VM's virtual disks to the zCompute cloud from the virtualization platform's management interface (e.g. HTTP copy of vmdk files from vCenter or ESXi hosts).

Prerequisites for migrating from Hyper-V

- Windows Remote Management Service (WinRM)
  - Ports: 5985/TCP and 5986/TCP: The toolbox VM (migration VM) should be able to access the Hyper-V host over these ports.
  - WinRM must be installed, started and enabled (service to be enabled, allowed by group policy and local host firewall opened). See Installation and configuration for Windows Remote Management.
- SSH (for SCP - secure copy) access from the Hyper-V to the importer VM (port 22/TCP).
- PuTTY PSCP (secure copy client) must be installed on the Hyper-V environment.
- The VMs to be migrated must be **gracefully shut down** from the VM guest operating system, as opposed to being forced power-off from the Hyper-V management, for the migration process to succeed.
- All vhd/vhdxs must be fixed-size disks.

Importer user prerequisites

The migration process requires a user on the the target zCompute account project. The importer user's details will be configured in a config file, and injected as environment variables in the migration process. A new user or an existing user can be used for the migration process.

Minimum permissions for the importer user:

- **Roles**: Member
- **Symp API Policies**:
  - **ImagesReadOnlyAccess**
  - **StorageReadOnlyAccess**
  - **VMFullAccess**
  - **VolumesFullAccess**

If the project is MFA-enforced, the MFA secret should be saved and added as an environment variable in the toolbox VM:

1. Go to **My Account > Details > Configure MFA**.
2. Follow the instructions to configure MFA for the account.
3. Copy the **MFA Key (Secret)** to the clipboard before completing the MFA configuration.
4. In the toolbox VM configure the MFA secret as an environment variable:

   ```
   export SYMP_MFA_SECRET=<MFA secret>
   ```

Installing the V2Z migration tool

From zCompute 22.09, the V2Z migration tool is supplied as part of the zCompute Toolbox.

1. In the zCompute UI, go to **Machine Images > Marketplace**. If there are two zCompute Toolbox images, use the the v2.2.0 (or above) image.

   > **Caution:** Do not use the Toolbox v21.0.0 image. It is deprecated and exists only for backward compatibility.

2. In the Zadara apps list, click the **zCompute Toolbox** icon.

   In the dialog box that opens:

   > **Note:** If you connected as an account admin, it is recommended that the Scope is set to **Account**.

   Click **Download**.

   > **Note:** The image download takes a few minutes to finish. The download process is complete when the image appears with the status `Ready` in the **Images** UI screen. The zCompute Toolbox image is named "fedora-3x-zadara-toolbox-xxxxx" or similar. The image name can be modified at any time.

3. Go to **Compute > Instances > Create**.
   - Enter the **Compute** parameters:
     - **Name**: A name for the importer VM
     - **Create from**: `Image`
     - **Image**: The zcompute-toolbox image downloaded in the previous step
     - **Instance type**: `z4.xlarge 4 CPUs/16GB RAM` and above

       > **Note:** `z4.xlarge 4 CPUs/16GB RAM` is the minimum instance type supported for the migration process.

     - **Key Pair**: Select the key pair sign to in to the VM over SSH. If no key pair exists for the user, create one using the **+** sign and follow the instructions to save the private key file.
     - Click **Next**.
   - Enter the **Storage** parameters:

     Important:

     - The importer VM must have an **additional data volume** with free space that amounts to double the used capacity of the largest boot disk.

     - **Boot Volume** - disk size (GB) and volume type that will be used for the boot volume of the VM instance.
     - **Data Volumes** - add new or existing data volumes. To add a new volume, click **Add** and **+** and configure the following:
       - **Name** - volume name.

        * **Description** - description of volume.
        * **Volume Type** - select the volume type from the dropdown list.
        * **Size** - volume size (GB).
        * **Protection Group** - protection group for the volume.
      - Click **Next**.
    - Enter the **Networking** tab parameters according to the specific environment, and click **Next**.
    - In the **Config** tab you can optionally configure a cloud-config for cloud-init. For example:

```
#cloud-config
password: heychangeme
chpasswd: {expire: False}
ssh_pwauth: True
```

    Click **Finish**, and the VM will start.

4. When the importer VM instance is ready:
    - Launch the importer VM in the target project, if it wasn't started yet:
      - In the zCompute UI, go to **Compute > Instances**.
      - Select the migrated VM, and click **Start**.
    - Connect to the importer VM instance via ssh and the username **fedora**.
5. Install Symp on the importer VM by running the following command:

    `symp-update -c <Cluster IP> -k`

6. **For migrations from Hyper-V only**, enable SSH authentication using a password:
    - Sign in to the toolbox VM using ssh, with the user fedora and the private key of the key pair provided at the VM creation.
    - In the terminal window, edit `/etc/ssh/sshd_config` as `root`, e.g.:

      `sudo vi /etc/ssh/sshd_config`
    - Search for the entry `PasswordAuthentication`, and remove the leading # character (remark) from the begining of the line. The line should look like this:

      `PasswordAuthentication yes`
    - Save the update, and exit the editor.
    - Restart the SSH daemon:

      `sudo systemctl restart sshd.service`
    - Exit the ssh session, and sign on using the password you've just created.
7. At the importer VM, configure V2Z for first usage by running:

    `v2z config`

    The following is an example of a configuration for a vCenter migration:

```
[fedora@v2z-atp ~]# v2z config
Logs for this migration will be available in /var/log/v2z/20220816083635.log
20220816083635|INFO|ID:27101756-c316-4f67-8e3d-4c5208c39177|Getting config data from user
Select V2Z source type:
```

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```
1 - vSphere
2 - Hyper-V
Please select source type (1 or 2): 1
vCenter Host Name or IP  [<IP address>]:
vCenter username  [root]:
vCenter password  []:
zCompute hostname or IP  [<hostname or IP address>]:
zCompute user  [<username>]:
zCompute password  []:
zCompute project name  [default]:
zCompute storage pool  [Zadara_VPSA_Compute]:
zCompute Domain Name  [zadara]:
zCompute importer VM Id [36d51e0b-8cf7-4b60-b9e9-018d4d223a3c]:
20220816083706|INFO|ID:27101756-c316-4f67-8e3d-4c5208c39177|Successfully get the config from user
20220816083706|INFO|ID:27101756-c316-4f67-8e3d-4c5208c39177|Modifying V2Z config file
20220816083706|INFO|ID:27101756-c316-4f67-8e3d-4c5208c39177|Successfully modified V2Z config file
[fedora@v2z-atp ~]#
```

✔ Note:

- **Domain Name** refers to the zCompute **Account Name**.
- From zCompute 23.08, the `zCompute storage pool` parameter in the config file must have the **Volume Type**'s value.

8. Test the importer VM's connections, by running the following commands at the importer VM's command line:

   - **zCompute connection**:

     The ability to run `symp-update` in an earlier step, and `symp` on the cluster confirms the connection.

   - **vSphere connection**:

     Run the command `v2z vsphere vm-info <VM_NAME>` to display information of a VM that you want to migrate.

   - **Hyper-V connection**:

     Run the command `v2z hyperv vm-info <VM_NAME>` to display information of a VM that you want to migrate.

   - **NFS connection**:

     Run the `cat` command on any text file in the NFS share.

Replacing Toolbox Windows VirtIO Driver

The zCompute Toolbox base image includes two versions of the Windows VirtIO driver Red Hat Package Manager (RPM) files, located in the `/virtio-win-rpms` directory:

- `virtio-win-0.1.171-1`
- `virtio-win-0.1.262-2` (default)

The following setup process replaces the virtio-win driver for the boot volume of the input machine without requiring internet access.

This is particularly helpful for migrating legacy operating systems, including end-of-life (EOL) OS versions, which might not support or be compatible with the latest virtio-win driver.

Important:

- Only one virtio-win RPM can be installed at any time.

  Installing a different virtio-win version replaces the existing driver.

- This process is fully offline.

  Both RPMs are preloaded in the `/virtio-win-rpms` directory in the zCompute Toolbox base image.

Switching the Virtio-Win Driver

- To switch to `virtio-win-0.1.171-1`:

  Run the following command:

  ```
  sudo dnf install /virtio-win-rpms/virtio-win-0.1.171-1.noarch.rpm -y
  ```

- To revert to the default `virtio-win-0.1.262-2`:

  Run the following command:

  ```
  sudo dnf install /virtio-win-rpms/virtio-win-0.1.262-2.noarch.rpm -y
  ```

Migrating VMs

See:

- Migrating VMware VMs to zCompute
- Migrating Hyper-V VMs to zCompute

4.2.16 Migrating VMware VMs to zCompute

VMware VMs are migrated to zCompute by converting the boot disk using `virt-v2v` and migrating the other disks intact, as block devices.

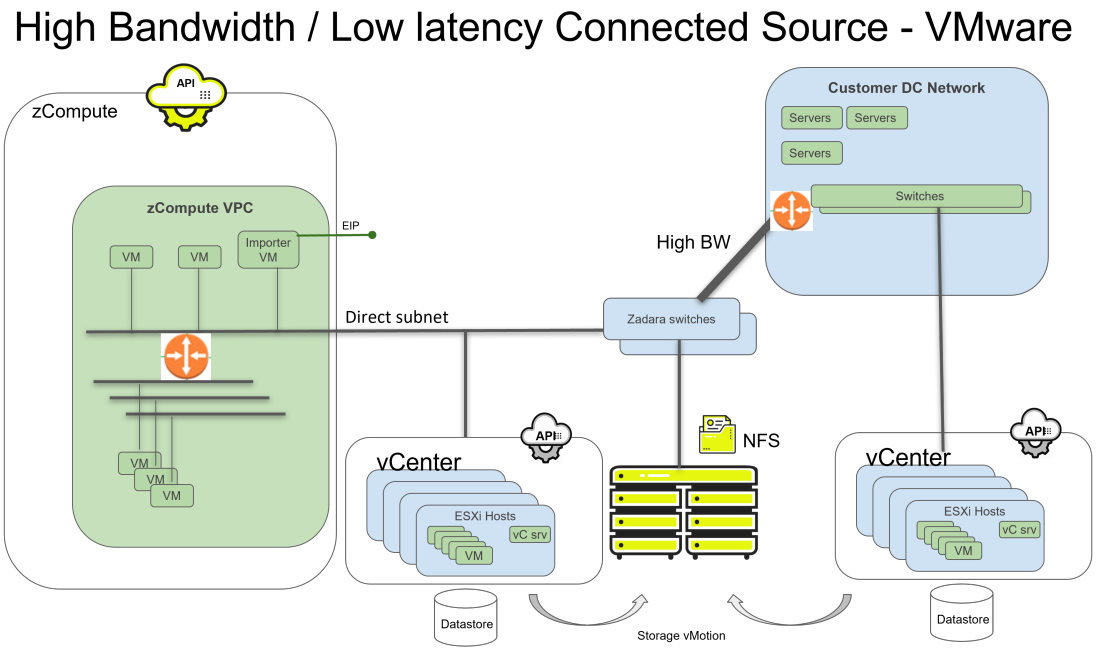
There are two methods to migrate VMware VMs to zCompute:

1. Migrate VMWare VMs from NFS share

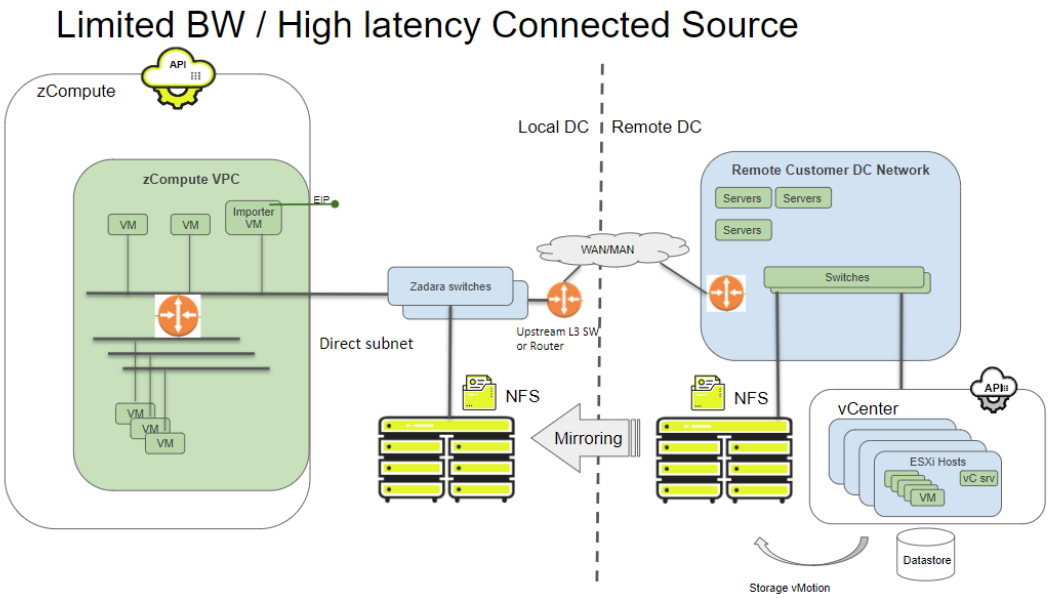
   Tip: Recommended migration method

   The recommended migration option includes an NFS volume that is accessible to both the source virtualization platform (e.g. as a datastore for Vmware ESXi hosts) and to the importer VM over a direct subnet to which it's attached.

   - **High bandwidth / low latency connected source**:



- Limited bandwidth / high latency connected source:



2. Migrate VMs using the VMware API

   Other, slower options involve copying the source VM's virtual disks to the zCompute cloud from the virtualization platform's management interface (e.g. HTTP copy of vmdk files from vCenter or ESXi hosts).

Prerequisites

The V2Z migration tool must be installed and configured, with attention to source and target prerequisites. See V2Z migration prerequisites.

Important: Migration using the V2Z tool requires infrastructure preparations.

Contact Zadara's Operations team for coordinating the migration's planning and infrastructure setup stages.

Migrate VMWare VMs from NFS share

✔ **Note:** This is the preferable migration method, in terms of speed and minimal downtime.

In **vCenter**:

1. Go to **Actions > Migrate**.
2. In **Select the migration type**, choose **Change storage only** and click **Next**.
3. In **Select storage**, choose the VPSA NFS that will be connected to the importer VM and click **Next**.

In the **importer VM**:

1. Run this entire procedure with `root` privileges:

```
sudo su -
```

2. Format and make a mount point for the disk connected to the importer VM.

   This disk was created earlier as an additional data volume, with free space that amounts to double the used capacity of the largest boot disk.

   In the following example, "X" in "vdX" is the number of the volume block device previously added to the VM:

```
lsblk
mkfs.ext4 /dev/vdX
```

3. Update the zCompute toolbox VM's `fstab` file (`/etc/fstab`) with entries:

```
# Configure mount point for the disk connected to the importer VM
/dev/vdX /home/fedora/data ext4 defaults
# Mount the local NFS share as read-only
<NFS-server-IP>:/export/<export-name> /home/fedora/nfs_mount nfs user,noauto,ro,nfsvers=3
```

4. Remount all entries in `fstab`:

```
mount -a
```

5. In the Symp CLI, export the zCompute user's login token as an environment variable, so that it will be used instead of the user password. This avoids an issue with larger VMs that take a longer time to import.

```
export SYMP_TOKEN=`symp -k --url https://<cluster-api-ip> -d <account> -u <user> -p <password> --
↪project <project> login <user> <password> <account> <project> -f value`
```

✔ **Note:** For account and project names that include spaces, enclose the account and project name strings in double quotes in the assignment to the SYMP_TOKEN environment variable.

For example, in the SYMP_TOKEN environment variable for an account named `Account 123` and a project named `App Project 1`:

```
export SYMP_TOKEN=`symp -k --url https://<cluster-api-ip> -d "Account 123" -u <user> -p <password> -
↪-project "App Project 1" login <user> <password> "Account 123" "App Project 1" -f value`
```

6. Before running the V2Z migration process, change the current working directory to `/home/fedora/data`:

```
cd /home/fedora/data
```

7. Migrate the VM using the `migrate-vmdk-via-block-device` command, with the syntax according to your Toolbox version.

Important: The syntax of the `migrate-vmdk-via-block-device` command for **Toolbox Fedora 2.3.1 and later** differs from the syntax for **Toolbox 2.3.0 and earlier**.

- For implementations using **Toolbox Fedora 2.3.1 or later**, use the syntax that specifies the target VM's `INSTANCE_TYPE`:

  Usage:

```
v2z vsphere migrate-vmdk-via-block-device [OPTIONS] <VM_NAME> <INSTANCE_TYPE> <BOOT_VMDK_PATH>
↪<OUTPUT_PATH>

Options:
  --other-vmdk-paths TEXT
  --config-path TEXT
  --uefi TEXT              [default: False]
  --help                   Show this message and exit.
```

  For example:

```
v2z vsphere migrate-vmdk-via-block-device win2012r2-bios-2disk z4.large /mnt/vmdk_nfs/
↪win2012r2-bios-2disk/win2012r2-bios-2disk-flat.vmdk /home/fedora/data --other-vmdk-paths /
↪mnt/vmdk_nfs/win2012r2-bios-2disk/win2012r2-bios-2disk_1-flat.vmdk
```

- For implementations using **Toolbox 2.3.0 or earlier**, use the syntax that specifies the target VM's number of CPUs and RAM (in MB):

  Usage:

```
v2z vsphere migrate-vmdk-via-block-device <VM_NAME> <CPU> <RAM_MB> <BOOT_VMDK_PATH> <OUTPUT_
↪PATH>  [--other-vmdk-paths <2nd_VMDK_PATH> [n_VMDK_PATH] ]
```

  For example:

```
v2z vsphere migrate-vmdk-via-block-device win2012r2-bios-2disk 2 8192 /home/fedora/vmdk_nfs/
↪win2012r2-bios-2disk/win2012r2-bios-2disk-flat.vmdk /home/fedora/data --other-vmdk-paths /
↪home/fedora/vmdk_nfs/win2012r2-bios-2disk/win2012r2-bios-2disk_1-flat.vmdk
```

The examples above, for either **Toolbox Fedora 2.3.1 and later** or **Toolbox 2.3.0 and earlier**, will create a zCompute VM with the following:

- The VMware VM will be migrated to a zCompute VM named `win2012r2-bios-2disk`
- The migrated VM on zCompute will have 2 CPUs, 8GB (8192MB) RAM
- The boot disk to migrate is `win2012r2-bios-2disk-flat.vmdk`
- The second disk to migrate (`--other-vmdk-paths`) is `win2012r2-bios-2disk_1-flat.vmdk`
- The output path will be `/home/fedora/data`

✔ **Note:** The V2Z command line in **Toolbox Fedora 2.3.5 and later** supports VM and volume names that contain spaces, by enclosing the VM or volume name between single quotes.

8. In symp, for VMs that boot using BIOS, run the following configuration:

```
vm update --hw-firmware-type bios <vm-id>
```

✔ **Note:** This configuration is required for VMs booting using BIOS, because they migrate as UEFI VMs.

9. Continue with Post-migration configuration.

Migrate VMs using the VMware API

This is the simplest migration method but slower than the NFS share alternative, thus increasing downtime.

In this migration process, the vSphere API is accessed, and after the vmdk is detected, the vmdk files are migrated into the importer VM using HTTP GET.

The boot disk has to be converted using virt-v2v and additional disks are migrated directly into a zCompute block device, using HTTP GET.

The V2Z migration tool accesses the vSphere API based a configuration file that is populated with the vSphere host and credentials.

Prerequisites

V2Z should already be configured for first usage during the V2Z installation and configuration phase, using the `v2z config` command. See Installing the V2Z migration tool.

The configuration can be viewed and modified using the `v2z config` command.

Migration

1. Confirm connectivity to vSphere by running the command

   `v2z vsphere vm-info <VM_NAME>`

   The `v2z vsphere vm-info <VM_NAME>` command displays information of a VM that you want to migrate. For example:

```
[fedora@fedora-36-zadara-toolbox-d9cbc89-vm ~]$ v2z vsphere vm-info win2016-bios
Logs for this migration will be available in /var/log/v2z/20220913141833.log
20220913141833|INFO|ID:cc34dc1c-d447-4d07-9085-45c602d70a2a|Fetching VM information for VM win2016-
↪bios
```

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```
20220913141833|INFO|ID:cc34dc1c-d447-4d07-9085-45c602d70a2a|Successfully fetched the VM info for VM:
↪ win2016-bios Info: {'name': 'win2016-bios', 'instance_uuid': '503f5ac2-77ae-11f5-a6a1-
↪02c05943c5f7', 'bios_instance_uuid': '423ffb10-d395-5168-9b1f-13d944d0b27f', 'cpu': 1, 'guest_os_
↪name': 'Microsoft Windows Server 2012 (64-bit)', 'memory': 4096, 'power_state': 'poweredOff',
↪'firmware': 'bios', 'virtual_disk': [{'file_name': '[VPSA_gen3_rnd_prod] win2016-bios/win2016-
↪bios.vmdk', 'datastore_name': 'VPSA_gen3_rnd_prod', 'size_in_kb': 41943040}]}
{
    "name": "win2016-bios",
    "instance_uuid": "503f5ac2-77ae-11f5-a6a1-02c05943c5f7",
    "bios_instance_uuid": "423ffb10-d395-5168-9b1f-13d944d0b27f",
    "cpu": 1,
    "guest_os_name": "Microsoft Windows Server 2012 (64-bit)",
    "memory": 4096,
    "power_state": "poweredOff",
    "firmware": "bios",
    "virtual_disk": [
        {
            "file_name": "[VPSA_gen3_rnd_prod] win2016-bios/win2016-bios.vmdk",
            "datastore_name": "VPSA_gen3_rnd_prod",
            "size_in_kb": 41943040
        }
    ]
}
```

2. Make sure that the temporary directory (usually `/home/fedora/data`) has double the capacity of the boot vmdk.
3. Migrate the VM using `v2z vsphere migrate-vsphere-vm-via-block-device`:

   For **Toolbox Fedora 2.3.1 and later**, this command automatically determines details such as disk and instance types.

   Usage:

```
Usage: v2z vsphere migrate-vsphere-vm-via-block-device [OPTIONS] VM_NAME OUTPUT_PATH

Options:
   --config-path TEXT
   --help              Show this message and exit.
```

   For example:

```
v2z vsphere migrate-vsphere-vm-via-block-device win2012r2-bios-2disk /home/fedora/data
```

   ✔ **Note:** After the VM is created, and while it is powered off, the instance type can be changed.

4. Continue with Post-migration configuration.

Post-migration configuration

After the VM migration has completed, start up the migrated VM and complete its network setup.

1. In the zCompute UI, go to **Compute > Instances**.
2. Select the migrated VM, and click **Start**.

   The **Attach Interface** dialog opens, prompting you to attach a network to the VM. It is possible to specify a subnet, an existing NIC or the VM's MAC address.

Migrating to a DVS project

VMware VMs that are migrated to zCompute using the V2Z migration process result in VMs in a rich VPC networking type project rather than in the simpler DVS networking alternative.

Tenants that prefer the simpler DVS networking model can further migrate their newly migrated zCompute VPC VMs to a DVS project.

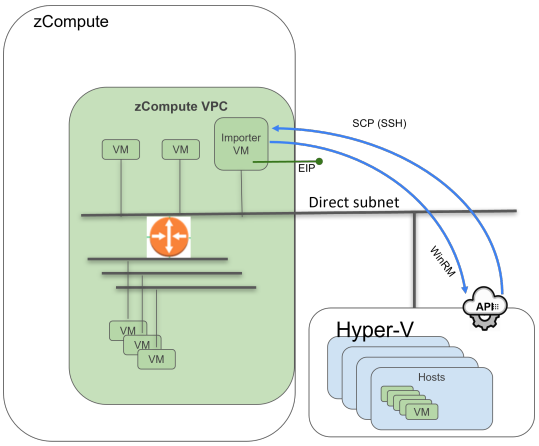
See Migrating a VM to a DVS project in the Networking Guide.

4.2.17 Migrating Hyper-V VMs to zCompute

The V2Z migration tool migrates VMs directly from Hyper-V Windows Server to zCompute.

The migration process:

- The importer VM connects to Hyper-V via WinRM, and initiates `pscp` commands to migrate the VM's vhds/vhdxs.
- The VM's disks are then imported using the `dd` command into zCompute block devices and a VM is created using these block devices.



Prerequisites

All vhd/vhdxs must be configured as fixed-size disks.

The V2Z migration tool must be installed and configured, with attention to source and target prerequisites. See V2Z migration prerequisites.

Migrate Hyper-V VMs

In **Hyper-V Manager**:

1. Confirm that the VM is safely shut down.

   Go to **Actions > Power > Shut down guest OS**.

2. Confirm that all vhd/vhdxs are fixed-sized disks.

   - On the VM, **right-click > Settings**.
   - On the **Hardware** section, click each virtual **Hard drive**, and click **Inspect**.
     - The **Properties** window that opens, should display **Type: Fixed size virtual hard disk**.
     - If the disks are of a different type, convert them:
       * Click **Edit**.
       * In the dialog that opens, go to **Choose action > Convert**. Click **Next**.
       * For **Choose Disk Type**, choose **Fixed size**. Click **Next**. Click **Finish**.

In the **importer VM**:

1. View or reconfigure the V2Z configuration, using the `v2z config` command.

   For example:

```
[fedora@toolbox1 centos]# v2z config
Logs for this migration will be available in /var/log/v2z/20220913102040.log
20220913102040|INFO|ID:ba7583f1-f94b-4d6d-bd52-1ad9f0dd0208|Getting config data from user
Select V2Z source type:
1 - vSphere
2 - Hyper-V
Please select source type (1 or 2): 2
Hyper-V Host Name or IP  [<hostname or IP>]:
Hyper-V username  [<username>]:
Hyper-V password  []:
zCompute hostname or IP  [<hostname or IP>]:
zCompute user  [<username>]:
zCompute password  []:
zCompute project name  [<project name>]:
zCompute storage pool  [<pool name>]:
zCompute Domain Name  [<domain>]:
zCompute importer VM Id [<importer VM Id>]:
zCompute importer VM IP Address [<importer VM IP>]:
zCompute importer VM username [fedora]:
zCompute importer VM password []:
20220913102045|INFO|ID:ba7583f1-f94b-4d6d-bd52-1ad9f0dd0208|Successfully get the config from user
20220913102045|INFO|ID:ba7583f1-f94b-4d6d-bd52-1ad9f0dd0208|Modifying V2Z config file
20220913102045|INFO|ID:ba7583f1-f94b-4d6d-bd52-1ad9f0dd0208|Successfully modified V2Z config file
```

Note:

- The V2Z migration uses the Hyper-V credentials to connect to the host. The importer VM's credentials and Elastic IP address are configured for the Windows VM to connect to the importer VM via `pscp`.
- **Domain Name** refers to the zCompute **Account Name**.
- From zCompute 23.08, the `zCompute storage pool` parameter in the config file must have the **Volume Type**'s value.

2. Confirm connectivity to Hyper-V by running the command

   `v2z hyperv vm-info <VM_NAME>`

   The `v2z vsphere vm-info <VM_NAME>` command displays information of a VM that you want to migrate. For example:

```
[fedora@toolbox1 centos]# v2z hyperv vm-info centos1disk
Logs for this migration will be available in /var/log/v2z/20220913102820.log
20220913102820|INFO|ID:102a64f6-b55f-4057-a31b-98515fba7329|Fetching Hyper-V VM info for VM:
↪centos1disk
20220913102822|INFO|ID:102a64f6-b55f-4057-a31b-98515fba7329|Successfully fetched the VM info for VM:
↪ centos1disk Info: {'vm_name': 'centos1disk', 'vm_id': '125da45d-2454-4bd0-beef-1f1539c98cdf',
↪'cpu_usage': 0, 'memory_assigned': 4096, 'processor_count': 1, 'hard_drive': [{'Path': 'D:\\
↪Centos1disk.vhdx', 'DiskNumber': None, 'MaximumIOPS': 0, 'MinimumIOPS': 0, 'QoSPolicyID':
↪'00000000-0000-0000-0000-000000000000', 'SupportPersistentReservations': False,
↪'WriteHardeningMethod': 0, 'ControllerLocation': 0, 'ControllerNumber': 0, 'ControllerType': 0,
↪'Name': 'Hard Drive on IDE controller number 0 at location 0', 'PoolName': 'Primordial', 'Id':
↪'Microsoft:125DA45D-2454-4BD0-BEEF-1F1539C98CDF\\83F8638B-8DCA-4152-9EDA-2CA8B33039B4\\0\\0\\D',
↪'VMId': '125da45d-2454-4bd0-beef-1f1539c98cdf', 'VMName': 'centos1disk', 'VMSnapshotId':
↪'00000000-0000-0000-0000-000000000000', 'VMSnapshotName': '', 'CimSession': 'CimSession: .',
↪'ComputerName': 'WIN-1G19HSS2UGU', 'IsDeleted': False}], 'vm_status': 'Operating normally',
↪'power_state': 3, 'generation': 1}
{
    "vm_name": "centos1disk",
    "vm_id": "125da45d-2454-4bd0-beef-1f1539c98cdf",
    "cpu_usage": 0,
    "memory_assigned": 4096,
    "processor_count": 1,
    "hard_drive": [
        {
            "Path": "D:\\Centos1disk.vhdx",
            "DiskNumber": null,
            "MaximumIOPS": 0,
            "MinimumIOPS": 0,
            "QoSPolicyID": "00000000-0000-0000-0000-000000000000",
            "SupportPersistentReservations": false,
            "WriteHardeningMethod": 0,
            "ControllerLocation": 0,
            "ControllerNumber": 0,
            "ControllerType": 0,
            "Name": "Hard Drive on IDE controller number 0 at location 0",
            "PoolName": "Primordial",
            "Id": "Microsoft:125DA45D-2454-4BD0-BEEF-1F1539C98CDF\\83F8638B-8DCA-4152-9EDA-
↪2CA8B33039B4\\0\\0\\D",
            "VMId": "125da45d-2454-4bd0-beef-1f1539c98cdf",
            "VMName": "centos1disk",
            "VMSnapshotId": "00000000-0000-0000-0000-000000000000",
```

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```
            "VMSnapshotName": "",
            "CimSession": "CimSession: .",
            "ComputerName": "WIN-1G19HSS2UGU",
            "IsDeleted": false
        }
    ],
    "vm_status": "Operating normally",
    "power_state": 3,
    "generation": 1
}
```


3. Make sure that the temporary directory (usually `/home/fedora/data`) has double the capacity of the boot vmdk.
4. Format and make a mount point for the disk connected to the importer VM. This disk was created earlier as an **additional data volume** with free space that amounts to double the used capacity of the largest boot disk.

```
lsblk
sudo mkfs.ext4 /dev/vdX
sudo mount /dev/vdX /home/fedora/data
sudo chmod a+w /home/fedora/data
```

5. Migrate the VM using the `migrate-hyperv-vm-via-block-device` command. This command automatically determines details such as disk and instance types.

   Usage:

```
v2z hyperv migrate-hyperv-vm-via-block-device <VM_NAME> <OUTPUT_PATH>
```

   For example:

```
v2z hyperv migrate-hyperv-vm-via-block-device centos1disk /home/fedora/data
```

Post-migration configuration

After the VM migration has completed, start up the migrated VM and complete its network setup.

1. In the zCompute UI, go to **Compute > Instances**.
2. Select the migrated VM, and click **Start**.

   The **Attach Interface** dialog opens, prompting you to attach a network to the VM. It is possible to specify a subnet, an existing NIC or the VM's MAC address.

4.2.18 Symp CLI Client

Overview

The Zadara zCompute Symp client is a unified CLI (Command Line Interface) to manage and operate your zCompute services.

The zCompute Symp CLI tools should be installed on a VM image that is created from the zCompute Toolbox image, available in the zCompute cluster's Machine Images Marketplace.

To install the zCompute Symp CLI tools, the VM should be configured to be accessible externally via ssh.

Installing the Symp CLI client

The Symp CLI client is supplied as part of the zCompute Toolbox.

1. In the zCompute UI, go to **Machine Images > Marketplace**. If there are more than one zCompute Toolbox images, use the the v2.2.0 (or later) image.

   > **Caution:** Do not use the Toolbox v21.0.0 image.
   >
   > It is deprecated and exists only for backward compatibility.

2. In the Zadara apps list, click the **zCompute Toolbox** icon.

   In the dialog box that opens:

   > **Note:** If you connected as an account admin, it is recommended that the Scope is set to **Account**.

   Click **Download**.

   > **Note:** The image download takes a few minutes to finish.

   The download process is complete when the image appears with the status `Ready` in the **Machine Images > Images** UI screen.

   The zCompute Toolbox image is named `fedora-3x-zadara-toolbox-xxxxx` or similar. The image name can be modified at any time.

3. Create a VM instance:
   1. Go to **Compute > Instances > Create**.
      1. Enter the **Compute** parameters:
         - **Name**: A name for the VM.
         - **Create from**: Select `Image`.
         - **Image**: Select the zcompute-toolbox image downloaded in the previous step.
         - **Instance type**: Search and select a suitable instance type.
         - **Key Pair**: Select the key pair to sign-in to the VM over ssh. If no key pair exists for the user, create one using the **+** sign and follow the instructions to save the private key file.
         - Click **Next**.
      2. Enter the **Storage** parameters:
         - **Boot Volume** - disk size (GB) and volume type that will be used for the boot volume of the VM instance.
         - **Data Volumes** - add new or existing data volumes. To add a new volume, click **Add** and **+** and configure the following:
           - **Name** - volume name.
           - **Description** - description of volume.
           - **Volume Type** - select the volume type from the dropdown list.

- **Size** - volume size (GB).
- **Protection Group** - protection group for the volume.

- Click **Next**.

3. Enter the **Networking** tab parameters according to the specific environment, and click **Finish**. The VM instance will start.

4. When the VM instance is ready:
   1. Launch the VM in the target project, if it wasn't started yet:
      1. In the zCompute UI, go to **Compute > Instances**.
      2. Select the VM, and click **Start**.
   2. If the Security Group settings are not yet configured to permit ssh access to the VM:
      1. Go to **VPC Networking > Security Groups** and select the Security Group for the account and project.
      2. On the top toolbar, click **Modify**.
      3. In the **Modify Security Group** dialog, click **Add** to add any required entries to permit ssh access.
      4. Click **OK**.
   3. Configure an Elastic IP address for the VM:
      1. Go to **Compute > Instances**, and select the VM instance.
      2. On the top toolbar, select **More > Attach > Elastic IP**.
      3. In the **Attach Elastic IP** dialog, allocate an IP address.
      4. In **Compute > Instances**, click the VM instance's link in the **Name** column.
      5. In the VM's **Subnets** section, note its Elastic IP address, or copy it to the clipboard.
   4. Connect to the VM instance via `ssh`, as the user `fedora`:

      ```
      ssh -i <private-key pem path/filename> fedora@<Elastic IP address>
      ```

      The VM displays the Zadara Toolbox welcome message:

      ```
       _____          _                    _____           _ _
      |__  /__ _  __| | __ _ _ __ __ _  |_   _|__   ___ | | |__   _____  __
        / // _` |/ _` |/ _` | '__/ _` |   | |/ _ \ / _ \| | '_ \ / _ \ \/ /
       / /| (_| | (_| | (_| | | | (_| |   | | (_) | (_) | | |_) | (_) >  <
      /____\__,_|\__,_|\__,_|_|  \__,_|   |_|\___/ \___/|_|_.__/ \___/_/\_\

      Welcome to Zadara Toolbox VM!
      ```

5. Install Symp on the VM by running the following command:

   ```
   symp-update -c <Cluster IP> -k
   ```

6. Verify that the Symp installation was successful by running a `symp` command.

   ```
   symp -k --url https://<cluster IP address> -d <account> -u <username> --project <projectname>
   ```

   Symp will prompt for the user's password.

   For example:

```
symp -k --url https://10.11.12.13 -d cloud_member -u member1 --project vpc_proj1

Starting new HTTPS connection (1): 10.11.12.13
Password:

 d88888b  dP    dP 8888ba.88ba   888888ba  dP     dP   .88888.  888888ba  dP    dP
88.    "' Y8.  .8P 88  `8b  `8b  88    `8b 88     88  d8'   `8b 88    `8b Y8.  .8P
`Y88888b.  Y8aa8P  88   88   88 a88aaaa8P' 88aaaaa88a 88     88 88     88  Y8aa8P
      `8b    88    88   88   88  88        88     88  88     88 88     88    88
d8'   .8P    88    88   88   88  88        88     88  Y8.   .8P 88     88    88
 Y88888P     dP    dP   dP   dP  dP        dP     dP   `8888P'  dP     dP    dP

Tap <TAB> twice to get list of available commands.
Type --help to get help with any command
Symphony @ cloud_member/vpc_proj1 >
```

Adaptive-Table Output Format Modifiers

The Adaptive-Table Output Format is Symp's CLI default output format.

It is sensitive to the terminal width and supports hierarchical data structures and the filtering of rows and columns.

Usage

```
$ symp command [argument [argument...]] [--flag] [-m modifier [modifier...]]
```

Filter Modifiers

By default, symp displays all rows and columns.

To restrict the output to a select population of rows, columns, or both, apply filter modifiers to the symp command.

✔ **Note:** Multiple filter modifiers can be applied to a single symp command.

Multiple filter modifiers are processed in the following order:

1. `grep*`
2. `head`
3. `tail`
4. `columns`

Filter Modifier	Description
`grep`	**Usage**: `-m grep=pattern` Displays only those rows containing a value that matches the pattern. The matching value is **case-sensitive**. The pattern can be any regular expression. For example: • `grep=name` - Displays only those rows containing a value that matches 'name'. • `grep=name|number` - Displays only those rows containing a value that matches either 'name' or 'number'. • `'grep=name grep=number'` - Displays only those rows containing both one value that matches 'name' and another value that matches 'number'. **Note**: The values are searched recursively.
`grep-i`	**Usage**: `-m grep-i=pattern` Same as `grep`, but the matching value is **case-insensitive**.
`grep-v`	**Usage**: `-m grep-v=pattern` Displays all rows **except** those containing any values that match the pattern. The matching value is **case-sensitive**. The pattern can be any regular expression. For example: • `grep-v=name` - Displays all rows **except** those that contain a value that matches 'name'. • `grep-v=name|number` - Displays all rows **except** those that contain a value that matches either 'name' or 'number'. • `'grep-v=name grep-v=number'` - Displays all rows **except** those that contain both one value that matches 'name' and another value that matches 'number'.
`grep-iv` `grep-vi`	**Usage**: `-m grep-iv=pattern` or `-m grep-vi=pattern` Same as `grep-v`, but the matching value is **case-insensitive**.
`head`	**Usage**: `-m head=n` Displays only the first n rows.
`tail`	**Usage**: `-m tail=n` Displays only the last n rows. Thus, if a table has 20 rows, the modifier `-m head=10 tail=5` would display the last five of the first ten rows, or rows 6-10. **Note**: tail is processed after head regardless of their order in the command.
`columns`	**Usage**: `-m columns=pattern` Displays only those columns whose headers match the pattern. The matching value is case-sensitive. The pattern can be any regular expression. **Note**: The columns modifier is processed after the `grep*` modifiers, so the matched values might not be displayed. • `columns=name` - Displays only those columns whose headers match 'name'. • `columns=name|id` or `'columns=name columns=id'` (In contrast to `grep=pattern`) - Displays only those columns whose headers match either 'name' or 'id'.

Display Modifiers

To customize the output style, apply display modifiers to the symp command to override the default output style settings.

✔ **Note:** The display modifiers `split-table`, `force-frames`, and `horizontal-lines` are boolean settings, with the following valid values:

- `true`, `t`
- `yes`, `y`
- `false`, `f`
- `no`, `n`

All boolean values are case-insensitive.

Display Modifier	Description
`split-table`	**Usage**: `-m split-table=<boolean value>` Splits output into multiple, terminal-width tables, each containing some of the columns. Default: `false`
`column-order`	**Usage**: `-m column-order=<csv column list>` Displays the columns according to a comma-separated list of column headers. The unlisted columns are displayed after the listed ones in alphabetical order. Default: `name, id, status, state`
`force-frames`	**Usage**: `-m force-frames=<boolean value>` Displays frames around all sub-tables. Default: `false`
`horizontal-lines`	**Usage**: `-m horizontal-lines=<boolean value>` Displays horizontal lines between each row. Horizontal lines are normally only drawn if either the row above or below is split into multiple lines. Default: `false`
`split-words`	**Usage**: `-m split-words=<policy>` Determines whether to split words when displaying cell values that are longer than their cell width. There are four policies: • `except-ids` (default) - Same as `standard` except that UUIDs and IPv4 addresses are never split. • `standard` - Cell values are split only between words. Words are not split unless a word is longer than the cell width. • `always` - Cell values can be split both between words and within words. This can result in slightly shorter tables. • `never` - Cell values are never split. This causes the table to look like the output of the regular table formatter.
`width`	**Usage**: `-m width=n` Sets the width of the terminal to **n** characters instead of using the auto-detected value. Default: auto-detected value.

Symp CLI Reference Guide

✔ **Note:** The Symp CLI parameters `domain_name` and `domain_id` are known as **Account Name** and **Account ID** respectively, in zCompute's UI.

access-key

actor

alarm

api-trail

api

apps

auth

autoscaling-groups

aws-policy

certificates

cloudwatch

compute-rule-checker

compute-rule

domains-config

dvs

event

external-endpoint

group

health

instance-profile

instance

key-pair

lbaas

Image Requirements

metric

multi-factor-auth

notification

password-policy

password-reset

project

protection

quotas

role-assignments

role

snapshot

strato-policy

table

tag

user

vlan-pool

vm-snapshot

vm

volume

vpc

4.2.19 Cloud-init: What is it and Why it's Important to Your Cloud Environment

Cloud-init is a proven method of bootstrapping your instances in the cloud and creating a standard environment for your workloads to run on, providing standardization and manageability.

This page describes what it is and how it's implemented.

Cloud-init and its capabilities

Cloud-init is an initialization service that is installed inside an instance, and cloud-config is a set of scripts that are executed as soon as the instance is started.

Zadara only provides a cloud-init metadata service. This service is available at the link-local address `169.254.169.254`. It provides the VM with basic information about the instance. The service also provides cloud-init user-data, which users can add. This user-data allows for additional configurations when creating a new instance.

The Zadara Compute cloud provides the cloud-init metadata to the VM. The configuration in the OS image determines how this metadata is used during a VM's first boot initialization.

Cloud-init runs on Linux workloads. The equivalent for Microsoft Windows is CloudBase-init, which supports the majority of cloud-config parameters. The service on the operating system starts early at boot, retrieves metadata that has been provided from an external provider (metadata) or by direct user data supplied by the user.

You can pass a regular script of almost any interpreter that you wish to use, providing that you have that interpreter already installed on your instance.

For example, passing a bash script to almost any instance should succeed, because most instances have bash installed by default. On the other hand, passing a Python or Ruby script to cloud-init as a file will most probably not work, unless you already have Python or Ruby installed in your instance as part of your image or template.

Cloud-config Syntax

Cloud-config has its own syntax that is based on YAML, a human-readable data serialization language. There are a number of basic rules that you should be aware of when using YAML:

- Indentation with white spaces (not tabs) defines the relationship and structure of the resources in the script.
- Members of a list can be identified with the leading dash on the line.
- Blocks of text are indented.
- Text that is to be interpreted as is, should be preceded by a pipe character (`|`). For example:

```
examples:
- comment: |
    Example 1: (optional) description of the expected behavior of the example
```

Cloud-config Examples

Users and Groups

When provisioning your instances, a good practice is to ensure that you have a default group and a user defined for the instance. This allows you to ensure that you have a standard configuration of all your provisioned instances and also allows you to comply with requirements as needed.

```
#cloud-config
users:  - name: strato
          groups: sudo
          shell: /bin/bash
          sudo: ['ALL=(ALL) NOPASSWD:ALL']
          ssh-authorized-keys: ssh-rsa
↪AAAAB3NzaC1yc2EAAAADAQABAAABAQDf0q4PyG0doiBQYV7OlOxbRjle026hJPBWDAaaaaxcdxd
↪+eKHWuVXIpAiQlSElEBqQn0pOqNJZ3IBCvSLnrdZTUph4czNC4885AArS9NkyM7lK27Oo8RV8 +NI5xPB/
↪QT3Um2Zi7GRkIwIgNPN5uqUtXvjgAaaaaaaffcdc+i1CS0Ku4ld8vndXvr504jV9BM
↪QoZrXEST3YlriOb8Wf7hYqphVMpF3b+8df96Pxsj0+iZqayS9wFcL8ITPApHi0yVwS8T jxEtI3FDpCbf7Y/
↪DmTGOv49+AWBkFhS2ZwwGTX65L61PDlTSAzL+rPFmHaQBHnsli8U9N6E4X HDEOjbSMRX user@example.com
```

What the code snippet above does:

The first line, `#cloud-config`, tells cloud-init that this is a cloud-config file and should be treated as such.

Next, there is a top level object `users` with the following characteristics:

- A new user with the name `strato`
- This user is a member of the sudo group with a bash shell, with privileges in the sudoers file that allow the user to run all privileged commands without having to provide a password
- Specifies the key to be added to the user's ~/.ssh/authorized_keys file when the user is created

Injecting Key-Value Pairs

When deploying at scale you are probably already using some kind of configuration management system such as Puppet, Salt or Chef to customize your instances. Attempting to manage customization on each instance individually does not scale well.

How can cloud-config help?

When you provision an instance, you would like to be able to identify the instance to be provisioned in a certain way.

For example, you would like the instance to be installed as a web server, to provide static content for your web application. The flow would be as follows:

1. Provision an instance with cloud-config
2. Configure the instance to point to your configuration management server
3. Identify the instance as a web server

This can be accomplished by defining a custom variable as part of your user-data, which will be parsed by cloud-init and then used further for the provisioning of the instance.

Following is an abbreviated example (this is not a full solution) of how this would be accomplished:

```
#!/bin/sh set -e -x # Standard role defaultrole=web #
# get role from commandline or if absent from hiera
# if [ $# -gt 0 ]; then  role=$1 else  role="`hiera -c
/etc/puppet/hiera.yaml
role $defaultrole 2>&1`" fi # # Run puppet.
# if [ -f /etc/puppet/manifests/$role.pp  ]; then  puppet apply
/etc/puppet/manifests/$role.pp else
echo "/etc/puppet/manifests/$role.pp was not found!"
exit 1 fi
```

Here we have defined the instance with the role of a web server, and instructed the instance to apply the appropriate modules according to the role for which the instance was defined. This could also be accomplished by setting specific metadata on the instance through your cloud platform upon instantiation, and then configuring the instance to retrieve that information and act upon it.

Adding Specific Yum Repositories

To install your software, configure a specific yum or apt repository on the instance so that it will know from where to pull the correct packages. This can be accomplished by adding the following lines to your cloud-config file:

```
#cloud-config # # Add yum repository configuration to the system
# # The following example adds the file /etc/yum.repos.d/epel_testing.repo
# which can then subsequently be used by yum for later operations.
yum_repos:
# The name of the repository    epel-testing:
baseurl: http://download.fedoraproject.org/pub/epel/testing/5/$basearch
enabled: false
failovermethod: priority
gpgcheck: true
gpgkey: file:///etc/pki/rpm-gpg/RPM-GPG-KEY-EPEL
name: Extra Packages for Enterprise Linux 5 - Testing
```

Creating a custom image

Linux

To create your own custom image with its own custom cloud-init behavior, you'll need to do the following to prepare the image.

- Install any software packages you want in the final image, including the cloud-init package.
- Configure `/etc/cloud/cloud.cfg` or `/etc/cloud/cloud.cfg.d` as desired.
- Run `cloud-init clean` to clean or reset cloud-init.
- Manually clean up anything else you don't want baked into the image, such as installers, temporary files, shell history, and so on.
- Shutdown and create an image from the volume.

The cloud-init documentation outlines all of this in more detail.

Cloud-init is a 3rd-party application and standard. This page provides some basic guidance.

Important: The specifics of the configuration will be something that your team should build based on requirements.

The configuration of the cloud-init client software is outside the scope of Zadara's support.

The following guidance comes with no warranties or support. Ensure that you thoroughly review the cloud-init documentation before implementing anything for production use.

Looking at the default configuration for cloud-init found on Canonical's Ubuntu 22.04 image, the user section looks like this:

```
users:
  - default
```

Instead of using cloud-init to create the default user, you can replace it. For example:

```
users:
  - name: asigra
    lock_passwd: True
    groups: [comma-separated list of groups needed for your usecase]
    sudo: ['ALL=(ALL) NOPASSWD:ALL']
    shell: /bin/bash
```

This creates an `asigra` user instead of an `ubuntu` user.

The `lock_passwd` parameter forces users to set a password at their first sign-on. Initially, they must sign on via SSH using their SSH key, as they don't yet have a password. After signing on via SSH for the first time and setting a password, they can subsequently sign on to the VM via VNC using that password.

This configuration also grants the `asigra` user password-free sudo permissions. It adds them to the groups specified in the `groups` list, and sets their default shell to `/bin/bash`.

Windows

For Windows, the steps for creating a custom image are largely the same as for Linux.

1. Install any software that you need, and apply your customizations.
2. Install cloud-init and create or edit the configuration file to suit your needs.
3. To get Windows into a fresh state, clean up installers, event logs, and other temporary files.
4. Run `sysprep`, just as you would with any Windows OS image.

Key Pairs and Windows Access

For accessing a Windows VM, key pairs are typically not used in the same way as with Linux VMs.

Instead, after configuring the necessary settings in the cloud-init configuration, you would likely use Remote Desktop Protocol (RDP) or another remote access method to connect to the instance.

For further information, see Get a Windows instance password.

4.2.20 How to Modify Cloud Image QCOW

Cloud images are images that are optimized to run on public clouds (EC2, OpenStack, etc). Those images are usually small – only necessary packages are installed. One of the installed packages is cloud-init. Cloudinit can be used to customize the initialization of the VM instance. Such initialization can include installation of additional packages, creation of users, configuration and more. Cloud images usually disable SSH using username/password, and allow SSH only using key-pair. To overcome this, cloudinit can be used to configure the authorized ssh keys. Since logging-in to an VM instance using username/password is usually disabled, we can't spawn a VM instance from a cloud image in the regular way. We need to pass the authorized ssh key to cloudinit, and ssh the instance using key-pair. After connecting to the VM instance we can modify the image as we want. This guide describes the necessary steps for updating a cloud image qcow.

Requirements

- **ssh-keygen** - will be used to generate key-pair.
- **genisoimage** - will be used to create iso with the user-data for cloudinit.
- **virt-manager** - will be used to spawn a VM instance from a cloud image.

Step-by-step Guide

1. **Generate key-pair**
   - First, we need to generate a key-pair that will be used to connect to the VM instance. This can be done using the ssh-keygen utility as follows:

```
ssh-keygen -m pem -f key.pem -t rsa -N ″ -C ″
```

2. **Create cloudinit user-data and metadata files**
   - Next, you can use cloudinit to configure the authorized ssh key created in the previous step. To do this, create the following user-data file:

```
#cloud-config
ssh_authorized_keys:
ssh-rsa
↪AAAAB3NzaC1yc2EAAAADAQABAAABAQDQAzK0lsWxn6Mrj6l60bHEjUUrKKK9KIxb+VfAtOUvx0Z95cnwlkBbx+9ilxEkHe5Mu/
↪QE81cicpGl94Pu4ClHCOghrJ4rWIlP+A37DdIeAA8yNHFOwJHd3acRjPrO49Q76ZFiuTCRvodbq3D+0yS7g9+4aSIyRZD2rr9stFYFPl+jVDzN
↪s/UcYNsed5jjaL5rHLT8jcVDY6f/t1k9RjqkPIp76i81L7n/
↪pIzzLjqINAJomrUNqddWLHMSBKS43xwmdaZeSuJve6Cuizre9b
```

   - Replace the ssh key with key generated in the previous step.
   - You also need to supply a metadata file. A minimal metadata file to set the hostname of the VM instance, can be defined as follows:

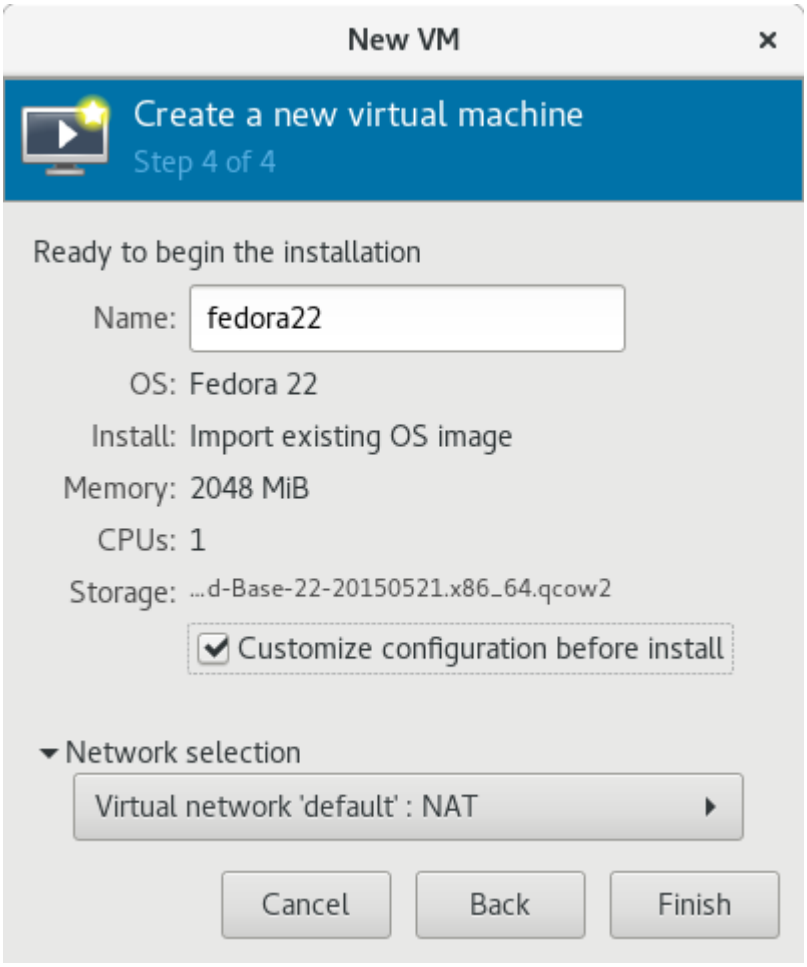
```
instance-id: iid-local01
local-hostname: cloudimg
```

3. **Generate iso image containing the user-data and meta-data files.**
   - Since the image will not be run in a cloud environment, you should use the NoCloud mode for cloudinit.
   - In NoCloud mode, cloudinit will read the user-data file from a CDROM device (and not from the network).

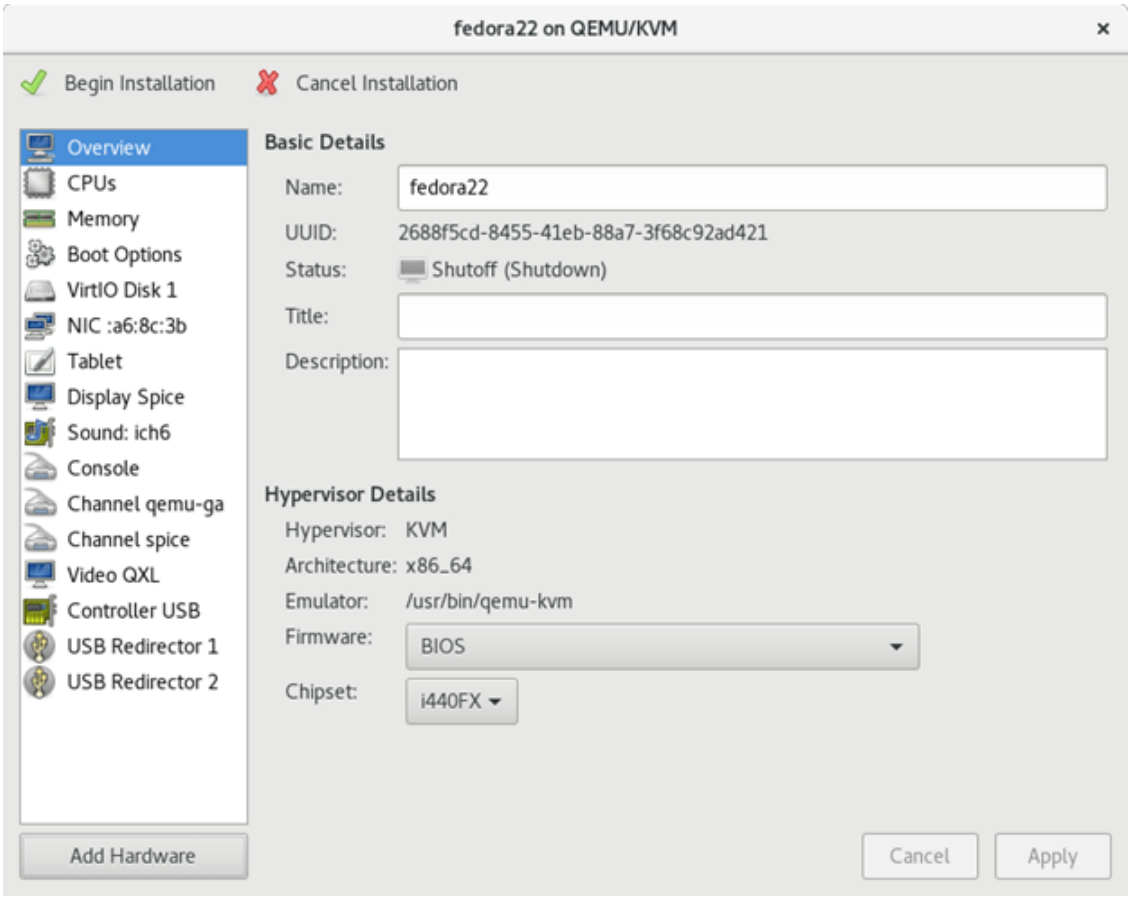
```
genisoimage  -output cidata.iso -volid cidata -joliet -rock user-data meta-data
```

4. **Spawn a VM from the cloud image.**

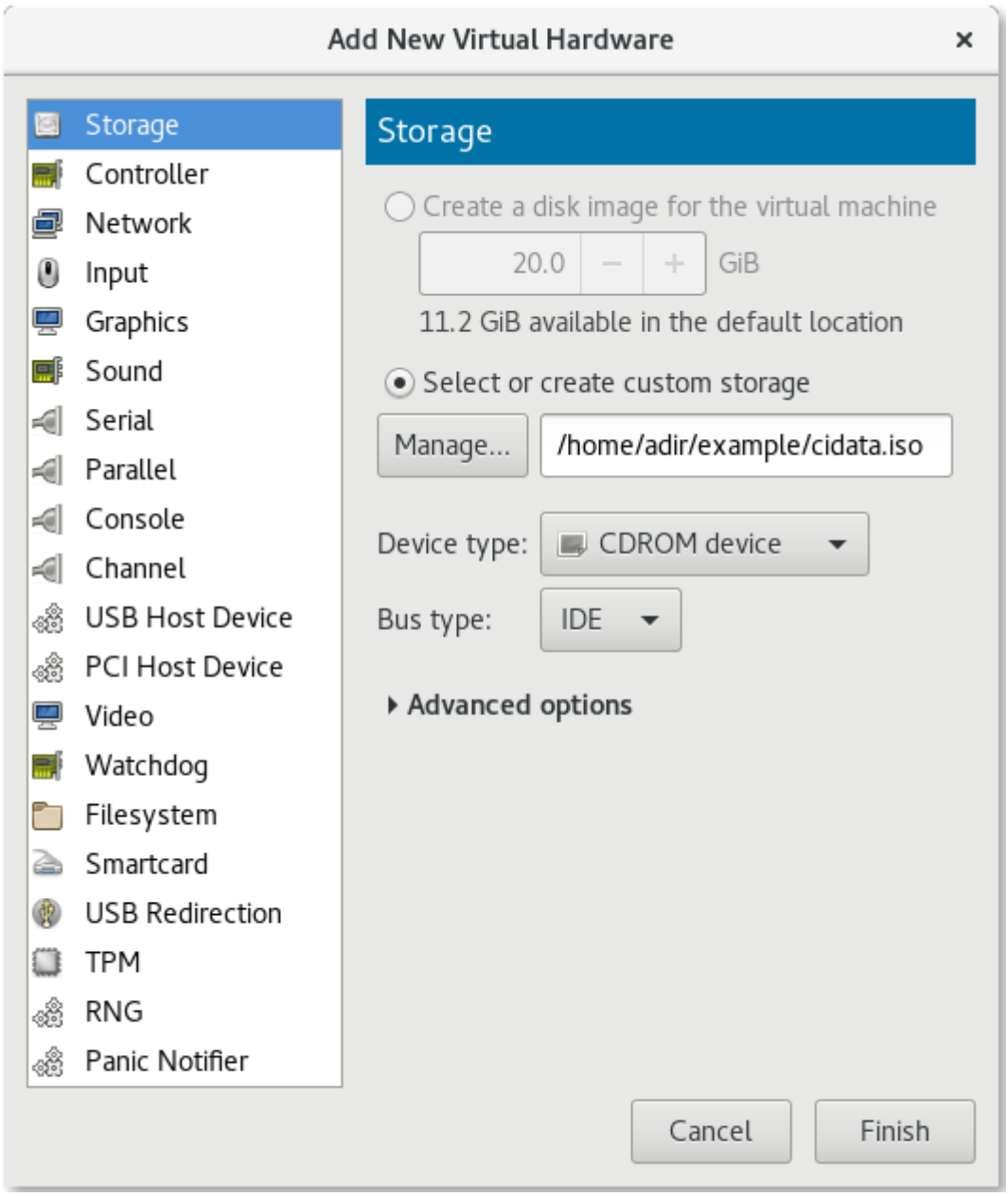
- Use virt-manager to spawn the VM instance.
- You should customize the configuration before the VM instance starts, and attach the VM to the default virtual network (NAT).



- Click **Finish**. A custom configuration screen will open.



- Choose **Add Hardware**, and add a CDROM device. You may attach the iso file created in the previous step.



- You may now start the VM instance.

5. **Connect to VM using SSH**

   - First, you need to determine the IP address allocated to the VM instance. This may be done with the following virsh command:

   ```
   sudo virsh domifaddr <vm-name>
   ```

   - For example, if the VM instance name is fedora22, then the command will be as follows:

   ```
   sudo virsh domifaddr fedora22
   ```

   - And the output will be as follows:

```
Name    MAC address       Protocol    Address
————————————————————————-
vnet0   52:54:00:a6:8c:3b    ipv4     192.168.122.99/24
```

- Now you may connect to the VM instance using SSH:

```
ssh -i <path-to-key.pem> <username>@<ip>
```

- Following the example above, the ssh command will be as follows:

```
ssh -i key.pem fedora@192.168.122.99
```

6. **Modify the image**

   Once you connect to the VM instance, you may modify the image for the following:

   - Install packages.
   - Change configuration.
   - Modify directories/files.
   - etc.

7. **Enable cloudinit for the next boot**

   - Note that cloudinit won't run in the next boot of a VM instance created from this image. In order to "reset" cloudinit and force it to run the full init process, delete cloudinit's working directory as follows:

```
sudo rm -rf /var/lib/cloud/*
```

8. **Shutdown the VM**

   - Once you are satisfied with the modifications done in the previous steps, you can save all change by simply shutting down the VM instance as follows:

```
sudo shutdown -h 0
```

That's it! Now the qcow of the cloud image contains all the desired modifications.

4.2.21 access-key

access-key create

Usage

```
  usage: symp access-key create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>] [--noindent]
                                [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--user-id USER_ID]
                                [--access-key-id ACCESS_KEY_ID]
                                [--secret-access-key SECRET_ACCESS_KEY]
                                [--project-id PROJECT_ID]
```

Description

Creates a new AWS secret access key and corresponding AWS access key ID for the specified user. The default status for new keys is Active.

Returns

Returns dict: A structure with details about the access key

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --user-id USER_ID     The ID of the user that the new key will belong to. If not given, current user is
↪used
  --access-key-id ACCESS_KEY_ID
                        Pre-generated access key. If not given, one will be generated
  --secret-access-key SECRET_ACCESS_KEY
                        Pre-generated secret access key. Must be given if access_key_id is not None.
                        If not given, one will be generated
  --project-id PROJECT_ID
                        The ID of the project in which the access-key will be created in
```

access-key list

Usage

```
  usage: symp access-key list
[-f {adaptive_table,csv,json,table,value,yaml}]
                             [-c COLUMN] [--max-width <integer>] [--noindent]
                             [--quote {all,minimal,none,nonnumeric}]
                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                             [--user-id USER_ID]
```

Description

Returns information about the access key IDs associated with the specified IAM user. If there are none, the action returns an empty list.

Returns

Returns list: A list of objects containing metadata about the access keys

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --user-id USER_ID     The ID of the user
```

access-key remove

Usage

```
  usage: symp access-key remove
[-f {adaptive_table,json,shell,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>] [--noindent]
                               [--prefix PREFIX]
                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                               [--user-id USER_ID]
                               access_key_id
```

Description

Deletes the access key pair associated with the specified user.

Mandatory

```
positional arguments:
  access_key_id         The access key ID for the access key ID and secret access key you want to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --user-id USER_ID     The ID of the user whose access key pair you want to delete
```

access-key update

Usage

```
  usage: symp access-key update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>] [--noindent]
                                [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--user-id USER_ID]
                                access_key_id is_active
```

Description

Changes the status of the specified access key from Active to Inactive, or vice versa. This action can be used to disable a user's key as part of a key rotation work flow.

Mandatory

```
positional arguments:
  access_key_id         The access key ID of the secret access key you want to update
  is_active             The status you want to assign to the secret access key.
                        True means active - the key can be used for API calls to AWS,
                        False means Inactive - the key cannot be used
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --user-id USER_ID     The ID of the user whose key you want to update
```

4.2.22 actor

actor get-actor-identity

Usage

```
  usage: symp actor get-actor-identity
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
```

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```
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Get details about the identity whose credentials are used to call the API.

The details tells whether the caller is an ordinary user or temporary credentials results from assuming a role and gives some information about it. The details properties for both actors are the same, although some might be None if they are irrelevant to that actor.

Returns

Returns dict: Details of the caller actor identity

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.23 alarm

alarm _internal_type_create

Usage

```
  usage: symp alarm _internal_type_create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--description DESCRIPTION]
                                        alarm_type_id name entity_type
                                        --transitions [--transitions ...]
```

Description

Register new alarm type for system services. If the alarm type already exists with exactly the same parameters, nothing should happen.

Mandatory

```
positional arguments:
  alarm_type_id         Unique service alarm identifier according to convention
  name                  Alarm name to be displayed to user
  entity_type           Alarm entity_type, the entity the alarm is about
  --transitions         A transition is a dict that describes event that will cause an alarm in one state
↪to
                        move to another state.  The 'none' state is used to describe how an alarm come to
↪be. There is always an implicit
                        transition from any state to the closed state that happens when a user of the API
↪turn off an alarm
                        [{'from_state': 's1',
                        'to_state': 's2',
                        'event_type': 'eid'}, ...]
                        Special states:
```

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```
                        Alarm doesn't exist yet: 'none'
                        Alarm is closed: 'closed'
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        Alarm description
```

alarm alarms action

Usage

```
  usage: symp alarm alarms action
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                alarm_id action
```

Description

Perform action on alarm.

Mandatory

```
positional arguments:
  alarm_id              Alarm's id
  action                Supported actions: [close]
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

alarm alarms get

Usage

```
  usage: symp alarm alarms get
[-f {adaptive_table,json,shell,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>] [--noindent]
                               [--prefix PREFIX]
                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                               alarm_id
```

Description

Return the alarm if it belongs to the project of the request or the request is issued by cloud_admin.

Returns

Returns dict: Alarm

Mandatory

```
positional arguments:
  alarm_id              Alarm type id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

alarm list

Usage

```
usage: symp alarm list

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--type-ids [TYPE_IDS [TYPE_IDS ...]]]
                      [--type-names [TYPE_NAMES [TYPE_NAMES ...]]]
                      [--entity-ids [ENTITY_IDS [ENTITY_IDS ...]]]
                      [--project-ids [PROJECT_IDS [PROJECT_IDS ...]]]
                      [--in-states [IN_STATES [IN_STATES ...]]]
                      [--not-in-states [NOT_IN_STATES [NOT_IN_STATES ...]]]
                      [--after AFTER] [--before BEFORE] [--order ORDER]
                      [--sort-by SORT_BY] [--marker MARKER] [--limit LIMIT]
```

Description

Get a list of alarms filtered by given params. If param value is None or [] it will not be used for filtering.

Returns

Returns dict: A dict of a form {'alarms': [], marker: int}

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --type-ids [TYPE_IDS [TYPE_IDS ...]]
                        Filter by. alarm type ids, default=no filter
  --type-names [TYPE_NAMES [TYPE_NAMES ...]]
                        Filter by alarm type names, default=no filter
  --entity-ids [ENTITY_IDS [ENTITY_IDS ...]]
                        Filter by entities ids, default=no filter
  --project-ids [PROJECT_IDS [PROJECT_IDS ...]]
                        System admin can filter by project ids, other users will get only results in their
                        project. System admin default=no filter, User default=only users project.
↪Forbidden will be thrown on illegal
                        access
  --in-states [IN_STATES [IN_STATES ...]]
                        Filter by event state, default=no filter
  --not-in-states [NOT_IN_STATES [NOT_IN_STATES ...]]
                        Filter by event state. Use not_in_states=['closed'] to filter closed events.
                        default=no filter
  --after AFTER         Date in isoformat ('2017-01-29T04:09:01Z').
                        Start of query period (milliseconds since epoch)
  --before BEFORE       Date in isoformat ('2017-01-29T04:09:01Z').
```

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```
                        End of query period (milliseconds since epoch), by default - now
  --order ORDER         The sorting order of response (ascending|descending). default=descending
  --sort-by SORT_BY     An alarm type field to sort by, default=updated_at
  --marker MARKER       Offset of the first entity relative to the specified order to be retrieved,
↪default=0
  --limit LIMIT         Limit the number of results, default=100
```

alarm type create

Usage

```
  usage: symp alarm type create
[-f {adaptive_table,json,shell,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>] [--noindent]
                               [--prefix PREFIX]
                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                               [--description DESCRIPTION]
                               [--project-id PROJECT_ID]
                               name entity_type --transitions
                               [--transitions ...]
```

Description

Register new alarm type.

Returns

Returns dict: Id of the created alarm type

Mandatory

```
positional arguments:
  name                  Alarm name to be displayed to user
  entity_type           Alarm entity_type, the entity the alarm is about
  --transitions         A transition is a dict that describes event that will cause an alarm in one state
↪to
                        move to another state.  The 'none' state is used to describe how an alarm come to
↪be. There is always an implicit
                        transition from any state to the closed state that happens when a user of the API
↪turn off an alarm
                        [{'from_state': 's1',
                        'to_state': 's2',
                        'event_type': 'eid'}, ...]
                        Special states:
                        Alarm doesn't exist yet: 'none'
                        Alarm is closed: 'closed'
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        Alarm description
  --project-id PROJECT_ID
                        Can be used by system_admin to override the project for which the alarm will be
↪defined.
```

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```
                        If the parameter is None and the user is system admin, the alarm will be defined
↪on system level
```

alarm types get

Usage

```
  usage: symp alarm types get
[-f {adaptive_table,json,shell,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--prefix PREFIX]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              type_id
```

Description

Return the alarm type if its project matches the request project, or the user is cloud_admin.

Returns

Returns dict: Alarm type

Mandatory

```
positional arguments:
  type_id               Alarm type id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

alarm types list

Usage

```
  usage: symp alarm types list
[-f {adaptive_table,json,shell,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>] [--noindent]
                               [--prefix PREFIX]
                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                               [--names [NAMES [NAMES ...]]]
                               [--entity-types [ENTITY_TYPES [ENTITY_TYPES ...]]]
                               [--project-ids [PROJECT_IDS [PROJECT_IDS ...]]]
                               [--order ORDER] [--sort-by SORT_BY]
                               [--marker MARKER] [--limit LIMIT]
```

Description

Get a list alarm types. If param value is None it will not be used for filtering.

Returns

Returns dict: A dict of a form {'alarm_types': [], marker: int}

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --names [NAMES [NAMES ...]]
                        Filter by alarm type names, default=no filter
  --entity-types [ENTITY_TYPES [ENTITY_TYPES ...]]
                        Filter by entity types, default= no filter
  --project-ids [PROJECT_IDS [PROJECT_IDS ...]]
                        System admin can filter by project ids, other users will get only results in their
                        project. System admin default=no filter, User default=only users project.
↪Forbidden will be thrown on illegal
                        access
  --order ORDER         The sorting order of response (ascending|descending). default=ascending
  --sort-by SORT_BY     An alarm type field to sort by, default=name
  --marker MARKER       Offset of the first entity relative to the specified order to be retrieved,
↪default=0
  --limit LIMIT         Limit the number of results, default=100
```

4.2.24 api

api aws-list

Usage

```
usage: symp api aws-list

                         [-h] [-f {adaptive_table,csv,json,table,value,yaml}]
↪[-c COLUMN] [--max-width <integer>] [--noindent]
                         [--quote {all,minimal,none,nonnumeric}]
                         [-m [NAME=VALUE [NAME=VALUE ...]]]
                         [--action-names [ACTION_NAMES [ACTION_NAMES ...]]]
                         [--service SERVICE]
```

Description

Return information about all supported AWS APIs

Returns

Returns list: List of all supported AWS APIs

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --action-names [ACTION_NAMES [ACTION_NAMES ...]]
                        If given, filter APIs by action names. Values should be comma seperated
  --service SERVICE     If given, filter APIs by the given service
```

api aws-services

Usage

```
  usage: symp api aws-services
[-f {adaptive_table,csv,json,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--quote {all,minimal,none,nonnumeric}]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Return list of supported AWS services

Returns

Returns list: List of all supported AWS services

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

api list

Usage

```
usage: symp api list

                     [-h] [-f {adaptive_table,csv,json,table,value,yaml}]                      [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                     [--quote {all,minimal,none,nonnumeric}]
                     [-m [NAME=VALUE [NAME=VALUE ...]]] [--category CATEGORY]
                     [--scope SCOPE]
                     [--action-names [ACTION_NAMES [ACTION_NAMES ...]]]
```

Description

Return information about all APIs

Returns

Returns list: List of all APIs

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --category CATEGORY   If given, filter APIs by product category
  --scope SCOPE         If given, filter APIs by scope
  --action-names [ACTION_NAMES [ACTION_NAMES ...]]
                        If given, filter APIs by action names. Values should be comma seperated
```

api-trail count

Usage

```
  usage: symp api-trail count
[-f {adaptive_table,csv,json,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--quote {all,minimal,none,nonnumeric}]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                            [--account-id [ACCOUNT_ID [ACCOUNT_ID ...]]]
                            [--user-id [USER_ID [USER_ID ...]]]
                            [--api-path [API_PATH [API_PATH ...]]]
                            [--api-path-prefix [API_PATH_PREFIX [API_PATH_PREFIX ...]]]
                            [--status-code [STATUS_CODE [STATUS_CODE ...]]]
                            [--is-aws-request IS_AWS_REQUEST]
                            [--start-timestamp START_TIMESTAMP]
                            [--end-timestamp END_TIMESTAMP]
                            [--interval-length INTERVAL_LENGTH]
                            [--group-by GROUP_BY]
```

Description

Get API trail filtered by given params. If param value is None or [] it will not be used for filtering.

Returns

Returns list: List of {"<field>": "<field_value>", "count": <count>} for events matching the provided filters

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        If the user is tenant/system admin,
                        the project ID from the credentials will be used to filter if it is not given,
↪multiple values can be given
  --account-id [ACCOUNT_ID [ACCOUNT_ID ...]]
                        If the user is system admin,
                        the account ID from the credentials will be used to filter if it is not given,
↪multiple values can be given
  --user-id [USER_ID [USER_ID ...]]
                        Filter by (default: None)
  --api-path [API_PATH [API_PATH ...]]
                        Filter by (default: None), multiple values can be given
  --api-path-prefix [API_PATH_PREFIX [API_PATH_PREFIX ...]]
                        Filter by prefixes of api path (default: None), multiple values can be given
  --status-code [STATUS_CODE [STATUS_CODE ...]]
                        Filter by (default: None), multiple values can be given
  --is-aws-request IS_AWS_REQUEST
                        Filter by (default: None)
  --start-timestamp START_TIMESTAMP
                        Start of query period (milliseconds since epoch), by default - 1 hour back
  --end-timestamp END_TIMESTAMP
                        End of query period (milliseconds since epoch), by default - now
  --interval-length INTERVAL_LENGTH
                        Length of query interval (seconds). No default
                        only two of start_timestamp, end_timestamp, interval_length can be present
  --group-by GROUP_BY   Count and group by specific field one of:
```

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```
                        project_id, account_id, user_id, user_name, api_path, status_code, remote_addr
↪(default: status_code)
```

api-trail query

Usage

```
  usage: symp api-trail query
[-f {adaptive_table,csv,json,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--quote {all,minimal,none,nonnumeric}]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                              [--account-id [ACCOUNT_ID [ACCOUNT_ID ...]]]
                              [--user-id [USER_ID [USER_ID ...]]]
                              [--api-path [API_PATH [API_PATH ...]]]
                              [--api-path-prefix [API_PATH_PREFIX [API_PATH_PREFIX ...]]]
                              [--status-code [STATUS_CODE [STATUS_CODE ...]]]
                              [--is-aws-request IS_AWS_REQUEST]
                              [--start-timestamp START_TIMESTAMP]
                              [--end-timestamp END_TIMESTAMP]
                              [--interval-length INTERVAL_LENGTH]
                              [--limit LIMIT] [--offset OFFSET]
```

Description

Get API trail filtered by given params. If param value is None or [] it will not be used for filtering. This API uses paging and by default, it will only return the first 50 records in the last hour.

Returns

Returns list: List of API calls matching the provided filters, ordered by time stamp, most recent event first

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        If the user is tenant/system admin,
                        the project ID from the credentials will be used to filter if it is not given,
↪multiple values can be given
  --account-id [ACCOUNT_ID [ACCOUNT_ID ...]]
                        If the user is system admin,
                        the account ID from the credentials will be used to filter if it is not given,
↪multiple values can be given
  --user-id [USER_ID [USER_ID ...]]
                        Filter by (default: None), multiple values can be given
  --api-path [API_PATH [API_PATH ...]]
                        Filter by (default: None), multiple values can be given
  --api-path-prefix [API_PATH_PREFIX [API_PATH_PREFIX ...]]
                        Filter by prefixes of api path (default: None), multiple values can be given
  --status-code [STATUS_CODE [STATUS_CODE ...]]
                        Filter by (default: None), multiple values can be given
  --is-aws-request IS_AWS_REQUEST
                        Filter by (default: None)
  --start-timestamp START_TIMESTAMP
                        Start of query period (seconds since epoch), No default
```

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```
  --end-timestamp END_TIMESTAMP
                        End of query period (seconds since epoch), by default - now
  --interval-length INTERVAL_LENGTH
                        Length of query interval (seconds). by default - 1 hour (3600 seconds)
                        only two of start_timestamp, end_timestamp, interval_length can be present
  --limit LIMIT         Limit amount of API calls (default: 50)
  --offset OFFSET       Offset to paginate the results (default: None)
```

4.2.25 api-trail

api-trail count

Usage

```
  usage: symp api-trail count
[-f {adaptive_table,csv,json,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--quote {all,minimal,none,nonnumeric}]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                              [--account-id [ACCOUNT_ID [ACCOUNT_ID ...]]]
                              [--user-id [USER_ID [USER_ID ...]]]
                              [--api-path [API_PATH [API_PATH ...]]]
                              [--api-path-prefix [API_PATH_PREFIX [API_PATH_PREFIX ...]]]
                              [--status-code [STATUS_CODE [STATUS_CODE ...]]]
                              [--is-aws-request IS_AWS_REQUEST]
                              [--start-timestamp START_TIMESTAMP]
                              [--end-timestamp END_TIMESTAMP]
                              [--interval-length INTERVAL_LENGTH]
                              [--group-by GROUP_BY]
```

Description

Get API trail filtered by given params. If param value is None or [] it will not be used for filtering.

Returns

Returns list: List of {"<field>": "<field_value>", "count": <count>} for events matching the provided filters

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        If the user is tenant/system admin,
                        the project ID from the credentials will be used to filter if it is not given,
↪multiple values can be given
  --account-id [ACCOUNT_ID [ACCOUNT_ID ...]]
                        If the user is system admin,
                        the account ID from the credentials will be used to filter if it is not given,
↪multiple values can be given
  --user-id [USER_ID [USER_ID ...]]
                        Filter by (default: None)
  --api-path [API_PATH [API_PATH ...]]
                        Filter by (default: None), multiple values can be given
  --api-path-prefix [API_PATH_PREFIX [API_PATH_PREFIX ...]]
```

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```
                        Filter by prefixes of api path (default: None), multiple values can be given
  --status-code [STATUS_CODE [STATUS_CODE ...]]
                        Filter by (default: None), multiple values can be given
  --is-aws-request IS_AWS_REQUEST
                        Filter by (default: None)
  --start-timestamp START_TIMESTAMP
                        Start of query period (milliseconds since epoch), by default - 1 hour back
  --end-timestamp END_TIMESTAMP
                        End of query period (milliseconds since epoch), by default - now
  --interval-length INTERVAL_LENGTH
                        Length of query interval (seconds). No default
                        only two of start_timestamp, end_timestamp, interval_length can be present
  --group-by GROUP_BY   Count and group by specific field one of:
                        project_id, account_id, user_id, user_name, api_path, status_code, remote_addr
↪(default: status_code)
```

api-trail query

Usage

```
  usage: symp api-trail query
[-f {adaptive_table,csv,json,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--quote {all,minimal,none,nonnumeric}]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                              [--account-id [ACCOUNT_ID [ACCOUNT_ID ...]]]
                              [--user-id [USER_ID [USER_ID ...]]]
                              [--api-path [API_PATH [API_PATH ...]]]
                              [--api-path-prefix [API_PATH_PREFIX [API_PATH_PREFIX ...]]]
                              [--status-code [STATUS_CODE [STATUS_CODE ...]]]
                              [--is-aws-request IS_AWS_REQUEST]
                              [--start-timestamp START_TIMESTAMP]
                              [--end-timestamp END_TIMESTAMP]
                              [--interval-length INTERVAL_LENGTH]
                              [--limit LIMIT] [--offset OFFSET]
```

Description

Get API trail filtered by given params. If param value is None or [] it will not be used for filtering. This API uses paging and by default, it will only return the first 50 records in the last hour.

Returns

Returns list: List of API calls matching the provided filters, ordered by time stamp, most recent event first

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        If the user is tenant/system admin,
                        the project ID from the credentials will be used to filter if it is not given,
↪multiple values can be given
  --account-id [ACCOUNT_ID [ACCOUNT_ID ...]]
                        If the user is system admin,
                        the account ID from the credentials will be used to filter if it is not given,
```

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```
↪multiple values can be given
  --user-id [USER_ID [USER_ID ...]]
                        Filter by (default: None), multiple values can be given
  --api-path [API_PATH [API_PATH ...]]
                        Filter by (default: None), multiple values can be given
  --api-path-prefix [API_PATH_PREFIX [API_PATH_PREFIX ...]]
                        Filter by prefixes of api path (default: None), multiple values can be given
  --status-code [STATUS_CODE [STATUS_CODE ...]]
                        Filter by (default: None), multiple values can be given
  --is-aws-request IS_AWS_REQUEST
                        Filter by (default: None)
  --start-timestamp START_TIMESTAMP
                        Start of query period (seconds since epoch), No default
  --end-timestamp END_TIMESTAMP
                        End of query period (seconds since epoch), by default - now
  --interval-length INTERVAL_LENGTH
                        Length of query interval (seconds). by default - 1 hour (3600 seconds)
                        only two of start_timestamp, end_timestamp, interval_length can be present
  --limit LIMIT         Limit amount of API calls (default: 50)
  --offset OFFSET       Offset to paginate the results (default: None)
```

4.2.26 apps

apps template create

Usage

```
  usage: symp apps template create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  [--description DESCRIPTION]
                                  [--category CATEGORY] [--author AUTHOR]
                                  [--visibility VISIBILITY]
                                  [--user-data USER_DATA]
                                  [--exposed-ports [EXPOSED_PORTS [EXPOSED_PORTS ...]]]
                                  [--instance-type INSTANCE_TYPE]
                                  [--instance-metadata INSTANCE_METADATA]
                                  [--instance-params [INSTANCE_PARAMS [INSTANCE_PARAMS ...]]]
                                  [--project-id PROJECT_ID]
                                  name image_id
```

Description

Create a new application template.

Returns

Returns dict: The new template dict

Mandatory

```
positional arguments:
  name                  A name for the new template
  image_id              Image ID for the template
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        A description for the new template
  --category CATEGORY   The application template's category
  --author AUTHOR       The author of the template
  --visibility VISIBILITY
                        Who can see the new application template.
                        Options are "public", "account" or the default - "private"
  --user-data USER_DATA
                        A user data to add to new instances of this template
  --exposed-ports [EXPOSED_PORTS [EXPOSED_PORTS ...]]
                        A list of ports from which new instances will be accessible
  --instance-type INSTANCE_TYPE
                        The name of the instance type for instances of this template
  --instance-metadata INSTANCE_METADATA
                        Constant metadata for new instances of this template
  --instance-params [INSTANCE_PARAMS [INSTANCE_PARAMS ...]]
                        Parameters to get from the user when instantiating the template
  --project-id PROJECT_ID
                        Project in which to create the template
                        Defaults to token's project
```

apps template delete

Usage

```
  usage: symp apps template delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  template_id
```

Description

Delete an existing template.

Mandatory

```
positional arguments:
  template_id           The id of the template to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

apps template download-license

Usage

```
  usage: symp apps template download-license
[-f {adaptive_table,json,shell,table,value,yaml}]
                                            [-c COLUMN] [--max-width <integer>]
                                            [--noindent] [--prefix PREFIX]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                                            template_id
```

Description

Get an application template's license.

Returns

Returns str: A stream of the template's license

Mandatory

```
positional arguments:
  template_id           The template to get the license of
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

apps template download-logo

Usage

```
  usage: symp apps template download-logo
[-f {adaptive_table,json,shell,table,value,yaml}]
                                         [-c COLUMN] [--max-width <integer>]
                                         [--noindent] [--prefix PREFIX]
                                         [-m [NAME=VALUE [NAME=VALUE ...]]]
                                         template_id
```

Description

Get an application template's logo.

Returns

Returns str: A stream of the template's logo

Mandatory

```
positional arguments:
  template_id           The template to get the logo of
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

apps template get

Usage

```
  usage: symp apps template get
[-f {adaptive_table,json,shell,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>] [--noindent]
                               [--prefix PREFIX]
                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                               [--include-instances]
                               template_id
```

Description

Get details of a specific template.

Returns

Returns dict: The template's attributes and metadata

Mandatory

```
positional arguments:
  template_id           The id of the template to show
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --include-instances   Wether to include the instance IDs in the response
```

apps template launch

Usage

```
  usage: symp apps template launch
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  [--storage-pool-id STORAGE_POOL_ID]
                                  [--elastic-ip ELASTIC_IP]
                                  [--tags [TAGS [TAGS ...]]]
                                  [--template-params TEMPLATE_PARAMS]
                                  [--instance-type INSTANCE_TYPE]
                                  [--key-pair KEY_PAIR]
                                  [--security-groups [SECURITY_GROUPS [SECURITY_GROUPS ...]]]
                                  [--project-id PROJECT_ID]
                                  template_id name network_id
```

Description

Launch a new application instance.

Returns

Returns dict: The new instance details

Mandatory

```
positional arguments:
  template_id           The UUID of the template from which to create this instance
  name                  A name for the instance
  network_id            The UUID of the network to which this instance should be attached
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --storage-pool-id STORAGE_POOL_ID
                        (Optional) The id of the storage pool on which to create the boot volume
  --elastic-ip ELASTIC_IP
                        (Optional) The UUID of the elastic IP to attach to the instance
  --tags [TAGS [TAGS ...]]
                        (Optional) List of tags to attach to the instance
  --template-params TEMPLATE_PARAMS
                        (Optional) The template's instance params, as filled by the user, to set the
↪instance's configuration
  --instance-type INSTANCE_TYPE
                        (Optional) The name of the instance type of the instance
                        This overrides the instance type set by the template
  --key-pair KEY_PAIR   (Optional) The name of a key pair to attach to the instance
  --security-groups [SECURITY_GROUPS [SECURITY_GROUPS ...]]
                        (Optional) List of ids of security groups to set for the instnace
                        This will override the security groups automatically created by the template
  --project-id PROJECT_ID
                        (Optional) Project ID in which the instance will be created
                        Usable only by the system admin or by tenant admins
                        Defaults to the token's project
```

apps template list

Usage

```
  usage: symp apps template list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent]
                                [--quote {all,minimal,none,nonnumeric}]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--include-instances]
```

Description

List the available application templates.

Returns

Returns list: List of available application templates

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --include-instances   Wether to include the instance IDs in the response
```

apps template list-instances

Usage

```
  usage: symp apps template list-instances
[-f {adaptive_table,csv,json,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent]
                                          [--quote {all,minimal,none,nonnumeric}]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--show-all]
                                          template_id
```

Description

Get the list of application instances.

Returns

Returns list: Application instances in the system

Mandatory

```
positional arguments:
  template_id           The id of the template from which the instances were created
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --show-all            Wether to show instances that don't exist in vm-manager
                        Usable only by system admin
```

apps template remove-license

Usage

```
  usage: symp apps template remove-license
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          template_id
```

Description

Remove an application template's license.

Mandatory

```
positional arguments:
  template_id           Template to remove the license of
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

apps template remove-logo

Usage

```
  usage: symp apps template remove-logo
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       template_id
```

Description

Remove an application template's logo.

Mandatory

```
positional arguments:
  template_id           Template to remove the logo of
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

apps template update

Usage

```
  usage: symp apps template update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--image-id IMAGE_ID] [--name NAME]
                                    [--description DESCRIPTION]
                                    [--category CATEGORY] [--author AUTHOR]
                                    [--visibility VISIBILITY]
                                    [--user-data USER_DATA]
                                    [--exposed-ports [EXPOSED_PORTS [EXPOSED_PORTS ...]]]
                                    [--instance-type INSTANCE_TYPE]
                                    [--instance-metadata INSTANCE_METADATA]
                                    [--instance-params [INSTANCE_PARAMS [INSTANCE_PARAMS ...]]]
                                    template_id
```

Description

Updates an application template.

Returns

Returns dict: The updated template dict

Mandatory

```
positional arguments:
  template_id           The id of the template to update
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --image-id IMAGE_ID   Image ID for the template
  --name NAME           A name for the template
  --description DESCRIPTION
                        A description for the template
  --category CATEGORY   The application template's category
  --author AUTHOR       The author of the template
  --visibility VISIBILITY
                        Who can see the new application template.
                        Options are "public", "account" or the default - "private"
  --user-data USER_DATA
                        A user data to add to new instances of this template
  --exposed-ports [EXPOSED_PORTS [EXPOSED_PORTS ...]]
                        A list of ports from which new instances will be accessible
  --instance-type INSTANCE_TYPE
                        The name of the instance type for instances of this template
  --instance-metadata INSTANCE_METADATA
                        Constant metadata for new instances of this template
  --instance-params [INSTANCE_PARAMS [INSTANCE_PARAMS ...]]
                        Parameters to get from the user when instantiating the template
```

apps template upload-license

Usage

```
  usage: symp apps template upload-license
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          file template_id
```

Description

Upload a new license for an application template.

Mandatory

```
positional arguments:
  file
  template_id           Application template to set the license to
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

apps template upload-logo

Usage

```
  usage: symp apps template upload-logo
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        file template_id
```

Description

Upload a new logo for an application template.

Mandatory

```
positional arguments:
  file
  template_id           Application template to set the logo to
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.27 auth

auth change-expired-password

Usage

```
  usage: symp auth change-expired-password
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          auth
```

Description

Use to change password for a user whose password has expired.

Mandatory

```
positional arguments:
  auth                  Dictionary similar to the one passed in auth method but with a new_password field
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.28 autoscaling-groups

autoscaling-groups config list

Usage

```
  usage: symp autoscaling-groups config list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                            [-c COLUMN] [--max-width <integer>]
                                            [--noindent]
                                            [--quote {all,minimal,none,nonnumeric}]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List all autoscaling groups configuration values.

Returns

Returns list: List of autoscaling groups configuration values

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

autoscaling-groups group add-tags

Usage

```
  usage: symp autoscaling-groups group add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent] [--prefix PREFIX]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              [--propagate] [--system-tag]
                                              group_id --tags [--tags ...]
```

Description

Add tags to an autoscaling group based on the ID supplied.

Mandatory

```
positional arguments:
  group_id              ID of the autoscaling group to which the tags should be added
  --tags                List of tags to add to group. JSON format -
                        '{"key": "key1", "value": "value1"}'
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --propagate           Should the added tags be propagated to instances created by the group?
  --system-tag          Add as system tag, available only for admin user
```

autoscaling-groups group create

Usage

```
  usage: symp autoscaling-groups group create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                            [-c COLUMN]
                                            [--max-width <integer>]
                                            [--noindent] [--prefix PREFIX]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                                            [--desired-capacity DESIRED_CAPACITY]
                                            [--default-cooldown DEFAULT_COOLDOWN]
                                            [--target-group-ids [TARGET_GROUP_IDS [TARGET_GROUP_IDS ...
↪]]]
                                            [--description DESCRIPTION]
                                            [--health-check-grace-period HEALTH_CHECK_GRACE_PERIOD]
                                            [--health-check-type HEALTH_CHECK_TYPE]
                                            [--new-instances-protected-from-scale-in]
                                            [--termination-policies [TERMINATION_POLICIES [TERMINATION_
↪POLICIES ...]]]
                                            [--placement-policy PLACEMENT_POLICY]
                                            [--subnets [SUBNETS [SUBNETS ...]]]
                                            [--service-linked-role SERVICE_LINKED_ROLE]
                                            [--tags [TAGS [TAGS ...]]]
                                            [--propagated-tags [PROPAGATED_TAGS [PROPAGATED_TAGS ...]]]
                                            [--stateful]
                                            name launch_configuration_id
                                            min_size max_size
```

Description

Creates a new autoscaling group.

Returns

Returns dict: Details of the autoscaling group

Mandatory

```
positional arguments:
  name                  Name of the autoscaling group
  launch_configuration_id
                        Launch configuration to use when starting new VMs
  min_size              Minimal size of the autoscaling group
  max_size              Maximal size of the autoscaling group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --desired-capacity DESIRED_CAPACITY
                        Desired capacity of the autoscaling group; if autoscaling is defined, this is the
↪initial size of the autoscaling group
  --default-cooldown DEFAULT_COOLDOWN
                        Minimum cooldown (interval) for scaling operations in the autoscaling group
  --target-group-ids [TARGET_GROUP_IDS [TARGET_GROUP_IDS ...]]
                        The IDs of the target groups for your load balancer
  --description DESCRIPTION
                        Description of the autoscaling group
```

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```
  --health-check-grace-period HEALTH_CHECK_GRACE_PERIOD
                        The amount of time, in seconds, before the service starts before checking the
↪health status of an instance that has come into service
  --health-check-type HEALTH_CHECK_TYPE
                        The service to use for the health checks. The valid values are load_balancer or
↪vm_monitor (the default)
  --new-instances-protected-from-scale-in
                        Indicates whether newly launched instances are protected from termination by auto-
↪scaling when scaling in
  --termination-policies [TERMINATION_POLICIES [TERMINATION_POLICIES ...]]
                        The termination policies for the group
  --placement-policy PLACEMENT_POLICY
                        The ID of a policy that controls the instance placement on physical servers
  --subnets [SUBNETS [SUBNETS ...]]
                        One or more subnet IDs
  --service-linked-role SERVICE_LINKED_ROLE
                        The identifier of the service-linked role that the autoscaling group uses to call
↪other Symphony services on your behalf
  --tags [TAGS [TAGS ...]]
                        Tags to be associated with the group, supports JSON format per tag - '{"key":
↪"key1", "value": "value1"}'
  --propagated-tags [PROPAGATED_TAGS [PROPAGATED_TAGS ...]]
                        Tags to be associated with the group, supports JSON format per tag - '{"key":
↪"key1", "value": "value1"}'. These tags are also propagated to the instances created by the group
  --stateful            Indicated whether we need to powerup the VMs in the group after cluster is
↪powered on
```

autoscaling-groups group delete

Usage

```
  usage: symp autoscaling-groups group delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                             [-c COLUMN]
                                             [--max-width <integer>]
                                             [--noindent] [--prefix PREFIX]
                                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                                             [--force]
                                             group_id
```

Description

Deletes a single autoscaling group based on the ID supplied.

Mandatory

```
positional arguments:
  group_id              ID of the requested autoscaling group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Force the deletion of all related instances if set to true
```

autoscaling-groups group get

Usage

```
  usage: symp autoscaling-groups group get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          group_id
```

Description

Returns an autoscaling group based on the ID supplied.

Returns

Returns dict: Autoscaling group

Mandatory

```
positional arguments:
  group_id              ID of the requested autoscaling group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

autoscaling-groups group list

Usage

```
  usage: symp autoscaling-groups group list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                           [-c COLUMN] [--max-width <integer>]
                                           [--noindent]
                                           [--quote {all,minimal,none,nonnumeric}]
                                           [-m [NAME=VALUE [NAME=VALUE ...]]]
                                           [--names [NAMES [NAMES ...]]]
                                           [--describe-instances]
                                           [--tags [TAGS [TAGS ...]]]
                                           [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                           [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
                                           [--limit LIMIT] [--offset OFFSET]
```

Description

Returns all autoscaling groups.

Returns

Returns list: Autoscaling groups

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --names [NAMES [NAMES ...]]
```

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```
                        A list of autoscaling group names to return
  --describe-instances  If true, list instances in each group rather than just their number
  --tags [TAGS [TAGS ...]]
                        Filter by the group tags, JSON format '{"key": "key1", "value": ["value1", "value2
↪"]}'
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        Filter by the tag keys of the group, format ["key1", "key2, key3", "key4"]
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        Filter by the tag values of the group, format ["value1, value2", "value3", "value4
↪"]
  --limit LIMIT         The maximum number of items to return with this call
  --offset OFFSET       The offset of the page that will start the page
```

autoscaling-groups group list-tags

Usage

```
  usage: symp autoscaling-groups group list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent]
                                                [--quote {all,minimal,none,nonnumeric}]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                [--names [NAMES [NAMES ...]]]
                                                [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                                [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
```

Description

List tags of all the autoscaling groups.

Returns

Returns list: List of all tags

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --names [NAMES [NAMES ...]]
                        A list of autoscaling group names to retrieve tags from
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        Filter by the tag keys, format ["key1", "key2, key3", "key4"]
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        Filter by the tag values, format ["value1, value2", "value3", "value4"]
```

autoscaling-groups group remove-tags

Usage

```
  usage: symp autoscaling-groups group remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
                                                  [--noindent]
                                                  [--prefix PREFIX]
                                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                  [--system-tag]
                                                  group_id --tags [--tags ...]
```

Description

Remove tags from an autoscaling group based on the ID supplied.

Mandatory

```
positional arguments:
  group_id              ID of the requested autoscaling group from which the tags should be removed
  --tags                Tags to remove from the group. JSON format -
                        '{"key": "key1", "value": ["value1", "value2"]}'
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --system-tag          Remove a system tag, available only for admin user
```

autoscaling-groups group update

Usage

```
  usage: symp autoscaling-groups group update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                             [-c COLUMN]
                                             [--max-width <integer>]
                                             [--noindent] [--prefix PREFIX]
                                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                                             [--name NAME]
                                             [--desired-capacity DESIRED_CAPACITY]
                                             [--launch-configuration-id LAUNCH_CONFIGURATION_ID]
                                             [--min-size MIN_SIZE]
                                             [--max-size MAX_SIZE]
                                             [--default-cooldown DEFAULT_COOLDOWN]
                                             [--target-group-ids [TARGET_GROUP_IDS [TARGET_GROUP_IDS ...
↪]]]
                                             [--description DESCRIPTION]
                                             [--health-check-grace-period HEALTH_CHECK_GRACE_PERIOD]
                                             [--health-check-type HEALTH_CHECK_TYPE]
                                             [--new-instances-protected-from-scale-in NEW_INSTANCES_
↪PROTECTED_FROM_SCALE_IN]
                                             [--termination-policies [TERMINATION_POLICIES [TERMINATION_
↪POLICIES ...]]]
                                             [--placement-policy PLACEMENT_POLICY]
```

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```
                                        [--subnets [SUBNETS [SUBNETS ...]]]
                                        [--service-linked-role SERVICE_LINKED_ROLE]
                                        [--honor-cooldown]
                                        [--stateful STATEFUL]
                                        [--paused PAUSED]
                                        group_id
```

Description

Updates an autoscaling group.

Returns

Returns dict: Details of the autoscaling group

Mandatory

```
positional arguments:
  group_id              ID of the requested autoscaling group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Name of the autoscaling group
  --desired-capacity DESIRED_CAPACITY
                        Desired capacity of the autoscaling group
  --launch-configuration-id LAUNCH_CONFIGURATION_ID
                        Launch configuration to use when starting new VMs
  --min-size MIN_SIZE   Minimal size of the autoscaling group
  --max-size MAX_SIZE   Maximal size of the autoscaling group
  --default-cooldown DEFAULT_COOLDOWN
                        Minimum cooldown (interval) for scaling operations in the autoscaling group
  --target-group-ids [TARGET_GROUP_IDS [TARGET_GROUP_IDS ...]]
                        The IDs of the target groups for your load balancer
  --description DESCRIPTION
                        Description of the autoscaling group
  --health-check-grace-period HEALTH_CHECK_GRACE_PERIOD
                        The amount of time, in seconds, before the service starts before checking the
↪health status of an instance that has come into service
  --health-check-type HEALTH_CHECK_TYPE
                        The service to use for the health checks. The valid values are vm_monitor or load_
↪balancer
  --new-instances-protected-from-scale-in NEW_INSTANCES_PROTECTED_FROM_SCALE_IN
                        Indicates whether newly launched instances are protected from termination by auto-
↪scaling when scaling in
  --termination-policies [TERMINATION_POLICIES [TERMINATION_POLICIES ...]]
                        The termination policies for the group
  --placement-policy PLACEMENT_POLICY
                        The ID of a policy that controls the instance placement on physical servers
  --subnets [SUBNETS [SUBNETS ...]]
                        One or more subnet IDs
  --service-linked-role SERVICE_LINKED_ROLE
                        The identifier of the service-linked role that the autoscaling group uses to call
↪other Symphony services on your behalf
  --honor-cooldown      Flag for skipping cooldown between scaling activities
  --stateful STATEFUL   Indicated whether the system need to powerup the VMs in the group after cluster
↪is powered on
```

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```
  --paused PAUSED       Indicated whether the system should pause all change to the group
```

autoscaling-groups health get

Usage

```
  usage: symp autoscaling-groups health get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                           [-c COLUMN] [--max-width <integer>]
                                           [--noindent] [--prefix PREFIX]
                                           [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Returns the health status.

Note:

This endpoint will be used continuously by cluster manager in order to determine if the service is up and running and ready to serve requests.

Returns

Returns dict: Health status

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

autoscaling-groups instance attach

Usage

```
  usage: symp autoscaling-groups instance attach
[-f {adaptive_table,json,shell,table,value,yaml}]
                                               [-c COLUMN]
                                               [--max-width <integer>]
                                               [--noindent] [--prefix PREFIX]
                                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                                               group_id --instance_ids
                                               [--instance_ids ...]
```

Description

Attaches one or more instances to the specified auto-scaling group. When you attach instances, the desired capacity of the group is increased by the number of instances being attached.

Returns

Returns dict: A list of instance IDs that were successfully attached and a list of instance IDs that were unsuccessfully attached

Mandatory

```
positional arguments:
  group_id              The autoscaling group ID
  --instance_ids        The IDs of one or more instances that should be attached to the specified auto-
↪scaling group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

autoscaling-groups instance detach

Usage

```
  usage: symp autoscaling-groups instance detach
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                [--decrement-desired-capacity]
                                                group_id --instance_ids
                                                [--instance_ids ...]
```

Description

Detaches one or more instances from the specified auto-scaling group. After the instances are detached, you can manage them independently of the auto-scaling group.

Returns

Returns dict: A list of instance IDs that were successfully detached and a list of instance IDs that were unsuccessfully detached

Mandatory

```
positional arguments:
  group_id              The autoscaling group ID
  --instance_ids        The IDs of one or more instances that should be detached from the specified auto-
↪scaling group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --decrement-desired-capacity
                        If true, the auto-scaling group decrements the desired capacity value by the
↪number of instances detached
```

autoscaling-groups instance enter-standby

Usage

```
  usage: symp autoscaling-groups instance enter-standby
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                      [-c COLUMN]
                                                      [--max-width <integer>]
                                                      [--noindent]
                                                      [--prefix PREFIX]
                                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                      [--decrement-desired-capacity]
                                                      group_id --instance_ids
                                                      [--instance_ids ...]
```

Description

Moves the specified instances into the standby state.

Returns

Returns dict: A list of instance IDs that were successfully entered into the standby state and a list of instance IDs that were unsuccessfully entered into the standby state

Mandatory

```
positional arguments:
  group_id              The autoscaling group ID
  --instance_ids        The IDs of one or more instances that should be moved into the standby state
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --decrement-desired-capacity
                        If true, the auto-scaling group decrements the desired capacity value by the
↪number of instances moved into the standby state
```

autoscaling-groups instance exit-standby

Usage

```
  usage: symp autoscaling-groups instance exit-standby
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                     [-c COLUMN]
                                                     [--max-width <integer>]
                                                     [--noindent]
                                                     [--prefix PREFIX]
                                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                     group_id --instance_ids
                                                     [--instance_ids ...]
```

Description

Moves the specified instances out of the standby state. Auto-scaling increments the desired capacity when you put an instance that was on standby back in service. If you did not decrement the capacity when you put the instance on standby, auto-scaling detects that you have more instances than you need, and applies the termination policy in effect to reduce the size of your auto-scaling group.

Returns

Returns dict: A list of instance IDs that were successfully detached and a list of instance IDs that were unsuccessfully detached

Mandatory

```
positional arguments:
  group_id              The autoscaling group ID
  --instance_ids        The IDs of one or more instances that should be moved out of the standby state
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

autoscaling-groups instance terminate

Usage

```
  usage: symp autoscaling-groups instance terminate
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
                                                  [--noindent]
                                                  [--prefix PREFIX]
                                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                  [--decrement-desired-capacity]
                                                  instance_id
```

Description

Terminates an instance that is part of auto-scaling group.

Returns

Returns dict: The instance details that was successfully terminated

Mandatory

```
positional arguments:
  instance_id           The vm ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --decrement-desired-capacity
                        If true, the auto-scaling group decrements the desired capacity value by the
↪number of instances detached
```

autoscaling-groups launch-configuration create

Usage

```
  usage: symp autoscaling-groups launch-configuration create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                                [-c COLUMN]
                                                                [--max-width <integer>]
                                                                [--noindent]
                                                                [--prefix PREFIX]
                                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                                [--image-id IMAGE_ID]
                                                                [--key-pair KEY_PAIR]
                                                                [--user-data USER_DATA]
                                                                [--description DESCRIPTION]
                                                                [--security-groups [SECURITY_GROUPS
↪[SECURITY_GROUPS ...]]]
                                                                [--bdm BDM]
                                                                [--instance-profile INSTANCE_PROFILE]
                                                                [--instance-profile-name INSTANCE_PROFILE_
↪NAME]
                                                                name instance_type
```

Description

Creates a new launch configuration object.

Returns

Returns dict: Details of the launch configuration

Mandatory

```
positional arguments:
  name                  Name of the launch configuration
  instance_type         Instance type of VMs in the autoscaling group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --image-id IMAGE_ID   ID of an image to launch new VMs with
  --key-pair KEY_PAIR   Name of key pair to attach to new VMs in the autoscaling group
  --user-data USER_DATA
                        Path to file that includes cloud-init script to be used upon launch of new VMs in
↪the autoscaling group
  --description DESCRIPTION
                        A description for the launch configuration
  --security-groups [SECURITY_GROUPS [SECURITY_GROUPS ...]]
                        The security groups to associate with the instances
  --bdm BDM             A list of block device mappings for the VM.
                        Each of the items in the list is a dictionary with optional keys 'snapshot_id',
                        'boot_index', 'volume_size_gib', 'storage_pool', 'disk_type' and 'bus_type'.
                        If 'boot_index' is specified, then 'disk_type' and 'bus_type' must be specified
↪as well.
                        The values of 'boot_index' in the BDM, if specified, must be sequential and start
↪with 0
                        (although they do not need to be ordered this way in the input). 'disk_type', if
↪specified,
```

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```
                        must be either 'disk' or 'cdrom'. 'bus_type', if specified, must be either
                        'ide' or 'virtio'. If not specified, the defaults are 'disk' and 'virtio'.
                        Example:
                        [{"snapshot_id":"ca166313-7050-42d6-87da-7e3e70f611e6","boot_index":0,"disk_type":
↪"disk","bus_type":"ide"},
                        {"snapshot_id":"9a7fed24-b69a-43dc-85ab-21b318c685ac"}]
  --instance-profile INSTANCE_PROFILE
                        Instance profile ID that will set the instance roles and polices (remove instance_
↪profile_name if specified)
  --instance-profile-name INSTANCE_PROFILE_NAME
                        Instance profile name that will set the instance roles and polices (remove
↪instance_profile if specified)
```

autoscaling-groups launch-configuration delete

Usage

```
  usage: symp autoscaling-groups launch-configuration delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                                [-c COLUMN]
                                                                [--max-width <integer>]
                                                                [--noindent]
                                                                [--prefix PREFIX]
                                                                [-m [NAME=VALUE [NAME=VALUE ...]]]

                                                                launch_configuration_id
```

Description

Deletes a single launch configuration object based on the ID supplied.

Mandatory

```
positional arguments:
  launch_configuration_id
                        ID of the requested launch configuration
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

autoscaling-groups launch-configuration get

Usage

```
  usage: symp autoscaling-groups launch-configuration get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                            [-c COLUMN]
                                                            [--max-width <integer>]
                                                            [--noindent]
                                                            [--prefix PREFIX]
                                                            [-m [NAME=VALUE [NAME=VALUE ...]]]

                                                            launch_configuration_id
```

Description

Returns a launch configuration based on the ID supplied.

Returns

Returns dict: Launch Configuration

Mandatory

```
positional arguments:
  launch_configuration_id
                        ID of the requested launch configuration
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

autoscaling-groups launch-configuration list

Usage

```
  usage: symp autoscaling-groups launch-configuration list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                                          [-c COLUMN]
                                                          [--max-width <integer>]
                                                          [--noindent]
                                                          [--quote {all,minimal,none,nonnumeric}]
                                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                          [--names [NAMES [NAMES ...]]]
                                                          [--limit LIMIT]
                                                          [--offset OFFSET]
```

Description

Returns all launch configurations.

Returns

Returns list: Launch Configuration objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --names [NAMES [NAMES ...]]
                        A list of launch configuration names to return
  --limit LIMIT         The maximum number of items to return with this call
  --offset OFFSET       The offset of the page that will start the page
```

autoscaling-groups launch-configuration update

Usage

```
  usage: symp autoscaling-groups launch-configuration update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                                [-c COLUMN]
                                                                [--max-width <integer>]
                                                                [--noindent]
                                                                [--prefix PREFIX]
                                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                                [--name NAME]
                                                                [--description DESCRIPTION]

                                                                launch_configuration_id
```

Description

Updates launch configuration object.

Returns

Returns dict: Details of the launch configuration

Mandatory

```
positional arguments:
  launch_configuration_id
                        ID of the requested launch configuration
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           A new name for the launch configuration
  --description DESCRIPTION
                        A new description for the launch configuration
```

autoscaling-groups scaling-policy create

Usage

```
  usage: symp autoscaling-groups scaling-policy create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                      [-c COLUMN]
                                                      [--max-width <integer>]
                                                      [--noindent]
                                                      [--prefix PREFIX]
                                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                      [--estimated-warmup ESTIMATED_WARMUP]
                                                      [--disable-scale-in DISABLE_SCALE_IN]
                                                      name group_id metric_type
                                                      target_value
```

Description

Creates a new scaling policy or updates an existing one.

Returns

Returns dict: Details of the scaling policy

Mandatory

```
positional arguments:
  name                  Name of the scaling policy
  group_id              ID of the autoscaling group for the scaling policy
  metric_type           A predefined metric type
  target_value          The target value for the metric
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --estimated-warmup ESTIMATED_WARMUP
                        The estimated time, in seconds, until a newly launched instance can contribute to
↪meter alarms
  --disable-scale-in DISABLE_SCALE_IN
                        Indicates whether scale in by the target tracking policy is disabled
```

autoscaling-groups scaling-policy delete

Usage

```
  usage: symp autoscaling-groups scaling-policy delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--prefix PREFIX]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    policy_id
```

Description

Deletes a scaling policy.

Mandatory

```
positional arguments:
  policy_id             ID of the scaling policy to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

autoscaling-groups scaling-policy list

Usage

```
  usage: symp autoscaling-groups scaling-policy list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--quote {all,minimal,none,nonnumeric}]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    [--group-id GROUP_ID]
                                                    [--policy-names [POLICY_NAMES [POLICY_NAMES ...]]]
                                                    [--policy-types [POLICY_TYPES [POLICY_TYPES ...]]]
```

Description

List the auto-scaling policies.

Returns

Returns list: Scaling policies

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --group-id GROUP_ID   ID of the autoscaling group for the scaling policy
  --policy-names [POLICY_NAMES [POLICY_NAMES ...]]
                        The names of the policies that should be returned
  --policy-types [POLICY_TYPES [POLICY_TYPES ...]]
                        The types of the policies that should be returned
```

autoscaling-groups scaling-policy update

Usage

```
  usage: symp autoscaling-groups scaling-policy update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                      [-c COLUMN]
                                                      [--max-width <integer>]
                                                      [--noindent]
                                                      [--prefix PREFIX]
                                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                      [--estimated-warmup ESTIMATED_WARMUP]
                                                      [--disable-scale-in DISABLE_SCALE_IN]
                                                      [--metric-type METRIC_TYPE]
                                                      [--target-value TARGET_VALUE]
                                                      policy_id
```

Description

Updates an existing scaling policy.

Returns

Returns dict: Details of the scaling policy

Mandatory

```
positional arguments:
  policy_id             ID of the scaling policy to update
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --estimated-warmup ESTIMATED_WARMUP
                        The estimated time, in seconds, until a newly launched instance can contribute to
↪meter alarms
  --disable-scale-in DISABLE_SCALE_IN
                        Indicates whether scale in by the target tracking policy is disabled
  --metric-type METRIC_TYPE
                        A predefined metric type
  --target-value TARGET_VALUE
                        The target value for the metric
```

autoscaling-groups scheduled-actions delete

Usage

```
  usage: symp autoscaling-groups scheduled-actions delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                       [-c COLUMN]
                                                       [--max-width <integer>]
                                                       [--noindent]
                                                       [--prefix PREFIX]
                                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                       group_id name
```

Description

Deletes a scheduled action from an auto-scaling group.

Mandatory

```
positional arguments:
  group_id              ID of the autoscaling group
  name                  Name of scheduled action to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

autoscaling-groups scheduled-actions list

Usage

```
  usage: symp autoscaling-groups scheduled-actions list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--quote {all,minimal,none,nonnumeric}]
```

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```
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    [--group-id GROUP_ID]
                                                    [--names [NAMES [NAMES ...]]]
                                                    [--start-time START_TIME]
                                                    [--end-time END_TIME]
```

Description

List scheduled actions for an autoscaling group.

Returns

Returns list: List of scheduled actions of the autoscaling group

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --group-id GROUP_ID   ID of the autoscaling group to list scheduled actions of
  --names [NAMES [NAMES ...]]
                        Names of scheduled action to list
  --start-time START_TIME
                        The earliest scheduled start time to return. If scheduled action names are
↪provided, this parameter is ignored. Format: YYYY-MM-DDThh:mm:ssZ" in UTC/GMT only
  --end-time END_TIME   The latest scheduled start time to return. If scheduled action names are provided,
↪ this parameter is ignored. Format: YYYY-MM-DDThh:mm:ssZ" in UTC/GMT only
```

autoscaling-groups scheduled-actions put

Usage

```
  usage: symp autoscaling-groups scheduled-actions put
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                     [-c COLUMN]
                                                     [--max-width <integer>]
                                                     [--noindent]
                                                     [--prefix PREFIX]
                                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                     [--start-time START_TIME]
                                                     [--end-time END_TIME]
                                                     [--recurrence RECURRENCE]
                                                     [--desired-capacity DESIRED_CAPACITY]
                                                     [--min-size MIN_SIZE]
                                                     [--max-size MAX_SIZE]
                                                     group_id name
```

Description

Creates or updates a scheduled action for an autoscaling group.

Returns

Returns dict: Details of new scheduled action

Mandatory

```
positional arguments:
  group_id              ID of the autoscaling group
  name                  Name of new scheduled action
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --start-time START_TIME
                        The time for action to start, in the format YYYY-MM-DDThh:mm:ssZ" in UTC/GMT only
  --end-time END_TIME   The time for action to end in the format YYYY-MM-DDThh:mm:ssZ" in UTC/GMT only
  --recurrence RECURRENCE
                        The recurring schedule for this action, in Unix cron syntax format
  --desired-capacity DESIRED_CAPACITY
                        The new desired capacity of the autoscaling group
  --min-size MIN_SIZE   The new minimum size of the autoscaling group
  --max-size MAX_SIZE   The new maximum size of the autoscaling group
```

autoscaling-groups target-group attach

Usage

```
  usage: symp autoscaling-groups target-group attach
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--prefix PREFIX]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    group_id --target_group_ids
                                                    [--target_group_ids ...]
```

Description

Attaches one or more target group to the specified auto-scaling group.

Mandatory

```
positional arguments:
  group_id              The autoscaling group ID
  --target_group_ids    The IDs of target groups to attach to the auto-scaling group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

autoscaling-groups target-group detach

Usage

```
  usage: symp autoscaling-groups target-group detach
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--prefix PREFIX]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    group_id --target_group_ids
                                                    [--target_group_ids ...]
```

Description

Detaches one or more target group from the specified auto-scaling group.

Mandatory

```
positional arguments:
  group_id              The autoscaling group ID
  --target_group_ids    The IDs of target groups to detach from the auto-scaling group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

autoscaling-groups termination-policy-type list

Usage

```
usage: symp autoscaling-groups termination-policy-type list
       [-h] [-f {adaptive_table,csv,json,table,value,yaml}] [-c COLUMN]
       [--max-width <integer>] [--noindent]
       [--quote {all,minimal,none,nonnumeric}]
       [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Describes the termination policies supported for scale-in of a group.

Returns

Returns list: Describes the termination policies supported for scale-in of a group

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.29 aws-policy

aws-policy assignments-list

Usage

```
  usage: symp aws-policy assignments-list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent]
                                          [--quote {all,minimal,none,nonnumeric}]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Lists the assignments of aws-policies to users, groups and IAM roles.

Returns

Returns list: List of assignments - The entities and their policies

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

aws-policy create

Usage

```
  usage: symp aws-policy create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>] [--noindent]
                                [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--description DESCRIPTION]
                                [--scope-id SCOPE_ID]
                                name policy_document scope_type
```

Description

Creates a new AWS policy.

Returns

Returns dict: A structure containing details about the new policy

Mandatory

```
positional arguments:
  name                  The friendly name of the policy
  policy_document       The JSON policy document for the new policy
                        Should be of the following format: '{"Statement": [{"Action": [<actions>], "Effect
↪": "Allow", "Resource": ["*"]}]}'
  scope_type            The scope in which the policy will be available, can be one of: public, domain,
↪project
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        A friendly description of the policy
  --scope-id SCOPE_ID   If scope_type is project or domain: scope_id should be the project-id or the
↪domain-id, with the logged in scope as default
                        If scope_type is public: scope_id should not have a value
```

aws-policy get

Usage

```
  usage: symp aws-policy get
[-f {adaptive_table,json,shell,table,value,yaml}]
                           [-c COLUMN] [--max-width <integer>] [--noindent]
                           [--prefix PREFIX]
                           [-m [NAME=VALUE [NAME=VALUE ...]]]
                           policy_id
```

Description

Retrieves information about the specified AWS policy.

Returns

Returns dict: A structure containing details about the policy

Mandatory

```
positional arguments:
  policy_id             The ID of the policy
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

aws-policy get-entities

Usage

```
  usage: symp aws-policy get-entities
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    policy_id
```

Description

Lists all users, groups, and roles that the specified AWS policy is attached to.

Returns

Returns dict: Entities that the policy is attached to

Mandatory

```
positional arguments:
  policy_id             The ID of the policy
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

aws-policy list

Usage

```
  usage: symp aws-policy list
[-f {adaptive_table,csv,json,table,value,yaml}]
                             [-c COLUMN] [--max-width <integer>] [--noindent]
                             [--quote {all,minimal,none,nonnumeric}]
                             [-m [NAME=VALUE [NAME=VALUE ...]]] [--name NAME]
                             [--with-document] [--scope-type SCOPE_TYPE]
                             [--scope-id SCOPE_ID]
```

Description

Lists all the AWS policies that are available.

Returns

Returns list: List of policies

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Show only the policy with the given name
  --with-document       Whether to include the policy document or not
  --scope-type SCOPE_TYPE
                        Show only the policies with the specified scope,
                        can be one of: public, domain, project
  --scope-id SCOPE_ID   If scope_type is project or domain:
                        scope_id should be the project-id or the domain-id, with the logged in scope as
↪default
                        If scope_type is public: scope_id should not have a value
                        if scope_type is None: scope_id will be checked for the domain-id or the project-
↪id
```

aws-policy remove

Usage

```
  usage: symp aws-policy remove
[-f {adaptive_table,json,shell,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>] [--noindent]
                               [--prefix PREFIX]
                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                               policy_id
```

Description

Deletes the specified AWS policy. Before you can delete an AWS policy, you must first detach the policy from all users, groups, and roles that it is attached to.

Mandatory

```
positional arguments:
  policy_id             The ID of the policy to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

aws-policy update

Usage

```
  usage: symp aws-policy update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>] [--noindent]
                                [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]] [--name NAME]
                                [--policy-document POLICY_DOCUMENT]
                                [--description DESCRIPTION]
                                policy_id
```

Description

Updates the specified AWS policy.

Mandatory

```
positional arguments:
  policy_id             The ID of the policy to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the policy
  --policy-document POLICY_DOCUMENT
                        The JSON policy document for the new policy
                        Should be of the following format: '{"Statement": [{"Action": [<actions>], "Effect
↪": "Allow", "Resource": ["*"]}]}'
  --description DESCRIPTION
                        A friendly description of the policy
```

aws-policy validate

Usage

```
  usage: symp aws-policy validate
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  policy_document
```

Description

Validate a policy document without creating a policy.

Returns

Returns dict: Whether the validation was successful, and the errors if there are any

Mandatory

```
positional arguments:
  policy_document       A policy document to be validated
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.30 certificates

certificates add-tags

Usage

```
  usage: symp certificates add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--system-tag]
                                    certificates_id --tags [--tags ...]
```

Description

Add one or more tags to a certificate.

Mandatory

```
positional arguments:
  certificates_id       ID of the certificate
  --tags                List of tag strings to add in 'key=value', or JSON [{"key": "K", "value": "V"}, ..
↪.] format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --system-tag          Whether to add a system tag (available only for admin)
```

certificates admin cluster-certificates auto-renew get

Usage

```
usage: symp certificates admin cluster-certificates auto-renew get
       [-h] [-f {adaptive_table,json,shell,table,value,yaml}] [-c COLUMN]
       [--max-width <integer>] [--noindent] [--prefix PREFIX]
       [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Get the Zadara certificate endpoint configuration to auto install and renew the zadara provided certificate.

Returns

Returns dict: The auto-renew configuration response

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates admin cluster-certificates auto-renew set

Usage

```
usage: symp certificates admin cluster-certificates auto-renew set
       [-h] [-f {adaptive_table,json,shell,table,value,yaml}] [-c COLUMN]
       [--max-width <integer>] [--noindent] [--prefix PREFIX]
       [-m [NAME=VALUE [NAME=VALUE ...]]] [--cert-type CERT_TYPE] [--check]
       url email token
```

Description

Configures a Zadara certificate endpoint to auto install and renew the zadara provided certificate. The certificate will only be installed & auto-renewed if there is no other custom certificate installed.

Mandatory

```
positional arguments:
  url                   The URL of the certificates JSON endpoint (e.g. http://server/certificate/
↪download.json)
  email                 The email that will be used to authenticate to the certificate endpoint
  token                 The api_token that will be used to authenticate to the certificate endpoint
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --cert-type CERT_TYPE
                        The certificate key from the JSON endpoint that will be used. Defaults to "zadara"
  --check               Wether to immediately check the endpoint for a certificate and install it
```

certificates admin cluster-certificates auto-renew unset

Usage

```
usage: symp certificates admin cluster-certificates auto-renew unset
       [-h] [-f {adaptive_table,json,shell,table,value,yaml}] [-c COLUMN]
       [--max-width <integer>] [--noindent] [--prefix PREFIX]
       [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Unconfigures a Zadara certificate endpoint to disable auto install and renew the zadara provided certificate.

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates admin cluster-certificates create

Usage

```
  usage: symp certificates admin cluster-certificates create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                                [-c COLUMN]
                                                                [--max-width <integer>]
                                                                [--noindent]
                                                                [--prefix PREFIX]
                                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                                [--passphrase PASSPHRASE]
                                                                [--auto-install]
                                                                certificate
                                                                private_key
```

Description

Creates a new cluster certificates object.

Mandatory

```
positional arguments:
  certificate           The PEM-encoded certificate to import
  private_key           The PEM-encoded, private key that matches the certificate's public key
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --passphrase PASSPHRASE
                        A passphrase to be used for the private key, in case it's encrypted
  --auto-install        Whether to install the cluster certificate immediately after creation
```

certificates admin cluster-certificates delete

Usage

```
  usage: symp certificates admin cluster-certificates delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                                [-c COLUMN]
                                                                [--max-width <integer>]
                                                                [--noindent]
                                                                [--prefix PREFIX]
                                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                                certificate_id
```

Description

Deletes a single cluster certificate object based on the supplied ID.

Mandatory

```
positional arguments:
  certificate_id        ID of the requested public certificate object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates admin cluster-certificates describe

Usage

```
usage: symp certificates admin cluster-certificates describe
       [-h] [-f {adaptive_table,json,shell,table,value,yaml}] [-c COLUMN]
       [--max-width <integer>] [--noindent] [--prefix PREFIX]
       [-m [NAME=VALUE [NAME=VALUE ...]]]
       certificate_id
```

Description

Describes a cluster certificate based on a certificates ID.

Mandatory

```
positional arguments:
  certificate_id        ID of the requested cluster certificate object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates admin cluster-certificates get

Usage

```
  usage: symp certificates admin cluster-certificates get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                          [-c COLUMN]
                                                          [--max-width <integer>]
                                                          [--noindent]
                                                          [--prefix PREFIX]
                                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                          certificate_id
```

Description

Returns the cluster certificate based on a cluster certificate ID.

Returns

Returns dict: Certificates response

Mandatory

```
positional arguments:
  certificate_id        ID of the requested public certificate object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates admin cluster-certificates get-current

Usage

```
usage: symp certificates admin cluster-certificates get-current
       [-h] [-f {adaptive_table,json,shell,table,value,yaml}] [-c COLUMN]
       [--max-width <integer>] [--noindent] [--prefix PREFIX]
       [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Returns the currently installed cluster certificate.

Returns

Returns dict: Certificates response

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates admin cluster-certificates install

Usage

```
usage: symp certificates admin cluster-certificates install
       [-h] [-f {adaptive_table,json,shell,table,value,yaml}] [-c COLUMN]
       [--max-width <integer>] [--noindent] [--prefix PREFIX]
       [-m [NAME=VALUE [NAME=VALUE ...]]] [--force]
       certificate_id
```

Description

Installs a cluster certificate based on the specified certificates ID.

Mandatory

```
positional arguments:
  certificate_id        ID of the requested cluster certificate object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore validation errors
```

certificates admin cluster-certificates list

Usage

```
  usage: symp certificates admin cluster-certificates list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                                          [-c COLUMN]
                                                          [--max-width <integer>]
                                                          [--noindent]
                                                          [--quote {all,minimal,none,nonnumeric}]
                                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Returns all the cluster certificates.

Returns

Returns list: Certificates response

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates admin cluster-certificates uninstall

Usage

```
usage: symp certificates admin cluster-certificates uninstall
       [-h] [-f {adaptive_table,json,shell,table,value,yaml}] [-c COLUMN]
       [--max-width <integer>] [--noindent] [--prefix PREFIX]
       [-m [NAME=VALUE [NAME=VALUE ...]]] [--force]
       certificate_id
```

Description

Uninstalls a cluster certificate based on the specified certificates ID. A self-signed certificate will be installed in place of the current certificate.

Mandatory

```
positional arguments:
  certificate_id        ID of the requested cluster certificate object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore validation errors
```

certificates authorities add-tags

Usage

```
  usage: symp certificates authorities add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                [--system-tag]
                                                ca_id --tags [--tags ...]
```

Description

Adds one or more tags to your private CA.

Mandatory

```
positional arguments:
  ca_id                 ID of the CA to add tags to
  --tags                List of tag strings to add in 'key=value', or JSON [{"key": "K", "value": "V"}, ..
↪.] format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --system-tag          Whether to add a system tag (available only for admin)
```

certificates authorities create

Usage

```
  usage: symp certificates authorities create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                [--name NAME]
                                                [--tags [TAGS [TAGS ...]]]
                                                subject_common_name
```

Description

Creates a new self-signed root CA object. Returns CA certificate and private key.

Returns

Returns dict: CA response

Mandatory

```
positional arguments:
  subject_common_name   CN to set as the Subject and the Issuer
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Display name for the CA
  --tags [TAGS [TAGS ...]]
                        List of tags to add to the CA
```

certificates authorities delete

Usage

```
  usage: symp certificates authorities delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                [--override-protection]
                                                ca_id
```

Description

Deletes a single CA certificate object based on the supplied ID .

Mandatory

```
positional arguments:
  ca_id                 ID of the requested CA certificate object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection
                        Delete managed resources, normally protected from deletion (admin only)
```

certificates authorities describe

Usage

```
  usage: symp certificates authorities describe
[-f {adaptive_table,json,shell,table,value,yaml}]
                                               [-c COLUMN]
                                               [--max-width <integer>]
                                               [--noindent] [--prefix PREFIX]
                                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                                               ca_id
```

Description

Describes a CA certificate based on a CA ID.

Returns

Returns dict: Certificates response

Mandatory

```
positional arguments:
  ca_id                 ID of the requested CA certificate object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates authorities get

Usage

```
  usage: symp certificates authorities get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          ca_id
```

Description

Returns a CA certificate based on a CA ID.

Returns

Returns dict: CA response

Mandatory

```
positional arguments:
  ca_id                 ID of the requested CA object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates authorities issue-certificate

Usage

```
  usage: symp certificates authorities issue-certificate
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                        [-c COLUMN]
                                                        [--max-width <integer>]
                                                        [--noindent]
                                                        [--prefix PREFIX]
                                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                        [--name NAME]
                                                        ca_id csr_pem
```

Description

Issues a certificate based on a CSR, signed by the CA. Returns a certificate ID.

Returns

Returns uuid: Certificate ID

Mandatory

```
positional arguments:
  ca_id                 ID of the requested CA certificate object
  csr_pem               CSR in PEM format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Display name for the certificate
```

certificates authorities list

Usage

```
  usage: symp certificates authorities list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent]
                                          [--quote {all,minimal,none,nonnumeric}]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Returns all CA certificates.

Returns

Returns list: CA Certificate objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates authorities list-tags

Usage

```
  usage: symp certificates authorities list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent]
                                                [--quote {all,minimal,none,nonnumeric}]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                ca_id
```

Description

Lists the tags, if any, that are associated with your private CA.

Returns

Returns list: Tag objects

Mandatory

```
positional arguments:
  ca_id                 ID of the CA to list tags for
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates authorities remove-tags

Usage

```
  usage: symp certificates authorities remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
                                                  [--noindent]
                                                  [--prefix PREFIX]
                                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                  [--force] [--system-tag]
                                                  ca_id --tags [--tags ...]
```

Description

Remove one or more tags from your private CA.

Mandatory

```
positional arguments:
  ca_id                 ID of the CA to remove tags from
  --tags                List of tag strings to add in 'key=value', or JSON [{"key": "K", "value": "V"}, ..
↪.] format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to remove a system tag (available only for admin)
```

certificates create

Usage

```
  usage: symp certificates create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--certificate-chain CERTIFICATE_CHAIN]
                                [--chain CHAIN] [--name NAME]
                                [--tags [TAGS [TAGS ...]]] [--skip-validation]
                                certificate private_key
```

Description

Creates a new certificates object.

Returns

Returns dict: Certificates response

Mandatory

```
positional arguments:
  certificate           The PEM-encoded certificate to import
  private_key           The PEM-encoded, unencrypted private key that matches the certificate's public key
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --certificate-chain CERTIFICATE_CHAIN
                        The entire PEM-encoded certificate chain except for your certificate
  --chain CHAIN         (deprecated)
  --name NAME           Name for the certificate
  --tags [TAGS [TAGS ...]]
                        List of tags to add to the certificate
  --skip-validation     Skip chain/private_key/public key validation
```

certificates delete

Usage

```
  usage: symp certificates delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  [--override-protection]
                                  certificates_id
```

Description

Deletes a single certificates object based on the ID supplied.

Mandatory

```
positional arguments:
  certificates_id       ID of the requested certificates object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection
                        Delete managed resources, normally protected from deletion (admin only)
```

certificates describe

Usage

```
  usage: symp certificates describe
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    certificates_id
```

Description

Describes a certificates based on a certificates ID.

Returns

Returns dict: Certificates response

Mandatory

```
positional arguments:
  certificates_id       ID of the requested certificates object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates get

Usage

```
  usage: symp certificates get
[-f {adaptive_table,json,shell,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--prefix PREFIX]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              certificates_id
```

Description

Returns a certificates based on a certificates ID.

Returns

Returns dict: Certificates response

Mandatory

```
positional arguments:
  certificates_id       ID of the requested certificates object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates list

Usage

```
  usage: symp certificates list
[-f {adaptive_table,csv,json,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>] [--noindent]
                               [--quote {all,minimal,none,nonnumeric}]
                               [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Returns all certificates objects.

Returns

Returns list: Certificates objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates list-tags

Usage

```
  usage: symp certificates list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    certificates_id
```

Description

Lists the tags that have been applied to the certificate.

Returns

Returns list: Tag objects

Mandatory

```
positional arguments:
  certificates_id       IDs of the certificate to list tags for
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates public-certificates create

Usage

```
  usage: symp certificates public-certificates create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--prefix PREFIX]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    [--name NAME]
                                                    certificate
```

Description

Creates a new certificates object.

Mandatory

```
positional arguments:
  certificate           The PEM-encoded certificate to import
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Name for the certificate
```

certificates public-certificates delete

Usage

```
  usage: symp certificates public-certificates delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--prefix PREFIX]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    certificates_id
```

Description

Deletes a single public certificate object based on the supplied ID .

Mandatory

```
positional arguments:
  certificates_id       ID of the requested public certificate object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates public-certificates describe

Usage

```
  usage: symp certificates public-certificates describe
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                      [-c COLUMN]
                                                      [--max-width <integer>]
                                                      [--noindent]
                                                      [--prefix PREFIX]
                                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                      certificates_id
```

Description

Describes a public certificate based on a certificates ID.

Returns

Returns dict: Certificates response

Mandatory

```
positional arguments:
  certificates_id       ID of the requested public certificate object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates public-certificates get

Usage

```
  usage: symp certificates public-certificates get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
                                                  [--noindent]
                                                  [--prefix PREFIX]
                                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                  certificates_id
```

Description

Returns a public certificate based on a public certificate ID.

Returns

Returns dict: Certificates response

Mandatory

```
positional arguments:
  certificates_id       ID of the requested public certificate object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates public-certificates list

Usage

```
  usage: symp certificates public-certificates list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--quote {all,minimal,none,nonnumeric}]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Returns all public certificates objects.

Returns

Returns list: Public Certificate objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

certificates remove-tags

Usage

```
  usage: symp certificates remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--force] [--system-tag]
                                       certificates_id --tags [--tags ...]
```

Description

Remove one or more tags from a certificate.

Mandatory

```
positional arguments:
  certificates_id       ID of the certificates to remove tags from
  --tags                List of tag strings to add in 'key=value', or JSON [{"key": "K", "value": "V"}, ..
↪.] format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to remove a system tag (available only for admin)
```

4.2.31 cloudwatch

cloudwatch alarm alarm-history

Usage

```
  usage: symp cloudwatch alarm alarm-history
[-f {adaptive_table,json,shell,table,value,yaml}]
                                           [-c COLUMN] [--max-width <integer>]
                                           [--noindent] [--prefix PREFIX]
                                           [-m [NAME=VALUE [NAME=VALUE ...]]]
                                           [--sorting-by SORTING_BY]
                                           [--marker MARKER] [--limit LIMIT]
                                           [--alarm-name ALARM_NAME]
                                           [--start-date START_DATE]
                                           [--end-date END_DATE]
                                           [--history-item-type HISTORY_ITEM_TYPE]
                                           [--order ORDER]
```

Description

Get alarm history.

Returns

Returns dict: Alarm history

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --sorting-by SORTING_BY
                        The field by which to sort
  --marker MARKER       Specify the first entity that you wan to retrieve
  --limit LIMIT         Specify the number of entities that you want to retrieve
  --alarm-name ALARM_NAME
                        The name for the alarm. The maximum length is 255 characters
  --start-date START_DATE
                        The starting date to retrieve alarm history
  --end-date END_DATE   The ending date to retrieve alarm history
  --history-item-type HISTORY_ITEM_TYPE
                        The type of alarm history item. Valid values are-
                        configuration_update, state_update, action
  --order ORDER         The sorting order for get response, Default value: ascending
```

cloudwatch alarm create

Usage

```
  usage: symp cloudwatch alarm create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--dimensions DIMENSIONS]
                                    [--evaluation-periods EVALUATION_PERIODS]
                                    [--ok-actions OK_ACTIONS] [--unit UNIT]
                                    [--actions-enabled ACTIONS_ENABLED]
                                    [--description DESCRIPTION]
                                    [--alarm-actions ALARM_ACTIONS]
                                    [--project-id PROJECT_ID]
                                    [--insufficient-data-actions INSUFFICIENT_DATA_ACTIONS]
                                    [--extended-statistic EXTENDED_STATISTIC]
                                    [--evaluate-low-sample-count-percentile EVALUATE_LOW_SAMPLE_COUNT_
↪PERCENTILE]
                                    [--treat-missing-data TREAT_MISSING_DATA]
                                    [--namespace NAMESPACE]
                                    [--datapoints-to-alarm DATAPOINTS_TO_ALARM]
                                    name metric_name comparison_operator
                                    period threshold statistic
```

Description

Creates a new alarm object.

Returns

Returns dict: Created record

Mandatory

```
positional arguments:
  name                  Alarm name
  metric_name           The name of the metric associated with the alarm
  comparison_operator   Comparison operator one of:
                        GreaterThanOrEqualToThreshold/GreaterThanThreshold/LessThanThreshold/
```

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```
↪LessThanOrEqualToThreshold
  period                The period, in seconds, over which the statistic is applied
  threshold             The value to compare with the specified statistic
  statistic             The statistic for the metric associated with the alarm, other than percentile
                        (Minimum/Maximum/Sum/Average/SampleCount)
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --dimensions DIMENSIONS
                        The dimensions for the metric associated with the alarm. Examples
                        (list) --
                        The dimensions for the metric associated with the alarm
                        (dict) --
                        Expands the identity of a metric
                        Name (string) --
                        The name of the dimension
                        Value (string) --
                        The value representing the dimension measurement
  --evaluation-periods EVALUATION_PERIODS
                        The number of periods over which data is compared to the specified threshold
↪(default 1)
  --ok-actions OK_ACTIONS
                        The actions to execute when this alarm transitions to the OK state from any other
↪state
                        (list) --
                        actions
                        (dict) --
                        Expands the identity of a action
                        type (string/enum) --
                        - sns
                        - autoscaling
                        id (string/uuid) --
                        (string) -- id of type
  --unit UNIT           The unit of the metric associated with the alarm.(TODO add options)
  --actions-enabled ACTIONS_ENABLED
                        Indicates whether actions should be executed during any changes to the alarm state
  --description DESCRIPTION
                        Alarm description
  --alarm-actions ALARM_ACTIONS
                        List of alarm actions
                        (list) --
                        actions
                        (dict) --
                        Expands the identity of a action
                        type (string/enum) --
                        - sns
                        - autoscaling
                        id (string/uuid) --
                        (string) -- id of type
  --project-id PROJECT_ID
                        Project id
  --insufficient-data-actions INSUFFICIENT_DATA_ACTIONS
                        List of insufficient data actions
                        (list) --
                        actions
```

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```
                        (dict) --
                        Expands the identity of a action
                        type (string/enum) --
                        - sns
                        - autoscaling
                        id (string/uuid) --
                        (string) -- id of type
  --extended-statistic EXTENDED_STATISTIC
                        Add description
  --evaluate-low-sample-count-percentile EVALUATE_LOW_SAMPLE_COUNT_PERCENTILE
                        No usage
  --treat-missing-data TREAT_MISSING_DATA
                        How to treat missing data
  --namespace NAMESPACE
                        Namespace for what alarm was created
  --datapoints-to-alarm DATAPOINTS_TO_ALARM
                        The number of datapoints that must be breaching to trigger the alarm
```

cloudwatch alarm delete

Usage

```
  usage: symp cloudwatch alarm delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent] [--prefix PREFIX]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      alarm_id
```

Description

Deletes a single alarm object based on the ID supplied.

Mandatory

```
positional arguments:
  alarm_id              ID of the requested alarm object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

cloudwatch alarm disable-actions

Usage

```
  usage: symp cloudwatch alarm disable-actions
[-f {adaptive_table,json,shell,table,value,yaml}]
                                             [-c COLUMN]
                                             [--max-width <integer>]
                                             [--noindent] [--prefix PREFIX]
                                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                                             --alarms [--alarms ...]
```

Description

Disable actions for given alarms.

Mandatory

```
positional arguments:
  --alarms              List of alarm ids
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

cloudwatch alarm enable-actions

Usage

```
  usage: symp cloudwatch alarm enable-actions
[-f {adaptive_table,json,shell,table,value,yaml}]
                                            [-c COLUMN]
                                            [--max-width <integer>]
                                            [--noindent] [--prefix PREFIX]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                                            --alarms [--alarms ...]
```

Description

Disable actions for given alarms.

Mandatory

```
positional arguments:
  --alarms              List of alarm ids
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

cloudwatch alarm get

Usage

```
  usage: symp cloudwatch alarm get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    alarm_id
```

Description

Returns a alarm based on a alarm ID.

Returns

Returns dict: Alarm response

Mandatory

```
positional arguments:
  alarm_id              ID of the requested alarm object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

cloudwatch alarm list

Usage

```
  usage: symp cloudwatch alarm list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--sort-by SORT_BY] [--order ORDER]
                                    [--marker MARKER] [--limit LIMIT]
                                    [--project-id PROJECT_ID]
                                    [--alarm-names [ALARM_NAMES [ALARM_NAMES ...]]]
                                    [--alarm-name-prefix ALARM_NAME_PREFIX]
                                    [--action-prefix ACTION_PREFIX]
                                    [--state STATE]
                                    [--alarm-ids [ALARM_IDS [ALARM_IDS ...]]]
                                    [--kwargs KWARGS]
```

Description

Returns all alarm objects.

Returns

Returns list: Alarm objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --sort-by SORT_BY     Sort by field
  --order ORDER         Order for return result "ascending" or "descending"
  --marker MARKER       Offset for next call
  --limit LIMIT         Max number of metrics to return
  --project-id PROJECT_ID
                        Project if
  --alarm-names [ALARM_NAMES [ALARM_NAMES ...]]
                        Names of the alarms to filter by
  --alarm-name-prefix ALARM_NAME_PREFIX
                        Prefix of alarm names
  --action-prefix ACTION_PREFIX
                        Actions prefix
  --state STATE         Filter by state
  --alarm-ids [ALARM_IDS [ALARM_IDS ...]]
                        List of alarm ids
  --kwargs KWARGS       Extra arguments, a dict as a JSON string
```

cloudwatch alarm set-state

Usage

```
  usage: symp cloudwatch alarm set-state
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--state-reason-data STATE_REASON_DATA]
                                        alarm_id state state_reason
```

Description

Change state of alarm.

Returns

Returns dict: Updated record

Mandatory

```
positional arguments:
  alarm_id              Alarm id to change state
  state                 Desired state (OK, ALARM, INSUFFICIENT_DATA)
  state_reason          State change reason
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --state-reason-data STATE_REASON_DATA
                        State reason data
```

cloudwatch alarm update

Usage

```
  usage: symp cloudwatch alarm update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent] [--prefix PREFIX]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      [--fields FIELDS]
                                      alarm_id
```

Description

Creates a new alarm object.

Returns

Returns dict: Updated record

Mandatory

```
positional arguments:
  alarm_id              Alarm id to update
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --fields FIELDS       Extra arguments, a dict as a JSON string
```

cloudwatch metric list

Usage

```
  usage: symp cloudwatch metric list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--order ORDER] [--limit LIMIT]
                                    [--sort-by SORT_BY]
                                    [--metric-name METRIC_NAME]
                                    [--namespace NAMESPACE]
                                    [--dimensions DIMENSIONS] [--kwargs KWARGS]
```

Description

List of possible metrics.

Returns

Returns list: List of metrics

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --order ORDER         Order for return result "ascending" or "descending"
  --limit LIMIT         Max number of metrics to return
  --sort-by SORT_BY     Sort by field
  --metric-name METRIC_NAME
                        Metric name to filter by
  --namespace NAMESPACE
                        Namespace to filter by
  --dimensions DIMENSIONS
                        Dimension to filter by. Must be list of dicts as [{"name": <name>, "value":
↪<value>}]
  --kwargs KWARGS       Extra arguments, a dict as a JSON string
```

4.2.32 compute-rule

compute-rule action

Usage

```
  usage: symp compute-rule action
[-f {adaptive_table,csv,json,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent]
                                [--quote {all,minimal,none,nonnumeric}]
```

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```
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--kill-vms]
                                action compute_rule
```

Description

Perform an action related to this compute rule.

Returns

Returns list: List of affected VMs

Mandatory

```
positional arguments:
  action                Must be 'apply' or 'simulate'
  compute_rule          ID of compute rule
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --kill-vms            If false, never kill VMs, even if they do not comply with a hard rule
```

compute-rule create

Usage

```
  usage: symp compute-rule create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--description DESCRIPTION]
                                [--compute-tags [COMPUTE_TAGS [COMPUTE_TAGS ...]]]
                                [--node-tag NODE_TAG] [--enabled]
                                [--project-id PROJECT_ID]
                                type
```

Description

Create a new compute rule. It defines a relation between compute tags or a compute tag and a node tag. The relation impacts the placement of the compute entities marked by the tag.

The relation between the entities can be affinity, anti_affinity, soft_affinity, soft_anti_affinity and taint. The soft prefix means that the compute resource will be placed even if attempts to meet the rule have failed.

Returns

Returns dict: Compute rule

Mandatory

```
positional arguments:
  type                  Type of compute rule (affinity, anti_affinity, soft_affinity, soft_anti_affinity
↪or taint)
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        Description of the rule
  --compute-tags [COMPUTE_TAGS [COMPUTE_TAGS ...]]
                        Compute tags for the rule
  --node-tag NODE_TAG   Node tag for the rule
  --enabled             Indicates whether or not the rule will be applied
  --project-id PROJECT_ID
                        ID of project for the rule
```

compute-rule get

Usage

```
  usage: symp compute-rule get
[-f {adaptive_table,json,shell,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--prefix PREFIX]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              compute_rule
```

Description

Get the details of a compute rule.

Returns

Returns dict: Details of compute rule

Mandatory

```
positional arguments:
  compute_rule          ID of compute rule
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

compute-rule human-readable

Usage

```
  usage: symp compute-rule human-readable
[-f {adaptive_table,csv,json,table,value,yaml}]
                                         [-c COLUMN] [--max-width <integer>]
                                         [--noindent]
                                         [--quote {all,minimal,none,nonnumeric}]
                                         [-m [NAME=VALUE [NAME=VALUE ...]]]
                                         [--type TYPE]
                                         [--project-id PROJECT_ID]
                                         [--node-tags [NODE_TAGS [NODE_TAGS ...]]]
                                         [--compute-tags [COMPUTE_TAGS [COMPUTE_TAGS ...]]]
```

Description

Get the list of compute rules in a human-readable format.

Returns

Returns list: Compute rules

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --type TYPE           Type of compute rule (affinity, anti_affinity, soft_affinity, soft_anti_affinity
↪or taint)
  --project-id PROJECT_ID
                        Filter list of rules by project ID
  --node-tags [NODE_TAGS [NODE_TAGS ...]]
                        Filter list of rules by node tags (list only rules with any of the tags as their
↪node tags)
  --compute-tags [COMPUTE_TAGS [COMPUTE_TAGS ...]]
                        Filter list of rules by compute tags (list only rules with any of the tags in
↪their compute tags)
```

compute-rule list

Usage

```
  usage: symp compute-rule list
[-f {adaptive_table,csv,json,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>] [--noindent]
                               [--quote {all,minimal,none,nonnumeric}]
                               [-m [NAME=VALUE [NAME=VALUE ...]]] [--type TYPE]
                               [--project-id PROJECT_ID]
                               [--node-tags [NODE_TAGS [NODE_TAGS ...]]]
                               [--compute-tags [COMPUTE_TAGS [COMPUTE_TAGS ...]]]
```

Description

Get the list of compute rules.

Returns

Returns list: Compute rules

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --type TYPE           Type of compute rule (affinity, anti_affinity, soft_affinity, soft_anti_affinity
↪or taint)
  --project-id PROJECT_ID
                        Filter list of rules by project ID
  --node-tags [NODE_TAGS [NODE_TAGS ...]]
                        Filter list of rules by node tags (list only rules with any of the tags as their
↪node tags)
  --compute-tags [COMPUTE_TAGS [COMPUTE_TAGS ...]]
                        Filter list of rules by compute tags (list only rules with any of the tags in
↪their compute tags)
```

compute-rule remove

Usage

```
  usage: symp compute-rule remove
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                compute_rule
```

Description

Delete a compute rule.

Mandatory

```
positional arguments:
  compute_rule          ID of compute rule
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

compute-rule update

Usage

```
  usage: symp compute-rule update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--description DESCRIPTION]
                                [--enabled ENABLED]
                                compute_rule
```

Description

Update the description of a compute rule.

Mandatory

```
positional arguments:
  compute_rule          ID of compute rule
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        New description for the compute rule
  --enabled ENABLED     True: enable the compute rule; False: disable the rule
```

compute-rule-checker check

Usage

```
  usage: symp compute-rule-checker check
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--node-tag NODE_TAG]
                                        [--project-id PROJECT_ID]
                                        rule_type compute_tags
```

Description

Precheck whether a compute rule can be created.

Returns

Returns dict: Result

Mandatory

```
positional arguments:
  rule_type             Type of rule
  compute_tags          A comma-seperated list of compute tags
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --node-tag NODE_TAG   A node tag
  --project-id PROJECT_ID
                        The rule's project ID
```

4.2.33 compute-rule-checker

compute-rule-checker check

Usage

```
  usage: symp compute-rule-checker check
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--node-tag NODE_TAG]
                                        [--project-id PROJECT_ID]
                                        rule_type compute_tags
```

Description

Precheck whether a compute rule can be created.

Returns

Returns dict: Result

Mandatory

```
positional arguments:
  rule_type             Type of rule
  compute_tags          A comma-seperated list of compute tags
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --node-tag NODE_TAG   A node tag
  --project-id PROJECT_ID
                        The rule's project ID
```

4.2.34 domains-config

domains-config create-domain-config

Usage

```
  usage: symp domains-config create-domain-config
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                [--driver DRIVER]
                                                domain_id config
```

Description

Configures a domain with the relevant configuration parameters.

Mandatory

```
positional arguments:
  domain_id             The ID of the domain (account) to be configured
  config                A JSON string of configuration parameters to pass to the driver
                        If --driver = 'ldap' or 'openotp' The following parameters must be included: user,
↪ password, url, suffix, user_tree_dn
                        For example:
                        -{
                        -    "user": "cn=Administrator,cn=Users,dc=example,dc=com",
                        -    "password": "123PASSword",
                        -    "url": "ldap://10.11.12.13:333",
                        -    "suffix": "dc=example,dc=com",
                        -    "user_tree_dn": "cn=Users,dc=example,dc=com"
                        -}
                        For information about additional LDAP configuration parameters see:
                        https://github.com/Stratoscale/openstack-keystone/blob/master/etc/keystone.conf.
↪sample under [ldap]
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --driver DRIVER       The driver to use for the domain's authentication; either ldap or openotp.
↪Default: ldap
```

domains-config delete-domain-config

Usage

```
  usage: symp domains-config delete-domain-config
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
                                                  [--noindent] [--prefix PREFIX]
                                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                  domain_id
```

Description

Deletes the configuration of a domain (account), reverting it to the default configuration.

Mandatory

```
positional arguments:
  domain_id             The ID of the domain (account) whose configuration is being deleted
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

domains-config get-domain-config

Usage

```
  usage: symp domains-config get-domain-config
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                domain_id
```

Description

Displays the details of the current configuration of a given domain (account).

Returns

Returns dict: The configuration of the given domain (account)

Mandatory

```
positional arguments:
  domain_id             The ID of the domain (account) whose configuration is to be displayed
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

domains-config test-ldap-config

Usage

```
  usage: symp domains-config test-ldap-config
[-f {adaptive_table,json,shell,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent] [--prefix PREFIX]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              domain_id config
```

Description

Validate LDAP configuration of a given domain.

Returns

Returns dict: LDAP stats for the given domain

Mandatory

```
positional arguments:
  domain_id             The ID of the domain (account) whose LDAP configuration will be set
  config                A JSON string of configuration parameters to pass to the driver.
                        For details - see "domains-config create-domain-config"
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

domains-config test-openotp-config

Usage

```
  usage: symp domains-config test-openotp-config
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                domain_id config
```

Description

Validate OpenOTP configuration of a given domain.

Returns

Returns dict: OpenOTP & LDAP stats for the given domain

Mandatory

```
positional arguments:
  domain_id             The ID of the domain (account) whose LDAP configuration will be set
  config                A JSON string of configuration parameters to pass to the driver.
                        For details - see "domains-config create-domain-config"
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

domains-config update-domain-config

Usage

```
  usage: symp domains-config update-domain-config
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
                                                  [--noindent] [--prefix PREFIX]
                                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                  [--driver DRIVER]
                                                  domain_id config
```

Description

Update a domain. For more information on parameters and valid configurations: https://developer.openstack.org/api-ref/identity/v3/?expanded=create-domain-configuration-detail#create-domain-configuration.

Mandatory

```
positional arguments:
  domain_id             The ID of the domain to configure
  config                Parameters to pass to the driver
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --driver DRIVER       The driver to use for the domain's authentication. Either ldap or openotp
```

4.2.35 dvs

dvs dhcp-options create

Usage

```
  usage: symp dvs dhcp-options create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--name NAME] [--description DESCRIPTION]
                                       [--dhcp-options DHCP_OPTIONS]
                                       [--project-id PROJECT_ID]
```

Description

Creates a new DHCP Options set.

Returns

Returns dict: DHCP Options set

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Name of the DHCP Options set
  --description DESCRIPTION
                        Description of the DHCP Options set
  --dhcp-options DHCP_OPTIONS
                        List of dhcp_option objects in the form:
                        [{"key": "<key_name>", "value": "<value>"}, {"key": "<key_name>", "value": "
↪<value>"}...]
                        e.g. [{"key": "domain-name-servers", "value": "8.8.8.8"}, {"key": "domain-name-
↪servers", "value": "8.8.4.4"}
                        , {"key": "domain-name", "value": "stratoscale.com"}...]
                        where key_name is one of the enums:
                        - domain-name-servers
                        - domain-name
                        - ntp-servers
                        - netbios-name-servers
                        - netbios-node-type
  --project-id PROJECT_ID
                        UUID of the DVS project
```

dvs dhcp-options create-default

Usage

```
  usage: symp dvs dhcp-options create-default
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                [--project-id PROJECT_ID]
                                                [--name NAME]
```

Description

Creates the default DVS project DHCP Options set.

Returns

Returns dict: DHCP Options set

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id PROJECT_ID
                        UUID of the project
  --name NAME           Name of the DHCP Options set
```

dvs dhcp-options delete

Usage

```
  usage: symp dvs dhcp-options delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     dhcp_options_id
```

Description

Delete a DVS DHCP-Options set.

Mandatory

```
positional arguments:
  dhcp_options_id       UUID of the dhcp_options to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

dvs dhcp-options get

Usage

```
  usage: symp dvs dhcp-options get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                   [-c COLUMN] [--max-width <integer>]
                                   [--noindent] [--prefix PREFIX]
                                   [-m [NAME=VALUE [NAME=VALUE ...]]]
                                   dhcp_options_id
```

Description

Get the DHCP Options set.

Returns

Returns dict: DHCP Options set

Mandatory

```
positional arguments:
  dhcp_options_id       UUID of the dhcp_options set
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

dvs dhcp-options list

Usage

```
  usage: symp dvs dhcp-options list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--dhcp-options-id [DHCP_OPTIONS_ID [DHCP_OPTIONS_ID ...]]]
                                    [--name [NAME [NAME ...]]]
                                    [--description [DESCRIPTION [DESCRIPTION ...]]]
                                    [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                                    [--domain-name-server [DOMAIN_NAME_SERVER [DOMAIN_NAME_SERVER ...]]]
                                    [--domain-name [DOMAIN_NAME [DOMAIN_NAME ...]]]
                                    [--ntp-server [NTP_SERVER [NTP_SERVER ...]]]
                                    [--netbios-name-server [NETBIOS_NAME_SERVER [NETBIOS_NAME_SERVER ...
↪]]]
                                    [--netbios-node-type [NETBIOS_NODE_TYPE [NETBIOS_NODE_TYPE ...]]]
                                    [--tags [TAGS [TAGS ...]]]
                                    [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                    [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
```

Description

Returns all DVS DHCP Options sets.

Returns

Returns list: DHCP Options sets

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --dhcp-options-id [DHCP_OPTIONS_ID [DHCP_OPTIONS_ID ...]]
                        Filter by UUIDs of the dhcp_option
  --name [NAME [NAME ...]]
                        Filter by name of the dhcp_option
  --description [DESCRIPTION [DESCRIPTION ...]]
                        Filter by description of the dhcp_option
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        Filter by list of project_ids
  --domain-name-server [DOMAIN_NAME_SERVER [DOMAIN_NAME_SERVER ...]]
                        Filter by domain name servers IP addresses
  --domain-name [DOMAIN_NAME [DOMAIN_NAME ...]]
                        Filter by domain names
  --ntp-server [NTP_SERVER [NTP_SERVER ...]]
                        Filter by ntp servers
  --netbios-name-server [NETBIOS_NAME_SERVER [NETBIOS_NAME_SERVER ...]]
                        Filter by netbios name servers
  --netbios-node-type [NETBIOS_NODE_TYPE [NETBIOS_NODE_TYPE ...]]
                        Filter by netbios node types
  --tags [TAGS [TAGS ...]]
                        List of tag strings to filter by in 'key=value' format
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        List of keys of tags to filter by
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        List of value of tags to filter by
```

dvs dhcp-options update

Usage

```
  usage: symp dvs dhcp-options update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent] [--prefix PREFIX]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      [--name NAME] [--description DESCRIPTION]
                                      dhcp_options_id
```

Description

Update a single DVS DHCP Options set based on the ID supplied and the parameters.

Mandatory

```
positional arguments:
  dhcp_options_id       ID of the requested dhcp_options
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the DHCP Options set
  --description DESCRIPTION
                        The description of the DHCP Options set
```

dvs network add-tags

Usage

```
  usage: symp dvs network add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]] [--force]
                                    [--system-tag]
                                    --networks_id [--networks_id ...] --tags
                                    [--tags ...]
```

Description

Add tags to DVS networks.

Mandatory

```
positional arguments:
  --networks_id         IDs of the DHCP options to add to
  --tags                List of tag strings to add in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to add a system tag (available only for admin)
```

dvs network associate-dhcp-options

Usage

```
  usage: symp dvs network associate-dhcp-options
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                network_id dhcp_options_id
```

Description

Associate a DHCP options set with a DVS network and enable DHCP if it was not enabled.

Mandatory

```
positional arguments:
  network_id            ID of the requested DVS network
  dhcp_options_id       ID of the requested dhcp_option set
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

dvs network create

Usage

```
  usage: symp dvs network create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--project-id PROJECT_ID] [--name NAME]
                                [--description DESCRIPTION] [--mtu MTU]
                                [--dhcp-options-id DHCP_OPTIONS_ID]
                                [--subnet-infos SUBNET_INFOS]
                                vlan_uuid
```

Description

Create a DVS network.

Returns

Returns dict: DVS network

Mandatory

```
positional arguments:
  vlan_uuid             UUID of the VLAN object to allocate to this network from the VLAN pool
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id PROJECT_ID
                        ID of the project
  --name NAME           The name of the network
  --description DESCRIPTION
                        The description of the network
  --mtu MTU             The MTU of the network
  --dhcp-options-id DHCP_OPTIONS_ID
                        DVS DHCP Options ID
                        If this parameter is provided - DHCP will be enabled for the network
                        If this parameter is omitted and also subnet_infos parameter is omitted -
                        DHCP will be disabled for the network
                        If this parameter is omitted and subnet_infos is provided -
                        DHCP will be enabled for the network and the DHCP
                        options will be set to the project's default DHCP options
                        If there is no project default DHCP set, one will be created
  --subnet-infos SUBNET_INFOS
                        Array of JSON subnet info for this edge network in the format
                        [{"cidr_block": <cidr_block>,
                        "gateway_ip": <gateway_ip>,
                        "allocation_pools": [{"start": <start_ip>, "end": <end_ip>},...]}]
```

dvs network delete

Usage

```
  usage: symp dvs network delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                network_id
```

Description

Delete a DVS network.

Mandatory

```
positional arguments:
  network_id            ID of the requested network
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

dvs network disassociate-dhcp-options

Usage

```
  usage: symp dvs network disassociate-dhcp-options
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--prefix PREFIX]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    network_id
```

Description

Disassociate the current DHCP options set from the specified DVS network and disable DHCP for the network.

Mandatory

```
positional arguments:
  network_id            ID of the requested DVS network
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

dvs network get

Usage

```
  usage: symp dvs network get
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            network_id
```

Description

Return a DVS network.

Returns

Returns dict: DVS Network

Mandatory

```
positional arguments:
  network_id            ID of the requested network
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

dvs network get-default-network-id

Usage

```
  usage: symp dvs network get-default-network-id
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
                                                  [--noindent] [--prefix PREFIX]
                                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                  project_id
```

Description

Return the default network id of the DVS project.

Returns

Returns dict: A dictionary containing the result

Mandatory

```
positional arguments:
  project_id            The project id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

dvs network list

Usage

```
  usage: symp dvs network list
[-f {adaptive_table,csv,json,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--quote {all,minimal,none,nonnumeric}]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                              [--name [NAME [NAME ...]]]
                              [--network-id [NETWORK_ID [NETWORK_ID ...]]]
                              [--vn-group-id [VN_GROUP_ID [VN_GROUP_ID ...]]]
                              [--vlan [VLAN [VLAN ...]]]
                              [--vlan-uuids [VLAN_UUIDS [VLAN_UUIDS ...]]]
                              [--is-default IS_DEFAULT]
                              [--dhcp-options-ids [DHCP_OPTIONS_IDS [DHCP_OPTIONS_IDS ...]]]
                              [--tags [TAGS [TAGS ...]]]
                              [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                              [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
```

Description

Return list of DVS networks.

Returns

Returns list: DVS networks

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        List of project IDs to filter by. Maps to AWS ownerId
  --name [NAME [NAME ...]]
                        List of network names to filter by
  --network-id [NETWORK_ID [NETWORK_ID ...]]
                        List of network IDs to filter by
  --vn-group-id [VN_GROUP_ID [VN_GROUP_ID ...]]
                        List of guest network pool ids to filter by
  --vlan [VLAN [VLAN ...]]
                        List of vlan tags to filter by
  --vlan-uuids [VLAN_UUIDS [VLAN_UUIDS ...]]
                        List of VLAN UUIDs to filter by
  --is-default IS_DEFAULT
                        Whether the network is the default network of the project
  --dhcp-options-ids [DHCP_OPTIONS_IDS [DHCP_OPTIONS_IDS ...]]
                        List of DHCP options IDs to filter by
  --tags [TAGS [TAGS ...]]
                        List of tag strings to filter by in 'key=value' format
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        List of keys of tags to filter by
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        List of value of tags to filter by
```

dvs network list-tags

Usage

```
  usage: symp dvs network list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List all DVS network tags.

Returns

Returns list: Tag objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

dvs network remove-tags

Usage

```
  usage: symp dvs network remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     [--force] [--system-tag]
                                     --networks_id [--networks_id ...] --tags
                                     [--tags ...]
```

Description

Delete tags from DVS networks.

Mandatory

```
positional arguments:
  --networks_id         IDs of the networks to remove from
  --tags                List of tag strings to remove in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to remove a system tag (available only for admin)
```

dvs network set

Usage

```
  usage: symp dvs network set
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]] [--name NAME]
                            [--description DESCRIPTION] [--mtu MTU]
                            [--subnet-infos SUBNET_INFOS]
                            network_id
```

Description

Sets the specified network attributes.

Mandatory

```
positional arguments:
  network_id            ID of the requested network
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the network
  --description DESCRIPTION
```

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```
                        The description of the network
  --mtu MTU             The MTU of the network
  --subnet-infos SUBNET_INFOS
                        Array of JSON subnet info for this edge network in the format
                        [{"id": <subnet_id>,
                        "cidr_block": <cidr_block>,
                        "gateway_ip": <gateway_ip>,
                        "allocation_pools": [{"start": <start_ip>, "end": <end_ip>},...]]
                        When ID is specified, the subnet will be updated with the new values
                        When cidr_block is specified, a new subnet will be created
                        You can either use ID or cidr_block, but not both
                        IDs that are not specified will be deleted
                        If Gateway IP is not specified, it will use the first address of the cidr_block
                        If allocation pool is not specified, it will use the whole cidr_block as the
↪allocation pool
```

dvs network set-default

Usage

```
  usage: symp dvs network set-default
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    network_id
```

Description

Set the network as the default network in the project.

Mandatory

```
positional arguments:
  network_id            The UUID of the network to set as default
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

dvs network update

Usage

```
  usage: symp dvs network update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--name NAME] [--description DESCRIPTION]
                                [--mtu MTU] [--subnet-infos SUBNET_INFOS]
                                network_id
```

Description

Update a DVS network.

Mandatory

```
positional arguments:
  network_id            ID of the requested network
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the network
  --description DESCRIPTION
                        The description of the network
  --mtu MTU             The MTU of the network
  --subnet-infos SUBNET_INFOS
                        Array of JSON subnet info for this edge network in the format
                        [{"id": <subnet_id>,
                        "cidr_block": <cidr_block>,
                        "gateway_ip": <gateway_ip>,
                        "allocation_pools": [{"start": <start_ip>, "end": <end_ip>},...]]
                        When ID is specified, the subnet will be updated with the new values
                        When cidr_block is specified, a new subnet will be created
                        You can either use ID or cidr_block, but not both
                        IDs that are not specified will not be deleted
                        If Gateway IP is not specified, it will use the first address of the cidr_block
                        If allocation pool is not specified, it will use the whole cidr_block as the
↪allocation pool
```

dvs network-interface create

Usage

```
  usage: symp dvs network-interface create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--name NAME]
                                          [--secondary-ip-address-count SECONDARY_IP_ADDRESS_COUNT]
                                          [--private-ip-addresses PRIVATE_IP_ADDRESSES]
                                          [--project-id PROJECT_ID]
                                          [--mac-address MAC_ADDRESS]
                                          [--private-dns-name PRIVATE_DNS_NAME]
                                          [--description DESCRIPTION]
                                          network_id
```

Description

Creates a new network interface object.

Returns

Returns dict: NetworkInterfaces response

Mandatory

```
positional arguments:
  network_id            The UUID of the DVS network to which the interface belongs
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the network interface
  --secondary-ip-address-count SECONDARY_IP_ADDRESS_COUNT
                        The number of secondary private IPv4 addresses to assign
  --private-ip-addresses PRIVATE_IP_ADDRESSES
                        One or more private IPv4 addresses in the format
                        [{"private_ip_address": "1.2.3.4", "primary": true, "subnet_id":<uuid>}]
                        When subnet_id is None and private_ip_address is None,
                        the first available IP address in the first available subnet will be allocated
                        When private_ip_address is None, and subnet_id is used,
                        the first available IP address in the subnet will be allocated
  --project-id PROJECT_ID
                        The UUID of the project to which this network interface belongs
  --mac-address MAC_ADDRESS
                        MAC address
  --private-dns-name PRIVATE_DNS_NAME
                        Private DNS name
  --description DESCRIPTION
                        A description provided by the user
```

dvs network-interface delete

Usage

```
  usage: symp dvs network-interface delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          network_interface_id
```

Description

Deletes a network interface of a DVS Network.

Mandatory

```
positional arguments:
  network_interface_id  ID of the network interface to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

dvs network-interface get

Usage

```
  usage: symp dvs network-interface get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--with-tags]
                                       network_interface_id
```

Description

Returns a Network Interface of a DVS Network.

Returns

Returns dict: NetworkInterfaces response

Mandatory

```
positional arguments:
  network_interface_id  ID of the requested network interface
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --with-tags           Flag that indicates if the response should include user tags
```

dvs network-interface list

Usage

```
  usage: symp dvs network-interface list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent]
                                        [--quote {all,minimal,none,nonnumeric}]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--network-interface-id [NETWORK_INTERFACE_ID [NETWORK_INTERFACE_
↪ID ...]]]
                                        [--name [NAME [NAME ...]]]
                                        [--description [DESCRIPTION [DESCRIPTION ...]]]
                                        [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                                        [--network-id [NETWORK_ID [NETWORK_ID ...]]]
                                        [--private-ip-address [PRIVATE_IP_ADDRESS [PRIVATE_IP_ADDRESS ...
↪]]]
                                        [--public-ip-address [PUBLIC_IP_ADDRESS [PUBLIC_IP_ADDRESS ...]]]
                                        [--association-id [ASSOCIATION_ID [ASSOCIATION_ID ...]]]
                                        [--instance-id [INSTANCE_ID [INSTANCE_ID ...]]]
                                        [--attachment-ids [ATTACHMENT_IDS [ATTACHMENT_IDS ...]]]
                                        [--attachment-status [ATTACHMENT_STATUS [ATTACHMENT_STATUS ...]]]
                                        [--security-group-id [SECURITY_GROUP_ID [SECURITY_GROUP_ID ...]]]
                                        [--security-group-name [SECURITY_GROUP_NAME [SECURITY_GROUP_NAME
↪...]]]
                                        [--private-dns-name [PRIVATE_DNS_NAME [PRIVATE_DNS_NAME ...]]]
```

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```
                                        [--delete-on-termination DELETE_ON_TERMINATION]
                                        [--source-dest-check SOURCE_DEST_CHECK]
                                        [--port-security-enabled PORT_SECURITY_ENABLED]
                                        [--tags [TAGS [TAGS ...]]]
                                        [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                        [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
                                        [--with-tags]
                                        [--is-managed-resource IS_MANAGED_RESOURCE]
```

Description

Returns all network interfaces.

Returns

Returns list: NetworkInterfaces objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --network-interface-id [NETWORK_INTERFACE_ID [NETWORK_INTERFACE_ID ...]]
                        IDs to filter by
  --name [NAME [NAME ...]]
                        The name of a particular element
  --description [DESCRIPTION [DESCRIPTION ...]]
                        The description of a particular element
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        ID of a project
  --network-id [NETWORK_ID [NETWORK_ID ...]]
                        The UUID of a network. This maps to subnet-id in AWS
  --private-ip-address [PRIVATE_IP_ADDRESS [PRIVATE_IP_ADDRESS ...]]
                        Private IPv4 addresses associated with the network interface
  --public-ip-address [PUBLIC_IP_ADDRESS [PUBLIC_IP_ADDRESS ...]]
                        The public IPv4 addresses associated with a private IP of the network interface
  --association-id [ASSOCIATION_ID [ASSOCIATION_ID ...]]
                        The ID of an association with a floating IP
  --instance-id [INSTANCE_ID [INSTANCE_ID ...]]
                        The ID of the instance to which the network interface is attached
  --attachment-ids [ATTACHMENT_IDS [ATTACHMENT_IDS ...]]
                        The attachment IDs
  --attachment-status [ATTACHMENT_STATUS [ATTACHMENT_STATUS ...]]
                        Attachment status
  --security-group-id [SECURITY_GROUP_ID [SECURITY_GROUP_ID ...]]
                        The ID of a security group associated with the network interface
  --security-group-name [SECURITY_GROUP_NAME [SECURITY_GROUP_NAME ...]]
                        The name of a security group associated with the network interface
  --private-dns-name [PRIVATE_DNS_NAME [PRIVATE_DNS_NAME ...]]
                        The private DNS name of the network interface (IPv4)
  --delete-on-termination DELETE_ON_TERMINATION
                        Indicates whether the attachment is deleted when an instance is terminated
  --source-dest-check SOURCE_DEST_CHECK
                        Indicates whether to performs IP Addresses source/destination checking
  --port-security-enabled PORT_SECURITY_ENABLED
                        Indicates whether to enable/disable anti-spoofing checks (MAC level)
  --tags [TAGS [TAGS ...]]
                        List of tag strings to filter by in 'key=value' format
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
```

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```
                        List of keys of tags to filter by
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        List of value of tags to filter by
  --with-tags           Flag that indicates if list should get ports-tags or not
  --is-managed-resource IS_MANAGED_RESOURCE
                        List only managed or not managed resources, or all if None (default)
```

dvs project action

Usage

```
  usage: symp dvs project action
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                project_id action
```

Description

Perform an action on a DVS project.

Returns

Returns dict: Result: true/false + entity-type: count remaining

Mandatory

```
positional arguments:
  project_id            UUID of the project
  action                The action to perform.
                        Possible values: delete_dry_run, enable_flowlogs, disable_flowlogs
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

dvs project delete

Usage

```
  usage: symp dvs project delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                project_id
```

Description

Delete a DVS project config object.

Mandatory

```
positional arguments:
  project_id            UUID of the project
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

dvs project get

Usage

```
  usage: symp dvs project get
[-f {adaptive_table,json,shell,table,value,yaml}]
                             [-c COLUMN] [--max-width <integer>] [--noindent]
                             [--prefix PREFIX]
                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                             project_id
```

Description

Get the DVS project config object.

Returns

Returns dict: Project config object

Mandatory

```
positional arguments:
  project_id            UUID of the project
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

dvs project list

Usage

```
  usage: symp dvs project list
[-f {adaptive_table,csv,json,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--quote {all,minimal,none,nonnumeric}]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                              [--flowlogs-enabled FLOWLOGS_ENABLED]
```

Description

List all DVS project config objects.

Returns

Returns list: Project objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        Filter by UUID of the project
  --flowlogs-enabled FLOWLOGS_ENABLED
                        Whether to enable flowlogs for this project
```

dvs project provision

Usage

```
  usage: symp dvs project provision
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    project_id
```

Description

Creates a new DVS project config object.

Mandatory

```
positional arguments:
  project_id            UUID of the project
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.36 event

event count

Usage

```
usage: symp event count

                        [-h] [-f {adaptive_table,json,shell,table,value,yaml}]
↪[-c COLUMN] [--max-width <integer>] [--noindent]
                        [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                        [--event-type [EVENT_TYPE [EVENT_TYPE ...]]]
                        [--entity-type [ENTITY_TYPE [ENTITY_TYPE ...]]]
                        [--entity-id [ENTITY_ID [ENTITY_ID ...]]]
                        [--severity [SEVERITY [SEVERITY ...]]]
                        [--start-timestamp START_TIMESTAMP]
                        [--end-timestamp END_TIMESTAMP] [--limit LIMIT]
                        [--offset OFFSET]
                        [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                        [--hostname [HOSTNAME [HOSTNAME ...]]]
                        [--request-id [REQUEST_ID [REQUEST_ID ...]]]
                        [--user-id [USER_ID [USER_ID ...]]]
                        [--group-by GROUP_BY]
```

Description

Get count of events filtered by given params and group by specific field - default: severity. If param value is None or [] it will not be used for filtering.

Returns

Returns dict: Dictionary of counts of events matching the provided filters

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --event-type [EVENT_TYPE [EVENT_TYPE ...]]
                        Filter by (default: None)
  --entity-type [ENTITY_TYPE [ENTITY_TYPE ...]]
                        Filter by (default: None)
  --entity-id [ENTITY_ID [ENTITY_ID ...]]
                        Filter by (default: None)
  --severity [SEVERITY [SEVERITY ...]]
                        Filter by (default: None)
  --start-timestamp START_TIMESTAMP
                        Start of query period (milliseconds since epoch), by default - 1 hour back
  --end-timestamp END_TIMESTAMP
                        End of query period (milliseconds since epoch), by default - now
  --limit LIMIT         Limit amount of events (default: 50)
  --offset OFFSET       Offset to paginate the results (default: None)
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        If the user is system admin, the project ID will be used to filter events if it
↪is not
                        None, else, the project_id will be overriden with the users project ID
  --hostname [HOSTNAME [HOSTNAME ...]]
                        Filter by (default: None)
  --request-id [REQUEST_ID [REQUEST_ID ...]]
                        Filter by (default: None)
  --user-id [USER_ID [USER_ID ...]]
                        Filter by (default: None)
  --group-by GROUP_BY   Count and group by specific field (default: severity)
```

event definition create

Usage

```
  usage: symp event definition create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     [--project-id PROJECT_ID]
                                     [--filter-duration FILTER_DURATION]
                                     [--filter-fields [FILTER_FIELDS [FILTER_FIELDS ...]]]
                                     event_type entity_type severity
                                     display_name description_templates
```

Description

Register new event type.

Mandatory

```
positional arguments:
  event_type            The auxiliary event name
  entity_type           The event is reported for entity (i.e. vm|node|user, etc)
  severity              The severity of the event
  display_name          Will be displayed to user
  description_templates
                        A map from the event sub-type to the description template for this subtype.
                        the template will be complemented with the values for the particular event entry.
↪If only a single event
                        subtype exists, you can use a 'default' as a key for its description template
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id PROJECT_ID
                        Project id to create the event_type in (admin only)
  --filter-duration FILTER_DURATION
                        Duration in seconds to check for duplicate events before submission.
                        Only one event with the same values (according to the filter_fields) will be
↪submitted to the queue in
                        a filter_duration second interval
  --filter-fields [FILTER_FIELDS [FILTER_FIELDS ...]]
                        A list of fields to decide on duplicated event.
                        In case an auxiliary field is required (from the description_template) prefix
↪with "auxiliary:".
                        for example: using "project_id", "auxiliary:origin_ip" will cause two events to
↪be treated as duplicated
                        if their event_type, project_id, and origin_ip (in the auxiliary parameters) are
↪identical
```

event definition get

Usage

```
  usage: symp event definition get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  event_type
```

Description

Get the details of the requested event.

Returns

Returns dict: The requested event details

Mandatory

```
positional arguments:
  event_type            Requested event type
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

event definition list

Usage

```
  usage: symp event definition list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--entity-type ENTITY_TYPE]
                                    [--severity SEVERITY]
```

Description

Get a list event definitions.

Returns

Returns list: List of event definitions

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --entity-type ENTITY_TYPE
                        Filter by entity_type, if the param equals None, don't filter (default: None)
  --severity SEVERITY   The severity of the event
```

event definition update

Usage

```
  usage: symp event definition update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--severity SEVERITY]
                                    [--description-templates DESCRIPTION_TEMPLATES]
                                    [--filter-duration FILTER_DURATION]
                                    [--filter-fields [FILTER_FIELDS [FILTER_FIELDS ...]]]
                                    event_type
```

Description

Register new event type.

Mandatory

```
positional arguments:
  event_type            The event id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --severity SEVERITY   The severity of the event
  --description-templates DESCRIPTION_TEMPLATES
                        A map from the event sub-type to the description template for this subtype.
                        the template will be complemented with the values for the particular event entry.
↪If only a single event
                        subtype exists, you can use a 'default' as a key for its description template
  --filter-duration FILTER_DURATION
                        Duration in seconds to check for duplicate events before submission.
                        Only one event with the same values (according to the filter_fields) will be
↪submitted to the queue in
                        a filter_duration second interval
  --filter-fields [FILTER_FIELDS [FILTER_FIELDS ...]]
                        A list of fields to decide on duplicated event.
                        In case an auxiliary field is required (from the description_template) prefix
↪with "auxiliary:".
                        for example: using "project_id", "auxiliary:origin_ip" will cause two events to
↪be treated as duplicated
                        if their event_type, project_id, and origin_ip (in the auxiliary parameters) are
↪identical
```

event query

Usage

```
usage: symp event query

                        [-h] [-f {adaptive_table,csv,json,table,value,yaml}]                            [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                        [--quote {all,minimal,none,nonnumeric}]
                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                        [--event-type [EVENT_TYPE [EVENT_TYPE ...]]]
                        [--entity-type [ENTITY_TYPE [ENTITY_TYPE ...]]]
                        [--entity-id [ENTITY_ID [ENTITY_ID ...]]]
                        [--severity [SEVERITY [SEVERITY ...]]]
                        [--start-timestamp START_TIMESTAMP]
                        [--end-timestamp END_TIMESTAMP] [--limit LIMIT]
                        [--offset OFFSET]
                        [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                        [--hostname [HOSTNAME [HOSTNAME ...]]]
                        [--request-id [REQUEST_ID [REQUEST_ID ...]]]
                        [--user-id [USER_ID [USER_ID ...]]]
```

Description

Get system events filtered by given params. If param value is None or [] it will not be used for filtering.

Returns

Returns list: List of events matching the provided filters, ordered by time stamp, most recent event first

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --event-type [EVENT_TYPE [EVENT_TYPE ...]]
```

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```
                        Filter by (default: None)
  --entity-type [ENTITY_TYPE [ENTITY_TYPE ...]]
                        Filter by (default: None)
  --entity-id [ENTITY_ID [ENTITY_ID ...]]
                        Filter by (default: None)
  --severity [SEVERITY [SEVERITY ...]]
                        Filter by (default: None)
  --start-timestamp START_TIMESTAMP
                        Start of query period (milliseconds since epoch), by default - 1 hour back
  --end-timestamp END_TIMESTAMP
                        End of query period (milliseconds since epoch), by default - now
  --limit LIMIT         Limit amount of events (default: 50)
  --offset OFFSET       Offset to paginate the results (default: None)
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        If the user is system admin, the project ID will be used to filter events if it
↪is not
                        None, else, the project_id will be overriden with the users project ID
  --hostname [HOSTNAME [HOSTNAME ...]]
                        Filter by (default: None)
  --request-id [REQUEST_ID [REQUEST_ID ...]]
                        Filter by (default: None)
  --user-id [USER_ID [USER_ID ...]]
                        Filter by (default: None)
```

4.2.37 external-endpoint

external-endpoint create

Usage

```
  usage: symp external-endpoint create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent] [--prefix PREFIX]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      [--description DESCRIPTION]
                                      [--permission PERMISSION]
                                      endpoint_type name details
```

Description

Create an external endpoint

Returns

Returns dict: External endpoint

Mandatory

```
positional arguments:
  endpoint_type         Endpoint type ['s3', 'nfs', 'rsyslog', 'logstash', 'influxdb', 'vmware', 'active_
↪directory', 'zendesk', 'smtp', 'vpsa_backup', 'kms', 'vpc_https_forwarder', 'b2os']
  name                  Name for the external endpoint
  details               Properties of external endpoint
                        s3  - '{"s3_region":"","s3_endpoint_url":"","s3_bucket":"","s3_access_key":"","s3_
↪secret_key":"","s3_verify_ssl":true}'
```

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```
                        nfs - '{"nfs_share":"","nfs_mount_options":""}'
                        rsyslog - '{"rsyslog_hostname":"rsyslog_hostname/IP","rsyslog_port":514,"rsyslog_
↪protocol":"udp"}'
                        logstash - '{"logstash_hostname":"","logstash_port":10000,"logstash_protocol":"tcp
↪"}'
                        influxdb  - '{"influxdb_hostname":"","influxdb_port":8086,"influxdb_database":
↪"metrics", "influxdb_username":"","influxdb_password":""}'
                        vmware  - '{"vmware_hostname":"","vmware_port":443, "vmware_username":"","vmware_
↪password":"","vmware_resource_pool":"", "vmware_datacenter":""}'
                        active_directory  - '{"ad_domain_name":"","ad_domain_user":"", "ad_domain_password
↪":""}'
                        zendesk - '{"zendesk_address":"","zendesk_username":"","zendesk_password":""}'
                        smtp - '{"smtp_host":"","smtp_port":25,"smtp_from":"","smtp_to":"","smtp_username
↪":"","smtp_password":"","smtp_ssl":true}'
                        vpsa_backup - '{"vpsa_nfs_share":"","vpsa_nfs_mount_options":"", "vpsa_remote_name
↪":"", "vpsa_remote_pool_name":"", "vpsa_snapshot_policy_name":""}'
                        kms - '{"kms_ip":["kms ip array"]}'
                        vpc_https_forwarder - '{"vpc_https_forwarder_dns_name":"","vpc_https_forwarder_
↪port":443, "vpc_https_forwarder_verify_ssl":true}'
                        b2os - '{"b2os_network":"","b2os_object_store_type":"","s3_region":"","s3_
↪endpoint_url":"","s3_bucket":"","s3_access_key":"","s3_secret_key":"","s3_verify_ssl":true}'
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        Description for the external endpoint
  --permission PERMISSION
                        Endpoint permissions scope (public/account/project level) and access_mode
```

external-endpoint delete

Usage

```
  usage: symp external-endpoint delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent] [--prefix PREFIX]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      [--soft-delete]
                                      external_endpoint_id
```

Description

Delete the external endpoint

Mandatory

```
positional arguments:
  external_endpoint_id  The ID of the external endpoint
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --soft-delete         Whether or not the endpoint should be soft deleted
```

external-endpoint get

Usage

```
  usage: symp external-endpoint get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--show-deleted SHOW_DELETED]
                                    external_endpoint_id
```

Description

Retrieve an external endpoint

Returns

Returns dict: External endpoint

Mandatory

```
positional arguments:
  external_endpoint_id  The ID of the external endpoint
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --show-deleted SHOW_DELETED
                        whether or not the query should return a deleted endpoint
```

external-endpoint list

Usage

```
  usage: symp external-endpoint list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--show-deleted SHOW_DELETED]
                                    [--endpoint-type-eq ENDPOINT_TYPE_EQ]
```

Description

Retrieves all external endpoints

Returns

Returns list: List of external endpoints

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --show-deleted SHOW_DELETED
                        whether or not the query should return deleted endpoints
  --endpoint-type-eq ENDPOINT_TYPE_EQ
                        Return snapshots with the specified endpoint type.
                        Endpoint types: ['s3', 'nfs', 'rsyslog', 'logstash', 'influxdb', 'vmware',
↪'active_directory', 'zendesk', 'smtp', 'vpsa_backup', 'kms', 'vpc_https_forwarder', 'b2os']
```

external-endpoint undelete

Usage

```
  usage: symp external-endpoint undelete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        external_endpoint_id
```

Description

Undelete an external endpoint

Returns

Returns dict: External endpoint

Mandatory

```
positional arguments:
  external_endpoint_id  The ID of the external endpoint
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

external-endpoint update

Usage

```
  usage: symp external-endpoint update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--description DESCRIPTION]
                                       [--details DETAILS] [--name NAME]
                                       [--permission PERMISSION]
                                       external_endpoint_id
```

Description

Update external endpoint properties

Returns

Returns dict: Updated external endpoint

Mandatory

```
positional arguments:
  external_endpoint_id  The ID of the external endpoint
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        Description for the external endpoint
  --details DETAILS     Properties of external endpoint
                        s3  - '{"s3_access_key":"","s3_secret_key":"","s3_verify_ssl":true}'
                        nfs - '{"nfs_mount_options":""}'
                        logstash - '{"logstash_hostname":"","logstash_port":10000,"logstash_protocol":"tcp
↪"}'
                        vmware  - '{"vmware_username":"","vmware_password":""}
                        - Both are required'
                        active_directory  - '{"ad_domain_name":"","ad_domain_user":"", "ad_domain_password
↪":""}'
                        zendesk - '{"zendesk_address":"","zendesk_username":"","zendesk_password":""}'
                        smtp - '{"smtp_host":"","smtp_port":25,"smtp_from":"","smtp_to":"","smtp_username
↪":"","smtp_password":"","smtp_ssl":true}'
                        vpsa_backup - '{"vpsa_nfs_mount_options":""}'
                        kms - '{"kms_ip":["kms ip array"]}'
                        vpc_https_forwarder - '{"vpc_https_forwarder_dns_name":"","vpc_https_forwarder_
↪port":443, "vpc_https_forwarder_verify_ssl":true}'
                        b2os  - '{"b2os_network":"","s3_access_key":"","s3_secret_key":"","s3_verify_ssl":
↪true}'
  --name NAME           Name for the external endpoint
  --permission PERMISSION
                        '{"scope_type": "project","scope_id": "3fa85f64-5717-4562-b3fc-2c963f66afa6",
↪"access_mode": "read-write"}'
                        scope_type and access_mode are required
```

external-endpoint validate

Usage

```
  usage: symp external-endpoint validate
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       external_endpoint_id
```

Description

Validate an external endpoint

Returns

Returns dict: External endpoint validate result

Mandatory

```
positional arguments:
  external_endpoint_id  The ID of the external endpoint
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.38 group

group add-user

Usage

```
  usage: symp group add-user
[-f {adaptive_table,json,shell,table,value,yaml}]
                           [-c COLUMN] [--max-width <integer>] [--noindent]
                           [--prefix PREFIX]
                           [-m [NAME=VALUE [NAME=VALUE ...]]]
                           group_id user_id
```

Description

Adds the specified user to the specified group.

Mandatory

```
positional arguments:
  group_id              The id of the group to update
  user_id               The id of the user to add
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

group attach-aws-policy

Usage

```
  usage: symp group attach-aws-policy
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    group_id policy_id project_id
```

Description

Attaches the specified AWS policy to the specified group.

Mandatory

```
positional arguments:
  group_id              The ID of the group to attach the policy to
  policy_id             The ID of the policy you want to attach
  project_id            The ID of the project in which to attach the policy
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

group attach-strato-policy

Usage

```
  usage: symp group attach-strato-policy
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        group_id policy_id project_id
```

Description

Attaches the specified Strato policy to the specified group.

Mandatory

```
positional arguments:
  group_id              The ID of the group to attach the policy to
  policy_id             The ID of the policy you want to attach
  project_id            The ID of the project in which to attach the policy
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

group create

Usage

```
  usage: symp group create
[-f {adaptive_table,json,shell,table,value,yaml}]
                           [-c COLUMN] [--max-width <integer>] [--noindent]
                           [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                           [--path PATH] [--domain-id DOMAIN_ID]
                           name
```

Description

Creates a new group.

Returns

Returns dict: A structure containing details about the new group

Mandatory

```
positional arguments:
  name                  The name of the group to create
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --path PATH           The path to the group
  --domain-id DOMAIN_ID
                        The domain in which to create the group. If not supplied, creating in current
↪domain
```

group detach-aws-policy

Usage

```
  usage: symp group detach-aws-policy
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     group_id policy_id project_id
```

Description

Removes the specified AWS policy from the specified group.

Mandatory

```
positional arguments:
  group_id              The ID of the group to detach the policy from
  policy_id             The ID of the policy you want to detach
  project_id            The ID of the project in which to detach the policy
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

group detach-strato-policy

Usage

```
  usage: symp group detach-strato-policy
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       group_id policy_id project_id
```

Description

Removes the specified Strato policy from the specified group.

Mandatory

```
positional arguments:
  group_id              The ID of the group to detach the policy from
  policy_id             The ID of the policy you want to detach
  project_id            The ID of the project in which to detach the policy
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

group get

Usage

```
usage: symp group get

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                      [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      group_id
```

Description

Get information of a group.

Returns

Returns dict: Information of group

Mandatory

```
positional arguments:
  group_id              ID of group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

group list

Usage

```
usage: symp group list

                       [-h] [-f {adaptive_table,csv,json,table,value,yaml}]                       [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                       [--quote {all,minimal,none,nonnumeric}]
                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                       [--domain-id DOMAIN_ID] [--name NAME]
```

Description

List all groups.

Returns

Returns list: List of groups

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --domain-id DOMAIN_ID
                        Filter by a specific domain ID.
                        None means show current domain for tenant-admins, and all domains for system
↪admins
  --name NAME           Only list groups with the given name
```

group list-aws-policies

Usage

```
  usage: symp group list-aws-policies
[-f {adaptive_table,csv,json,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent]
                                      [--quote {all,minimal,none,nonnumeric}]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      group_id project_id
```

Description

Lists all AWS policies that are attached to the specified group.

Returns

Returns list: List of the AWS policies that are attached to the specified group

Mandatory

```
positional arguments:
  group_id              The ID of the group to list attached policies for
  project_id            The ID of the project in which the policies are attached
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

group list-strato-policies

Usage

```
  usage: symp group list-strato-policies
[-f {adaptive_table,csv,json,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent]
                                        [--quote {all,minimal,none,nonnumeric}]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        group_id project_id
```

Description

Lists all Strato policies that are attached to the specified group.

Returns

Returns list: List of the Strato policies that are attached to the specified group

Mandatory

```
positional arguments:
  group_id              The ID of the group to list attached policies for
  project_id            The ID of the project in which the policies are attached
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

group list-users

Usage

```
  usage: symp group list-users
[-f {adaptive_table,csv,json,table,value,yaml}]
                             [-c COLUMN] [--max-width <integer>] [--noindent]
                             [--quote {all,minimal,none,nonnumeric}]
                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                             group_id
```

Description

Returns a list of users that are in the specified group.

Returns

Returns list: List of users in the group

Mandatory

```
positional arguments:
  group_id              The id of the group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

group remove

Usage

```
  usage: symp group remove
[-f {adaptive_table,json,shell,table,value,yaml}]
                           [-c COLUMN] [--max-width <integer>] [--noindent]
                           [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                           group_id
```

Description

Deletes the specified group.

Mandatory

```
positional arguments:
  group_id              The id of the group to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

group remove-user

Usage

```
  usage: symp group remove-user
[-f {adaptive_table,json,shell,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>] [--noindent]
                               [--prefix PREFIX]
                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                               group_id user_id
```

Description

Removes the specified user from the specified group.

Mandatory

```
positional arguments:
  group_id              The id of the group to update
  user_id               The id of the user to remove
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

group set-aws-policies

Usage

```
  usage: symp group set-aws-policies
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    group_id --policy_ids [--policy_ids ...]
                                    project_id
```

Description

Set the group's AWS policies in the specified project.

Mandatory

```
positional arguments:
  group_id              The ID of the group to attach the policies to
  --policy_ids          The IDs of the policies you want to attach
  project_id            The ID of the project in which to attach the policies
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

group set-strato-policies

Usage

```
  usage: symp group set-strato-policies
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       group_id --policy_ids [--policy_ids ...]
                                       project_id
```

Description

Set the group's Strato policies in the specified project.

Mandatory

```
positional arguments:
  group_id              The ID of the group to attach the policy to
  --policy_ids          The IDs of the policies you want to attach
  project_id            The ID of the project in which to attach the policy
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

group update

Usage

```
  usage: symp group update
[-f {adaptive_table,json,shell,table,value,yaml}]
                           [-c COLUMN] [--max-width <integer>] [--noindent]
                           [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                           [--new-name NEW_NAME] [--new-path NEW_PATH]
                           group_id
```

Description

Updates the name and/or the path of the specified group.

Returns

Returns dict: A structure containing details about the group

Mandatory

```
positional arguments:
  group_id              ID of the group to update
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --new-name NEW_NAME   New name for the group. Only include this if changing the group's name
  --new-path NEW_PATH   New path for the group. Only include this if changing the group's path
```

4.2.39 health

health get

Usage

```
usage: symp health get

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--extended] [--check-timeout CHECK_TIMEOUT]
```

Description

Returns the health status.

Note:

This endpoint will be used continuously by cluster manager in order to determine if the service is up and running and ready to serve requests.

Returns

Returns dict: Health status

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --extended            If set an extended health check will initiate
  --check-timeout CHECK_TIMEOUT
                        Timeout in seconds for each of the connection tests
```

4.2.40 instance

instance type access-add

Usage

```
  usage: symp instance type access-add
[-f {adaptive_table,csv,json,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent]
                                     [--quote {all,minimal,none,nonnumeric}]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     instance_type project_id
```

Description

Add a project to the access list of instance type.

Returns

Returns list: Access list of the instance type

Mandatory

```
positional arguments:
  instance_type         Name of instance type
  project_id            ID of project to add access for
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

instance type access-list

Usage

```
  usage: symp instance type access-list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent]
                                       [--quote {all,minimal,none,nonnumeric}]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       instance_type
```

Description

Get the list of tenants that have access to the instance type.

Returns

Returns list: Access list of the instance type

Mandatory

```
positional arguments:
  instance_type         Name of instance type
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

instance type access-remove

Usage

```
  usage: symp instance type access-remove
[-f {adaptive_table,csv,json,table,value,yaml}]
                                         [-c COLUMN] [--max-width <integer>]
                                         [--noindent]
                                         [--quote {all,minimal,none,nonnumeric}]
                                         [-m [NAME=VALUE [NAME=VALUE ...]]]
                                         instance_type project_id
```

Description

Remove a project from the access list of instance type.

Returns

Returns list: Access list of the instance type

Mandatory

```
positional arguments:
  instance_type         Name of instance type
  project_id            ID of project to remove access for
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

instance type alias create

Usage

```
  usage: symp instance type alias create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       instance_type_name instance_type_alias
```

Description

Create instance type alias mapping.

Returns

Returns dict: Details of new instance type

Mandatory

```
positional arguments:
  instance_type_name    The name of the Zadara instance type
  instance_type_alias   The alias name of the AWS instance type
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

instance type alias delete

Usage

```
  usage: symp instance type alias delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--uuid UUID]
                                        [--instance-type-alias INSTANCE_TYPE_ALIAS]
```

Description

Delete instance type alias mapping by either providing the mapping's uuid or by its Alias name, but not both.

Returns

Returns str: The uuid of the deleted instance type alias mapping

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --uuid UUID           The uuid of the instance type alias mapping (optional)
  --instance-type-alias INSTANCE_TYPE_ALIAS
                        The name of the AWS instance type alias (optional)
```

instance type alias get

Usage

```
  usage: symp instance type alias get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     [--uuid UUID]
                                     [--instance-type-alias INSTANCE_TYPE_ALIAS]
```

Description

Get instance type alias mapping by either providing the mapping's uuid or by its Alias name, but not both.

Returns

Returns dict: Details of instance type alias mapping

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --uuid UUID           The uuid of the instance type alias mapping (optional)
  --instance-type-alias INSTANCE_TYPE_ALIAS
                        The name of the AWS instance type alias (optional)
```

instance type alias list

Usage

```
  usage: symp instance type alias list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent]
                                       [--quote {all,minimal,none,nonnumeric}]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List instance type alias mapping.

Returns

Returns list: List of instance type alias mapping

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

instance type alias update

Usage

```
  usage: symp instance type alias update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                         [-c COLUMN] [--max-width <integer>]
                                         [--noindent] [--prefix PREFIX]
                                         [-m [NAME=VALUE [NAME=VALUE ...]]]
                                         [--instance-type-alias INSTANCE_TYPE_ALIAS]
                                         [--instance-type-name INSTANCE_TYPE_NAME]
                                         uuid
```

Description

Update the AWS instance type alias record. Can update either the alias name, the instance type name or both.

Returns

Returns dict: Details of updated instance type alias mapping

Mandatory

```
positional arguments:
  uuid                  The uuid of the instance type alias mapping
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --instance-type-alias INSTANCE_TYPE_ALIAS
                        The updated name of the AWS instance type alias
  --instance-type-name INSTANCE_TYPE_NAME
                        The updated name of the zCompute instance type
```

instance type create

Usage

```
  usage: symp instance type create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--is-public]
                                    [--pci-device-requests PCI_DEVICE_REQUESTS]
                                    [--sockets SOCKETS] [--cores CORES]
                                    [--threads THREADS]
                                    name memory_mb vcpus
```

Description

Create a new instance type.

Returns

Returns dict: Details of new instance type

Mandatory

```
positional arguments:
  name                  A unique name for the instance type
  memory_mb             Amount of memory in MiB
  vcpus                 Number of vCPUs
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --is-public           Whether instance type is public
  --pci-device-requests PCI_DEVICE_REQUESTS
                        JSON based List of PCI devices where each contains vendor_id,
                        device_id and count
  --sockets SOCKETS     Number of CPU sockets, defaults to Number of vCPUs
  --cores CORES         Number of CPU cores per socket, defaults to 1
  --threads THREADS     Number of threads per CPU core, defaults to 1
```

instance type delete

Usage

```
  usage: symp instance type delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    instance_type
```

Description

Deletes the specified instance type.

Mandatory

```
positional arguments:
  instance_type         Name of instance type
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

instance type get

Usage

```
  usage: symp instance type get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>] [--noindent]
                                [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                instance_type
```

Description

Returns details of the specified instance type.

Returns

Returns dict: Details of instance type

Mandatory

```
positional arguments:
  instance_type         Name of instance type
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

instance type list

Usage

```
  usage: symp instance type list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent]
                                [--quote {all,minimal,none,nonnumeric}]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--show-disabled] [--marker MARKER]
                                [--limit LIMIT]
```

Description

Returns all instance types.

Returns

Returns list: Instance types

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --show-disabled       By default, disabled instance types are not shown (relevant for admin only)
  --marker MARKER       Begin returning flavors that appear later in the flavor
                        list than that represented by this flavor id (optional)
  --limit LIMIT         Maximum number of flavors to return (optional)
```

instance type tag

Usage

```
  usage: symp instance type tag
[-f {adaptive_table,json,shell,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>] [--noindent]
                               [--prefix PREFIX]
                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                               instance_type --tags [--tags ...]
```

Description

Assigns tags to an instance_type and updates existing VM's with the needed tags.

Mandatory

```
positional arguments:
  instance_type         Name of instance type
  --tags                List of tags to add
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

instance-profile add-role

Usage

```
  usage: symp instance-profile add-role
[-f {adaptive_table,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent] [--prefix PREFIX]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      instance_profile_id role_id
```

Description

Adds the specified role to the specified instance profile. An instance profile can contain only one role, and this limit cannot be increased. You can remove the existing role and then add a different role to an instance profile.

Mandatory

```
positional arguments:
  instance_profile_id   The ID of the instance profile to update
  role_id               The ID of the role to add
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

instance-profile create

Usage

```
  usage: symp instance-profile create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     [--path PATH] [--project-id PROJECT_ID]
                                     name
```

Description

Creates a new instance profile.

Returns

Returns dict: A structure containing details about the new instance profile

Mandatory

```
positional arguments:
  name                  The name of the instance profile to create
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --path PATH           The path to the instance profile
  --project-id PROJECT_ID
                        The ID of the project in which the instance-profile will be created (for admin
↪only)
```

instance-profile get

Usage

```
  usage: symp instance-profile get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                   [-c COLUMN] [--max-width <integer>]
                                   [--noindent] [--prefix PREFIX]
                                   [-m [NAME=VALUE [NAME=VALUE ...]]]
                                   instance_profile_id
```

Description

Retrieves information about the specified instance profile.

Returns

Returns dict: A structure containing details about the instance profile

Mandatory

```
positional arguments:
  instance_profile_id   The ID of the instance-profile to get
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

instance-profile list

Usage

```
  usage: symp instance-profile list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--name NAME] [--project-id PROJECT_ID]
```

Description

Lists the instance profiles.

Returns

Returns list: The instance profiles

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Only list instance profiles with the given name
  --project-id PROJECT_ID
                        ID of project to list instance profiles for (only for admin)
```

instance-profile remove

Usage

```
  usage: symp instance-profile remove
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     instance_profile_id
```

Description

Deletes the specified instance profile. The instance profile must not have an associated role.

Mandatory

```
positional arguments:
  instance_profile_id   The ID of the instance-profile to remove
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

instance-profile remove-role

Usage

```
  usage: symp instance-profile remove-role
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          instance_profile_id role_id
```

Description

Removes the specified role from the specified instance profile.

Mandatory

```
positional arguments:
  instance_profile_id   The ID of the instance profile to update
  role_id               The ID of the role to remove
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.41 instance-profile

instance-profile add-role

Usage

```
  usage: symp instance-profile add-role
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       instance_profile_id role_id
```

Description

Adds the specified role to the specified instance profile. An instance profile can contain only one role, and this limit cannot be increased. You can remove the existing role and then add a different role to an instance profile.

Mandatory

```
positional arguments:
  instance_profile_id   The ID of the instance profile to update
  role_id               The ID of the role to add
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

instance-profile create

Usage

```
  usage: symp instance-profile create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     [--path PATH] [--project-id PROJECT_ID]
                                     name
```

Description

Creates a new instance profile.

Returns

Returns dict: A structure containing details about the new instance profile

Mandatory

```
positional arguments:
  name                  The name of the instance profile to create
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --path PATH           The path to the instance profile
  --project-id PROJECT_ID
                        The ID of the project in which the instance-profile will be created (for admin
↪only)
```

instance-profile get

Usage

```
  usage: symp instance-profile get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                   [-c COLUMN] [--max-width <integer>]
                                   [--noindent] [--prefix PREFIX]
                                   [-m [NAME=VALUE [NAME=VALUE ...]]]
                                   instance_profile_id
```

Description

Retrieves information about the specified instance profile.

Returns

Returns dict: A structure containing details about the instance profile

Mandatory

```
positional arguments:
  instance_profile_id   The ID of the instance-profile to get
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

instance-profile list

Usage

```
  usage: symp instance-profile list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--name NAME] [--project-id PROJECT_ID]
```

Description

Lists the instance profiles.

Returns

Returns list: The instance profiles

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Only list instance profiles with the given name
  --project-id PROJECT_ID
                        ID of project to list instance profiles for (only for admin)
```

instance-profile remove

Usage

```
  usage: symp instance-profile remove
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     instance_profile_id
```

Description

Deletes the specified instance profile. The instance profile must not have an associated role.

Mandatory

```
positional arguments:
  instance_profile_id   The ID of the instance-profile to remove
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

instance-profile remove-role

Usage

```
  usage: symp instance-profile remove-role
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          instance_profile_id role_id
```

Description

Removes the specified role from the specified instance profile.

Mandatory

```
positional arguments:
  instance_profile_id   The ID of the instance profile to update
  role_id               The ID of the role to remove
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.42 key-pair

key-pair create

Usage

```
  usage: symp key-pair create
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            [--public-key PUBLIC_KEY]
                            name
```

Description

Create or import a key pair. Creates a 2048-bit SSH-2 RSA key. You may import SSH-2 RSA keys of length 1024, 2048, and 4096 bits.

Returns

Returns dict: Key pair information

Mandatory

```
positional arguments:
  name                  The name of the key pair. The key pair name must be unique. It may consist of
↪only letters, numbers, spaces, underscores, periods and dashes.
                        It must begin and end with a letter, number or an underscore
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --public-key PUBLIC_KEY
                        The public key (base64-encoded)
```

key-pair delete

Usage

```
  usage: symp key-pair delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                             [-c COLUMN] [--max-width <integer>] [--noindent]
                             [--prefix PREFIX]
                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                             key_name
```

Description

Delete the specified key pair.

Mandatory

```
positional arguments:
  key_name              Name of key pair
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

key-pair get

Usage

```
  usage: symp key-pair get
[-f {adaptive_table,json,shell,table,value,yaml}]
                           [-c COLUMN] [--max-width <integer>] [--noindent]
                           [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                           [--include-public-key]
                           key_name
```

Description

Get the details of the specified key pair.

Returns

Returns dict: Key pair information

Mandatory

```
positional arguments:
  key_name              Name of key pair
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --include-public-key  (Optional) Whether to return public key
```

key-pair list

Usage

```
usage: symp key-pair list

                          [-h] [-f {adaptive_table,csv,json,table,value,yaml}]
↪ [-c COLUMN] [--max-width <integer>] [--noindent]
                          [--quote {all,minimal,none,nonnumeric}]
                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                          [--names [NAMES [NAMES ...]]]
                          [--fingerprints [FINGERPRINTS [FINGERPRINTS ...]]]
```

Description

Returns all key pairs.

Returns

Returns list: Key pairs

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --names [NAMES [NAMES ...]]
                        Key names to filter by
  --fingerprints [FINGERPRINTS [FINGERPRINTS ...]]
                        Fingerprints to filter by
```

4.2.43 lbaas

lbaas certificates add

Usage

```
  usage: symp lbaas certificates add
[-f {adaptive_table,json,shell,table,value,yaml}]
                                   [-c COLUMN] [--max-width <integer>]
                                   [--noindent] [--prefix PREFIX]
                                   [-m [NAME=VALUE [NAME=VALUE ...]]]
                                   listener_id certificate_id
```

Description

Add additional certificate to listener.

Returns

Returns dict: Certificate instance

Mandatory

```
positional arguments:
  listener_id           The UUID of listener
  certificate_id        The UUID of certificate in certificate manager
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas certificates delete

Usage

```
  usage: symp lbaas certificates delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--override-protection]
                                       record_id
```

Description

Delete an additional certificate based on the given listener ID and certificate ID.

Mandatory

```
positional arguments:
  record_id             The UUID of additional certificate
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection
                        If True, will delete even if the VM is protected from deletion
                        e.g an internal resource. Allowed only for admins
```

lbaas certificates delete-by-certificate-id

Usage

```
  usage: symp lbaas certificates delete-by-certificate-id
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                          [-c COLUMN]
                                                          [--max-width <integer>]
                                                          [--noindent]
                                                          [--prefix PREFIX]
                                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                          listener_id
                                                          certificate_id
```

Description

Delete an additional certificate based on listener_id and certificate_id.

Mandatory

```
positional arguments:
  listener_id           The UUID of listener
  certificate_id        The UUID of certificate
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas certificates get

Usage

```
  usage: symp lbaas certificates get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    record_id
```

Description

Returns am additional certificate based on the given ID.

Returns

Returns dict: Additional certificate response

Mandatory

```
positional arguments:
  record_id             ID of the requested additional certificate object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas certificates list

Usage

```
  usage: symp lbaas certificates list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--listener-id LISTENER_ID]
                                    [--ids [IDS [IDS ...]]]
                                    [--certificate-ids [CERTIFICATE_IDS [CERTIFICATE_IDS ...]]]
```

Description

Returns all additional certificates in listeners.

Returns

Returns list: List certificates

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --listener-id LISTENER_ID
                        The UUID of listener
  --ids [IDS [IDS ...]]
                        List of UUIDs to filter by
  --certificate-ids [CERTIFICATE_IDS [CERTIFICATE_IDS ...]]
                        List of certificate UUIDs to filter by
```

lbaas health get

Usage

```
  usage: symp lbaas health get
[-f {adaptive_table,json,shell,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--prefix PREFIX]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Returns the health status.

Note:

This endpoint will be used continuously by cluster manager in order to determine if the service is up and running and ready to serve requests.

Returns

Returns dict: Health status

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas listeners add-tags

Usage

```
  usage: symp lbaas listeners add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--system-tag]
                                    listener_id --tags [--tags ...]
```

Description

Add tags to a listener.

Mandatory

```
positional arguments:
  listener_id           ID of listener to which to add the tags
  --tags                List of tags to add to a listener. JSON format '{"key": "key1", "value": "value1"}
↪'
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --system-tag          If True and user is system_admin, tag will be added as system tag
```

lbaas listeners create

Usage

```
  usage: symp lbaas listeners create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--description DESCRIPTION]
                                    [--tags [TAGS [TAGS ...]]]
                                    [--certificate-id CERTIFICATE_ID]
                                    name load_balancer_id default_action
                                    protocol port
```

Description

Creates a new listener.

Returns

Returns dict: Listener instance

Mandatory

```
positional arguments:
  name                  The user defined name of the listener
  load_balancer_id      The UUID of the load balancer
  default_action        The default listener action, a json with one of the following schema:
                        Forward action:
                        {
                        "type": "forward",
                        "config": Target Group UUID
                        }
                        Fixed response action:
                        {
                        "type": "fixed-response",
                        "config": {
                        "status_code": one of 2XX|4XX|5XX (required)
                        "body": maximum 1024 characters
                        "content_type": text/plain | text/css | text/html | application/javascript |
↪application/json
```

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```
                        }
                        }
                        Redirect action:
                        {
                        "type": "redirect",
                        "config": {
                        "status_code": one of 301|302|307|308 (required)
                        "protocol": one of http|https|${protocol}
                        "host": string
                        "port": string
                        "path": string
                        "query": string
                        }
                        }
  protocol              The protocol for connections from clients to the load balancer
  port                  The port on which the load balancer is listening
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        A description of the listener
  --tags [TAGS [TAGS ...]]
                        List of tags to attach to the listener
  --certificate-id CERTIFICATE_ID
                        The ID of the certificate to use for the listener
```

lbaas listeners delete

Usage

```
  usage: symp lbaas listeners delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--override-protection]
                                    listener_id
```

Description

Deletes a listener based on the given listener ID.

Mandatory

```
positional arguments:
  listener_id           ID of the listener to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection
                        If True, will delete even if the VM is protected from deletion
                        e.g an internal resource. Allowed only for admins
```

lbaas listeners get

Usage

```
  usage: symp lbaas listeners get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--recursive] [--additional-certificates]
                                listener_id
```

Description

Returns a listener based on the given listener ID.

Returns

Returns dict: Listener response

Mandatory

```
positional arguments:
  listener_id           ID of the requested load balancer object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --recursive           If True will add additional certificates and rules
  --additional-certificates
                        If True will add additional certificates
```

lbaas listeners list

Usage

```
  usage: symp lbaas listeners list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                 [-c COLUMN] [--max-width <integer>]
                                 [--noindent]
                                 [--quote {all,minimal,none,nonnumeric}]
                                 [-m [NAME=VALUE [NAME=VALUE ...]]]
                                 [--ids [IDS [IDS ...]]]
                                 [--load-balancer-id LOAD_BALANCER_ID]
                                 [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                 [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
                                 [--tags [TAGS [TAGS ...]]]
```

Description

Returns all listeners.

Returns

Returns list: Listeners

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ids [IDS [IDS ...]]
                        List of listeners IDs for filtering
  --load-balancer-id LOAD_BALANCER_ID
                        Filter target groups by the Load Balancer to which they are attached
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        Filter load balancers by tag keys, format ["key1", "key2, key3", "key4", ...]
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        Filter load balancers by tag values, format ["value1, value2", "value3", "value4",
↪...]
  --tags [TAGS [TAGS ...]]
                        Filter load balancers by tags. JSON format '{"key": "key1", "value": ["value1",
↪"value2"]}'
```

lbaas listeners list-tags

Usage

```
  usage: symp lbaas listeners list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent]
                                       [--quote {all,minimal,none,nonnumeric}]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List tags of all listeners.

Returns

Returns list: List of all tags

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas listeners remove-tags

Usage

```
  usage: symp lbaas listeners remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                         [-c COLUMN] [--max-width <integer>]
                                         [--noindent] [--prefix PREFIX]
                                         [-m [NAME=VALUE [NAME=VALUE ...]]]
                                         [--system-tag]
                                         listener_id --tags [--tags ...]
```

Description

Remove tags from a listener.

Mandatory

```
positional arguments:
  listener_id           ID of a listener from which to remove the tags
  --tags                Tags to remove from listener. JSON format '{"key": "key1", "value": "value1"}' or
↪String
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --system-tag          If True and user is system_admin, tag will be removed from system tags
```

lbaas listeners update

Usage

```
  usage: symp lbaas listeners update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--name NAME] [--description DESCRIPTION]
                                    [--default-action DEFAULT_ACTION]
                                    [--protocol PROTOCOL] [--port PORT]
                                    [--certificate-id CERTIFICATE_ID]
                                    [--override-protection]
                                    listener_id
```

Description

Update an existing listener.

Returns

Returns dict: Listener instance

Mandatory

```
positional arguments:
  listener_id           ID of the listener to update
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The user defined name of the listener
  --description DESCRIPTION
                        A description of the load balancer
  --default-action DEFAULT_ACTION
                        The default listener action, a json with one of the following schema:
                        Forward action:
                        {
                        "type": "forward",
                        "config": Target Group UUID
                        }
                        Fixed response action:
                        {
                        "type": "fixed-response",
```

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```
                        "config": {
                        "status_code": one of 2XX|4XX|5XX (required)
                        "body": maximum 1024 characters
                        "content_type": text/plain | text/css | text/html | application/javascript |
↪application/json
                        }
                        }
                        Redirect action:
                        {
                        "type": "redirect",
                        "config": {
                        "status_code": one of 301|302|307|308 (required)
                        "protocol": one of http|https|${protocol}
                        "host": string
                        "port": string
                        "path": string
                        "query": string
                        }
                        }
  --protocol PROTOCOL   The protocol for connections from clients to the load balancer
  --port PORT           The port on which the load balancer is listening
  --certificate-id CERTIFICATE_ID
                        The ID of the certificate to use for the listener
  --override-protection
                        If True, will delete even if the VM is protected from deletion
                        e.g an internal resource. Allowed only for admins
```

lbaas load-balancers add-tags

Usage

```
  usage: symp lbaas load-balancers add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--system-tag]
                                          loadbalancer_id --tags [--tags ...]
```

Description

Add tags to a load balancer.

Mandatory

```
positional arguments:
  loadbalancer_id       ID of load balancer to which to add the tags
  --tags                List of tags to add to a load balancer. JSON format '{"key": "key1", "value":
↪"value1"}'
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --system-tag          If True and user is system_admin, tag will be added as system tag
```

lbaas load-balancers assign-parameter-group

Usage

```
  usage: symp lbaas load-balancers assign-parameter-group
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                        [-c COLUMN]
                                                        [--max-width <integer>]
                                                        [--noindent]
                                                        [--prefix PREFIX]
                                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                        loadbalancer_id
                                                        parameter_group_values_id
```

Description

Assign a parameter group to a given loadbalancer.

Returns

Returns dict: Cluster response

Mandatory

```
positional arguments:
  loadbalancer_id       ID of the requested loadbalancer
  parameter_group_values_id
                        ID of the parameter group to be assigned
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas load-balancers create

Usage

```
  usage: symp lbaas load-balancers create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--engine-version-id ENGINE_VERSION_ID]
                                       [--network-id NETWORK_ID]
                                       [--network-ids [NETWORK_IDS [NETWORK_IDS ...]]]
                                       [--description DESCRIPTION]
                                       [--fip-id FIP_ID] [--is-external]
                                       [--security-groups-ids [SECURITY_GROUPS_IDS [SECURITY_GROUPS_
↪IDS ...]]]
                                       [--instance-type INSTANCE_TYPE]
                                       [--tags [TAGS [TAGS ...]]]
                                       [--lb-type LB_TYPE]
                                       [--create-dedicated-security-group]
                                       [--replicas REPLICAS]
                                       [--parameter-group-values-id PARAMETER_GROUP_VALUES_ID]
                                       [--ip-addresses [IP_ADDRESSES [IP_ADDRESSES ...]]]
                                       name
```

Description

Creates a new load balancer instance.

Returns

Returns dict: Load balancer instance

Mandatory

```
positional arguments:
  name                  The user defined name of the load balancer
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --engine-version-id ENGINE_VERSION_ID
                        Create load balancer with this engine version
  --network-id NETWORK_ID
                        The UUID of the network to attach the load balancer
  --network-ids [NETWORK_IDS [NETWORK_IDS ...]]
                        List of UUIDs of the subnets to attach the load balancer
  --description DESCRIPTION
                        A description of the load balancer
  --fip-id FIP_ID       The UUID of the floating IP to attach to the load balancer
  --is-external         If external IP will be allocated for the load balancer
  --security-groups-ids [SECURITY_GROUPS_IDS [SECURITY_GROUPS_IDS ...]]
                        List of security groups to attach to the load balancer
  --instance-type INSTANCE_TYPE
                        Name of instance type for the new VM
  --tags [TAGS [TAGS ...]]
                        List of tags to attach to the load balancer
  --lb-type LB_TYPE     LoadBalancer type (application/network) (default: application)
  --create-dedicated-security-group
                        If True a security group will be allocated
                        and updated according to the load balancer listeners ports
  --replicas REPLICAS   Num of replicas for HA purpose, default value: 2
  --parameter-group-values-id PARAMETER_GROUP_VALUES_ID
                        Parameter group values id
  --ip-addresses [IP_ADDRESSES [IP_ADDRESSES ...]]
                        List of ip_addresses to use when creating the LB, the first IP address will be
↪used
                        as the VRRP address, and the next IP addresses will be used by the VMs.
                        Any number of IP Addresses can be specified and the service will only use needed
↪IPs or allocate random IPs.
                        There is no check if the IP addresses are in use. So creation may succeed while
↪actual provisioning will fail
```

lbaas load-balancers delete

Usage

```
  usage: symp lbaas load-balancers delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--override-protection]
                                          loadbalancer_id
```

Description

Deletes a single load balancer instance based on the given load balancer instance ID.

Mandatory

```
positional arguments:
  loadbalancer_id       ID of the load balancer instance to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection
                        If True, will delete even if the VM is protected from deletion
                        e.g an internal resource. Allowed only for admins
```

lbaas load-balancers get

Usage

```
  usage: symp lbaas load-balancers get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       loadbalancer_id
```

Description

Returns a load balancer instance based on the given load balancer instance ID.

Returns

Returns dict: Load balancer response

Mandatory

```
positional arguments:
  loadbalancer_id       ID of the requested load balancer object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas load-balancers list

Usage

```
  usage: symp lbaas load-balancers list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent]
                                       [--quote {all,minimal,none,nonnumeric}]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--ids [IDS [IDS ...]]]
                                       [--names [NAMES [NAMES ...]]]
                                       [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                       [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
                                       [--tags [TAGS [TAGS ...]]]
```

Description

Returns all load balancer instances.

Returns

Returns list: Load balancer instances

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ids [IDS [IDS ...]]
                        List of load balancers IDs for filtering
  --names [NAMES [NAMES ...]]
                        List of load balancers names for filtering
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        Filter load balancers by tag keys, format ["key1", "key2, key3", "key4", ...]
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        Filter load balancers by tag values, format ["value1, value2", "value3", "value4",
↪...]
  --tags [TAGS [TAGS ...]]
                        Filter load balancers by tags. JSON format '{"key": "key1", "value": ["value1",
↪"value2"]}'
```

lbaas load-balancers list-tags

Usage

```
  usage: symp lbaas load-balancers list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                           [-c COLUMN] [--max-width <integer>]
                                           [--noindent]
                                           [--quote {all,minimal,none,nonnumeric}]
                                           [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List tags of all load balancers.

Returns

Returns list: List of all tags

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas load-balancers remove-tags

Usage

```
  usage: symp lbaas load-balancers remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent] [--prefix PREFIX]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              [--system-tag]
                                              loadbalancer_id --tags
                                              [--tags ...]
```

Description

Remove tags from a load balancer.

Mandatory

```
positional arguments:
  loadbalancer_id       ID of a load balancer from which to remove the tags
  --tags                Tags to remove from load balancer. JSON format '{"key": "key1", "value": "value1"}
↪' or String
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --system-tag          If True and user is system_admin, tag will be removed from system tags
```

lbaas load-balancers set-security-groups

Usage

```
  usage: symp lbaas load-balancers set-security-groups
[-f {adaptive_table,csv,json,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--quote {all,minimal,none,nonnumeric}]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    loadbalancer_id
                                                    --security_groups_ids
                                                    [--security_groups_ids ...]
```

Description

Set the loadbalancer security groups.

Returns

Returns list: The load balancer security groups IDs

Mandatory

```
positional arguments:
  loadbalancer_id       Requested load balancer instance ID
  --security_groups_ids
                        List of IDs of security groups
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas load-balancers upgrade

Usage

```
  usage: symp lbaas load-balancers upgrade
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          loadbalancer_id
```

Description

Upgrade the specified Loadbalancer to the enabled revision of its engine version.

Returns

Returns dict: The new instance

Mandatory

```
positional arguments:
  loadbalancer_id       ID of the load balancer instance to upgrade
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas parameter group copy

Usage

```
  usage: symp lbaas parameter group copy
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--target-name TARGET_NAME]
                                       [--target-description TARGET_DESCRIPTION]
                                       values_id
```

Description

Copy parameter group values.

Returns

Returns dict: The new parameter group values

Mandatory

```
positional arguments:
  values_id             The parameter group id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --target-name TARGET_NAME
                        (Optional) Name of the new parameter group
  --target-description TARGET_DESCRIPTION
                        (Optional) Description of the new parameter group values
```

lbaas parameter group delete

Usage

```
  usage: symp lbaas parameter group delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          values_id
```

Description

Delete a parameter group.

Mandatory

```
positional arguments:
  values_id             The parameter group id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas parameter group get

Usage

```
  usage: symp lbaas parameter group get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--include-schema]
                                       values_id
```

Description

Retrieve the details of a specified parameter group values.

Returns

Returns dict: The parameter group values

Mandatory

```
positional arguments:
  values_id             The parameter group values id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --include-schema      (Optional) Include schema information with the values
```

lbaas parameter group list

Usage

```
  usage: symp lbaas parameter group list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent]
                                       [--quote {all,minimal,none,nonnumeric}]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--marker MARKER] [--limit LIMIT]
                                       [--sort-by SORT_BY] [--order ORDER]
                                       [--tags TAGS] [--filters FILTERS]
                                       [--include-schema]
```

Description

List the available parameter group values.

Returns

Returns list: List of defined parameter group values

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --marker MARKER       (Optional) marker from previous list
  --limit LIMIT         (Optional) max number of records to return
  --sort-by SORT_BY     (Optional) field by which to sort records
  --order ORDER         (Optional) order in which to sort records
  --tags TAGS           (Optional) return only records matching tags
  --filters FILTERS     (Optional) dictionary to filter records by all criteria provided
                        example: '{"name": "my-name", "status": "Active"}'
  --include-schema      (Optional) Include schema information with the values
```

lbaas parameter group reset

Usage

```
  usage: symp lbaas parameter group reset
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--parameters [PARAMETERS [PARAMETERS ...]]]
                                          values_id
```

Description

Reset the values of those of the family default. If parameters is passed, only those listed will be reset.

Returns

Returns dict: The new parameter group

Mandatory

```
positional arguments:
  values_id             The parameter group values id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --parameters [PARAMETERS [PARAMETERS ...]]
                        (Optional) List of parameters to reset
```

lbaas parameter group update

Usage

```
  usage: symp lbaas parameter group update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                           [-c COLUMN] [--max-width <integer>]
                                           [--noindent] [--prefix PREFIX]
                                           [-m [NAME=VALUE [NAME=VALUE ...]]]
                                           [--values VALUES]
                                           [--reset-all RESET_ALL] [--name NAME]
                                           [--description DESCRIPTION]
                                           values_id
```

Description

Update the parameters in a parameter group.

Returns

Returns dict: Updated parameter group values

Mandatory

```
positional arguments:
  values_id             The parameter group id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --values VALUES       (Optional) The parameters
  --reset-all RESET_ALL
                        (Optional) If true, all parameters are reset to family default
  --name NAME           (Optional) Updated Name of the parameter group values
  --description DESCRIPTION
                        (Optional) Updated Description of the parameter group values
```

lbaas rules add-tags

Usage

```
  usage: symp lbaas rules add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  [--system-tag]
                                  rule_id --tags [--tags ...]
```

Description

Add tags to a rule.

Mandatory

```
positional arguments:
  rule_id               ID of rule to which to add the tags
  --tags                List of tags to add to a rule. JSON format '{"key": "key1", "value": "value1"}'
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --system-tag          If True and user is system_admin, tag will be added as system tag
```

lbaas rules create

Usage

```
  usage: symp lbaas rules create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--description DESCRIPTION]
                                [--tags [TAGS [TAGS ...]]]
                                name listener_id priority --conditions
                                [--conditions ...] --actions [--actions ...]
```

Description

Creates a new rule.

Returns

Returns dict: Rule instance

Mandatory

```
positional arguments:
  name                  The user defined name of the rule
  listener_id           The UUID of the listener
  priority              The rule priority
  --conditions          List of the rule's conditions
  --actions             List of the rule's actions
                        Each action is a JSON with the following schema:
                        Forward action:
                        {
                        "type": "forward",
                        "config": Target Group UUID
                        }
                        Fixed response action:
                        {
                        "type": "fixed-response",
                        "config": {
                        "status_code": one of 2XX|4XX|5XX (required)
                        "body": maximum 1024 characters
                        "content_type": text/plain | text/css | text/html | application/javascript |
↪application/json
                        }
                        }
                        Redirect action:
                        {
                        "type": "redirect",
                        "config": {
                        "status_code": one of 301|302|307|308 (required)
                        "protocol": one of http|https|${protocol}
                        "host": string
                        "port": string
                        "path": string
                        "query": string
                        }
                        }
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        A description of the rule
  --tags [TAGS [TAGS ...]]
                        List of tags to attach to the listener
```

lbaas rules delete

Usage

```
  usage: symp lbaas rules delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--override-protection]
                                rule_id
```

Description

Deletes a rule based on the given rule ID.

Mandatory

```
positional arguments:
  rule_id               ID of the rule to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection
                        If True, will delete even if the Rule is protected from deletion
                        e.g an internal resource. Allowed only for admins
```

lbaas rules get

Usage

```
  usage: symp lbaas rules get
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            rule_id
```

Description

Returns a rule based on the given rule ID.

Returns

Returns dict: Rule instance

Mandatory

```
positional arguments:
  rule_id               ID of the requested rule object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas rules list

Usage

```
  usage: symp lbaas rules list
[-f {adaptive_table,csv,json,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--quote {all,minimal,none,nonnumeric}]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              [--ids [IDS [IDS ...]]]
                              [--listener-id LISTENER_ID]
```

Description

Returns all rules.

Returns

Returns list: Rules

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ids [IDS [IDS ...]]
                        List of rule IDs for filtering
  --listener-id LISTENER_ID
                        Filter rules by the Listener to which they are attached
```

lbaas rules list-tags

Usage

```
  usage: symp lbaas rules list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List tags of all rules.

Returns

Returns list: List of all tags

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas rules remove-tags

Usage

```
  usage: symp lbaas rules remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--system-tag]
                                    rule_id --tags [--tags ...]
```

Description

Remove tags from a rule.

Mandatory

```
positional arguments:
  rule_id               ID of a rule from which to remove the tags
  --tags                Tags to remove from rule. JSON format '{"key": "key1", "value": "value1"}' or
↪String
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --system-tag          If True and user is system_admin, tag will be removed from system tags
```

lbaas rules update

Usage

```
  usage: symp lbaas rules update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--conditions [CONDITIONS [CONDITIONS ...]]]
                                [--actions [ACTIONS [ACTIONS ...]]]
                                rule_id
```

Description

Update a rule based on the given rule ID and conditions and or actions.

Returns

Returns: Rule instance

Mandatory

```
positional arguments:
  rule_id               ID of the rule to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --conditions [CONDITIONS [CONDITIONS ...]]
                        List of the rule's conditions
  --actions [ACTIONS [ACTIONS ...]]
                        List of the rule's actions
                        Each action is a JSON with the following schema:
                        Forward action:
                        {
                        "type": "forward",
                        "config": Target Group UUID
                        }
                        Fixed response action:
                        {
                        "type": "fixed-response",
                        "config": {
                        "status_code": one of 2XX|4XX|5XX (required)
                        "body": maximum 1024 characters
                        "content_type": text/plain | text/css | text/html | application/javascript |
↪application/json
                        }
                        }
                        Redirect action:
                        {
                        "type": "redirect",
                        "config": {
                        "status_code": one of 301|302|307|308 (required)
                        "protocol": one of http|https|${protocol}
                        "host": string
                        "port": string
                        "path": string
                        "query": string
                        }
                        }
```

lbaas target-groups add-tags

Usage

```
  usage: symp lbaas target-groups add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--system-tag]
                                          target_group_id --tags [--tags ...]
```

Description

Add tags to a target group.

Mandatory

```
positional arguments:
  target_group_id       ID of a target group to which to add the tags
  --tags                List of tags to add to a target group. JSON format '{"key": "key1", "value":
↪"value1"}'
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --system-tag          If True and user is system_admin, tag will be added as system tag
```

lbaas target-groups create

Usage

```
  usage: symp lbaas target-groups create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--protocol PROTOCOL] [--port PORT]
                                       [--health-check-protocol HEALTH_CHECK_PROTOCOL]
                                       [--health-check-port HEALTH_CHECK_PORT]
                                       [--health-check-path HEALTH_CHECK_PATH]
                                       [--health-check-interval-secs HEALTH_CHECK_INTERVAL_SECS]
                                       [--health-check-timeout-secs HEALTH_CHECK_TIMEOUT_SECS]
                                       [--health-check-healthy-threshold-count HEALTH_CHECK_HEALTHY_
↪THRESHOLD_COUNT]
                                       [--health-check-unhealthy-threshold-count HEALTH_CHECK_UNHEALTHY_
↪THRESHOLD_COUNT]
                                       [--health-check-http-code-matcher HEALTH_CHECK_HTTP_CODE_MATCHER]
                                       [--description DESCRIPTION]
                                       [--tags [TAGS [TAGS ...]]]
                                       [--stickiness-enabled]
                                       [--cookie-duration-seconds COOKIE_DURATION_SECONDS]
                                       [--target-type TARGET_TYPE]
                                       [--vpc-id VPC_ID]
                                       name
```

Description

Creates a new target group.

Returns

Returns dict: Target group instance

Mandatory

```
positional arguments:
  name                  The user defined name of the target group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --protocol PROTOCOL   The protocol for the target group
  --port PORT           The port for the target group
  --health-check-protocol HEALTH_CHECK_PROTOCOL
                        Protcol for target health checks
  --health-check-port HEALTH_CHECK_PORT
                        Protcol for target health checks
                        Default is "traffic-port" which corresponds to the target port
```

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```
  --health-check-path HEALTH_CHECK_PATH
                        Path (URL) for http health check
  --health-check-interval-secs HEALTH_CHECK_INTERVAL_SECS
                        Interval between two consecutive health checks
  --health-check-timeout-secs HEALTH_CHECK_TIMEOUT_SECS
                        The amount of time, in seconds, during which no response from a target means a
↪failed health check
  --health-check-healthy-threshold-count HEALTH_CHECK_HEALTHY_THRESHOLD_COUNT
                        Number of consecutive valid health checks before considering the server as UP
  --health-check-unhealthy-threshold-count HEALTH_CHECK_UNHEALTHY_THRESHOLD_COUNT
                        Number of consecutive invalid health checks before considering the server as DOWN
  --health-check-http-code-matcher HEALTH_CHECK_HTTP_CODE_MATCHER
                        The HTTP status code to expect when performing health checks.
                        Can also be a range and multiple values (e.g. 200,201,205-299)
  --description DESCRIPTION
                        A description of the target group
  --tags [TAGS [TAGS ...]]
                        List of tags to attach to the target group
  --stickiness-enabled  Should the target group be configured with sticky session
  --cookie-duration-seconds COOKIE_DURATION_SECONDS
                        The time period (seconds) the requests from a client should be routed to the same
↪target
  --target-type TARGET_TYPE
                        Target type for this target group (instance/ip)
  --vpc-id VPC_ID       The vpc_id for the target group, default is None
```

lbaas target-groups delete

Usage

```
  usage: symp lbaas target-groups delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--override-protection]
                                       target_group_id
```

Description

Deletes a target group based on the given target group ID.

Mandatory

```
positional arguments:
  target_group_id       ID of the target group to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection
                        If True, will delete even if the VM is protected from deletion
                        e.g an internal resource. Allowed only for admins
```

lbaas target-groups deregister-target

Usage

```
  usage: symp lbaas target-groups deregister-target
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--prefix PREFIX]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    [--override-protection]
                                                    target_group_id target_id
```

Description

Registers targets with a target group identifed by the given target group ID.

Mandatory

```
positional arguments:
  target_group_id       ID of target group to remove targets
  target_id             List of target ID to deregister
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection
                        If True, will delete even if the VM is protected from deletion
                        e.g an internal resource. Allowed only for admins
```

lbaas target-groups get

Usage

```
  usage: symp lbaas target-groups get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     [--detailed]
                                     target_group_id
```

Description

Returns a target group based on the given target group ID.

Returns

Returns dict: Target group response

Mandatory

```
positional arguments:
  target_group_id       ID of the requested target group object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --detailed            Get the group listeners and targets info
```

lbaas target-groups list

Usage

```
  usage: symp lbaas target-groups list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent]
                                      [--quote {all,minimal,none,nonnumeric}]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      [--ids [IDS [IDS ...]]]
                                      [--names [NAMES [NAMES ...]]]
                                      [--detailed]
                                      [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                      [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
                                      [--tags [TAGS [TAGS ...]]]
                                      [--loadbalancer-id LOADBALANCER_ID]
```

Description

Returns all target groups.

Returns

Returns list: Target groups

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ids [IDS [IDS ...]]
                        List of target groups IDs for filtering
  --names [NAMES [NAMES ...]]
                        List of target groups names for filtering
  --detailed            Get the groups listeners and targets info
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        Filter target groups by tag keys, format ["key1", "key2, key3", "key4", ...]
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        Filter target groups by tag values, format ["value1, value2", "value3", "value4",.
↪..]
  --tags [TAGS [TAGS ...]]
                        Filter target groups by tags. JSON format '{"key": "key1", "value": ["value1",
↪"value2"]}'
  --loadbalancer-id LOADBALANCER_ID
                        Filter target groups by the Load Balancer to which they are attached
```

lbaas target-groups list-tags

Usage

```
  usage: symp lbaas target-groups list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                            [-c COLUMN] [--max-width <integer>]
                                            [--noindent]
                                            [--quote {all,minimal,none,nonnumeric}]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List tags of all target groups.

Returns

Returns list: List of all tags

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas target-groups list-targets

Usage

```
  usage: symp lbaas target-groups list-targets
[-f {adaptive_table,csv,json,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent]
                                              [--quote {all,minimal,none,nonnumeric}]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              [--ids [IDS [IDS ...]]]
                                              target_group_id
```

Description

Returns a list of registered targets with the target group identified by the given target group ID.

Returns

Returns list: Targets

Mandatory

```
positional arguments:
  target_group_id       ID of the target group of which to list targets
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ids [IDS [IDS ...]]
                        Filter specific VMs
```

lbaas target-groups register-targets

Usage

```
  usage: symp lbaas target-groups register-targets
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
                                                  [--noindent]
                                                  [--prefix PREFIX]
                                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                  target_group_id
                                                  --targets_info
                                                  [--targets_info ...]
```

Description

Registers targets with a target group identifed by the given target group ID.

Mandatory

```
positional arguments:
  target_group_id       ID of target group to add targets
  --targets_info        List of targets info.
                        Target info is a dict containing the following keys: vm_id/vm_ip (mandatory),
↪port (optional)
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

lbaas target-groups remove-tags

Usage

```
  usage: symp lbaas target-groups remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                               [-c COLUMN]
                                               [--max-width <integer>]
                                               [--noindent] [--prefix PREFIX]
                                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                                               [--system-tag]
                                               target_group_id --tags
                                               [--tags ...]
```

Description

Remove tags from a target group.

Mandatory

```
positional arguments:
  target_group_id       ID of a target group from which to remove the tags
  --tags                Tags to remove from target group. JSON format '{"key": "key1", "value": "value1"}
↪' or String
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --system-tag          If True and user is system_admin, tag will be removed from system tags
```

lbaas target-groups update

Usage

```
  usage: symp lbaas target-groups update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--stickiness-enabled STICKINESS_ENABLED]
                                       [--cookie-duration-seconds COOKIE_DURATION_SECONDS]
                                       [--health-check-protocol HEALTH_CHECK_PROTOCOL]
                                       [--health-check-port HEALTH_CHECK_PORT]
                                       [--health-check-path HEALTH_CHECK_PATH]
                                       [--health-check-interval-secs HEALTH_CHECK_INTERVAL_SECS]
                                       [--health-check-timeout-secs HEALTH_CHECK_TIMEOUT_SECS]
                                       [--health-check-healthy-threshold-count HEALTH_CHECK_HEALTHY_
↪THRESHOLD_COUNT]
                                       [--health-check-unhealthy-threshold-count HEALTH_CHECK_UNHEALTHY_
↪THRESHOLD_COUNT]
                                       [--health-check-http-code-matcher HEALTH_CHECK_HTTP_CODE_MATCHER]
                                       target_group_id
```

Description

Update the requested target group.

Returns

Returns dict: Target group response

Mandatory

```
positional arguments:
  target_group_id       ID of the target group to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --stickiness-enabled STICKINESS_ENABLED
                        Should the target group be configured with sticky session
  --cookie-duration-seconds COOKIE_DURATION_SECONDS
                        The time period (seconds) the requests from a client should be routed to the same
↪target
  --health-check-protocol HEALTH_CHECK_PROTOCOL
                        Protcol for target health checks
  --health-check-port HEALTH_CHECK_PORT
                        Protcol for target health checks
  --health-check-path HEALTH_CHECK_PATH
                        Path (URL) for http health check
  --health-check-interval-secs HEALTH_CHECK_INTERVAL_SECS
                        Interval between two consecutive health checks
```

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```
  --health-check-timeout-secs HEALTH_CHECK_TIMEOUT_SECS
                        The amount of time, in seconds, during which no response from a target means a
↪failed health check
  --health-check-healthy-threshold-count HEALTH_CHECK_HEALTHY_THRESHOLD_COUNT
                        Number of consecutive valid health checks before considering the server as UP
  --health-check-unhealthy-threshold-count HEALTH_CHECK_UNHEALTHY_THRESHOLD_COUNT
                        Number of consecutive invalid health checks before considering the server as DOWN
  --health-check-http-code-matcher HEALTH_CHECK_HTTP_CODE_MATCHER
                        The HTTP status code to expect when performing health checks.
                        Can also be a range and multiple values (e.g. 200,201,205-299)
```

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machine-images add-tags

Usage

```
  usage: symp machine-images add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--project-id PROJECT_ID] [--system-tag]
                                    machine_image_id --tags [--tags ...]
```

Description

Add tags to a machine image.

Mandatory

```
positional arguments:
  machine_image_id      ID of image to which to add the tags
  --tags                Tags to add to the machine image
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id PROJECT_ID
                        Project ID
  --system-tag          System tag, will be added to all provided tags
```

machine-images bdms add-from-file

Usage

```
  usage: symp machine-images bdms add-from-file
[-f {adaptive_table,json,shell,table,value,yaml}]
                                             [-c COLUMN]
                                             [--max-width <integer>]
                                             [--noindent] [--prefix PREFIX]
                                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                                             [--storage-pool STORAGE_POOL]
```

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```
                                                [--volume-size-gib VOLUME_SIZE_GIB]
                                                [--bus-type BUS_TYPE]
                                                [--disk-type DISK_TYPE]
                                                [--file FILE]
                                                machine_image_id boot_index
```

Description

Add bdm from file to image.

Returns

Returns dict: Successful Response

Mandatory

```
positional arguments:
  machine_image_id
  boot_index
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --storage-pool STORAGE_POOL
  --volume-size-gib VOLUME_SIZE_GIB
  --bus-type BUS_TYPE
  --disk-type DISK_TYPE
  --file FILE
```

machine-images bdms add-from-snapshot

Usage

```
  usage: symp machine-images bdms add-from-snapshot
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--prefix PREFIX]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    [--duplicate-snapshot]
                                                    machine_image_id
                                                    block_device_mapping
                                                    boot_index
```

Description

Add bdm from snapshot to image.

Returns

Returns dict: Successful Response

Mandatory

```
positional arguments:
  machine_image_id
  block_device_mapping  Block device mapping
  boot_index            Boot index for the bdm
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --duplicate-snapshot  Duplicate snapshot before creating the bdm
```

machine-images bdms add-from-url

Usage

```
  usage: symp machine-images bdms add-from-url
[-f {adaptive_table,json,shell,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent] [--prefix PREFIX]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              machine_image_id
                                              block_device_mapping boot_index
```

Description

Add bdm from url to image.

Returns

Returns dict: Successful Response

Mandatory

```
positional arguments:
  machine_image_id
  block_device_mapping  Block device mapping
  boot_index            Boot index for the bdm
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

machine-images create-machine-image-from-file

Usage

```
  usage: symp machine-images create-machine-image-from-file
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                          [-c COLUMN]
                                                          [--max-width <integer>]
                                                          [--noindent]
                                                          [--prefix PREFIX]
                                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                          [--machine-image-id MACHINE_IMAGE_ID]
```

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```
                                                    [--description DESCRIPTION]
                                                    [--guest-os GUEST_OS]
                                                    [--scope SCOPE]
                                                    [--project-id PROJECT_ID]
                                                    [--tags [TAGS [TAGS ...]]]
                                                    [--os-type-id OS_TYPE_ID]
                                                    [--storage-pool STORAGE_POOL]
                                                    [--volume-size-gib VOLUME_SIZE_GIB]
                                                    [--bus-type BUS_TYPE]
                                                    [--disk-type DISK_TYPE]
                                                    [--firmware FIRMWARE]
                                                    [--file FILE]
                                                    name
```

Description

Creates a new machine image from file.

Returns

Returns dict: Successful Response

Mandatory

```
positional arguments:
  name                  Name of the machine image
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --machine-image-id MACHINE_IMAGE_ID
  --description DESCRIPTION
  --guest-os GUEST_OS
  --scope SCOPE
  --project-id PROJECT_ID
  --tags [TAGS [TAGS ...]]
  --os-type-id OS_TYPE_ID
  --storage-pool STORAGE_POOL
  --volume-size-gib VOLUME_SIZE_GIB
  --bus-type BUS_TYPE
  --disk-type DISK_TYPE
  --firmware FIRMWARE
  --file FILE
```

machine-images create-machine-image-from-snapshot

Usage

```
usage: symp machine-images create-machine-image-from-snapshot
       [-h] [-f {adaptive_table,json,shell,table,value,yaml}] [-c COLUMN]
       [--max-width <integer>] [--noindent] [--prefix PREFIX]
       [-m [NAME=VALUE [NAME=VALUE ...]]]
       [--machine-image-id MACHINE_IMAGE_ID] [--description DESCRIPTION]
       [--guest-os GUEST_OS] [--scope SCOPE] [--project-id PROJECT_ID]
       [--tags [TAGS [TAGS ...]]] [--os-type-id OS_TYPE_ID]
```

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```
      [--firmware FIRMWARE] [--duplicate-snapshot]
      name block_device_mapping
```

Description

Creates a new machine image from existing snapshot(s).

Returns

Returns dict: Successful Response

Mandatory

```
positional arguments:
  name                  Name of the machine image
  block_device_mapping  Block device mapping
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --machine-image-id MACHINE_IMAGE_ID
                        ID of the machine image, shouldn't collide with existing ones
  --description DESCRIPTION
                        Description of the machine image
  --guest-os GUEST_OS   Guest OS of the machine image
  --scope SCOPE         Scope of the machine image
  --project-id PROJECT_ID
                        Project ID of the machine image
  --tags [TAGS [TAGS ...]]
                        Tags to add to the machine image
  --os-type-id OS_TYPE_ID
                        OS type ID of the machine image
  --firmware FIRMWARE   Firmware of the machine image
  --duplicate-snapshot  Duplicate snapshot before creating the image
```

machine-images create-machine-image-from-vm

Usage

```
  usage: symp machine-images create-machine-image-from-vm
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                        [-c COLUMN]
                                                        [--max-width <integer>]
                                                        [--noindent]
                                                        [--prefix PREFIX]
                                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                        [--machine-image-id MACHINE_IMAGE_ID]
                                                        [--description DESCRIPTION]
                                                        [--guest-os GUEST_OS]
                                                        [--scope SCOPE]
                                                        [--project-id PROJECT_ID]
                                                        [--tags [TAGS [TAGS ...]]]
                                                        [--os-type-id OS_TYPE_ID]
                                                        [--block-device-mapping BLOCK_DEVICE_MAPPING]
                                                        [--no-reboot]
                                                        name vm_id
```

Description

Creates a new machine image from existing VM.

Returns

Returns dict: Successful Response

Mandatory

```
positional arguments:
  name                  Name of the machine image
  vm_id                 ID of the VM
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --machine-image-id MACHINE_IMAGE_ID
                        ID of the machine image, shouldn't collide with existing ones
  --description DESCRIPTION
                        Description of the machine image
  --guest-os GUEST_OS   Guest OS of the machine image
  --scope SCOPE         Scope of the machine image
  --project-id PROJECT_ID
                        Project ID of the machine image
  --tags [TAGS [TAGS ...]]
                        Tags to add to the machine image
  --os-type-id OS_TYPE_ID
                        OS type ID of the machine image
  --block-device-mapping BLOCK_DEVICE_MAPPING
                        Block device mapping
  --no-reboot           Do not reboot the VM before creating the image
```

machine-images delete

Usage

```
  usage: symp machine-images delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--override-protection OVERRIDE_PROTECTION]
                                    [--delete-image-snapshot DELETE_IMAGE_SNAPSHOT]
                                    machine_image_id
```

Description

Deletes a machine image with the given ID.

Mandatory

```
positional arguments:
  machine_image_id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection OVERRIDE_PROTECTION
  --delete-image-snapshot DELETE_IMAGE_SNAPSHOT
```

machine-images get

Usage

```
  usage: symp machine-images get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                machine_image_id
```

Description

Returns machine image with the given ID.

Returns

Returns dict: Successful Response

Mandatory

```
positional arguments:
  machine_image_id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

machine-images import-machine-image-from-url

Usage

```
  usage: symp machine-images import-machine-image-from-url
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                        [-c COLUMN]
                                                        [--max-width <integer>]
                                                        [--noindent]
                                                        [--prefix PREFIX]
                                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                        [--machine-image-id MACHINE_IMAGE_ID]
                                                        [--description DESCRIPTION]
                                                        [--guest-os GUEST_OS]
                                                        [--scope SCOPE]
                                                        [--project-id PROJECT_ID]
                                                        [--tags [TAGS [TAGS ...]]]
                                                        [--os-type-id OS_TYPE_ID]
                                                        [--firmware FIRMWARE]
                                                        name
                                                        block_device_mapping
```

Description

Imports a new machine image from URL.

Returns

Returns dict: Successful Response

Mandatory

```
positional arguments:
  name                  Name of the machine image
  block_device_mapping  Block device mapping
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --machine-image-id MACHINE_IMAGE_ID
                        ID of the machine image, shouldn't collide with existing ones
  --description DESCRIPTION
                        Description of the machine image
  --guest-os GUEST_OS   Guest OS of the machine image
  --scope SCOPE         Scope of the machine image
  --project-id PROJECT_ID
                        Project ID of the machine image
  --tags [TAGS [TAGS ...]]
                        Tags to add to the machine image
  --os-type-id OS_TYPE_ID
                        OS type ID of the machine image
  --firmware FIRMWARE
```

machine-images list

Usage

```
  usage: symp machine-images list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent]
                                [--quote {all,minimal,none,nonnumeric}]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--id [ID [ID ...]]]
                                [--user-id [USER_ID [USER_ID ...]]]
                                [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                                [--account-id [ACCOUNT_ID [ACCOUNT_ID ...]]]
                                [--name [NAME [NAME ...]]]
                                [--description [DESCRIPTION [DESCRIPTION ...]]]
                                [--firmware [FIRMWARE [FIRMWARE ...]]]
                                [--guest-os [GUEST_OS [GUEST_OS ...]]]
                                [--block-device-mapping-snapshot-id [BLOCK_DEVICE_MAPPING_SNAPSHOT_ID
↪[BLOCK_DEVICE_MAPPING_SNAPSHOT_ID ...]]]
                                [--block-device-mapping-volume-size-gib [BLOCK_DEVICE_MAPPING_VOLUME_
↪SIZE_GIB [BLOCK_DEVICE_MAPPING_VOLUME_SIZE_GIB ...]]]
                                [--block-device-mapping-bus-type [BLOCK_DEVICE_MAPPING_BUS_TYPE [BLOCK_
↪DEVICE_MAPPING_BUS_TYPE ...]]]
                                [--block-device-mapping-disk-type [BLOCK_DEVICE_MAPPING_DISK_TYPE
↪[BLOCK_DEVICE_MAPPING_DISK_TYPE ...]]]
```

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```
                                [--state [STATE [STATE ...]]]
                                [--scope [SCOPE [SCOPE ...]]]
                                [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
                                [--tag [TAG [TAG ...]]] [--with-tags]
```

Description

Returns all machine images.

Returns

Returns list: Successful Response

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --id [ID [ID ...]]    Filter images by id, multiple allowed
  --user-id [USER_ID [USER_ID ...]]
                        Filter images by user id, multiple allowed
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        Filter images by project id, multiple allowed
  --account-id [ACCOUNT_ID [ACCOUNT_ID ...]]
                        Filter images by account id, multiple allowed
  --name [NAME [NAME ...]]
                        Filter images by name, multiple allowed
  --description [DESCRIPTION [DESCRIPTION ...]]
                        Filter images by description, multiple allowed
  --firmware [FIRMWARE [FIRMWARE ...]]
                        Filter images by firmware, multiple allowed
  --guest-os [GUEST_OS [GUEST_OS ...]]
                        Filter images by guest_os, multiple allowed
  --block-device-mapping-snapshot-id [BLOCK_DEVICE_MAPPING_SNAPSHOT_ID [BLOCK_DEVICE_MAPPING_SNAPSHOT_ID .
↪..]]
                        Filter images by bdm snapshot id, multiple allowed
  --block-device-mapping-volume-size-gib [BLOCK_DEVICE_MAPPING_VOLUME_SIZE_GIB [BLOCK_DEVICE_MAPPING_
↪VOLUME_SIZE_GIB ...]]
                        Filter images by bdm volume size, multiple allowed
  --block-device-mapping-bus-type [BLOCK_DEVICE_MAPPING_BUS_TYPE [BLOCK_DEVICE_MAPPING_BUS_TYPE ...]]
                        Filter images by bdm bus type, multiple allowed
  --block-device-mapping-disk-type [BLOCK_DEVICE_MAPPING_DISK_TYPE [BLOCK_DEVICE_MAPPING_DISK_TYPE ...]]
                        Filter images by bdm disk type, multiple allowed
  --state [STATE [STATE ...]]
                        Filter images by state, multiple allowed
  --scope [SCOPE [SCOPE ...]]
                        Filter images by scope, multiple allowed
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        Filter images by tag keys
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        Filter images by tag values
  --tag [TAG [TAG ...]]
                        Filter images by tag, multiple allowed
  --with-tags           Return response with tags
```

machine-images list-tags

Usage

```
  usage: symp machine-images list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent]
                                       [--quote {all,minimal,none,nonnumeric}]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List tags of all machine images (restricted by user scope).

Returns

Returns list: Successful Response

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

machine-images os-types add

Usage

```
  usage: symp machine-images os-types add
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          type distro version display_name
```

Description

Add new OS-type to the system.

Returns

Returns dict: Successful Response

Mandatory

```
positional arguments:
  type                  The type of the OS-type: linux, windows, or other (the default)
  distro                The distro of the OS-type
  version               The version of the OS-type
  display_name          The display name of the OS-type
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

machine-images os-types delete

Usage

```
  usage: symp machine-images os-types delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                            [-c COLUMN] [--max-width <integer>]
                                            [--noindent] [--prefix PREFIX]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                                            os_type_id
```

Description

Deletes an OS-type with the given ID.

Mandatory

```
positional arguments:
  os_type_id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

machine-images os-types detect

Usage

```
  usage: symp machine-images os-types detect
[-f {adaptive_table,json,shell,table,value,yaml}]
                                            [-c COLUMN] [--max-width <integer>]
                                            [--noindent] [--prefix PREFIX]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                                            volume_id
```

Description

Detect OS-Type.

Returns

Returns dict: Successful Response

Mandatory

```
positional arguments:
  volume_id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

machine-images os-types find-closest-match

Usage

```
  usage: symp machine-images os-types find-closest-match
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                        [-c COLUMN]
                                                        [--max-width <integer>]
                                                        [--noindent]
                                                        [--prefix PREFIX]
                                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                        [--distro DISTRO]
                                                        [--version VERSION]
                                                        os_type
```

Description

Find the closest matching OS type based on the provided type, distro, and version. If no match is found, the default OS type is returned.

Returns

Returns dict: Successful Response

Mandatory

```
positional arguments:
  os_type
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --distro DISTRO
  --version VERSION
```

machine-images os-types get

Usage

```
  usage: symp machine-images os-types get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          os_type_id
```

Description

Get OS-type by ID.

Returns

Returns dict: Successful Response

Mandatory

```
positional arguments:
  os_type_id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

machine-images os-types list

Usage

```
  usage: symp machine-images os-types list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent]
                                          [--quote {all,minimal,none,nonnumeric}]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--ids [IDS [IDS ...]]]
                                          [--types [TYPES [TYPES ...]]]
                                          [--distros [DISTROS [DISTROS ...]]]
                                          [--versions [VERSIONS [VERSIONS ...]]]
```

Description

Returns all OS-types

Returns

Returns list: Successful Response

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ids [IDS [IDS ...]]
  --types [TYPES [TYPES ...]]
  --distros [DISTROS [DISTROS ...]]
  --versions [VERSIONS [VERSIONS ...]]
```

machine-images os-types update

Usage

```
  usage: symp machine-images os-types update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                            [-c COLUMN] [--max-width <integer>]
                                            [--noindent] [--prefix PREFIX]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                                            os_type_id display_name
```

Description

Updates an OS-type with the given ID.

Returns

Returns dict: Successful Response

Mandatory

```
positional arguments:
  os_type_id
  display_name          The display name of the OS-type
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

machine-images remove-tags

Usage

```
  usage: symp machine-images remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--project-id PROJECT_ID]
                                        [--system-tag]
                                        machine_image_id --tags [--tags ...]
```

Description

Remove tags from a machine image.

Mandatory

```
positional arguments:
  machine_image_id      ID of image to which to add the tags
  --tags                List of tags to remove
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id PROJECT_ID
  --system-tag
```

machine-images update

Usage

```
  usage: symp machine-images update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--name NAME] [--description DESCRIPTION]
                                    [--firmware FIRMWARE] [--guest-os GUEST_OS]
                                    [--scope SCOPE] [--override-protection]
                                    [--os-type-id OS_TYPE_ID]
                                    machine_image_id
```

Description

Update machine image's parameters.

Returns

Returns dict: Successful Response

Mandatory

```
positional arguments:
  machine_image_id
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Update name of the machine image
  --description DESCRIPTION
                        Update description of the machine image
  --firmware FIRMWARE   Update firmware of the machine image
  --guest-os GUEST_OS   Update guest OS of the machine image
  --scope SCOPE         Update scope of the machine image
  --override-protection
                        Override protection of managed machine image
  --os-type-id OS_TYPE_ID
                        Update OS type ID of the machine image
```

4.2.45 metric

metric definition create

Usage

```
  usage: symp metric definition create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--description DESCRIPTION]
                                    [--metric-type METRIC_TYPE]
                                    [--query-interval QUERY_INTERVAL]
                                    [--display-name DISPLAY_NAME]
                                    [--alias ALIAS] [--scope SCOPE]
                                    resource feature entity units
```

Description

Register metric type.

Returns

Returns str: Metrics full name, used to submit the metric's samples

Mandatory

```
positional arguments:
  resource              The measured resource ('cpu'/'memory'/'storage'/'rest')
  feature               The measured feature of the resource ('consumed'/'used'/'free'/'cached'/'received
↪'/
```

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```
                        'received_error'/'received_drop'/'transmitted'/'transmitted_error'/'transmitted_
↪error'/'throughput'/
                        'latency'/'read_iops'/'write_iops'/'read_latency'/'write_latency'/'read_throughput
↪'/'write_throughput'/
                        'error_rate'/'request_rate'/
  entity                The measured entity ('vm'/'project'/'tenant'/'user'/'node'/'cluster service'/
↪'volume'/
                        'disk'/'storage pool'/'network interface')
  units                 The units of the measurement ('rate'/'MHz'/'MB'/'cores'/'byte'/'packet'/'IOPS'/
                        'ms'/'MBit_sec'/'sec'/
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        Auxiliary description (default: '')
  --metric-type METRIC_TYPE
                        The type of the metric ('None'(normal)/'cumulative'
  --query-interval QUERY_INTERVAL
                        The interval between 2 consecutive samples in influx
  --display-name DISPLAY_NAME
                        The display name for the metirc
  --alias ALIAS         The name for AWS API
  --scope SCOPE         The scope for this metric (system or user)
```

metric definition get

Usage

```
  usage: symp metric definition get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    metric_name
```

Description

Get the details of the requested metric.

Returns

Returns dict: The requested metric details

Mandatory

```
positional arguments:
  metric_name           Requested metric name
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

metric definition list

Usage

```
  usage: symp metric definition list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--filters FILTERS]
```

Description

Get a list of the metrics.

Returns

Returns list: List of metric details

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --filters FILTERS     A json representation of a map from tag name to a list of tag values. For example,
                        {'resource': ['cpu', 'memory'], 'entity': ['vm']} (default: None)
```

metric queries

Usage

```
  usage: symp metric queries
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            queries
```

Description

Run multiple sample queries.

Returns

Returns dict: A map of result for each query. Map structure {<query identifier string>: <query result>}}

Mandatory

```
positional arguments:
  queries               A json representation of query commands map. Map structure,
                        {<query identifier string>: [<query type>, {<query param>: <query param value>}]}
                        Example:
                        {
                        'cpu_metric_query_top': ['query_top', {'metric_name': 'cpu_metric'}],
                        'memory_metric_query_history': ['query_history', {'metric_name': 'memory_metric',
↪'limit': 1, 'offset': 2}],
                        }
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

metric query bottom

Usage

```
  usage: symp metric query bottom
[-f {adaptive_table,csv,json,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent]
                                [--quote {all,minimal,none,nonnumeric}]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--start-timestamp START_TIMESTAMP]
                                [--end-timestamp END_TIMESTAMP]
                                [--entity-ids [ENTITY_IDS [ENTITY_IDS ...]]]
                                [--limit LIMIT]
                                [--retention-policy RETENTION_POLICY]
                                metric_name
```

Description

Query bottom samples.

Returns

Returns list: Bottom samples

Mandatory

```
positional arguments:
  metric_name           Metric name to query
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --start-timestamp START_TIMESTAMP
                        Start of query period (seconds since epoch), by default - 5 minute back
  --end-timestamp END_TIMESTAMP
                        End of query period (seconds since epoch), by default - now
  --entity-ids [ENTITY_IDS [ENTITY_IDS ...]]
                        Entity ids related to the metric sample
  --limit LIMIT         Amount of results to show (default: 1000)
  --retention-policy RETENTION_POLICY
                        Retention policy to use (default will be chosen by end_timestamp - start_
↪timestamp)
```

metric query first

Usage

```
  usage: symp metric query first
[-f {adaptive_table,csv,json,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent]
                                [--quote {all,minimal,none,nonnumeric}]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--start-timestamp START_TIMESTAMP]
                                [--end-timestamp END_TIMESTAMP]
                                [--entity-ids [ENTITY_IDS [ENTITY_IDS ...]]]
                                [--retention-policy RETENTION_POLICY]
                                metric_name
```

Description

Query first sample.

Returns

Returns list: First sample

Mandatory

```
positional arguments:
  metric_name           Metric name to query
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --start-timestamp START_TIMESTAMP
                        Start of query period (seconds since epoch), by default - 5 minute back
  --end-timestamp END_TIMESTAMP
                        End of query period (seconds since epoch), by default - now
  --entity-ids [ENTITY_IDS [ENTITY_IDS ...]]
                        Entity ids related to the metric sample
  --retention-policy RETENTION_POLICY
                        Retention policy to use (default will be chosen by end_timestamp - start_
↪timestamp)
```

metric query history

Usage

```
  usage: symp metric query history
[-f {adaptive_table,csv,json,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent]
                                  [--quote {all,minimal,none,nonnumeric}]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  [--start-timestamp START_TIMESTAMP]
                                  [--end-timestamp END_TIMESTAMP]
                                  [--entity-ids [ENTITY_IDS [ENTITY_IDS ...]]]
                                  [--limit LIMIT] [--offset OFFSET]
                                  [--select-columns [SELECT_COLUMNS [SELECT_COLUMNS ...]]]
```

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```
                                    [--filter-columns FILTER_COLUMNS]
                                    [--retention-policy RETENTION_POLICY]
                                    metric_name
```

Description

Query samples.

Returns

Returns list: Samples

Mandatory

```
positional arguments:
  metric_name           Metric name to query
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --start-timestamp START_TIMESTAMP
                        Start of query period (seconds since epoch), by default - 1 hour back
  --end-timestamp END_TIMESTAMP
                        End of query period (seconds since epoch), by default - now
  --entity-ids [ENTITY_IDS [ENTITY_IDS ...]]
                        Entity ids related to the metric sample
  --limit LIMIT         Number of samples to returned, ordered by timestamp (default: None)
  --offset OFFSET       Offset to paginate the results (default: None)
  --select-columns [SELECT_COLUMNS [SELECT_COLUMNS ...]]
                        List of columns to be returned in the result, by default ["entity_id", "value"]
  --filter-columns FILTER_COLUMNS
                        Json map from key to a list of values that are allowed for that key. Project id
                        filter is applied by default for non admin users
  --retention-policy RETENTION_POLICY
                        Retention policy to use (default will be chosen by end_timestamp - start_
↪timestamp)
```

metric query history_group_by_time

Usage

```
  usage: symp metric query history_group_by_time
[-f {adaptive_table,csv,json,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent]
                                                [--quote {all,minimal,none,nonnumeric}]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                [--start-timestamp START_TIMESTAMP]
                                                [--end-timestamp END_TIMESTAMP]
                                                [--entity-ids [ENTITY_IDS [ENTITY_IDS ...]]]
                                                [--limit LIMIT]
                                                [--offset OFFSET]
                                                [--select-columns [SELECT_COLUMNS [SELECT_COLUMNS ...]]]
                                                [--filter-columns FILTER_COLUMNS]
                                                [--statistic STATISTIC]
```

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```
                                                [--interval INTERVAL]
                                                [--time-type TIME_TYPE]
                                                [--fill-type FILL_TYPE]
                                                [--fill-number FILL_NUMBER]
                                                [--rate RATE]
                                                [--retention-policy RETENTION_POLICY]
                                                metric_name
```

Description

Query samples.

Returns

Returns list: Samples

Mandatory

```
positional arguments:
  metric_name           Metric name to query
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --start-timestamp START_TIMESTAMP
                        Start of query period (seconds since epoch), by default - 1 hour back
  --end-timestamp END_TIMESTAMP
                        End of query period (seconds since epoch), by default - now
  --entity-ids [ENTITY_IDS [ENTITY_IDS ...]]
                        Entity ids related to the metric sample
  --limit LIMIT         Number of samples to returned, ordered by timestamp (default: None)
  --offset OFFSET       Offset to paginate the results (default: None)
  --select-columns [SELECT_COLUMNS [SELECT_COLUMNS ...]]
                        List of colums to be returned in the result, by default ["entity_id", "value"]
  --filter-columns FILTER_COLUMNS
                        Json map from key to a list of values that are allowed for that key. Project id
                        filter is applied by default for non admin users
  --statistic STATISTIC
                        Valid options: count, mean, sum, min and max
  --interval INTERVAL   Time interval
  --time-type TIME_TYPE
                        Valid options: seconds, minutes, hours, days and weeks
  --fill-type FILL_TYPE
                        Valid options: none, null, number and previous
  --fill-number FILL_NUMBER
                        Relevant only if fill type is number
  --rate RATE           Relevant only if metric is derivative - rate of change between the field values
↪in seconds
  --retention-policy RETENTION_POLICY
                        Retention policy to use (default will be chosen by end_timestamp - start_
↪timestamp)
```

metric query last

Usage

```
  usage: symp metric query last
[-f {adaptive_table,csv,json,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--quote {all,minimal,none,nonnumeric}]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              [--start-timestamp START_TIMESTAMP]
                              [--end-timestamp END_TIMESTAMP]
                              [--entity-ids [ENTITY_IDS [ENTITY_IDS ...]]]
                              [--retention-policy RETENTION_POLICY]
                              metric_name
```

Description

Query last sample.

Returns

Returns list: Last sample

Mandatory

```
positional arguments:
  metric_name           Metric name to query
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --start-timestamp START_TIMESTAMP
                        Start of query period (seconds since epoch), by default - 5 minute back
  --end-timestamp END_TIMESTAMP
                        End of query period (seconds since epoch), by default - now
  --entity-ids [ENTITY_IDS [ENTITY_IDS ...]]
                        Entity ids related to the metric sample
  --retention-policy RETENTION_POLICY
                        Retention policy to use (default will be chosen by end_timestamp - start_
↪timestamp)
```

metric query top

Usage

```
  usage: symp metric query top
[-f {adaptive_table,csv,json,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--quote {all,minimal,none,nonnumeric}]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              [--start-timestamp START_TIMESTAMP]
                              [--end-timestamp END_TIMESTAMP]
                              [--entity-ids [ENTITY_IDS [ENTITY_IDS ...]]]
                              [--limit LIMIT]
                              [--retention-policy RETENTION_POLICY]
                              metric_name
```

Description

Query top samples.

Returns

Returns list: Top samples

Mandatory

```
positional arguments:
  metric_name           Metric name to query
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --start-timestamp START_TIMESTAMP
                        Start of query period (seconds since epoch), by default - 5 minute back
  --end-timestamp END_TIMESTAMP
                        End of query period (seconds since epoch), by default - now
  --entity-ids [ENTITY_IDS [ENTITY_IDS ...]]
                        Entity ids related to the metric sample
  --limit LIMIT         Amount of results to show
  --retention-policy RETENTION_POLICY
                        Retention policy to use (default will be chosen by end_timestamp - start_
↪timestamp)
```

4.2.46 multi-factor-auth

multi-factor-auth enforcement get

Usage

```
  usage: symp multi-factor-auth enforcement get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent] [--prefix PREFIX]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              [--entity-type ENTITY_TYPE]
                                              [--entity-id ENTITY_ID]
                                              [--explicit]
```

Description

Get the Multi-Factor Authentication enforcement status of the given entity. If no entity is provided, the enforcement status of the system is returned.

Returns

Returns bool: The enforcement status of the given object

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --entity-type ENTITY_TYPE
                        The type of the entity of which the enforcement status will be returned.
```

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```
                        Valid values are: domain, user
  --entity-id ENTITY_ID
                        The id of the entity of which the enforcement status will be returned
  --explicit            Wether to return the explicit enforcement status, or the effective status
↪(inherited from upper scope)
```

multi-factor-auth enforcement set

Usage

```
  usage: symp multi-factor-auth enforcement set
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                [--entity-type ENTITY_TYPE]
                                                [--entity-id ENTITY_ID]
```

Description

Enforces Multi-Factor Authentication on the given entity. If no entity is provided, the enforcement will apply on the cluster/system level (available for system admins only). The enforcement won't take effect until the user will log in. Already logged in users will not be affected. Enforcement is inherited from upper scopes and cannot be exempt. The scope order is cluster (system) > domain (account) > user.

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --entity-type ENTITY_TYPE
                        The type of the entity of which the enforcement status will be returned.
                        Valid values are: domain, user
  --entity-id ENTITY_ID
                        The id of the entity of which the enforcement status will be returned
```

multi-factor-auth enforcement unset

Usage

```
  usage: symp multi-factor-auth enforcement unset
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
                                                  [--noindent] [--prefix PREFIX]
                                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                  [--entity-type ENTITY_TYPE]
                                                  [--entity-id ENTITY_ID]
```

Description

Removes explicit Multi-Factor Authentication enforcement on the given entity. If no entity is provided, the enforcement will removed from cluster/system level (available for system admins only). Users with Multi-Factor Authentication enabled won't be affected. This only removes an explicit Multi-Factor Authentication from the object, if it exists, if the object still

inherits Multi-Factor Authentication enforcement from upper scopes, he will still be enforced. The scope order is cluster (system) > domain (account) > user.

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --entity-type ENTITY_TYPE
                        The type of the entity of which the enforcement status will be returned.
                        Valid values are: domain, user
  --entity-id ENTITY_ID
                        The id of the entity of which the enforcement status will be returned
```

4.2.47 notification

notification smtpserver get

Usage

```
  usage: symp notification smtpserver get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Returns the Smtp server configuration.

Returns

Returns dict: OK

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

notification smtpserver update

Usage

```
  usage: symp notification smtpserver update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--username USERNAME]
                                          [--from-address FROM_ADDRESS]
                                          [--server-name SERVER_NAME]
                                          [--enable-tls ENABLE_TLS]
                                          [--password PASSWORD]
                                          [--server-port SERVER_PORT]
```

Description

Set the configuration of the Smtp server.

Returns

Returns dict: OK

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --username USERNAME   If the account requires authentication, this parameter is used to set the
↪username.
  --from-address FROM_ADDRESS
                        The email address that will appear in the from field of the emails sent by the
↪notification service. The email address must have valid syntax (for example, notifications@symphony.com
↪or noreply@symphony.com).
  --server-name SERVER_NAME
                        The name of the Smtp server
  --enable-tls ENABLE_TLS
                        Determines if the connection to the server is encrypted.
  --password PASSWORD   If the account requires authentication, this parameter is used to set the
↪password.
  --server-port SERVER_PORT
                        Set when the Smtp server is not using port 25/
```

notification subscriptions delete

Usage

```
  usage: symp notification subscriptions delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                subscription_id
```

Description

Deletes a subscription.

Mandatory

```
positional arguments:
  subscription_id       The unique identifier of the subscription.
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

notification subscriptions get-attributes

Usage

```
  usage: symp notification subscriptions get-attributes
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                        [-c COLUMN]
                                                        [--max-width <integer>]
                                                        [--noindent]
                                                        [--prefix PREFIX]
                                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                        subscription_id
```

Description

Returns all of the properties of a subscription.

Returns

Returns dict: OK

Mandatory

```
positional arguments:
  subscription_id       The unique identifier of the subscription.
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

notification subscriptions list

Usage

```
  usage: symp notification subscriptions list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent]
                                              [--quote {all,minimal,none,nonnumeric}]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              [--user-id USER_ID]
                                              [--account-id ACCOUNT_ID]
                                              [--topic-id TOPIC_ID]
                                              [--sort-by SORT_BY]
                                              [--limit LIMIT] [--offset OFFSET]
                                              [--project-id PROJECT_ID]
                                              [--order ORDER]
```

Description

Returns a list of subscriptions.

Returns

Returns list: ok

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --user-id USER_ID     ID of a user
  --account-id ACCOUNT_ID
                        ID of an account
  --topic-id TOPIC_ID   The unique ID of a topic.
  --sort-by SORT_BY     The field by which to sort
  --limit LIMIT         Specify the number of entities that you want to retrieve
  --offset OFFSET       Specify the first entity that you wan to retrieve
  --project-id PROJECT_ID
                        ID of a project
  --order ORDER         The sorting order for get response
```

notification subscriptions set-attributes

Usage

```
  usage: symp notification subscriptions set-attributes
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                      [-c COLUMN]
                                                      [--max-width <integer>]
                                                      [--noindent]
                                                      [--prefix PREFIX]
                                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                      [--value VALUE]
                                                      subscription_id name
```

Description

Allows a subscription owner to set an attribute of the topic to a new value.

Mandatory

```
positional arguments:
  subscription_id       The unique identifier of the subscription.
  name                  The name of the attribute you want to set. Valid values are  delivery_policy |
↪raw_message_delivery
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --value VALUE         The value of the attribute.
```

notification topics add-permission

Usage

```
  usage: symp notification topics add-permission
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                [--project-ids [PROJECT_IDS [PROJECT_IDS ...]]]
```

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```
                                                [--actions [ACTIONS [ACTIONS ...]]]
                                                [--label LABEL]
                                                topic_id
```

Description

Adds a statement to a topic's access control policy, granting access for the specified project to the specified actions.

Mandatory

```
positional arguments:
  topic_id              The unique identifier of a topic
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-ids [PROJECT_IDS [PROJECT_IDS ...]]
                        The  IDs of the projects who will be given access to the specified actions.
  --actions [ACTIONS [ACTIONS ...]]
                        The action you want to allow for the specified principal(s).
  --label LABEL         A unique identifier for the new policy statement.
```

notification topics confirm-subscription

Usage

```
  usage: symp notification topics confirm-subscription
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                      [-c COLUMN]
                                                      [--max-width <integer>]
                                                      [--noindent]
                                                      [--prefix PREFIX]
                                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                      topic_id
```

Description

Verifies an endpoint owner's intent to receive messages by validating the token sent to the endpoint by an earlier subscribe action. If the token is valid, the action creates a new subscription and returns its identifier.

Returns

Returns str: OK

Mandatory

```
positional arguments:
  topic_id              The unique identifier of a topic
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

notification topics create

Usage

```
  usage: symp notification topics create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        topic_name
```

Description

Creates a topic to which notifications can be published. This action is idempotent, so if the requester already owns a topic with the specified name, that topic's ID is returned without creating a new topic.

Returns

Returns dict: OK

Mandatory

```
positional arguments:
  topic_name
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

notification topics delete

Usage

```
  usage: symp notification topics delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        topic_id
```

Description

Deletes a topic and all its subscriptions. Deleting a topic might prevent some messages previously sent to the topic from being delivered to subscribers. This action is idempotent, so deleting a topic that does not exist does not result in an error.

Mandatory

```
positional arguments:
  topic_id              The unique identifier of a topic
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

notification topics get-attributes

Usage

```
  usage: symp notification topics get-attributes
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
                                                  [--noindent] [--prefix PREFIX]
                                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                  topic_id
```

Description

Returns all of the properties of a topic.

Returns

Returns dict: OK

Mandatory

```
positional arguments:
  topic_id              None
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

notification topics get-subscriptions

Usage

```
  usage: symp notification topics get-subscriptions
[-f {adaptive_table,csv,json,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--quote {all,minimal,none,nonnumeric}]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    topic_id
```

Description

Returns all of the subscriptions of a topic.

Returns

Returns list: OK

Mandatory

```
positional arguments:
  topic_id              None
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

notification topics list

Usage

```
  usage: symp notification topics list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent]
                                       [--quote {all,minimal,none,nonnumeric}]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--user-id USER_ID]
                                       [--account-id ACCOUNT_ID]
                                       [--sort-by SORT_BY] [--id-eq ID_EQ]
                                       [--limit LIMIT] [--offset OFFSET]
                                       [--project-id PROJECT_ID] [--order ORDER]
                                       [--name NAME]
```

Description

Returns

Returns list: ok

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --user-id USER_ID     ID of a user
  --account-id ACCOUNT_ID
                        ID of an account
  --sort-by SORT_BY     The field by which to sort
  --id-eq ID_EQ         ids of topics to filter, for multilpe use commas (e.g 111,222,333)
  --limit LIMIT         Specify the number of entities that you want to retrieve
  --offset OFFSET       Specify the first entity that you want to retrieve
  --project-id PROJECT_ID
                        ID of a project
  --order ORDER         The sorting order for get response
  --name NAME           The name of a topic.
```

notification topics publish

Usage

```
  usage: symp notification topics publish
[-f {adaptive_table,json,shell,table,value,yaml}]
                                         [-c COLUMN] [--max-width <integer>]
                                         [--noindent] [--prefix PREFIX]
                                         [-m [NAME=VALUE [NAME=VALUE ...]]]
                                         [--message-attributes [MESSAGE_ATTRIBUTES [MESSAGE_ATTRIBUTES ..
↪.]]]
                                         [--message-structure MESSAGE_STRUCTURE]
                                         [--subject SUBJECT]
                                         message topic_id
```

Description

Sends a message to all of a topic's subscribed endpoints. When a messageId is returned, the message has been saved and the notification service will attempt to deliver it to the topic's subscribers shortly. The format of the outgoing message

to each subscribed endpoint depends on the notification protocol.

Returns

Returns str: OK

Mandatory

```
positional arguments:
  message               The message you want to send to the topic. If you want to send the same message
↪to all transport protocols, include the text of the message as a target-arn value. If you want to send
↪different messages for each transport protocol, set the value of the MessageStructure parameter to json
↪and use a JSON object for the Message parameter constraints- Messages must be UTF-8 encoded strings at
↪most 256 KB in size (262144 bytes, not 262144 characters).
  topic_id              The unique identifier of a topic
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --message-attributes [MESSAGE_ATTRIBUTES [MESSAGE_ATTRIBUTES ...]]
  --message-structure MESSAGE_STRUCTURE
                        Set to json if you want to send a different message for each protocol.
  --subject SUBJECT     Optional parameter to be used as the "Subject" line when the message is delivered
↪to email endpoints. This field will also be included, if present, in the standard JSON messages
↪delivered to other endpoints. Subjects must be ASCII text that begins with a letter, number, or
↪punctuation mark; must not include line breaks or control characters; and must be less than 100
↪characters long.
```

notification topics revoke-permissions

Usage

```
  usage: symp notification topics revoke-permissions
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--prefix PREFIX]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    label topic_id
```

Description

Removes a statement from a topic's access control policy.

Mandatory

```
positional arguments:
  label                 The unique label of the statement you want to remove.
  topic_id              The unique identifier of a topic
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

notification topics set-attributes

Usage

```
  usage: symp notification topics set-attributes
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
                                                  [--noindent] [--prefix PREFIX]
                                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                  [--value VALUE]
                                                  name topic_id
```

Description

Allows a topic owner to set an attribute of the topic to a new value.

Mandatory

```
positional arguments:
  name                  The name of the attribute. Supported names are policy, display_name, delivery_
↪policy.
  topic_id              None
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --value VALUE         The value of the attribute.
```

notification topics subscribe

Usage

```
  usage: symp notification topics subscribe
[-f {adaptive_table,json,shell,table,value,yaml}]
                                             [-c COLUMN] [--max-width <integer>]
                                             [--noindent] [--prefix PREFIX]
                                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                                             endpoint protocol topic_id
```

Description

Prepares to subscribe a notification-endpoint by sending the notification-endpoint a confirmation message. To actually create a subscription, the notification-endpoint owner must call the confirm-subscription action with the token from the confirmation message.

Returns

Returns str: OK

Mandatory

```
positional arguments:
  endpoint              The subscription's endpoint
  protocol              The subscription's protocol.
  topic_id              The unique identifier of a topic
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.48 password-policy

password-policy get

Usage

```
  usage: symp password-policy get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Get current password policy configuration.

Returns

Returns dict: A structure containing current policy configuration dict

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

password-policy reset

Usage

```
  usage: symp password-policy reset
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Removes current password policy configuration and reset to default configuration. default configuration includes: min_length: 8. letter: true. digit: true. special_character: true. passwords_remembered: 6. password_expiry_days: 90.

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

password-policy update

Usage

```
  usage: symp password-policy update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--min-password-length MIN_PASSWORD_LENGTH]
                                    [--letter LETTER] [--digit DIGIT]
                                    [--special-characters SPECIAL_CHARACTERS]
                                    [--passwords-remembered PASSWORDS_REMEMBERED]
                                    [--password-expiry-days PASSWORD_EXPIRY_DAYS]
```

Description

Updates current password policy configuration.

Returns

Returns dict: A structure containing current policy configuration dict

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --min-password-length MIN_PASSWORD_LENGTH
                        Minimum number of characters allowed in a user password. can be any number from 6
↪to 128
  --letter LETTER       When set to True, Require user passwords to contain at least one
                        character from the ISO basic Latin alphabet (A to Z or a to z)
  --digit DIGIT         When set to True, Require user passwords to contain at least one numeric
↪character (0 to 9)
  --special-characters SPECIAL_CHARACTERS
                        When set to True, Require user passwords to contain at least one of the following
                        non-alphanumeric characters: ! @ # $ % ^ & * ( ) _ + - = [ ] { } | '
  --passwords-remembered PASSWORDS_REMEMBERED
                        When set to a number different than 0, will prevent users from reusing a
                        specified number of previous passwords. can be any number from 0 to 24
  --password-expiry-days PASSWORD_EXPIRY_DAYS
                        The number of days that a user's password is valid. if value given is 0,
                        The result is that user passwords never expire
```

4.2.49 password-reset

password-reset config get

Usage

```
  usage: symp password-reset config get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent] [--prefix PREFIX]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Get the current self-service password-reset configuration.

Returns

Returns dict: The password-reset configuration including the status and the external endpoint being used

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

password-reset config set

Usage

```
  usage: symp password-reset config set
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--external-endpoint-id EXTERNAL_ENDPOINT_ID]
```

Description

Sets the self-service password-reset configuration.

Returns

Returns dict: The new password-reset configuration

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --external-endpoint-id EXTERNAL_ENDPOINT_ID
                        The SMTP external endpoint to be used for sending password reset links.
                        Omit this to unset the SMTP endpoint and disable password-reset
```

password-reset email-template get

Usage

```
  usage: symp password-reset email-template get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent] [--prefix PREFIX]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Get the current self-service password-reset configuration.

Returns

Returns dict: Email template configuration containing the subject, text template and html template

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

password-reset email-template reset

Usage

```
  usage: symp password-reset email-template reset
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Resets the self-service password-reset configuration.

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

password-reset email-template update

Usage

```
  usage: symp password-reset email-template update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
                                                  [--noindent]
                                                  [--prefix PREFIX]
                                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                  [--file FILE]
                                                  [--subject SUBJECT]
                                                  [--text-template TEXT_TEMPLATE]
```

Description

Sets the self-service password-reset configuration.

Returns

Returns dict: The new password-reset configuration

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --file FILE
  --subject SUBJECT     The subject of the password-reset email
  --text-template TEXT_TEMPLATE
                        The plain-text template of the password-reset email content.
                        Need to contain ${NAME} and ${URL}
                        Used in cases where HTML is absent or cannot be displayed
```

4.2.50 project

project create

Usage

```
  usage: symp project create
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            [--domain-id DOMAIN_ID] [--disabled]
                            [--description DESCRIPTION]
                            [--custom-project-id CUSTOM_PROJECT_ID]
                            name
```

Description

Create a new project in a domain.

Returns

Returns dict: Details of the project

Mandatory

```
positional arguments:
  name                  Name of the new project
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --domain-id DOMAIN_ID
                        Domain to create the project in
  --disabled            Whether the new project is disabled
  --description DESCRIPTION
                        Description for the new project
  --custom-project-id CUSTOM_PROJECT_ID
                        Force custom id for the created project
```

project delete

Usage

```
  usage: symp project delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]] [--force]
                            project_id
```

Description

Delete a project.

Mandatory

```
positional arguments:
  project_id            ID of project to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               When provided by a system admin, skip resource validation
```

project get

Usage

```
usage: symp project get

                        [-h] [-f {adaptive_table,json,shell,table,value,yaml}]
↪[-c COLUMN] [--max-width <integer>] [--noindent]
                        [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                        project_id
```

Description

Get details of a project.

Returns

Returns dict: Details of the project

Mandatory

```
positional arguments:
  project_id            ID of project
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

project grant-group-role

Usage

```
  usage: symp project grant-group-role
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     project_id group_id role_id
```

Description

Grant a group a role in a project (for LDAP use).

Mandatory

```
positional arguments:
  project_id            ID of project to grant role in
  group_id              ID of user to grant role to
  role_id               ID of the role to grant to the user
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

project grant-role

Usage

```
  usage: symp project grant-role
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                project_id user_id role_id
```

Description

Grant a user a role in a project.

Mandatory

```
positional arguments:
  project_id            ID of project to grant role in
  user_id               ID of user to grant role to
  role_id               ID of the role to grant to the user
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

project list

Usage

```
usage: symp project list

                        [-h] [-f {adaptive_table,csv,json,table,value,yaml}]
↪[-c COLUMN] [--max-width <integer>] [--noindent]
                        [--quote {all,minimal,none,nonnumeric}]
                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                        [--domain-id DOMAIN_ID] [--parent-id PARENT_ID]
                        [--name NAME] [--enabled ENABLED]
```

Description

List projects in domain.

Returns

Returns list: List of projects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --domain-id DOMAIN_ID
                        Filters by a domain ID
  --parent-id PARENT_ID
                        Filters the response by a parent ID
  --name NAME           Filters by a project name
  --enabled ENABLED     Filters by either enabled (true) or disabled (false) projects
```

project list-group-roles-on-project

Usage

```
  usage: symp project list-group-roles-on-project
[-f {adaptive_table,csv,json,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent]
                                                [--quote {all,minimal,none,nonnumeric}]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                project_id group_id
```

Description

List group's roles in a project.

Returns

Returns list: The roles the group has on the project

Mandatory

```
positional arguments:
  project_id            ID of project to list roles for
  group_id              ID of group to list roles for
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

project list-roles-on-project

Usage

```
  usage: symp project list-roles-on-project
[-f {adaptive_table,csv,json,table,value,yaml}]
                                            [-c COLUMN] [--max-width <integer>]
                                            [--noindent]
                                            [--quote {all,minimal,none,nonnumeric}]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                                            project_id user_id
```

Description

List user's roles in a project.

Returns

Returns list: The roles the user has on the project

Mandatory

```
positional arguments:
  project_id            ID of project to list roles for
  user_id               ID of user to list roles for
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

project revoke-group-role

Usage

```
  usage: symp project revoke-group-role
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       project_id group_id role_id
```

Description

Revoke a group's role from a project (for LDAP use).

Mandatory

```
positional arguments:
  project_id            ID of project to revoke role from
  group_id              ID of user to revoke role from
  role_id               ID of the role to revoke from the user
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

project revoke-role

Usage

```
  usage: symp project revoke-role
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  project_id user_id role_id
```

Description

Revoke a user's role from a project.

Mandatory

```
positional arguments:
  project_id            ID of project to revoke role from
  user_id               ID of user to revoke role from
  role_id               ID of the role to revoke from the user
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

project update

Usage

```
  usage: symp project update
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]] [--name NAME]
                            [--description DESCRIPTION] [--domain-id DOMAIN_ID]
                            [--enabled ENABLED]
                            project_id
```

Description

Update project's attributes.

Returns

Returns dict: The project's details after the update

Mandatory

```
positional arguments:
  project_id            ID of project to update
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The project's name
  --description DESCRIPTION
                        The project's description
  --domain-id DOMAIN_ID
                        The ID of the domain of the project
  --enabled ENABLED     Whether the project is enabled
```

4.2.51 protection

protection backup groups add-resource

Usage

```
  usage: symp protection backup groups add-resource
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--prefix PREFIX]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    group_id resource_id
                                                    resource_type
```

Description

Add a resource to a backup group to protect.

Returns

Returns dict: A resource protected by backup group.

Mandatory

```
positional arguments:
  group_id              The ID of the backup group to filter by
  resource_id           The ID of the resource
  resource_type         The resource type that is being assigned to a backup group.
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

protection backup groups create

Usage

```
  usage: symp protection backup groups create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent] [--prefix PREFIX]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              [--description DESCRIPTION]
                                              [--project-id PROJECT_ID]
                                              [--admin-only ADMIN_ONLY]
                                              [--endpoint-id ENDPOINT_ID]
                                              [--remote-retention REMOTE_RETENTION]
                                              [--enabled]
                                              [--local-remote-ratio LOCAL_REMOTE_RATIO]
                                              name recurrence start_time
                                              local_retention
```

Description

Creates a new backup group

Returns

Returns dict: Backup group

Mandatory

```
positional arguments:
  name                  The name of the protection group
  recurrence            The schedule recurrence rule.
                        iCalendar RRULE format
                        [FREQ=HOURLY/DAILY/WEEKLY/MONTHLY;INTERVAL=numeric]
  start_time            The schedule start time.
  local_retention       Duration(in days) for retaining local snapshots
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        The description of the protection group
  --project-id PROJECT_ID
                        The project ID to which the protection group belongs
  --admin-only ADMIN_ONLY
                        True if this group is restricted to admin users, False otherwise
  --endpoint-id ENDPOINT_ID
                        The ID of the external endpoint (Object Store) to which the backups are stored.
                        If provided, the snapshots will be created in the external endpoint.
  --remote-retention REMOTE_RETENTION
                        Duration(in days) for retaining remote snapshots.
                        Must be provided if endpoint ID is provided.
  --enabled             Disabling the schedule will stop the backup process for this group
                        But will continue to cleanup the snapshots of the existing backups according to
↪the retention policy.
  --local-remote-ratio LOCAL_REMOTE_RATIO
                        The ratio of local to remote snapshots.
                        e.g 3 means 3 local snapshots for every remote snapshot.
                        Can be provided only if an endpoint ID is provided.
```

protection backup groups delete

Usage

```
  usage: symp protection backup groups delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                            [-c COLUMN]
                                            [--max-width <integer>]
                                            [--noindent] [--prefix PREFIX]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                                            [--force]
                                            [--ignore-existing-snapshots]
                                            group_id
```

Description

Delete the backup group

Mandatory

```
positional arguments:
  group_id              The ID of the backup group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               True if the delete operation should delete group memberships as well.
  --ignore-existing-snapshots
                        if set to True delete group even if there are snapshots
```

protection backup groups get

Usage

```
  usage: symp protection backup groups get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          group_id
```

Description

Retrieves a backup group

Returns

Returns dict: Backup group

Mandatory

```
positional arguments:
  group_id              The ID of the backup group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

protection backup groups get-resource

Usage

```
  usage: symp protection backup groups get-resource
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
                                                  [--noindent]
                                                  [--prefix PREFIX]
                                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                  group_id resource_id
```

Description

Retrieves a backup resource

Returns

Returns dict: Resource details

Mandatory

```
positional arguments:
  group_id              The ID of the backup group
  resource_id           The ID of the resource
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

protection backup groups list

Usage

```
  usage: symp protection backup groups list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent]
                                          [--quote {all,minimal,none,nonnumeric}]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--limit LIMIT] [--offset OFFSET]
                                          [--order ORDER] [--sort-by SORT_BY]
                                          [--enabled ENABLED]
                                          [--admin-only ADMIN_ONLY]
```

Description

Retrieves all protection groups

Returns

Returns list: groups list

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --limit LIMIT         The maximum number of elements returned in the output list.
  --offset OFFSET       The number of elements not to display from the beginning of the output list.
  --order ORDER         The order, ascending or descending, based on the 'sort-by' parameter in which the
↪output will be displayed. Values: asc or desc
  --sort-by SORT_BY     The parameter by which to sort the output list. Default: id
  --enabled ENABLED     Filter for displaying enabled or disabled groups only. Values: true or false
  --admin-only ADMIN_ONLY
                        Filter for displaying admin only groups. Values: true or false
```

protection backup groups list-resources

Usage

```
  usage: symp protection backup groups list-resources
[-f {adaptive_table,csv,json,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--quote {all,minimal,none,nonnumeric}]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    [--limit LIMIT]
                                                    [--offset OFFSET]
                                                    [--order ORDER]
                                                    [--sort-by SORT_BY]
                                                    group_id
```

Description

Retrieves all backup resources for a specific group

Returns

Returns list: List of backup resources

Mandatory

```
positional arguments:
  group_id              The ID of the backup group to filter by
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --limit LIMIT         The maximum number of elements returned in the output list.
  --offset OFFSET       The number of elements not to display from the beginning of the output list.
  --order ORDER         The order, ascending or descending, based on the 'sort-by' parameter in which the
↪output will be displayed. Values: asc or desc
  --sort-by SORT_BY     The parameter by which to sort the output list. Default: id
```

protection backup groups remove-resource

Usage

```
  usage: symp protection backup groups remove-resource
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                     [-c COLUMN]
                                                     [--max-width <integer>]
                                                     [--noindent]
                                                     [--prefix PREFIX]
                                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                     group_id resource_id
```

Description

Delete a resource from a backup group

Mandatory

```
positional arguments:
  group_id              The ID of the backup group
  resource_id           The ID of the resource
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

protection backup groups trigger-snapshot

Usage

```
  usage: symp protection backup groups trigger-snapshot
[-f {adaptive_table,csv,json,table,value,yaml}]
                                                      [-c COLUMN]
                                                      [--max-width <integer>]
                                                      [--noindent]
                                                      [--quote {all,minimal,none,nonnumeric}]
                                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                      [--with-remote]
                                                      group_id
```

Description

Triggers a snapshot for the requested backup group

Returns

Returns list: Snapshot triggered successfully for the backup group

Mandatory

```
positional arguments:
  group_id              The ID of the backup group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --with-remote         Whether to create a remote snapshot as well. Valid only for remote backup groups.
```

protection backup groups update

Usage

```
  usage: symp protection backup groups update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                             [-c COLUMN]
                                             [--max-width <integer>]
                                             [--noindent] [--prefix PREFIX]
                                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                                             [--name NAME]
                                             [--description DESCRIPTION]
                                             [--admin-only ADMIN_ONLY]
                                             [--recurrence RECURRENCE]
```

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```
                                        [--start-time START_TIME]
                                        [--local-retention LOCAL_RETENTION]
                                        [--endpoint-id ENDPOINT_ID]
                                        [--remote-retention REMOTE_RETENTION]
                                        [--enabled ENABLED]
                                        [--local-remote-ratio LOCAL_REMOTE_RATIO]
                                        group_id
```

Description

Update backup groups details

Returns

Returns dict: The updated details of a backup group.

Mandatory

```
positional arguments:
  group_id              The ID of the backup group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The new name of the protection group
  --description DESCRIPTION
                        The new description of the protection group
  --admin-only ADMIN_ONLY
                        True if this group is restricted to admin users, False otherwise
  --recurrence RECURRENCE
                        The schedule recurrence rule.
                        iCalendar RRULE format
                        [FREQ=HOURLY/DAILY/WEEKLY/MONTHLY;INTERVAL=numeric]
  --start-time START_TIME
                        The schedule start time.
  --local-retention LOCAL_RETENTION
                        Duration(in days) for retaining local snapshots
  --endpoint-id ENDPOINT_ID
                        The ID of the external endpoint (Object Store) to which the backups are stored.
                        Can be updated only if the group has no endpoint ID.
                        If provided, the snapshots will be created in the external endpoint.
  --remote-retention REMOTE_RETENTION
                        Duration(in days) for retaining remote snapshots
                        Must be provided if endpoint ID is provided.
  --enabled ENABLED     Disabling the schedule will stop the backup process for this group
                        But will continue to cleanup the snapshots of the existing backups according to
↪the retention policy.
  --local-remote-ratio LOCAL_REMOTE_RATIO
                        The ratio of local to remote snapshots.
                        e.g 3 means 3 local snapshots for every remote snapshot.
                        Can be updated only if the group has endpoint ID or endpoint ID is passed.
```

protection restore groups create

Usage

```
  usage: symp protection restore groups create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                [--description DESCRIPTION]
                                                [--project-id PROJECT_ID]
                                                name endpoint_id
```

Description

Creates a new restore protection group

Returns

Returns dict: Restore protection group

Mandatory

```
positional arguments:
  name                  The name of the protection group
  endpoint_id           The UUID of the endpoint
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        The description of the protection group
  --project-id PROJECT_ID
                        The project ID to which the protection group belongs
```

protection restore groups delete

Usage

```
  usage: symp protection restore groups delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                [--force FORCE]
                                                group_id
```

Description

Delete the restore protection group

Mandatory

```
positional arguments:
  group_id              The ID of the restore protection group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force FORCE         True if the delete operation should delete group VSC endpoint as well.
```

protection restore groups get

Usage

```
  usage: symp protection restore groups get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                           [-c COLUMN] [--max-width <integer>]
                                           [--noindent] [--prefix PREFIX]
                                           [-m [NAME=VALUE [NAME=VALUE ...]]]
                                           group_id
```

Description

Retrieves a restore protection group

Returns

Returns dict: Restore protection group

Mandatory

```
positional arguments:
  group_id              The ID of the restore protection group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

protection restore groups list

Usage

```
  usage: symp protection restore groups list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                           [-c COLUMN] [--max-width <integer>]
                                           [--noindent]
                                           [--quote {all,minimal,none,nonnumeric}]
                                           [-m [NAME=VALUE [NAME=VALUE ...]]]
                                           [--limit LIMIT] [--offset OFFSET]
                                           [--order ORDER] [--sort-by SORT_BY]
```

Description

Retrieves all restore protection groups

Returns

Returns list: Restore groups list

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --limit LIMIT         The maximum number of elements returned in the output list.
  --offset OFFSET       The number of elements not to display from the beginning of the output list.
  --order ORDER         The order, ascending or descending, based on the 'sort-by' parameter in which the
↪output will be displayed. Values: asc or desc
  --sort-by SORT_BY     The parameter by which to sort the output list. Default: id
```

protection restore groups update

Usage

```
  usage: symp protection restore groups update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent] [--prefix PREFIX]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              [--name NAME]
                                              [--description DESCRIPTION]
                                              group_id
```

Description

Update restore groups details

Returns

Returns dict: The updated details of a restore protection group.

Mandatory

```
positional arguments:
  group_id              The ID of the restore protection group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The new name of the protection group
  --description DESCRIPTION
                        The new description of the protection group
```

protection snapshots get

Usage

```
  usage: symp protection snapshots get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       snapshot_id
```

Description

Retrieves a protection group snapshot

Returns

Returns dict: Protection group snapshot

Mandatory

```
positional arguments:
  snapshot_id           The ID of the protection group snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

protection snapshots list

Usage

```
  usage: symp protection snapshots list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent]
                                      [--quote {all,minimal,none,nonnumeric}]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      [--limit LIMIT] [--offset OFFSET]
                                      [--order ORDER] [--sort-by SORT_BY]
                                      [--remote] [--local]
                                      [--group-id GROUP_ID]
```

Description

Retrieves all protection group snapshots

Returns

Returns list: List of protection group snapshots

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --limit LIMIT         The maximum number of elements returned in the output list.
  --offset OFFSET       The number of elements not to display from the beginning of the output list.
  --order ORDER         The order, ascending or descending, based on the 'sort-by' parameter in which the
↪output will be displayed. Values: asc or desc
  --sort-by SORT_BY     The parameter by which to sort the output list. Default: id
  --remote              Filter for displaying remote snapshots only
  --local               Filter for displaying local snapshots only
  --group-id GROUP_ID   The ID of the group to filter by
```

protection snapshots remove

Usage

```
  usage: symp protection snapshots remove
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          snapshot_id
```

Description

Delete the protection group snapshot

Mandatory

```
positional arguments:
  snapshot_id           The ID of the protection group snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.52 quotas

quotas limits get-domain-limits

Usage

```
  usage: symp quotas limits get-domain-limits
[-f {adaptive_table,csv,json,table,value,yaml}]
                                            [-c COLUMN]
                                            [--max-width <integer>]
                                            [--noindent]
                                            [--quote {all,minimal,none,nonnumeric}]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                                            [--show-updated-at]
                                            domain_id
```

Description

Get the domain's quota limits.

Returns

Returns list: Requested quota limits details

Mandatory

```
positional arguments:
  domain_id             Requested domain ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --show-updated-at     If set to True, will return also the last updated time
```

quotas limits get-project-limits

Usage

```
  usage: symp quotas limits get-project-limits
[-f {adaptive_table,csv,json,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent]
                                              [--quote {all,minimal,none,nonnumeric}]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              [--show-updated-at]
                                              project_id
```

Description

Get the project's quota limits.

Returns

Returns list: Requested quota limits details

Mandatory

```
positional arguments:
  project_id            Requested project ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --show-updated-at     If set to True, will return also the last updated time
```

quotas limits list-domains-limits

Usage

```
  usage: symp quotas limits list-domains-limits
[-f {adaptive_table,csv,json,table,value,yaml}]
                                               [-c COLUMN]
                                               [--max-width <integer>]
                                               [--noindent]
                                               [--quote {all,minimal,none,nonnumeric}]
                                               [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List domains' quota limits.

Returns

Returns list: A list of the domains' quota limits details

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

quotas limits list-projects-limits

Usage

```
  usage: symp quotas limits list-projects-limits
[-f {adaptive_table,csv,json,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent]
                                                [--quote {all,minimal,none,nonnumeric}]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List projects' quota limits.

Returns

Returns list: A list of the projects' quota limits details

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

quotas limits set-domain-limits

Usage

```
  usage: symp quotas limits set-domain-limits
[-f {adaptive_table,json,shell,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent] [--prefix PREFIX]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              domain_id limits
```

Description

Set the domain's quota limits.

Mandatory

```
positional arguments:
  domain_id             Requested domain ID
  limits                Requested quota limits in the following format -
                        {"resource_name_1": value_1, "resource_name_2": value_2, ...}
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

quotas limits set-project-limits

Usage

```
  usage: symp quotas limits set-project-limits
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                project_id limits
```

Description

Set the project's quota limits.

Mandatory

```
positional arguments:
  project_id            Requested project ID
  limits                Requested quota limits in the following format -
                        {"resource_name_1": value_1, "resource_name_2": value_2, ...}
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

quotas templates create

Usage

```
  usage: symp quotas templates create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent] [--prefix PREFIX]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      [--source-type SOURCE_TYPE]
                                      [--source-id SOURCE_ID]
                                      resources_quantities
```

Description

Create a new template.

Returns

Returns str: The created template ID

Mandatory

```
positional arguments:
  resources_quantities  Amount per resource
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --source-type SOURCE_TYPE
                        Type of template to base on (optional) - system, project or template
  --source-id SOURCE_ID
                        If source_type was provided, ID of either the project or template to base on
```

quotas templates get

Usage

```
  usage: symp quotas templates get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  template_id
```

Description

Get the details of the requested template.

Returns

Returns dict: The requested template details

Mandatory

```
positional arguments:
  template_id           Requested template ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

quotas templates remove

Usage

```
  usage: symp quotas templates remove
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    template_id
```

Description

Delete the requested template.

Mandatory

```
positional arguments:
  template_id           Requested template ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

quotas templates update

Usage

```
  usage: symp quotas templates update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent] [--prefix PREFIX]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      [--name NAME] [--description DESCRIPTION]
                                      template_id resources_quantities
```

Description

Update the template to contain the new resources quantities. Resources are not deleted if the new limit is reduced below the allocated amount.

Mandatory

```
positional arguments:
  template_id           Requested template ID
  resources_quantities  Amount per resource
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Name of the template
  --description DESCRIPTION
                        Description of the template
```

4.2.53 role

role assume-role

Usage

```
  usage: symp role assume-role
[-f {adaptive_table,json,shell,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>] [--noindent]
                               [--prefix PREFIX]
                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                               [--duration-seconds DURATION_SECONDS]
                               role_id session_name
```

Description

Creates temporary credentials with the permissions attached to the specified role. Those credentials will be valid for a limited period of time.

Returns

Returns dict: Temporary credentials

Mandatory

```
positional arguments:
  role_id               The ID of the role to assume
  session_name          An identifier for the assumed role session
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --duration-seconds DURATION_SECONDS
                        The duration, in seconds, of the role session
```

role attach-aws-policy

Usage

```
  usage: symp role attach-aws-policy
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    role_id policy_id
```

Description

Attaches the specified AWS policy to the specified role. When you attach a AWS policy to a role, the AWS policy becomes part of the role's permission (access) policy.

Mandatory

```
positional arguments:
  role_id               The ID of the role
  policy_id             The ID of the policy to attach
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

role create

Usage

```
usage: symp role create

                        [-h] [-f {adaptive_table,json,shell,table,value,yaml}]
↪[-c COLUMN] [--max-width <integer>] [--noindent]
                        [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                        [--description DESCRIPTION] [--path PATH]
                        [--max-session-duration MAX_SESSION_DURATION]
                        [--project-id PROJECT_ID]
                        name --assume_role_policy_document
                        [--assume_role_policy_document ...]
```

Description

Creates a new role.

Returns

Returns dict: A structure containing details about the new role

Mandatory

```
positional arguments:
  name                  The name of the role to create
  --assume_role_policy_document
                        This is a trust relationship policy document that grants permission to an entity
↪to assume the role.
                        It is a JSON object which is basically a list of objects each of which represents
↪an entity or group of entities.
                        Two types of objects can appear in this list:
                        A user object, for a specific user, and a project object, for all users in the
↪project.
                        Each object has an 'effect' property which describes whether the entity, or
↪entities, are allowed or denied to assume the role.
                        If the same entity has both an 'allow' and 'deny', the 'deny' prevails.
                        If there are any nulls in the JSON, they are discarded.
                        A user object is defined by the following parameters and their values:
                        - effect (string): 'allow' if you want to allow a user to assume the role,
↪otherwise 'deny'
                        - entity_type (string): Must be 'user'
                        - entity_id (uuid): The ID of the user
                        - project_id (uuid): The ID of the project that the user must be logged-in to in
↪order to assume the role

                        Example:
                        [{"effect": "allow", "entity_type": "user", "entity_id":
↪"4143f6870f8648b798192660ff480051", "project_id": "572fc7d7326d40a69c0f5fd47a351199"}]

                        A project object is defined by the following parameters and their values:
                        - effect (string): 'allow' if you want to allow a user to assume the role,
↪otherwise 'deny'
                        - entity_type (string): Must be '*'
                        - project_id (uuid): The ID of the project that the users must be logged-in to in
↪order to assume the role

                        Example:
                        [{"effect": "allow", "entity_type": "*", "project_id":
↪"572fc7d7326d40a69c0f5fd47a351199"}]
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        A description of the role
  --path PATH           A path to give to the new role
  --max-session-duration MAX_SESSION_DURATION
                        Maximum session duration (in seconds) that can be requested when assuming this
↪role
  --project-id PROJECT_ID
                        If given, create the role in that project, rather in the project the request is
```

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```
↪made of.
                        This parameter is for usage of admin or tenant admin only
```

role detach-aws-policy

Usage

```
  usage: symp role detach-aws-policy
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    role_id policy_id
```

Description

Removes the specified AWS policy from the specified role.

Mandatory

```
positional arguments:
  role_id               The ID of the role to detach policy from
  policy_id             The ID of the policy to detach
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

role get

Usage

```
usage: symp role get

                    [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                      [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                    [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                    role_id
```

Description

Retrieves information about the specified role, including the role's path, GUID, ARN, and the role's trust policy that grants permission to assume the role.

Returns

Returns dict: A structure containing details about the role

Mandatory

```
positional arguments:
  role_id               The ID of the role to get information about
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

role iam-list

Usage

```
usage: symp role iam-list

                        [-h] [-f {adaptive_table,csv,json,table,value,yaml}]
↪ [-c COLUMN] [--max-width <integer>] [--noindent]
                        [--quote {all,minimal,none,nonnumeric}]
                        [-m [NAME=VALUE [NAME=VALUE ...]]] [--name NAME]
                        [--project-id PROJECT_ID]
```

Description

List all available IAM roles. List with IAM format, that's the reason for the double listing APIs.

Returns

Returns list: List of roles

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           If given, only list roles with the given name
  --project-id PROJECT_ID
                        If given, only list roles from that project
```

role list

Usage

```
usage: symp role list

                     [-h] [-f {adaptive_table,csv,json,table,value,yaml}]
↪COLUMN] [--max-width <integer>] [--noindent]
                     [--quote {all,minimal,none,nonnumeric}]
                     [-m [NAME=VALUE [NAME=VALUE ...]]] [--name NAME]
```

Description

List all available roles.

Returns

Returns list: List of roles

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           If given, only list roles with the given name
```

role list-aws-policies

Usage

```
  usage: symp role list-aws-policies
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    role_id
```

Description

Lists all AWS policies that are attached to the specified role.

Returns

Returns list: List of policies attach to the given role

Mandatory

```
positional arguments:
  role_id               The ID of the role
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

role list-instance-profiles

Usage

```
  usage: symp role list-instance-profiles
[-f {adaptive_table,csv,json,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent]
                                        [--quote {all,minimal,none,nonnumeric}]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        role_id
```

Description

Lists the instance profiles that have the specified associated role. If there are none, the operation returns an empty list.

Returns

Returns list: List of instance profiles

Mandatory

```
positional arguments:
  role_id               The ID of the role
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

role remove

Usage

```
usage: symp role remove

                        [-h] [-f {adaptive_table,json,shell,table,value,yaml}]
↪[-c COLUMN] [--max-width <integer>] [--noindent]
                        [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                        [--force]
                        role_id
```

Description

Deletes the specified role.

Mandatory

```
positional arguments:
  role_id               The ID of the role to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               If true, detach all policies from the role before deleting it
```

role set-aws-policies

Usage

```
  usage: symp role set-aws-policies
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    role_id --policy_ids [--policy_ids ...]
```

Description

Set the role's AWS policies in the specified project.

Mandatory

```
positional arguments:
  role_id               The ID of the role
  --policy_ids          The IDs of the policies to attach
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

role update

Usage

```
usage: symp role update

                        [-h] [-f {adaptive_table,json,shell,table,value,yaml}]
↪[-c COLUMN] [--max-width <integer>] [--noindent]
                        [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                        [--description DESCRIPTION]
                        [--max-session-duration MAX_SESSION_DURATION]
                        [--assume-role-policy-document [ASSUME_ROLE_POLICY_DOCUMENT [ASSUME_ROLE_POLICY_
↪DOCUMENT ...]]]
                        role_id
```

Description

Updates the description of a role.

Returns

Returns dict: A structure containing details about the new role

Mandatory

```
positional arguments:
  role_id               The ID of the role to update
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        The new description for the role
  --max-session-duration MAX_SESSION_DURATION
                        Maximum session duration (in seconds) that can be requested when assuming this
↪role
  --assume-role-policy-document [ASSUME_ROLE_POLICY_DOCUMENT [ASSUME_ROLE_POLICY_DOCUMENT ...]]
                        This is a trust relationship policy document that grants permission to an entity
↪to assume the role.
                        It is a JSON object which is basically a list of objects each of which represents
↪an entity or group of entities.
                        Two types of objects can appear in this list:
                        A user object, for a specific user, and a project object, for all users in the
↪project.
                        Each object has an 'effect' property which describes whether the entity, or
↪entities, are allowed or denied to assume the role.
                        If the same entity has both an 'allow' and 'deny', the 'deny' prevails.
                        If there are any nulls in the JSON, they are discarded.
                        A user object is defined by the following parameters and their values:
                        - effect (string): 'allow' if you want to allow a user to assume the role,
↪otherwise 'deny'
                        - entity_type (string): Must be 'user'
                        - entity_id (uuid): The ID of the user
                        - project_id (uuid): The ID of the project that the user must be logged-in to in
↪order to assume the role

                        Example:
                        [{"effect": "allow", "entity_type": "user", "entity_id":
```

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```
↪"4143f6870f8648b798192660ff480051", "project_id": "572fc7d7326d40a69c0f5fd47a351199"}]

                        A project object is defined by the following parameters and their values:
                        - effect (string): 'allow' if you want to allow a user to assume the role,
↪otherwise 'deny'
                        - entity_type (string): Must be '*'
                        - project_id (uuid): The ID of the project that the users must be logged-in to in
↪order to assume the role

                        Example:
                        [{"effect": "allow", "entity_type": "*", "project_id":
↪"572fc7d7326d40a69c0f5fd47a351199"}]
```

role-assignments list

Usage

```
  usage: symp role-assignments list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--kwargs KWARGS]
```

Description

List role assignments users have. See http://developer.openstack.org/api-ref-identity-v3.html#listRoleAssignments.

Returns

Returns list: The users and their roles on projects/domains

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --kwargs KWARGS       Extra arguments, a dict as a JSON string
```

role-assignments list-mine

Usage

```
  usage: symp role-assignments list-mine
[-f {adaptive_table,csv,json,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent]
                                        [--quote {all,minimal,none,nonnumeric}]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List role assignments of authenticated user. See http://developer.openstack.org/api-ref-identity-v3.html#listRoleAssignments.

Returns

Returns list: The user's roles on projects/domains

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.54 role-assignments

role-assignments list

Usage

```
  usage: symp role-assignments list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--kwargs KWARGS]
```

Description

List role assignments users have. See http://developer.openstack.org/api-ref-identity-v3.html#listRoleAssignments.

Returns

Returns list: The users and their roles on projects/domains

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --kwargs KWARGS       Extra arguments, a dict as a JSON string
```

role-assignments list-mine

Usage

```
  usage: symp role-assignments list-mine
[-f {adaptive_table,csv,json,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent]
                                       [--quote {all,minimal,none,nonnumeric}]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List role assignments of authenticated user. See http://developer.openstack.org/api-ref-identity-v3.html#listRoleAssignments.

Returns

Returns list: The user's roles on projects/domains

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.55 snapshot

snapshot add-tags

Usage

```
  usage: symp snapshot add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>] [--noindent]
                               [--prefix PREFIX]
                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                               [--tags [TAGS [TAGS ...]]]
                               snapshot_id
```

Description

Add tags to the snapshot

Returns

Returns dict: Snapshot metadata

Mandatory

```
positional arguments:
  snapshot_id           The ID of the snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --tags [TAGS [TAGS ...]]
```

snapshot create

Usage

```
  usage: symp snapshot create
[-f {adaptive_table,json,shell,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--prefix PREFIX]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              [--description DESCRIPTION]
                              [--project-id PROJECT_ID]
                              [--tags [TAGS [TAGS ...]]]
                              [--protection-group-id PROTECTION_GROUP_ID]
                              volume_id name
```

Description

Create a new snapshot from the specified volume

Returns

Returns dict: New snapshot

Mandatory

```
positional arguments:
  volume_id             Volume ID to snapshot
  name                  Name for the snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        Description for the snapshot
  --project-id PROJECT_ID
                        The project ID of this snapshot (admin-only)
  --tags [TAGS [TAGS ...]]
                        Tags to apply during snapshot creation
  --protection-group-id PROTECTION_GROUP_ID
                        The ID of the protection group responsible for creating this snapshot. for
↪internal usage.
```

snapshot delete

Usage

```
  usage: symp snapshot delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            snapshot_id
```

Description

Delete the snapshot

Mandatory

```
positional arguments:
  snapshot_id           The ID of the snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

snapshot get

Usage

```
  usage: symp snapshot get
[-f {adaptive_table,json,shell,table,value,yaml}]
                          [-c COLUMN] [--max-width <integer>] [--noindent]
                          [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                          snapshot_id
```

Description

Retrieve snapshot metadata

Returns

Returns dict: Snapshot metadata

Mandatory

```
positional arguments:
  snapshot_id           The ID of the snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

snapshot list

Usage

```
usage: symp snapshot list

                          [-h] [-f {adaptive_table,csv,json,table,value,yaml}]
↪ [-c COLUMN] [--max-width <integer>] [--noindent]
                          [--quote {all,minimal,none,nonnumeric}]
                          [-m [NAME=VALUE [NAME=VALUE ...]]] [--sort SORT]
                          [--tag-key [TAG_KEY [TAG_KEY ...]]]
                          [--description [DESCRIPTION [DESCRIPTION ...]]]
                          [--tags [TAGS [TAGS ...]]]
                          [--source-volume-id [SOURCE_VOLUME_ID [SOURCE_VOLUME_ID ...]]]
                          [--created-at [CREATED_AT [CREATED_AT ...]]]
                          [--reference-resource-id [REFERENCE_RESOURCE_ID [REFERENCE_RESOURCE_ID ...]]]
                          [--state [STATE [STATE ...]]] [--limit LIMIT]
                          [--endpoint-id [ENDPOINT_ID [ENDPOINT_ID ...]]]
                          [--offset OFFSET]
                          [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                          [--protection-group-id [PROTECTION_GROUP_ID [PROTECTION_GROUP_ID ...]]]
                          [--id [ID [ID ...]]]
                          [--reference-resource-type [REFERENCE_RESOURCE_TYPE [REFERENCE_RESOURCE_TYPE ...
↪]]]
                          [--name [NAME [NAME ...]]]
```

Description

Retrieves all snapshots

Returns

Returns list: List of snapshots

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --sort SORT           The fields to sort by (can provide multiple values). Use "-" to reverse the order.
  --tag-key [TAG_KEY [TAG_KEY ...]]
                        Return snapshots with the specified tag key regardless of the tag value (multiple
↪values possible).
  --description [DESCRIPTION [DESCRIPTION ...]]
                        Return snapshots with the specified description (multiple values possible).
  --tags [TAGS [TAGS ...]]
                        Tags to filter by.
  --source-volume-id [SOURCE_VOLUME_ID [SOURCE_VOLUME_ID ...]]
                        Return snapshots with the specified source volume ID (multiple values possible).
  --created-at [CREATED_AT [CREATED_AT ...]]
                        Return snapshots with the specified created at time (multiple values possible).
  --reference-resource-id [REFERENCE_RESOURCE_ID [REFERENCE_RESOURCE_ID ...]]
                        Return snapshots with the specified reference resource ID (multiple values
↪possible).
  --state [STATE [STATE ...]]
                        Return snapshots with the specified state (multiple values possible).
  --limit LIMIT         Specify the number of entities that you want to retrieve.
  --endpoint-id [ENDPOINT_ID [ENDPOINT_ID ...]]
                        Return snapshots with the specified endpoint ID (multiple values possible).
  --offset OFFSET       Specify the first entity that you want to retrieve.
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        Return snapshots with the specified project ID (multiple values possible).
  --protection-group-id [PROTECTION_GROUP_ID [PROTECTION_GROUP_ID ...]]
                        Return snapshots with the specified snapshot protection group ID (multiple values
↪possible).
  --id [ID [ID ...]]    Return snapshots with the specified snapshot ID (multiple values possible).
  --reference-resource-type [REFERENCE_RESOURCE_TYPE [REFERENCE_RESOURCE_TYPE ...]]
                        Return snapshots with the specified reference resource type (multiple values
↪possible).
  --name [NAME [NAME ...]]
                        Return snapshots with the specified name (multiple values possible).
```

snapshot remove-tags

Usage

```
  usage: symp snapshot remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  [--tags [TAGS [TAGS ...]]]
                                  snapshot_id
```

Description

Remove tags from the snapshot

Returns

Returns dict: Snapshot metadata

Mandatory

```
positional arguments:
  snapshot_id           The ID of the snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --tags [TAGS [TAGS ...]]
```

snapshot stats

Usage

```
  usage: symp snapshot stats
[-f {adaptive_table,json,shell,table,value,yaml}]
                           [-c COLUMN] [--max-width <integer>] [--noindent]
                           [--prefix PREFIX]
                           [-m [NAME=VALUE [NAME=VALUE ...]]]
                           [--tag-key [TAG_KEY [TAG_KEY ...]]]
                           [--description [DESCRIPTION [DESCRIPTION ...]]]
                           [--tags [TAGS [TAGS ...]]]
                           [--source-volume-id [SOURCE_VOLUME_ID [SOURCE_VOLUME_ID ...]]]
                           [--created-at [CREATED_AT [CREATED_AT ...]]]
                           [--reference-resource-id [REFERENCE_RESOURCE_ID [REFERENCE_RESOURCE_ID ...]]]
                           [--state [STATE [STATE ...]]]
                           [--endpoint-id [ENDPOINT_ID [ENDPOINT_ID ...]]]
                           [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                           [--protection-group-id [PROTECTION_GROUP_ID [PROTECTION_GROUP_ID ...]]]
                           [--id [ID [ID ...]]]
                           [--reference-resource-type [REFERENCE_RESOURCE_TYPE [REFERENCE_RESOURCE_TYPE
↪...]]]
                           [--name [NAME [NAME ...]]]
```

Description

Retrieves snapshots stats

Returns

Returns dict: Snapshots stats response

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --tag-key [TAG_KEY [TAG_KEY ...]]
                        Filter stats by a specified tag key regardless of the tag value (multiple values
↪possible).
  --description [DESCRIPTION [DESCRIPTION ...]]
                        Filter stats by a specified description (multiple values possible).
  --tags [TAGS [TAGS ...]]
                        Tags to filter by.
  --source-volume-id [SOURCE_VOLUME_ID [SOURCE_VOLUME_ID ...]]
                        Filter stats by a specified source volume ID (multiple values possible).
  --created-at [CREATED_AT [CREATED_AT ...]]
                        Filter stats by a specified created at time (multiple values possible).
```

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```
  --reference-resource-id [REFERENCE_RESOURCE_ID [REFERENCE_RESOURCE_ID ...]]
                        Filter stats by a specified reference resource ID (multiple values possible).
  --state [STATE [STATE ...]]
                        Filter stats by a specified state (multiple values possible).
  --endpoint-id [ENDPOINT_ID [ENDPOINT_ID ...]]
                        Filter stats by a specified endpoint ID (multiple values possible).
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        Filter stats by a specified project ID (multiple values possible).
  --protection-group-id [PROTECTION_GROUP_ID [PROTECTION_GROUP_ID ...]]
                        Filter stats by a specified snapshot protection group ID (multiple values
↪possible).
  --id [ID [ID ...]]    Filter stats by a specified snapshot ID (multiple values possible).
  --reference-resource-type [REFERENCE_RESOURCE_TYPE [REFERENCE_RESOURCE_TYPE ...]]
                        Filter stats by a specified reference resource type (multiple values possible).
  --name [NAME [NAME ...]]
                        Filter stats by a specified name (multiple values possible).
```

snapshot transform

Usage

```
  usage: symp snapshot transform
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--description DESCRIPTION]
                                [--project-id PROJECT_ID]
                                [--tags [TAGS [TAGS ...]]]
                                [--snapshot-id SNAPSHOT_ID]
                                [--created-at CREATED_AT]
                                resource_id name resource_type
```

Description

Transform a resource (physical snapshot / volume) into a new snapshot (the original resource will be hidden)

Returns

Returns dict: New snapshot

Mandatory

```
positional arguments:
  resource_id           Resource ID to transform to snapshot
  name                  Name for the snapshot
  resource_type         the resource type to transform
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        Description for the snapshot
  --project-id PROJECT_ID
                        The project ID of this snapshot (admin-only)
  --tags [TAGS [TAGS ...]]
```

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```
                        Tags to apply during snapshot creation
  --snapshot-id SNAPSHOT_ID
                        Snapshot ID to set for the snapshot
  --created-at CREATED_AT
                        Optionally override the creation time of the snapshot
```

snapshot update

Usage

```
  usage: symp snapshot update
[-f {adaptive_table,json,shell,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--prefix PREFIX]
                              [-m [NAME=VALUE [NAME=VALUE ...]]] [--name NAME]
                              [--description DESCRIPTION]
                              snapshot_id
```

Description

Update metadata of an existing snapshot

Returns

Returns dict: Snapshot info

Mandatory

```
positional arguments:
  snapshot_id           The ID of the snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Name for the volume
  --description DESCRIPTION
                        Description for the volume
```

4.2.56 strato-policy

strato-policy assignments-list

Usage

```
  usage: symp strato-policy assignments-list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                            [-c COLUMN] [--max-width <integer>]
                                            [--noindent]
                                            [--quote {all,minimal,none,nonnumeric}]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Lists the assignments of strato-policies to users and groups.

Returns

Returns list: List of assignments - The entities and their policies

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

strato-policy create

Usage

```
  usage: symp strato-policy create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  [--description DESCRIPTION]
                                  [--scope-id SCOPE_ID]
                                  name policy_document scope_type
```

Description

Creates a new strato policy.

Returns

Returns dict: A structure containing details about the new policy

Mandatory

```
positional arguments:
  name                  The friendly name of the policy
  policy_document       The JSON policy document for the new policy
                        Should be of the following format: '{"Statement": [{"Action": [<actions>], "Effect
↪": "Allow", "Resource": ["*"]}]}'
  scope_type            The scope in which the policy will be available, can be one of: public, domain,
↪project
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        A friendly description of the policy
  --scope-id SCOPE_ID   If scope_type is project or domain: scope_id should be the project-id or the
↪domain-id, with the logged in scope as default
                        If scope_type is public: scope_id should not have a value
```

strato-policy get

Usage

```
  usage: symp strato-policy get
[-f {adaptive_table,json,shell,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>] [--noindent]
                               [--prefix PREFIX]
                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                               [--with-document]
                               policy_id
```

Description

Retrieves information about the specified Strato policy.

Returns

Returns dict: Policy

Mandatory

```
positional arguments:
  policy_id             The ID of the policy
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --with-document       Whether to include the policy document or not
```

strato-policy get-entities

Usage

```
  usage: symp strato-policy get-entities
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        policy_id
```

Description

Lists all users, groups, and roles that the specified strato policy is attached to.

Returns

Returns dict: Entities that the policy is attached to

Mandatory

```
positional arguments:
  policy_id             The ID of the policy
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

strato-policy list

Usage

```
  usage: symp strato-policy list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent]
                                [--quote {all,minimal,none,nonnumeric}]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--name NAME] [--with-document]
                                [--scope-type SCOPE_TYPE] [--scope-id SCOPE_ID]
```

Description

Lists all the Strato policies that are available.

Returns

Returns list: List of policies

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Show only the policy with the given name
  --with-document       Whether to include the policy document or not
  --scope-type SCOPE_TYPE
                        Show only the policies with the specified scope, can be one of:
                        public, domain, project
  --scope-id SCOPE_ID   If scope_type is project or domain:
                        scope_id should be the project-id or the domain-id, with the logged in scope as
↪default
                        If scope_type is public: scope_id should not have a value
                        if scope_type is None: scope_id will be checked for the domain-id or the project-
↪id
```

strato-policy remove

Usage

```
  usage: symp strato-policy remove
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  policy_id
```

Description

Deletes the specified strato policy. Before you can delete a strato policy, you must first detach the policy from all users, groups, and roles that it is attached to.

Mandatory

```
positional arguments:
  policy_id             The ID of the policy to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

strato-policy update

Usage

```
  usage: symp strato-policy update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--name NAME]
                                    [--policy-document POLICY_DOCUMENT]
                                    [--description DESCRIPTION]
                                    policy_id
```

Description

Updates the specified strato policy.

Mandatory

```
positional arguments:
  policy_id             The ID of the policy to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the policy
  --policy-document POLICY_DOCUMENT
                        The JSON policy document for the new policy
                        Should be of the following format: '{"Statement": [{"Action": [<actions>], "Effect
↪": "Allow", "Resource": ["*"]}]}'
  --description DESCRIPTION
                        A friendly description of the policy
```

strato-policy validate

Usage

```
  usage: symp strato-policy validate
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     policy_document
```

Description

Validate a policy document without creating a policy.

Returns

Returns dict: Whether the validation was successful, and the errors if there are any

Mandatory

```
positional arguments:
  policy_document       A policy document to be validated
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.57 table

table modifier list

Usage

```
usage: symp table modifier list

                                [-h] [-s]
```

Description

Lists table modifiers.

Optional

```
optional arguments:
  -h, --help      show this help message and exit
  -s, --succinct  name of the command
```

4.2.58 tag

tag create

Usage

```
usage: symp tag create

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                      [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--description DESCRIPTION] [--scope SCOPE]
                      [--project-id PROJECT_ID]
                      tag
```

Description

Create a new tag. A tag has a name. The tag can be created as a public tag which is visible to all projects. The tag may also be created by an admin for a project.

Returns

Returns dict: Tag

Mandatory

```
positional arguments:
  tag                   Name of tag
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        Description of tag
  --scope SCOPE         Public or private
  --project-id PROJECT_ID
                        Project ID for the tag
```

tag get

Usage

```
usage: symp tag get

                    [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                      [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                    [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                    tag
```

Description

Get the details of a tag.

Returns

Returns dict: Tag

Mandatory

```
positional arguments:
  tag                   Name of tag
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

tag list

Usage

```
usage: symp tag list

                     [-h] [-f {adaptive_table,csv,json,table,value,yaml}]                       [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                     [--quote {all,minimal,none,nonnumeric}]
                     [-m [NAME=VALUE [NAME=VALUE ...]]] [--type TYPE]
                     [--obj-id OBJ_ID] [--project-id PROJECT_ID]
```

Description

Get the list of tags.

Returns

Returns list: List of tags

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --type TYPE           Type of object (compute, node, image, volume, or snapshot)
  --obj-id OBJ_ID       ID of object to query
  --project-id PROJECT_ID
                        Project ID of object to query
```

tag remove

Usage

```
usage: symp tag remove

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--project-id PROJECT_ID]
                      tag
```

Description

Delete a tag.

Mandatory

```
positional arguments:
  tag                   Name of tag
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id PROJECT_ID
                        Project ID for the tag
```

tag update

Usage

```
usage: symp tag update

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--new-tag NEW_TAG] [--new-description NEW_DESCRIPTION]
                      [--new-scope NEW_SCOPE] [--project-id PROJECT_ID]
                      tag
```

Description

Update the tag parameters: name, scope, description.

Returns

Returns dict: Tag

Mandatory

```
positional arguments:
  tag                   Name of tag
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --new-tag NEW_TAG     New name for tag
  --new-description NEW_DESCRIPTION
                        New description of tag
  --new-scope NEW_SCOPE
                        Can only be changed from private to public
  --project-id PROJECT_ID
                        Project ID for the tag
```

4.2.59 user

user attach-aws-policy

Usage

```
  usage: symp user attach-aws-policy
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    user_id policy_id project_id
```

Description

Attaches the specified AWS policy to the specified user.

Mandatory

```
positional arguments:
  user_id               The ID of the user to attach the policy to
  policy_id             The name of the policy to attach
  project_id            The ID of the project in which to attach the policy
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user attach-strato-policy

Usage

```
  usage: symp user attach-strato-policy
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       user_id policy_id project_id
```

Description

Attaches the specified Strato policy to the specified user.

Mandatory

```
positional arguments:
  user_id               The ID of the user to attach the policy to
  policy_id             The ID of the policy to attach
  project_id            The ID of the project in which to attach the policy
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user change-password

Usage

```
  usage: symp user change-password
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    original_password password
```

Description

An API for a user to change their own password. http://developer.openstack.org/api-ref-identity-v3.html#changeUserPassword Password can also be changed using “update user” api, but only admin can use that. This is for a user to change their own password.

Mandatory

```
positional arguments:
  original_password     The old password
  password              The new password to set for the user
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user create

Usage

```
usage: symp user create

                        [-h] [-f {adaptive_table,json,shell,table,value,yaml}]
↪[-c COLUMN] [--max-width <integer>] [--noindent]
                        [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                        [--email EMAIL] [--enabled] [--domain-id DOMAIN_ID]
                        [--path PATH] [--must-change-password]
                        [--external-id EXTERNAL_ID]
                        project_id name password
```

Description

Create a new user.

Returns

Returns dict: Details of created user

Mandatory

```
positional arguments:
  project_id            A project ID the user will be assigned to
  name                  Name of user
  password              Password for user
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --email EMAIL         Email of user
  --enabled             Is user enabled
  --domain-id DOMAIN_ID
                        User's domain, also user is granted member role in this domain
  --path PATH           The path for the user name
  --must-change-password
                        Set password for single use (force user to change it on next login)
  --external-id EXTERNAL_ID
                        External id
```

user create-ec2-credentials

Usage

```
  usage: symp user create-ec2-credentials
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--access-key-id ACCESS_KEY_ID]
                                        [--secret-access-key SECRET_ACCESS_KEY]
                                        user_id project_id
```

Description

Creates EC2 credentials for given user ID in desired project.

Returns

Returns dict: The new credentials

Mandatory

```
positional arguments:
  user_id               ID of user
  project_id            ID of project
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --access-key-id ACCESS_KEY_ID
                        Pre-generated access key. If not given, one will be generated
  --secret-access-key SECRET_ACCESS_KEY
                        Pre-generated secret access key. Must be given if access_key_id is not None.
                        If not given, one will be generated
```

user detach-aws-policy

Usage

```
  usage: symp user detach-aws-policy
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    user_id policy_id project_id
```

Description

Removes the specified AWS policy from the specified user.

Mandatory

```
positional arguments:
  user_id               The ID of the user to detach the policy from
  policy_id             The ID of the policy to detach
  project_id            The ID of the project in which to detach the policy
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user detach-strato-policy

Usage

```
  usage: symp user detach-strato-policy
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        user_id policy_id project_id
```

Description

Removes the specified Strato policy from the specified user.

Mandatory

```
positional arguments:
  user_id               The ID of the user to detach the policy from
  policy_id             The ID of the policy to detach
  project_id            The ID of the project in which to detach the policy
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user get

Usage

```
usage: symp user get

                     [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                      [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                     [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                     user_id
```

Description

Get information of a user.

Returns

Returns dict: Information of user

Mandatory

```
positional arguments:
  user_id               ID of user
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user get-my-details

Usage

```
  usage: symp user get-my-details
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Returns details of currently logged-in user.

Returns

Returns dict: User, project, and domain info for current log in

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user list

Usage

```
usage: symp user list

                      [-h] [-f {adaptive_table,csv,json,table,value,yaml}]                      [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                      [--quote {all,minimal,none,nonnumeric}]
                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--domain-id DOMAIN_ID] [--name NAME]
                      [--project-id PROJECT_ID] [--group-id GROUP_ID]
                      [--external-id EXTERNAL_ID]
```

Description

Get list of users.

Returns

Returns list: List of users

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --domain-id DOMAIN_ID
                        Filters by a domain ID
  --name NAME           Filters by a user name
  --project-id PROJECT_ID
                        Filter by domain of a certain project. deprecated
  --group-id GROUP_ID   Filters by a group ID
  --external-id EXTERNAL_ID
                        Filter by external id
```

user list-aws-policies

Usage

```
  usage: symp user list-aws-policies
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    user_id project_id
```

Description

Lists all AWS policies that are attached to the specified user.

Returns

Returns list: List of the AWS policies that are attached to the specified user

Mandatory

```
positional arguments:
  user_id               The ID of the user to list attached policies for
  project_id            The ID of the project in which the policies are attached
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user list-ec2-credentials

Usage

```
  usage: symp user list-ec2-credentials
[-f {adaptive_table,csv,json,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent]
                                       [--quote {all,minimal,none,nonnumeric}]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--project-id PROJECT_ID]
                                       user_id
```

Description

Lists the given user ec2 credentials.

Returns

Returns list: List of user's credentials

Mandatory

```
positional arguments:
  user_id               ID of user
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id PROJECT_ID
                        If given, will only return credentials for the given project
```

user list-groups

Usage

```
  usage: symp user list-groups
[-f {adaptive_table,csv,json,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--quote {all,minimal,none,nonnumeric}]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              user_id
```

Description

Lists the groups that the specified user belongs to.

Returns

Returns list: List of the groups that the user belongs to

Mandatory

```
positional arguments:
  user_id               The ID of the user to list attached groups for
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user list-strato-policies

Usage

```
  usage: symp user list-strato-policies
[-f {adaptive_table,csv,json,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent]
                                       [--quote {all,minimal,none,nonnumeric}]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       user_id project_id
```

Description

Lists all Strato policies that are attached to the specified user.

Returns

Returns list: List of the Strato policies that are attached to the specified user

Mandatory

```
positional arguments:
  user_id               The ID of the user to list attached policies for
  project_id            The ID of the project in which the policies are attached
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user list-user-projects

Usage

```
  usage: symp user list-user-projects
[-f {adaptive_table,csv,json,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent]
                                     [--quote {all,minimal,none,nonnumeric}]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List projects a user can login to, in all domains.

Returns

Returns list: Projects user can login to

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user multi-factor-auth disable

Usage

```
  usage: symp user multi-factor-auth disable
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--passcode PASSCODE]
                                          [--user-id USER_ID]
```

Description

Removes Mutli-Factor Authentication and deletes TOTP credentials on the given user.

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --passcode PASSCODE   The TOTP passcode derived from a TOTP secret, this is required if called by a non-
↪admin user
  --user-id USER_ID     ID of the user, if omitted, action will be performed on the authenticated user
```

user multi-factor-auth enable

Usage

```
  usage: symp user multi-factor-auth enable
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--user-id USER_ID]
```

Description

Creates a TOTP secret to be used for Multi-Factor Authentication. MFA won't be enabled until verifying with multi-factor-auth verify.

Returns

Returns str: The TOTP secret

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --user-id USER_ID     ID of the user, if omitted, action will be performed on the authenticated user
```

user multi-factor-auth verify

Usage

```
  usage: symp user multi-factor-auth verify
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--user-id USER_ID]
                                          passcode
```

Description

Validates a TOTP passcode and enable Multi-Factor Authentication.

Mandatory

```
positional arguments:
  passcode              The TOTP passcode derived from a TOTP secret received from set_mfa
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --user-id USER_ID     ID of the user, if omitted, action will be performed on the authenticated user
```

user remove

Usage

```
usage: symp user remove

                        [-h] [-f {adaptive_table,json,shell,table,value,yaml}]
↪[-c COLUMN] [--max-width <integer>] [--noindent]
                        [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                        user_id
```

Description

Remove a user from the system.

Mandatory

```
positional arguments:
  user_id               ID of user to remove
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user remove-ec2-credentials

Usage

```
  usage: symp user remove-ec2-credentials
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        user_id credential_id
```

Description

Deletes and expires an EC2 credential pair.

Mandatory

```
positional arguments:
  user_id               ID of user
  credential_id         The access-id of the credential to remove
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user set-aws-policies

Usage

```
  usage: symp user set-aws-policies
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    user_id --policy_ids [--policy_ids ...]
                                    project_id
```

Description

Set the user's AWS policies in the specified project.

Mandatory

```
positional arguments:
  user_id               The ID of the user to attach the policy to
  --policy_ids          The IDs of the policies to attach
  project_id            The ID of the project in which to attach the policy
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user set-strato-policies

Usage

```
  usage: symp user set-strato-policies
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       user_id --policy_ids [--policy_ids ...]
                                       project_id
```

Description

Set the user's Strato policies in the specified project.

Mandatory

```
positional arguments:
  user_id               The ID of the user to attach the policies to
  --policy_ids          The IDs of the policies to attach
  project_id            The ID of the project in which to attach the policies
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

user update

Usage

```
usage: symp user update

                        [-h] [-f {adaptive_table,json,shell,table,value,yaml}]
↪[-c COLUMN] [--max-width <integer>] [--noindent]
                        [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                        [--project PROJECT] [--name NAME]
                        [--password PASSWORD] [--email EMAIL]
                        [--enabled ENABLED] [--path PATH]
                        [--password-never-expires PASSWORD_NEVER_EXPIRES]
                        [--must-change-password MUST_CHANGE_PASSWORD]
                        [--external-id EXTERNAL_ID]
                        user_id
```

Description

Update user data.

Returns

Returns dict: The new user information

Mandatory

```
positional arguments:
  user_id               ID of user
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project PROJECT     New default project
  --name NAME           New name of user
  --password PASSWORD   New password for user
  --email EMAIL         New email of user
  --enabled ENABLED     New enabled/disabled settings
  --path PATH           New path for the user
  --password-never-expires PASSWORD_NEVER_EXPIRES
                        Enable/Disable password expiration policy for user
  --must-change-password MUST_CHANGE_PASSWORD
                        Set password for single use (force user to change it on next login)
                        If this parameter is not provided, the default is True
  --external-id EXTERNAL_ID
                        External id
```

4.2.60 vlan-pool

vlan-pool account-pool assign-vlans

Usage

```
  usage: symp vlan-pool account-pool assign-vlans
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
```

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```
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                pool_id --vlan_uuids
                                                [--vlan_uuids ...]
```

Description

Assign VLANs to account VLAN pool.

Mandatory

```
positional arguments:
  pool_id               The ID of the account VLAN pool
  --vlan_uuids          List of VLAN UUIDs to assign to account VLAN pool
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vlan-pool account-pool create

Usage

```
  usage: symp vlan-pool account-pool create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--name NAME]
                                          [--description DESCRIPTION]
                                          account_id
```

Description

Creates an account VLAN pool.

Returns

Returns dict: The created account VLAN pool

Mandatory

```
positional arguments:
  account_id            The account ID of the account VLAN pool
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the account VLAN pool
  --description DESCRIPTION
                        The description of the account VLAN pool
```

vlan-pool account-pool delete

Usage

```
  usage: symp vlan-pool account-pool delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          pool_id
```

Description

Delete account VLAN pool.

Mandatory

```
positional arguments:
  pool_id               The ID of the account VLAN pool
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vlan-pool account-pool get

Usage

```
  usage: symp vlan-pool account-pool get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       pool_id
```

Description

Get account VLAN pool.

Returns

Returns dict: The account VLAN pool

Mandatory

```
positional arguments:
  pool_id               The ID of the account VLAN pool
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vlan-pool account-pool list

Usage

```
  usage: symp vlan-pool account-pool list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent]
                                          [--quote {all,minimal,none,nonnumeric}]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--pool-id [POOL_ID [POOL_ID ...]]]
                                          [--name [NAME [NAME ...]]]
                                          [--account-id [ACCOUNT_ID [ACCOUNT_ID ...]]]
```

Description

List all account VLAN pools.

Returns

Returns list: Account VLAN pool objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --pool-id [POOL_ID [POOL_ID ...]]
                        Filter by the account VLAN pool ID
  --name [NAME [NAME ...]]
                        Filter by the account VLAN pool name
  --account-id [ACCOUNT_ID [ACCOUNT_ID ...]]
                        Filter by the account ID
```

vlan-pool account-pool update

Usage

```
  usage: symp vlan-pool account-pool update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                           [-c COLUMN] [--max-width <integer>]
                                           [--noindent] [--prefix PREFIX]
                                           [-m [NAME=VALUE [NAME=VALUE ...]]]
                                           [--name NAME]
                                           [--description DESCRIPTION]
                                           pool_id
```

Description

Update an account VLAN pool.

Mandatory

```
positional arguments:
  pool_id               The ID of the account VLAN pool
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The new name of the account VLAN pool
  --description DESCRIPTION
                        The new description of the account VLAN pool
```

vlan-pool project-pool assign-vlans

Usage

```
  usage: symp vlan-pool project-pool assign-vlans
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                pool_id --vlan_uuids
                                                [--vlan_uuids ...]
```

Description

Assign VLANs to project VLAN pool.

Mandatory

```
positional arguments:
  pool_id               The ID of the project VLAN pool
  --vlan_uuids          List of VLAN UUIDs to assign to project VLAN pool
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vlan-pool project-pool create

Usage

```
  usage: symp vlan-pool project-pool create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                            [-c COLUMN] [--max-width <integer>]
                                            [--noindent] [--prefix PREFIX]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                                            [--name NAME]
                                            [--description DESCRIPTION]
                                            project_id
```

Description

Creates a project VLAN pool.

Returns

Returns dict: The created project VLAN pool

Mandatory

```
positional arguments:
  project_id            The project ID of the project VLAN pool
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the project VLAN pool
  --description DESCRIPTION
                        The description of the project VLAN pool
```

vlan-pool project-pool delete

Usage

```
  usage: symp vlan-pool project-pool delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                           [-c COLUMN] [--max-width <integer>]
                                           [--noindent] [--prefix PREFIX]
                                           [-m [NAME=VALUE [NAME=VALUE ...]]]
                                           pool_id
```

Description

Delete project VLAN pool.

Mandatory

```
positional arguments:
  pool_id               The ID of the project VLAN pool
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vlan-pool project-pool get

Usage

```
  usage: symp vlan-pool project-pool get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        pool_id
```

Description

Get project VLAN pool.

Returns

Returns dict: The project VLAN pool

Mandatory

```
positional arguments:
  pool_id               The ID of the project VLAN pool
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vlan-pool project-pool list

Usage

```
  usage: symp vlan-pool project-pool list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent]
                                        [--quote {all,minimal,none,nonnumeric}]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--project-vlan-pool-id [PROJECT_VLAN_POOL_ID [PROJECT_VLAN_
↪POOL_ID ...]]]
                                        [--name [NAME [NAME ...]]]
                                        [--account-id [ACCOUNT_ID [ACCOUNT_ID ...]]]
                                        [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                                        [--account-vlan-pool-id [ACCOUNT_VLAN_POOL_ID [ACCOUNT_VLAN_
↪POOL_ID ...]]]
```

Description

List all account VLAN pools.

Returns

Returns list: Project VLAN pool objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-vlan-pool-id [PROJECT_VLAN_POOL_ID [PROJECT_VLAN_POOL_ID ...]]
                        Filter by the project VLAN pool ID
  --name [NAME [NAME ...]]
                        Filter by the project VLAN pool name
  --account-id [ACCOUNT_ID [ACCOUNT_ID ...]]
                        Filter by the account ID
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        Filter by the project ID
  --account-vlan-pool-id [ACCOUNT_VLAN_POOL_ID [ACCOUNT_VLAN_POOL_ID ...]]
                        Filter by the account VLAN pool ID
```

vlan-pool project-pool update

Usage

```
  usage: symp vlan-pool project-pool update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--name NAME]
                                          [--description DESCRIPTION]
                                          pool_id
```

Description

Update a project VLAN pool.

Mandatory

```
positional arguments:
  pool_id               The ID of the project VLAN pool
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The new name of the project VLAN pool
  --description DESCRIPTION
                        The new description of the project VLAN pool
```

vlan-pool vlan add

Usage

```
  usage: symp vlan-pool vlan add
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                vlan_infos
```

Description

Add vlans to system pool.

Mandatory

```
positional arguments:
  vlan_infos            List of VLAN infos, which will be generated and added to the system pool, in the
↪format:
                        [{"vlan": <vlan>, "guest_network_pool_id": <guest_network_pool_id>, "name": <vlan_
↪name>},...]
                        VLAN mandatory parameters: vlan, guest_network_pool_id
                        VLAN optional parameters: name
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vlan-pool vlan get

Usage

```
  usage: symp vlan-pool vlan get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                vlan_uuid
```

Description

Get VLAN.

Returns

Returns dict: The VLAN

Mandatory

```
positional arguments:
  vlan_uuid             The UUID of the VLAN
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vlan-pool vlan list

Usage

```
  usage: symp vlan-pool vlan list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent]
                                [--quote {all,minimal,none,nonnumeric}]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--vlan-uuid [VLAN_UUID [VLAN_UUID ...]]]
                                [--guest-network-pool-id [GUEST_NETWORK_POOL_ID [GUEST_NETWORK_POOL_ID .
↪..]]]
                                [--vlan [VLAN [VLAN ...]]]
                                [--name [NAME [NAME ...]]]
                                [--account-vlan-pool-id [ACCOUNT_VLAN_POOL_ID [ACCOUNT_VLAN_POOL_ID ...
↪]]]
                                [--account-id [ACCOUNT_ID [ACCOUNT_ID ...]]]
                                [--project-vlan-pool-id [PROJECT_VLAN_POOL_ID [PROJECT_VLAN_POOL_ID ...
↪]]]
                                [--project-id [PROJECT_ID [PROJECT_ID ...]]]
```

Description

List all VLANs.

Returns

Returns list: Account VLAN pool objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --vlan-uuid [VLAN_UUID [VLAN_UUID ...]]
                        Filter by the VLAN UUID
  --guest-network-pool-id [GUEST_NETWORK_POOL_ID [GUEST_NETWORK_POOL_ID ...]]
                        Filter by the guest network pool ID The VLAN belongs to
  --vlan [VLAN [VLAN ...]]
                        Filter by the VLAN
  --name [NAME [NAME ...]]
                        Filter by the VLAN name
  --account-vlan-pool-id [ACCOUNT_VLAN_POOL_ID [ACCOUNT_VLAN_POOL_ID ...]]
                        Filter by the account VLAN pool ID
  --account-id [ACCOUNT_ID [ACCOUNT_ID ...]]
                        Filter by the account ID
  --project-vlan-pool-id [PROJECT_VLAN_POOL_ID [PROJECT_VLAN_POOL_ID ...]]
                        Filter by the project VLAN pool ID
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        Filter by the project ID
```

vlan-pool vlan release-from-account-pool

Usage

```
  usage: symp vlan-pool vlan release-from-account-pool
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                      [-c COLUMN]
                                                      [--max-width <integer>]
                                                      [--noindent]
                                                      [--prefix PREFIX]
                                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                      vlan_uuid
```

Description

Release VLAN from account VLAN pool.

Mandatory

```
positional arguments:
  vlan_uuid             The UUID of the VLAN
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vlan-pool vlan release-from-project-pool

Usage

```
  usage: symp vlan-pool vlan release-from-project-pool
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--prefix PREFIX]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    vlan_uuid
```

Description

Release VLAN from project VLAN pool.

Mandatory

```
positional arguments:
  vlan_uuid             The UUID of the VLAN
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vlan-pool vlan remove

Usage

```
  usage: symp vlan-pool vlan remove
[-f {adaptive_table,json,shell,table,value,yaml}]
                                   [-c COLUMN] [--max-width <integer>]
                                   [--noindent] [--prefix PREFIX]
                                   [-m [NAME=VALUE [NAME=VALUE ...]]]
                                   vlan_uuid
```

Description

Remove VLAN from system pool.

Mandatory

```
positional arguments:
  vlan_uuid             The UUID of the VLAN
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

4.2.61 vm

vm analyze constraints

Usage

```
  usage: symp vm analyze constraints
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    vm_id
```

Description

Checks what can be done to enable a VM that is currently not able to run on the cluster, to start running.

Returns

Returns list: List of scored suggestions that will enable the VM to run on the cluster

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM to be analyzed. The VM must be shutoff
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm cancel-migration

Usage

```
  usage: symp vm cancel-migration
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                vm_id
```

Description

Cancel migration of a migrating instance. The action will cause the VM to stop migrating immediately.

Returns

Returns dict: The VM

Mandatory

```
positional arguments:
  vm_id                 The VM to migrate
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm create

Usage

```
usage: symp vm create

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--instance-type INSTANCE_TYPE] [--image-id IMAGE_ID]
                      [--vcpus VCPUS] [--ram RAM] [--project-id PROJECT_ID]
                      [--disk-size DISK_SIZE] [--net-id NET_ID]
                      [--profile PROFILE] [--restart-on-failure]
                      [--tags [TAGS [TAGS ...]]] [--boot-volumes BOOT_VOLUMES]
                      [--volumes-to-attach [VOLUMES_TO_ATTACH [VOLUMES_TO_ATTACH ...]]]
                      [--user-data USER_DATA] [--metadata METADATA]
                      [--powerup]
                      [--security-groups [SECURITY_GROUPS [SECURITY_GROUPS ...]]]
                      [--security-group-ids [SECURITY_GROUP_IDS [SECURITY_GROUP_IDS ...]]]
                      [--key-pair KEY_PAIR] [--key-map KEY_MAP]
                      [--hw-firmware-type HW_FIRMWARE_TYPE]
                      [--networks NETWORKS] [--guest-os GUEST_OS]
                      [--pool POOL] [--disable-delete]
                      [--instance-profile INSTANCE_PROFILE]
                      [--availability-zone AVAILABILITY_ZONE]
                      [--protection-group-id PROTECTION_GROUP_ID] [--bdm BDM]
                      [--dryrun] [--os-type-id OS_TYPE_ID]
                      name
```

Description

Creates a VM workload.

Returns

Returns dict: Details of the newly created VM

Mandatory

```
positional arguments:
  name                  The name of the VM to be created
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --instance-type INSTANCE_TYPE
                        The name of the instance type of the VM. This field is mandatory
  --image-id IMAGE_ID   Image ID from which to create the VM. Either --image-id or --boot-volumes
                        must be defined
  --vcpus VCPUS         The number of vCPUs in the VM (Deprecated, use instance_type instead)
  --ram RAM             The amount of RAM (MiB) in the VM (Deprecated, use instance_type instead)
  --project-id PROJECT_ID
                        Create the VM in the given project instead of the one logged-in to. Only available
```

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```
                        for system admins of the default domain
  --disk-size DISK_SIZE
                        Amount of disk space (GB) in the VM's boot volume (only if greater than the disk
↪space of the source
                        Image or boot volume)
  --net-id NET_ID       The ID of the network to which to attach the VM
  --profile PROFILE     Sets the SLA profile of the VM to one of the following profiles: spot, 'on demand
↪',
                        reserved). Default: on demand
  --restart-on-failure  Restarts the VM if it fails
  --tags [TAGS [TAGS ...]]
                        One or more tags with which to categorize the VM
  --boot-volumes BOOT_VOLUMES
                        Defines the boot volume of the new VM. If there is more than one boot volume it
↪also
                        indicates the volumes' boot order. Two formats are supported
                        For a CLI call: the volumes are represented by id=xx:disk_bus=xx:device_type=xx,..
↪.
                        For an API call: the volumes are represented by '[{"id": "xx", "disk_bus": "xx",
                        "device_type": "xx"},...]'.
                        Either --boot-volumes or --image-id must be defined
  --volumes-to-attach [VOLUMES_TO_ATTACH [VOLUMES_TO_ATTACH ...]]
                        The ID of one or more additional volumes to be attached to the VM
  --user-data USER_DATA
                        A base64 encoded cloud-init script to use upon launch of the VM
  --metadata METADATA   Extra metadata to apply to the new VM
  --powerup             Whether the VM should be powered up upon creation
  --security-groups [SECURITY_GROUPS [SECURITY_GROUPS ...]]
                        The name or ID of one or more security groups to be assigned to the default
                        VPC network or net_id, upon creation of the VM
                        If security groups are defined via this argument, then they cannot also be
                        defined via --security-group-ids or --networks
                        If security groups have not been defined either via the --security-groups
                        or --security-group-ids arguments, then the default security groups
                        of the default VPC network will be assigned
  --security-group-ids [SECURITY_GROUP_IDS [SECURITY_GROUP_IDS ...]]
                        The ID of one or more security groups to be assigned to the default
                        VPC network or net_id, upon creation of the VM.
                        If security groups are defined by this argument, then they cannot be
                        defined via --security-group or --networks.
                        If security groups have not been defined either via the
                        --security-group-ids or --security-groups arguments,
                        then the default security groups of the default VPC network
                        will be assigned
  --key-pair KEY_PAIR   The name of a key pair to attach to the VM
  --key-map KEY_MAP     Sets the default keyboard language for the VM. Default: en-us (Deprecated)
  --hw-firmware-type HW_FIRMWARE_TYPE
                        Sets the hardware firmware type of the VM as either bios or uefi. Default: bios
  --networks NETWORKS   One or more networks to which to attach the VM as defined by the following
                        parameters: '[{"port_id": "xx"},..]' or '[{"net_id": "xx", "ipv4": "xx",
                        "mac": "xx", "security_groups": "[xx]", "security_group_ids": "[xx]",
                        "port_security_enabled": "xx", "dns_name": "xx", "device_index": "xx"}]'
                        The parameter 'security-groups' will access security groups that have been defined
                        for the project for which the VM is created, either by name or ID.
                        The parameter 'security-group-ids' will access these security groups by ID only.
                        When this argument --networks is used, then the arguments --security-groups and
                        --security-group-ids cannot be used
```

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```
  --guest-os GUEST_OS   Sets the guest OS type as either linux, windows, or solaris (Deprecated, os type
↪is auto-detected)
  --pool POOL           The pool in which to create the VM. The image must to be in this pool.
                        Use the 'image copy-to-pools' API to copy the image to the pool
  --disable-delete      Prevents deletion of the VM. (VM deletion can be re-enabled later.)
  --instance-profile INSTANCE_PROFILE
                        The ID of an instance profile to attach to the VM
  --availability-zone AVAILABILITY_ZONE
                        The name of an availability zone the VM will be created in
  --protection-group-id PROTECTION_GROUP_ID
                        The ID of the protection group responsible for creating this VM snapshot
  --bdm BDM             A list of block device mappings for the VM.
                        Each of the items in the list is a dictionary with optional keys 'snapshot_id',
                        'boot_index', 'volume_size_gib', 'storage_pool', 'disk_type' and 'bus_type'.
                        If 'boot_index' is specified, then 'disk_type' and 'bus_type' must be specified
↪as well.
                        The values of 'boot_index' in the BDM, if specified, must be sequential and start
↪with 0
                        (although they do not need to be ordered this way in the input). 'disk_type', if
↪specified,
                        must be either 'disk' or 'cdrom'. 'bus_type', if specified, must be either
                        'ide' or 'virtio'. If not specified, the defaults are 'disk' and 'virtio'.
                        This parameter is mutually exclusive with both boot_volumes and volumes_to_attach
                        parameters.
                        Example:
                        [{"snapshot_id":"ca166313-7050-42d6-87da-7e3e70f611e6","boot_index":0,"disk_type":
↪"disk","bus_type":"ide"},
                        {"snapshot_id":"9a7fed24-b69a-43dc-85ab-21b318c685ac"}]
  --dryrun              If true, verify parameters without creating an actual VM
  --os-type-id OS_TYPE_ID
                        If given, will create the new server with this operating system id
                        as the vm provided os type
```

vm force-complete-migration

Usage

```
  usage: symp vm force-complete-migration
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        vm_id
```

Description

Force complete migration of an instance during migration. The action will migrate the VM to migrate immediately. The VM will stop during the migration completion.

Returns

Returns dict: The VM

Mandatory

```
positional arguments:
  vm_id                 The VM to migrate
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm get

Usage

```
usage: symp vm get

                  [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                    [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                  [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                  vm_id
```

Description

Gets the details of a specific VM.

Returns

Returns dict: The details of a specific VM

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm get-console-output

Usage

```
  usage: symp vm get-console-output
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  vm_id
```

Description

Show the console output for a VM.

Returns

Returns dict: The console output

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm get-password-data

Usage

```
  usage: symp vm get-password-data
[-f {adaptive_table,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent] [--prefix PREFIX]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  vm_id
```

Description

Get the encrypted Windows password for a VM.

Returns

Returns dict: The encrypted password data

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm guest-reboot

Usage

```
  usage: symp vm guest-reboot
[-f {adaptive_table,json,shell,table,value,yaml}]
                             [-c COLUMN] [--max-width <integer>] [--noindent]
                             [--prefix PREFIX]
                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                             [--override-protection]
                             vm_id
```

Description

Reboot VM using ACPI reboot signal.

Returns

Returns dict: The VM object

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM to reboot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection
                        If True, will reboot the VM even if the VM is protected,
                        e.g. an internal resource. Allowed only for admins
```

vm list

Usage

```
usage: symp vm list

                    [-h] [-f {adaptive_table,csv,json,table,value,yaml}]                        [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                    [--quote {all,minimal,none,nonnumeric}]
                    [-m [NAME=VALUE [NAME=VALUE ...]]] [--detailed]
                    [--tag [TAG [TAG ...]]] [--id [ID [ID ...]]]
                    [--project [PROJECT [PROJECT ...]]]
                    [--image [IMAGE [IMAGE ...]]]
                    [--status [STATUS [STATUS ...]]]
                    [--key-pair [KEY_PAIR [KEY_PAIR ...]]]
                    [--bdm-device-name [BDM_DEVICE_NAME [BDM_DEVICE_NAME ...]]]
                    [--bdm-volume-id [BDM_VOLUME_ID [BDM_VOLUME_ID ...]]]
                    [--host-name [HOST_NAME [HOST_NAME ...]]]
                    [--instance-type [INSTANCE_TYPE [INSTANCE_TYPE ...]]]
                    [--created [CREATED [CREATED ...]]]
                    [--name [NAME [NAME ...]]] [--show-recently-deleted]
                    [--migration-enabled MIGRATION_ENABLED]
                    [--availability-zone [AVAILABILITY_ZONE [AVAILABILITY_ZONE ...]]]
                    [--private-dns-name [PRIVATE_DNS_NAME [PRIVATE_DNS_NAME ...]]]
                    [--tag-key [TAG_KEY [TAG_KEY ...]]]
                    [--is-managed-resource IS_MANAGED_RESOURCE]
```

Description

List VMs.

Returns

Returns list: List of VMs

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --detailed            Show detailed list
  --tag [TAG [TAG ...]]
                        Filter VMs by attached tags
  --id [ID [ID ...]]    Filter by VM ID
  --project [PROJECT [PROJECT ...]]
                        Filter VM by project ID
  --image [IMAGE [IMAGE ...]]
                        Filter by VM image ID
  --status [STATUS [STATUS ...]]
                        Filter by VM status
  --key-pair [KEY_PAIR [KEY_PAIR ...]]
```

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```
                        Filter by VM key-pair name
  --bdm-device-name [BDM_DEVICE_NAME [BDM_DEVICE_NAME ...]]
                        Filter by VM block device mapping device name
  --bdm-volume-id [BDM_VOLUME_ID [BDM_VOLUME_ID ...]]
                        Filter by block device mapping volume ID
  --host-name [HOST_NAME [HOST_NAME ...]]
                        Filter by host that the VM is running on
  --instance-type [INSTANCE_TYPE [INSTANCE_TYPE ...]]
                        Filter by VM instance type
  --created [CREATED [CREATED ...]]
                        Filter by VM created time
  --name [NAME [NAME ...]]
                        Filter by VM name
  --show-recently-deleted
                        Show also VMs that were recently deleted
  --migration-enabled MIGRATION_ENABLED
                        Filter by the ability of a VM to migrate
  --availability-zone [AVAILABILITY_ZONE [AVAILABILITY_ZONE ...]]
                        Filter VMs by availability zone
  --private-dns-name [PRIVATE_DNS_NAME [PRIVATE_DNS_NAME ...]]
                        Filter by the VM's private DNS name of its primary port
  --tag-key [TAG_KEY [TAG_KEY ...]]
                        Filter by the tag key regardless of the tag value
  --is-managed-resource IS_MANAGED_RESOURCE
                        List only managed or not managed resources, or all if omitted
```

vm list-metadata

Usage

```
  usage: symp vm list-metadata
[-f {adaptive_table,json,shell,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--prefix PREFIX]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              vm_id
```

Description

Returns all metadata of a VM.

Returns

Returns dict: Metadata

Mandatory

```
positional arguments:
  vm_id                 ID of the VM
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm list-sla-profiles

Usage

```
  usage: symp vm list-sla-profiles
[-f {adaptive_table,csv,json,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent]
                                  [--quote {all,minimal,none,nonnumeric}]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List SLA profiles in the system.

Returns

Returns list: List of SLA profiles and their details

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm live-migrate

Usage

```
  usage: symp vm live-migrate
[-f {adaptive_table,json,shell,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--prefix PREFIX]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              vm_id hostname
```

Description

Migrate VM to another node.

Returns

Returns dict: The VM

Mandatory

```
positional arguments:
  vm_id                 The VM to migrate
  hostname              Destination node hostname
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm network-replace

Usage

```
  usage: symp vm network-replace
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--ipv4 IPV4] [--mac MAC]
                                [--security-groups [SECURITY_GROUPS [SECURITY_GROUPS ...]]]
                                [--security-group-ids [SECURITY_GROUP_IDS [SECURITY_GROUP_IDS ...]]]
                                [--port-security-enabled PORT_SECURITY_ENABLED]
                                [--dns-name DNS_NAME]
                                [--device-index DEVICE_INDEX]
                                vm_id port_id new_network_id
```

Description

Replace the network on the provided network interface with the provided new network.

Returns

Returns: The VM object

Mandatory

```
positional arguments:
  vm_id                 The VM ID to replace the network on
  port_id               The port (network interface) ID from which the network should be detached
  new_network_id        The new network ID to attach to the VM
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ipv4 IPV4           Address to allocate to the VM
  --mac MAC             MAC address to allocate to VM
  --security-groups [SECURITY_GROUPS [SECURITY_GROUPS ...]]
                        A list of security group names to assign to the VM upon attachment,
                        if unspecified the default security group for tenant is used
  --security-group-ids [SECURITY_GROUP_IDS [SECURITY_GROUP_IDS ...]]
                        A list of security groups ids to assign to the VM upon attachment,
                        if unspecified the default security group for tenant is used
  --port-security-enabled PORT_SECURITY_ENABLED
                        Optional, if specified overrides whether port security
                        (anti-spoofing and security groups) is enabled, otherwise
                        inherited from port_security_enabled setting of network
  --dns-name DNS_NAME   Host name to be published by the network local DNS server
  --device-index DEVICE_INDEX
                        The index at which to attach the port to the VM
```

vm networks attach

Usage

```
  usage: symp vm networks attach
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--ipv4 IPV4] [--mac MAC]
                                [--security-groups [SECURITY_GROUPS [SECURITY_GROUPS ...]]]
                                [--security-group-ids [SECURITY_GROUP_IDS [SECURITY_GROUP_IDS ...]]]
                                [--port-security-enabled PORT_SECURITY_ENABLED]
                                [--dns-name DNS_NAME]
                                [--device-index DEVICE_INDEX]
                                vm_id network_id
```

Description

Attach the VM to the network.

Returns

Returns dict: The VM's object

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM to attach
  network_id            The ID of the network to attach the VM to
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ipv4 IPV4           Address to allocate to the VM
  --mac MAC             MAC address to allocate to the VM
  --security-groups [SECURITY_GROUPS [SECURITY_GROUPS ...]]
                        A list of security groups to assign to the VM upon attachment,
                        if unspecified the default security group for tenant is used
                        if security_groups are given then can't get security_group_ids
  --security-group-ids [SECURITY_GROUP_IDS [SECURITY_GROUP_IDS ...]]
                        A list of security groups to assign to the VM upon attachment,
                        if unspecified the default security group for tenant is used
                        if security_group_ids are given then can't get security_groups
  --port-security-enabled PORT_SECURITY_ENABLED
                        Optional, if specified overrides whether port security
                        (anti-spoofing and security groups) is enabled, otherwise
                        inherited from port_security_enabled setting of network
  --dns-name DNS_NAME   Host name to be published by the network local DNS server
  --device-index DEVICE_INDEX
                        The index at which to attach the port to the VM
```

vm networks detach

Usage

```
  usage: symp vm networks detach
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                vm_id network_id
```

Description

Detach the VM from the network.

Returns

Returns dict: The VM's object

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM that need to be detached
  network_id            The ID of the VM that need to be detached
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm pause

Usage

```
usage: symp vm pause

                    [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                      [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                    [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                    vm_id
```

Description

Pause VM.

Returns

Returns dict: The VM object

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM to pause
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm port attach

Usage

```
  usage: symp vm port attach
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            [--device-index DEVICE_INDEX]
                            vm_id port_id
```

Description

Attach a port (network interface) to a given VM.

Returns

Returns: The VM info

Mandatory

```
positional arguments:
  vm_id                 The VM to attach the port to
  port_id               The port to attach to the VM
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --device-index DEVICE_INDEX
                        The index at which to attach the port to the VM
```

vm port detach

Usage

```
  usage: symp vm port detach
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            port_id
```

Description

Detach a port (network interface) from a VM.

Returns

Returns: The VM info

Mandatory

```
positional arguments:
  port_id               The port to detach from the VM
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm reboot

Usage

```
usage: symp vm reboot

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--hard] [--override-protection]
                      vm_id
```

Description

Reboot VM - Shutdown the VM (Soft will wait for the VM to shut down gracefully) and start it.

Returns

Returns dict: The VM object

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM to reboot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --hard                Do hard reboot
  --override-protection
                        If True, will reboot the VM even if the VM is protected,
                        e.g. an internal resource. Allowed only for admins
```

vm rebuild

Usage

```
usage: symp vm rebuild

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--newname NEWNAME] [--user-data USER_DATA]
                      [--delete-source-boot-volume]
                      vm_id new_image_id
```

Description

Create a new boot volume for the VM, from the given image.

Returns

Returns dict: The VM

Mandatory

```
positional arguments:
  vm_id                 ID of the requested VM
  new_image_id          The ID of the image to create the new boot-volume from
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --newname NEWNAME     An optional new name for the VM
  --user-data USER_DATA
                        New user data for the VM
  --delete-source-boot-volume
                        A flag to indicate whether to delete the VM's original boot volume
```

vm remove

Usage

```
usage: symp vm remove

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--force] [--sync] [--override-protection]
                      vm_id
```

Description

Delete a VM.

Returns

Returns dict: The VM's object

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               If True, will delete also if the VM is powered-on
  --sync                Make the operation synchronous, meaning only return when the
                        VM is deleted. For backward-compatibility
  --override-protection
                        If True, will delete even if the VM is protected from deletion
                        e.g. an internal resource. Allowed only for admins
```

vm rename

Usage

```
usage: symp vm rename

                     [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                     [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                     vm_id newname
```

Description

Rename VM.

Returns

Returns dict: The VM object

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM to reboot
  newname               The new name VM name
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm reset-migration

Usage

```
  usage: symp vm reset-migration
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--override-protection]
                                vm_id
```

Description

Reset the VM state to active in case it has been in migrating state for more than 5 minutes.

Returns

Returns dict: The VM

Mandatory

```
positional arguments:
  vm_id                 The VM to reset
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection
                        If True, will reset migration state even if the VM is protected,
                        e.g. an internal resource. Allowed only for admins
```

vm resize

Usage

```
usage: symp vm resize

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--vcpus VCPUS] [--ram RAM] [--disk-size DISK_SIZE]
                      [--instance-type INSTANCE_TYPE] [--volume-id VOLUME_ID]
                      vm_id
```

Description

Re-size the VM and one if its volumes.

Returns

Returns dict: The re-sized VM

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM that need to be re-sized
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --vcpus VCPUS         The requested amount of vCPUs to update
  --ram RAM             The requested size of ram to update
  --disk-size DISK_SIZE
                        The requested size of disk to update, in GB
  --instance-type INSTANCE_TYPE
                        The instance type to update (instead of ram, vcpus, disk above)
  --volume-id VOLUME_ID
                        ID of an attached volume to extend. If omitted, the boot volume will get extended
```

vm restore

Usage

```
usage: symp vm restore

                     [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                           [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--powerup] [--name NAME] [--new-addresses]
                      [--instance-type INSTANCE_TYPE] [--networks NETWORKS]
```

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```
                      [--disk-size DISK_SIZE] [--vcpus VCPUS] [--ram RAM]
                      [--profile PROFILE] [--restart-on-failure]
                      [--tags [TAGS [TAGS ...]]] [--metadata METADATA]
                      [--key-pair KEY_PAIR]
                      [--hw-firmware-type HW_FIRMWARE_TYPE] [--pool POOL]
                      [--disable-delete]
                      [--instance-profile INSTANCE_PROFILE]
                      [--available-immediately]
                      vm_snapshot_id
```

Description

Restore a VM from a VM snapshot.

Returns

Returns dict: Details of the newly created VM

Mandatory

```
positional arguments:
  vm_snapshot_id        ID of the VM snapshot to restore from
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --powerup             Whether the VM should be powered up upon creation
  --name NAME           If given, overrides the name of the instance in the instance snapshot
  --new-addresses       If given, use the network definitions from the VM snapshot, but generate new IPv4
↪and MAC addresses
  --instance-type INSTANCE_TYPE
                        Override the instance type in the VM snapshot. This overrides any defined --ram, -
↪-vcpus
                        and --disk_size
  --networks NETWORKS   If given, overrides network definitions in the VM snapshot. Format is same as --
↪networks in vm create
  --disk-size DISK_SIZE
                        Override the amount of disk space (GB) in the VM Snapshot (only if greater than
↪the disk space of the source
                        Image or boot volume)
  --vcpus VCPUS         Override the number of vCPUs in the VM snapshot
  --ram RAM             Override the amount of RAM (MiB) in the VM snapshot
  --profile PROFILE     Overrides the SLA profile of the VM to one of the following profiles: spot, 'on
↪demand',
                        reserved
  --restart-on-failure  Override the restart_on_failure attribute in the VM snapshot
  --tags [TAGS [TAGS ...]]
                        Override the tags in the VM snapshot
  --metadata METADATA   Override the metadata in the VM snapshot
  --key-pair KEY_PAIR   Override the name of a key pair in the VM snapshot
  --hw-firmware-type HW_FIRMWARE_TYPE
                        Override the hardware firmware type of the VM as either bios or uefi
  --pool POOL           Override pool in which to create the VM
  --disable-delete      Override the disable_delete attribute in the VM snapshot
  --instance-profile INSTANCE_PROFILE
                        Override ID of an instance profile to attach to the VM
  --available-immediately
```

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```
                        If given, the VM will be available immediately
```

vm start

Usage

```
usage: symp vm start

                    [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                    [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                    [--disk-bus DISK_BUS] [--virtio-volatile-volume]
                    [--dryrun] [--override-protection]
                    vm_id
```

Description

Start VM.

Returns

Returns dict: The VM object

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM to start
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --disk-bus DISK_BUS   Disk bus emulation for the boot volume
  --virtio-volatile-volume
                        If given, an extra volume will be created that is deleted on shutdown
  --dryrun              Do not start the VM, instead analyze constraints on starting it
  --override-protection
                        If true, powerup VM even if it's internal
```

vm stop

Usage

```
usage: symp vm stop

                   [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                       [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                   [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                   [--clean] [--force] [--override-protection] [--terminate]
                   [--delete-boot-volume-on-terminate]
                   vm_id
```

Description

Stop VM.

Returns

Returns dict: The VM object

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM to stop
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --clean               Gracefully shutdown the server before deleting it. If force is set, this
↪parameter is
                        set to false automatically
  --force               Force VM shutdown
  --override-protection
                        If True, will stop even if the VM is protected from deletion as internal
                        resources. Allowed only for admins
  --terminate           Delete the VM after shutoff
  --delete-boot-volume-on-terminate
                        When the instance is termintaed should we delete the boot volume
```

vm tag add

Usage

```
usage: symp vm tag add

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      vm_id --tags [--tags ...]
```

Description

Add tags to a VM.

Mandatory

```
positional arguments:
  vm_id                 ID of VM to which to add the tags
  --tags                List of tags to add to VM
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm tag remove

Usage

```
  usage: symp vm tag remove
[-f {adaptive_table,json,shell,table,value,yaml}]
                           [-c COLUMN] [--max-width <integer>] [--noindent]
                           [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                           vm_id --tags [--tags ...]
```

Description

Remove a tag from a VM.

Mandatory

```
positional arguments:
  vm_id                 ID of VM to which to add the tags
  --tags                Tags to remove from VM
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm unpause

Usage

```
usage: symp vm unpause

                       [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                       [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                       vm_id
```

Description

Resume paused VM.

Returns

Returns dict: The VM object

Mandatory

```
positional arguments:
  vm_id                 The ID of the VM to resume
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm update

Usage

```
usage: symp vm update

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--restart-on-failure RESTART_ON_FAILURE]
                      [--key-map KEY_MAP]
                      [--hw-firmware-type HW_FIRMWARE_TYPE]
                      [--disable-delete DISABLE_DELETE]
                      [--instance-profile INSTANCE_PROFILE]
                      [--src-dst-check SRC_DST_CHECK]
                      [--security-group-ids [SECURITY_GROUP_IDS [SECURITY_GROUP_IDS ...]]]
                      [--os-type-id OS_TYPE_ID]
                      [--vnc-admin-access VNC_ADMIN_ACCESS]
                      vm_id
```

Description

Update VM's attributes.

Returns

Returns dict: The updated VM

Mandatory

```
positional arguments:
  vm_id                 ID of the requested VM
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --restart-on-failure RESTART_ON_FAILURE
                        Whether to restart the VM when it dies
  --key-map KEY_MAP     Default keyboard of the VM (Deprecated)
  --hw-firmware-type HW_FIRMWARE_TYPE
                        Hardware firmware type (BIOS, UEFI)
  --disable-delete DISABLE_DELETE
                        Whether to disallow deletion of the VM
  --instance-profile INSTANCE_PROFILE
                        Id of instance profile to update
  --src-dst-check SRC_DST_CHECK
                        Set this flag on the VM port
  --security-group-ids [SECURITY_GROUP_IDS [SECURITY_GROUP_IDS ...]]
                        List of security group ids to assign to the VM port
  --os-type-id OS_TYPE_ID
                        OS-type-id of the VM to be updated
  --vnc-admin-access VNC_ADMIN_ACCESS
                        Allow admin access to VM's VNC console
```

vm update-metadata

Usage

```
  usage: symp vm update-metadata
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                vm_id metadata
```

Description

Update VM metadata - replace current metadata for a VM.

Returns

Returns dict: Metadata

Mandatory

```
positional arguments:
  vm_id                 ID of the VM
  metadata              A dictionary of all metadata (key-value)
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm vnc get-link

Usage

```
  usage: symp vm vnc get-link
[-f {adaptive_table,json,shell,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--prefix PREFIX]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              vm_id
```

Description

Get the VM's VNC console.

Returns

Returns str: VNC console

Mandatory

```
positional arguments:
  vm_id                 ID of the requested VM
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm volumes attach

Usage

```
  usage: symp vm volumes attach
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>] [--noindent]
                                [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--device-name DEVICE_NAME]
                                vm_id volume_id
```

Description

Attach a volume to a VM.

Returns

Returns dict: Details of the VM

Mandatory

```
positional arguments:
  vm_id                 The VM ID to attach the volume to
  volume_id             The volume ID to attach
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --device-name DEVICE_NAME
                        The device name (/dev/hd1|sd1|vd1|xvd1|ubd1)
```

vm volumes detach

Usage

```
  usage: symp vm volumes detach
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>] [--noindent]
                                [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                vm_id volume_id
```

Description

Detach a volume from a VM.

Returns

Returns dict: Details of the VM

Mandatory

```
positional arguments:
  vm_id                 The VM ID to detach the volume from
  volume_id             The volume ID to detach
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm-snapshot create

Usage

```
  usage: symp vm-snapshot create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--description DESCRIPTION]
                                [--project-id PROJECT_ID]
                                [--tags [TAGS [TAGS ...]]]
                                name vm_id
```

Description

Create a VM snapshot.

Returns

Returns dict: Details of the new VM snapshot

Mandatory

```
positional arguments:
  name                  Name for the VM snapshot
  vm_id                 VM ID to snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        Description for the VM snapshot
  --project-id PROJECT_ID
                        Project id to create the snapshot in
  --tags [TAGS [TAGS ...]]
                        Tags to apply during snapshot creation
```

vm-snapshot delete

Usage

```
  usage: symp vm-snapshot delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]] [--force]
                                [--skip-external] [--override-protection]
                                vm_snapshot_id
```

Description

Delete local VM snapshot.

Mandatory

```
positional arguments:
  vm_snapshot_id        The ID of the VM snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               If True, will delete also if the VM-snapshot is in creating state
  --skip-external       If True, will pass the flag top Volume VSC
  --override-protection
                        If True, will override the protection
```

vm-snapshot get

Usage

```
  usage: symp vm-snapshot get
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            vm_snapshot_id
```

Description

Retrieve VM snapshot metadata.

Returns

Returns dict: Details of the VM snapshot

Mandatory

```
positional arguments:
  vm_snapshot_id        The ID of the VM snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm-snapshot list

Usage

```
  usage: symp vm-snapshot list
[-f {adaptive_table,csv,json,table,value,yaml}]
                             [-c COLUMN] [--max-width <integer>] [--noindent]
                             [--quote {all,minimal,none,nonnumeric}]
                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                             [--account-ids [ACCOUNT_IDS [ACCOUNT_IDS ...]]]
                             [--project-ids [PROJECT_IDS [PROJECT_IDS ...]]]
                             [--user-ids [USER_IDS [USER_IDS ...]]]
                             [--names [NAMES [NAMES ...]]]
```

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```
                              [--statuses [STATUSES [STATUSES ...]]]
                              [--source-vm-ids [SOURCE_VM_IDS [SOURCE_VM_IDS ...]]]
                              [--protection-group-ids [PROTECTION_GROUP_IDS [PROTECTION_GROUP_IDS ...]]]
                              [--ids [IDS [IDS ...]]] [--detailed]
```

Description

List VM snapshots.

Returns

Returns list: List of VM snapshots

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --account-ids [ACCOUNT_IDS [ACCOUNT_IDS ...]]
                        Return VM snapshots with any of the specified account IDs
  --project-ids [PROJECT_IDS [PROJECT_IDS ...]]
                        Return VM snapshots with any of the specified project IDs
  --user-ids [USER_IDS [USER_IDS ...]]
                        Return VM snapshots with any of the specified user IDs
  --names [NAMES [NAMES ...]]
                        Return VM snapshots with any of the specified names
  --statuses [STATUSES [STATUSES ...]]
                        Return VM snapshots with any of the specified statuses
  --source-vm-ids [SOURCE_VM_IDS [SOURCE_VM_IDS ...]]
                        Return VM snapshots with any of the specified source VM IDs
  --protection-group-ids [PROTECTION_GROUP_IDS [PROTECTION_GROUP_IDS ...]]
                        Return VM snapshots created by any of the specified protection group IDs
  --ids [IDS [IDS ...]]
                        Return VM snapshots with any of the specified ID
  --detailed            Also return the parameters of the VM itself
```

vm-snapshot update

Usage

```
  usage: symp vm-snapshot update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--name NAME] [--description DESCRIPTION]
                                vm_snapshot_id
```

Description

Update the VM snapshot.

Returns

Returns dict: Details of the new VM snapshot

Mandatory

```
positional arguments:
  vm_snapshot_id        The ID of the VM snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Name for the VM snapshot
  --description DESCRIPTION
                        Description for the VM snapshot
```

4.2.62 vm-snapshot

vm-snapshot create

Usage

```
  usage: symp vm-snapshot create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--description DESCRIPTION]
                                [--project-id PROJECT_ID]
                                [--tags [TAGS [TAGS ...]]]
                                name vm_id
```

Description

Create a VM snapshot.

Returns

Returns dict: Details of the new VM snapshot

Mandatory

```
positional arguments:
  name                  Name for the VM snapshot
  vm_id                 VM ID to snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        Description for the VM snapshot
  --project-id PROJECT_ID
                        Project id to create the snapshot in
  --tags [TAGS [TAGS ...]]
                        Tags to apply during snapshot creation
```

vm-snapshot delete

Usage

```
  usage: symp vm-snapshot delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]] [--force]
                                [--skip-external] [--override-protection]
                                vm_snapshot_id
```

Description

Delete local VM snapshot.

Mandatory

```
positional arguments:
  vm_snapshot_id        The ID of the VM snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               If True, will delete also if the VM-snapshot is in creating state
  --skip-external       If True, will pass the flag top Volume VSC
  --override-protection
                        If True, will override the protection
```

vm-snapshot get

Usage

```
  usage: symp vm-snapshot get
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            vm_snapshot_id
```

Description

Retrieve VM snapshot metadata.

Returns

Returns dict: Details of the VM snapshot

Mandatory

```
positional arguments:
  vm_snapshot_id        The ID of the VM snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vm-snapshot list

Usage

```
  usage: symp vm-snapshot list
[-f {adaptive_table,csv,json,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--quote {all,minimal,none,nonnumeric}]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              [--account-ids [ACCOUNT_IDS [ACCOUNT_IDS ...]]]
                              [--project-ids [PROJECT_IDS [PROJECT_IDS ...]]]
                              [--user-ids [USER_IDS [USER_IDS ...]]]
                              [--names [NAMES [NAMES ...]]]
                              [--statuses [STATUSES [STATUSES ...]]]
                              [--source-vm-ids [SOURCE_VM_IDS [SOURCE_VM_IDS ...]]]
                              [--protection-group-ids [PROTECTION_GROUP_IDS [PROTECTION_GROUP_IDS ...]]]
                              [--ids [IDS [IDS ...]]] [--detailed]
```

Description

List VM snapshots.

Returns

Returns list: List of VM snapshots

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --account-ids [ACCOUNT_IDS [ACCOUNT_IDS ...]]
                        Return VM snapshots with any of the specified account IDs
  --project-ids [PROJECT_IDS [PROJECT_IDS ...]]
                        Return VM snapshots with any of the specified project IDs
  --user-ids [USER_IDS [USER_IDS ...]]
                        Return VM snapshots with any of the specified user IDs
  --names [NAMES [NAMES ...]]
                        Return VM snapshots with any of the specified names
  --statuses [STATUSES [STATUSES ...]]
                        Return VM snapshots with any of the specified statuses
  --source-vm-ids [SOURCE_VM_IDS [SOURCE_VM_IDS ...]]
                        Return VM snapshots with any of the specified source VM IDs
  --protection-group-ids [PROTECTION_GROUP_IDS [PROTECTION_GROUP_IDS ...]]
                        Return VM snapshots created by any of the specified protection group IDs
  --ids [IDS [IDS ...]]
                        Return VM snapshots with any of the specified ID
  --detailed            Also return the parameters of the VM itself
```

vm-snapshot update

Usage

```
  usage: symp vm-snapshot update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
```

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```
                                [--name NAME] [--description DESCRIPTION]
                                vm_snapshot_id
```

Description

Update the VM snapshot.

Returns

Returns dict: Details of the new VM snapshot

Mandatory

```
positional arguments:
  vm_snapshot_id        The ID of the VM snapshot
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Name for the VM snapshot
  --description DESCRIPTION
                        Description for the VM snapshot
```

4.2.63 volume

volume create

Usage

```
  usage: symp volume create
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                            [--size-gib SIZE_GIB] [--source-id SOURCE_ID]
                            [--storage-pool STORAGE_POOL]
                            [--description DESCRIPTION]
                            [--project-id PROJECT_ID] [--tags [TAGS [TAGS ...]]]
                            [--available-immediately]
                            name
```

Description

Create a new volume

Returns

Returns dict: New volume

Mandatory

```
positional arguments:
  name                  Name for the volume
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --size-gib SIZE_GIB   Volume size in GiB
  --source-id SOURCE_ID
                        ID of the source for the new volume (volume or snapshot)
  --storage-pool STORAGE_POOL
                        ID of the storage pool to create the volume in
  --description DESCRIPTION
                        Description for the volume
  --project-id PROJECT_ID
                        ID of the project that the new volume should belong to
  --tags [TAGS [TAGS ...]]
  --available-immediately
                        If True the volume will be available for attachment immediately during restore.
                        The option is only available for clone from object store (remote) snapshots.
```

volume delete

Usage

```
  usage: symp volume delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                          [-c COLUMN] [--max-width <integer>] [--noindent]
                          [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                          [--override-protection] [--force-detach]
                          volume_id
```

Description

Delete the volume

Mandatory

```
positional arguments:
  volume_id             The ID of the volume
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection
                        If True and the caller is an admin, allow deleting resource
  --force-detach        If True and the caller is an admin, forcefully detach if attached and delete the
↪volume
```

volume extend

Usage

```
  usage: symp volume extend
[-f {adaptive_table,json,shell,table,value,yaml}]
                          [-c COLUMN] [--max-width <integer>] [--noindent]
                          [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                          volume_id size_gib
```

Description

Extend volume size

Returns

Returns dict: Volume info

Mandatory

```
positional arguments:
  volume_id             The ID of the volume
  size_gib              New volume size in GiB
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

volume get

Usage

```
usage: symp volume get

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--with-snapshot-count]
                      volume_id
```

Description

Get information on a volume

Returns

Returns dict: Volume info

Mandatory

```
positional arguments:
  volume_id             The ID of the volume
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --with-snapshot-count
                        Add remote and local snapshot count of the volume
```

volume list

Usage

```
usage: symp volume list

                        [-h] [-f {adaptive_table,csv,json,table,value,yaml}]                                [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                        [--quote {all,minimal,none,nonnumeric}]
                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                        [--external-serial [EXTERNAL_SERIAL [EXTERNAL_SERIAL ...]]]
                        [--attached-at [ATTACHED_AT [ATTACHED_AT ...]]]
                        [--id [ID [ID ...]]] [--with-snapshot-count]
                        [--guest-device-name [GUEST_DEVICE_NAME [GUEST_DEVICE_NAME ...]]]
                        [--state [STATE [STATE ...]]]
                        [--storage-pool [STORAGE_POOL [STORAGE_POOL ...]]]
                        [--health [HEALTH [HEALTH ...]]]
                        [--tag-key [TAG_KEY [TAG_KEY ...]]]
                        [--delete-on-termination DELETE_ON_TERMINATION]
                        [--account-id [ACCOUNT_ID [ACCOUNT_ID ...]]]
                        [--tags [TAGS [TAGS ...]]] [--offset OFFSET]
                        [--device [DEVICE [DEVICE ...]]]
                        [--user-id [USER_ID [USER_ID ...]]]
                        [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                        [--name [NAME [NAME ...]]]
                        [--created-at [CREATED_AT [CREATED_AT ...]]]
                        [--instance-id [INSTANCE_ID [INSTANCE_ID ...]]]
                        [--attached-to-instance ATTACHED_TO_INSTANCE]
                        [--limit LIMIT]
                        [--source-id [SOURCE_ID [SOURCE_ID ...]]]
```

Description

Retrieves all volumes

Returns

Returns list: List of volumes

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --external-serial [EXTERNAL_SERIAL [EXTERNAL_SERIAL ...]]
                        Return volumes matching the provided external serial (multiple values possible).
  --attached-at [ATTACHED_AT [ATTACHED_AT ...]]
                        Return volumes with the specified attachment time.
  --id [ID [ID ...]]    Return volumes with the specified ID.
  --with-snapshot-count
                        Add remote and local snapshot count of the volume
  --guest-device-name [GUEST_DEVICE_NAME [GUEST_DEVICE_NAME ...]]
                        Return volumes with the specified Guest Device Name.
  --state [STATE [STATE ...]]
                        Return volumes with the specified state (multiple values possible).
  --storage-pool [STORAGE_POOL [STORAGE_POOL ...]]
                        Return volumes with the specified source ID (multiple values possible).
  --health [HEALTH [HEALTH ...]]
                        Return volumes with the specified health (multiple values possible).
  --tag-key [TAG_KEY [TAG_KEY ...]]
```

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```
                        Tag keys to filter by.
  --delete-on-termination DELETE_ON_TERMINATION
                        filter volumes according to delete on termination
  --account-id [ACCOUNT_ID [ACCOUNT_ID ...]]
                        Return volumes with the specified account ID.
  --tags [TAGS [TAGS ...]]
                        Tags to filter by.
  --offset OFFSET       Specify the first entity that you want to retrieve.
  --device [DEVICE [DEVICE ...]]
                        Return volumes with the specified Device.
  --user-id [USER_ID [USER_ID ...]]
                        Return volumes with the specified user ID.
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        Return volumes with the specified project ID.
  --name [NAME [NAME ...]]
                        Return volumes with the specified Name.
  --created-at [CREATED_AT [CREATED_AT ...]]
                        Return volumes with the specified creation time.
  --instance-id [INSTANCE_ID [INSTANCE_ID ...]]
                        Return volumes attached to the provided compute ID (multiple values possible).
  --attached-to-instance ATTACHED_TO_INSTANCE
                        filter volumes according to whether or not they're attached to an instance
  --limit LIMIT         Specify the number of entities that you want to retrieve.
  --source-id [SOURCE_ID [SOURCE_ID ...]]
                        Return volumes with the specified source ID (multiple values possible).
```

volume list-manageable

Usage

```
  usage: symp volume list-manageable
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    storage_pool
```

Description

Manage a volume that already exists in a back-end

Returns

Returns list: List of managed volumes

Mandatory

```
positional arguments:
  storage_pool          The storage pool to list the manageable resources from
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

volume list-manageable_v4

Usage

```
  usage: symp volume list-manageable_v4
[-f {adaptive_table,csv,json,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent]
                                       [--quote {all,minimal,none,nonnumeric}]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--volume-type-id VOLUME_TYPE_ID]
```

Description

List volumes that exists in a back-end

Returns

Returns list: List of manageable volumes

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --volume-type-id VOLUME_TYPE_ID
                        The volume type id to list the manageable resources from
```

volume manage

Usage

```
  usage: symp volume manage
[-f {adaptive_table,json,shell,table,value,yaml}]
                           [-c COLUMN] [--max-width <integer>] [--noindent]
                           [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                           [--description DESCRIPTION]
                           [--project-id PROJECT_ID] [--volume-id VOLUME_ID]
                           name storage_pool reference
```

Description

Manage a volume that already exists in a back-end

Returns

Returns dict: New Volume

Mandatory

```
positional arguments:
  name                  Name for the volume
  storage_pool          ID of the storage pool to create the volume in
  reference             Storage-specific reference to the back-end volume
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
```

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```
                        Description for the volume
  --project-id PROJECT_ID
                        ID of the project that the new volume should belong to
  --volume-id VOLUME_ID
                        Specify an ID for the volume rather than using a random one
```

volume manage_v4

Usage

```
  usage: symp volume manage_v4
[-f {adaptive_table,json,shell,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--prefix PREFIX]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              [--description DESCRIPTION]
                              [--project-id PROJECT_ID] [--volume-id VOLUME_ID]
                              name volume_type_id reference
```

Description

Manage a volume that already exists in a back-end

Returns

Returns dict: New Volume

Mandatory

```
positional arguments:
  name                  Name for the volume
  volume_type_id        ID of the volume type to create the volume in
  reference             Reference
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        Description for the volume
  --project-id PROJECT_ID
                        ID of the project that the new volume should belong to
  --volume-id VOLUME_ID
                        Specify an ID for the volume rather than using a random one
```

volume retype

Usage

```
  usage: symp volume retype
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                            [--new-volume-type-id NEW_VOLUME_TYPE_ID]
                            [--vpsa-id VPSA_ID]
                            volume_id
```

Description

retype the volume

Returns

Returns dict: Volume info

Mandatory

```
positional arguments:
  volume_id             The ID of the volume
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --new-volume-type-id NEW_VOLUME_TYPE_ID
                        New volume type id
  --vpsa-id VPSA_ID     New vpsa id
```

volume tags-remove

Usage

```
  usage: symp volume tags-remove
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                volume_id --tags [--tags ...]
```

Description

Remove tag from volume

Mandatory

```
positional arguments:
  volume_id             The ID of the volume
  --tags
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

volume tags-update

Usage

```
  usage: symp volume tags-update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                volume_id --tags [--tags ...]
```

Description

Add tag to volume

Mandatory

```
positional arguments:
  volume_id             The ID of the volume
  --tags
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

volume unmanage

Usage

```
  usage: symp volume unmanage
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            volume_id
```

Description

Unmanage the volume

Mandatory

```
positional arguments:
  volume_id             The ID of the volume
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

volume update

Usage

```
  usage: symp volume update
[-f {adaptive_table,json,shell,table,value,yaml}]
                           [-c COLUMN] [--max-width <integer>] [--noindent]
                           [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                           [--name NAME] [--description DESCRIPTION]
                           volume_id
```

Description

Update metadata of an existing volume

Returns

Returns dict: Volume info

Mandatory

```
positional arguments:
  volume_id             The ID of the volume
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Name for the volume
  --description DESCRIPTION
                        Description for the volume
```

volume volume-types create

Usage

```
  usage: symp volume volume-types create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--description DESCRIPTION]
                                       [--is-default IS_DEFAULT]
                                       [--alias ALIAS] [--shared SHARED]
                                       [--allowed-accounts [ALLOWED_ACCOUNTS [ALLOWED_ACCOUNTS ...]]]
                                       [--is-provisioning-disabled IS_PROVISIONING_DISABLED]
                                       [--compress COMPRESS] [--dedupe DEDUPE]
                                       [--encrypt ENCRYPT]
                                       [--read-iops-limit READ_IOPS_LIMIT]
                                       [--write-iops-limit WRITE_IOPS_LIMIT]
                                       [--read-bandwidth-limit READ_BANDWIDTH_LIMIT]
                                       [--write-bandwidth-limit WRITE_BANDWIDTH_LIMIT]
                                       name storage_class_id
```

Description

Create Volume Type in the VSC

Returns

Returns dict: Volume Type created

Mandatory

```
positional arguments:
  name                  Display name
  storage_class_id      Storage Class ID (immutable)
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        Description
  --is-default IS_DEFAULT
                        Whether this is the default Volume Type or not
  --alias ALIAS         Alias for the Volume Type
```

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```
  --shared SHARED       Whether this Volume Type is shared or not
  --allowed-accounts [ALLOWED_ACCOUNTS [ALLOWED_ACCOUNTS ...]]
                        List of accounts allowed to use this Volume Type
  --is-provisioning-disabled IS_PROVISIONING_DISABLED
                        Whether provisioning is disabled for this Volume Type or not
  --compress COMPRESS   Enable/disable compression upon volume creation
  --dedupe DEDUPE       Enable/disable dedupe upon volume creation
  --encrypt ENCRYPT     Enable/disable encryption upon volume creation
  --read-iops-limit READ_IOPS_LIMIT
                        Read IOPs rate limit to be set on volume upon its creation
  --write-iops-limit WRITE_IOPS_LIMIT
                        Write IOPs rate limit to be set on volume upon its creation
  --read-bandwidth-limit READ_BANDWIDTH_LIMIT
                        Read Bandwidth rate limit to be set on volume upon its creation
  --write-bandwidth-limit WRITE_BANDWIDTH_LIMIT
                        Write Bandwidth rate limit to be set on volume upon its creation
```

volume volume-types delete

Usage

```
  usage: symp volume volume-types delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--force]
                                       id
```

Description

Delete a specific Volume Type

Mandatory

```
positional arguments:
  id                    Volume Type ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Force deleting even if default
```

volume volume-types disable-provisioning

Usage

```
  usage: symp volume volume-types disable-provisioning
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--prefix PREFIX]
```

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```
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    id
```

Description

Disable provisioning for a Volume Type

Mandatory

```
positional arguments:
  id                    Volume Type ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

volume volume-types enable-provisioning

Usage

```
  usage: symp volume volume-types enable-provisioning
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--prefix PREFIX]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    id
```

Description

Enable provisioning for a Volume Type

Mandatory

```
positional arguments:
  id                    Volume Type ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

volume volume-types get

Usage

```
  usage: symp volume volume-types get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    id
```

Description

Get a Volume Type details

Returns

Returns dict: Volume Type details

Mandatory

```
positional arguments:
  id                    Volume Type ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

volume volume-types list

Usage

```
  usage: symp volume volume-types list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent]
                                       [--quote {all,minimal,none,nonnumeric}]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List Volume Types

Returns

Returns list: Array of Volume Types

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

volume volume-types set-as-default

Usage

```
  usage: symp volume volume-types set-as-default
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                id
```

Description

Set Volume Type as default

Mandatory

```
positional arguments:
  id                    Volume Type ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

volume volume-types update

Usage

```
  usage: symp volume volume-types update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--name NAME]
                                       [--allowed-accounts [ALLOWED_ACCOUNTS [ALLOWED_ACCOUNTS ...]]]
                                       [--alias ALIAS] [--shared SHARED]
                                       id
```

Description

Update one or more properties of a Volume Type atomically

Returns

Returns dict: Volume Type updated

Mandatory

```
positional arguments:
  id                    Volume Type ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Updated name of a custom Volume Type
  --allowed-accounts [ALLOWED_ACCOUNTS [ALLOWED_ACCOUNTS ...]]
                        List of accounts allowed to use this Volume Type
  --alias ALIAS         Alias for the Volume Type
  --shared SHARED       Whether this Volume Type is shared or not
```

4.2.64 vpc

vpc add-tags

Usage

```
  usage: symp vpc add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                           [-c COLUMN] [--max-width <integer>] [--noindent]
                           [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
```

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```
                          [--force] [--system-tag]
                          --vpc_ids [--vpc_ids ...] --tags [--tags ...]
```

Description

Add tags to VPCs.

Mandatory

```
positional arguments:
  --vpc_ids             IDs of the DHCP options to add to
  --tags                List of tag strings to add in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to add a system tag (available only for admin)
```

vpc associate-cidr-block

Usage

```
  usage: symp vpc associate-cidr-block
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--cidr-block CIDR_BLOCK]
                                       vpc_id
```

Description

Associate a cidr_block with a VPC object based on the IDs supplied.

Returns

Returns dict: Cidr_block Association - can be used for removing the cidr_block from the VPC

Mandatory

```
positional arguments:
  vpc_id                ID of the requested VPC object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --cidr-block CIDR_BLOCK
                        IPv4 CIDR block to add to the VPC
```

vpc associate-dhcp-options

Usage

```
  usage: symp vpc associate-dhcp-options
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       vpc_id dhcp_options_id
```

Description

Associate a dhcp_option with a VPC object based on the IDs supplied.

Mandatory

```
positional arguments:
  vpc_id                ID of the requested VPC object
  dhcp_options_id       ID of the requested dhcp_option set. use None to remove
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc create

Usage

```
usage: symp vpc create

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--is-default] [--name NAME]
                      [--description DESCRIPTION] [--project-id PROJECT_ID]
                      cidr_block
```

Description

Creates a new VPC object.

Returns

Returns dict: Vpc response

Mandatory

```
positional arguments:
  cidr_block            The IPv4 CIDR block of the VPC. Example - 10.45.0.0/16
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --is-default          Create a default VPC
  --name NAME           The name for this VPC
```

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```
  --description DESCRIPTION
                        The description for this VPC
  --project-id PROJECT_ID
                        ID of the project
```

vpc create-default

Usage

```
  usage: symp vpc create-default
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--project-id PROJECT_ID]
```

Description

Recreates the default VPC object.

Returns

Returns dict: Vpc response

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id PROJECT_ID
                        ID of the project
```

vpc delete

Usage

```
usage: symp vpc delete

                       [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                       [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                       [--force]
                       vpc_id
```

Description

Deletes a single VPC object based on the ID supplied.

Mandatory

```
positional arguments:
  vpc_id                ID of the requested VPC object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to delete non-default-created resources
```

vpc dhcp-options add-tags

Usage

```
  usage: symp vpc dhcp-options add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--force] [--system-tag]
                                       --dhcp_options_id
                                       [--dhcp_options_id ...] --tags
                                       [--tags ...]
```

Description

Add tags to DHCP options.

Mandatory

```
positional arguments:
  --dhcp_options_id     IDs of the DHCP options to add to
  --tags                List of tag strings to add in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to add a system tag (available only for admin)
```

vpc dhcp-options create

Usage

```
  usage: symp vpc dhcp-options create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     [--name NAME] [--description DESCRIPTION]
                                     [--dhcp-options DHCP_OPTIONS]
                                     [--project-id PROJECT_ID]
```

Description

Creates a new DHCP Options set.

Returns

Returns dict: DHCP Options set

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Name of the DHCP Options set
  --description DESCRIPTION
                        Description of the DHCP Options set
  --dhcp-options DHCP_OPTIONS
                        List of dhcp_option objects in the form:
                        [{"key": "<key_name>", "value": "<value>"}, {"key": "<key_name>", "value": "
↪<value>"}...]
                        e.g. [{"key": "domain-name-servers", "value": "8.8.8.8"}, {"key": "domain-name-
↪servers", "value": "8.8.4.4"}
                        , {"key": "domain-name", "value": "stratoscale.com"}...]
                        where key_name is one of the enums:
                        - domain-name-servers
                        - domain-name
                        - ntp-servers
                        - netbios-name-servers
                        - netbios-node-type
  --project-id PROJECT_ID
                        UUID of the VPC project
```

vpc dhcp-options create-default

Usage

```
  usage: symp vpc dhcp-options create-default
[-f {adaptive_table,json,shell,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent] [--prefix PREFIX]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              [--project-id PROJECT_ID]
                                              [--name NAME]
```

Description

Creates the default VPC project DHCP Options set.

Returns

Returns dict: DHCP Options set

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id PROJECT_ID
                        UUID of the project
  --name NAME           Name of the DHCP Options set
```

vpc dhcp-options delete

Usage

```
  usage: symp vpc dhcp-options delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent] [--prefix PREFIX]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      dhcp_options_id
```

Description

Delete a VPC DHCP Options set.

Mandatory

```
positional arguments:
  dhcp_options_id       UUID of the dhcp_options to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc dhcp-options get

Usage

```
  usage: symp vpc dhcp-options get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    dhcp_options_id
```

Description

Get the DHCP Options set.

Returns

Returns dict: DhcpOption set

Mandatory

```
positional arguments:
  dhcp_options_id       UUID of the dhcp_option set
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc dhcp-options list

Usage

```
  usage: symp vpc dhcp-options list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--dhcp-options-id [DHCP_OPTIONS_ID [DHCP_OPTIONS_ID ...]]]
                                    [--name [NAME [NAME ...]]]
                                    [--description [DESCRIPTION [DESCRIPTION ...]]]
                                    [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                                    [--domain-name-server [DOMAIN_NAME_SERVER [DOMAIN_NAME_SERVER ...]]]
                                    [--domain-name [DOMAIN_NAME [DOMAIN_NAME ...]]]
                                    [--ntp-server [NTP_SERVER [NTP_SERVER ...]]]
                                    [--netbios-name-server [NETBIOS_NAME_SERVER [NETBIOS_NAME_SERVER ...
↪]]]
                                    [--netbios-node-type [NETBIOS_NODE_TYPE [NETBIOS_NODE_TYPE ...]]]
                                    [--tags [TAGS [TAGS ...]]]
                                    [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                    [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
```

Description

Returns all VPC DHCP Options sets.

Returns

Returns list: DhcpOptions objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --dhcp-options-id [DHCP_OPTIONS_ID [DHCP_OPTIONS_ID ...]]
                        Filter by UUIDs of the dhcp_option
  --name [NAME [NAME ...]]
                        Filter by name of the dhcp_option
  --description [DESCRIPTION [DESCRIPTION ...]]
                        Filter by description of the dhcp_option
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        Filter by list of project_ids
  --domain-name-server [DOMAIN_NAME_SERVER [DOMAIN_NAME_SERVER ...]]
                        Filter by domain name servers IP addresses
  --domain-name [DOMAIN_NAME [DOMAIN_NAME ...]]
                        Filter by domain names
  --ntp-server [NTP_SERVER [NTP_SERVER ...]]
                        Filter by ntp servers
  --netbios-name-server [NETBIOS_NAME_SERVER [NETBIOS_NAME_SERVER ...]]
                        Filter by netbios name servers
  --netbios-node-type [NETBIOS_NODE_TYPE [NETBIOS_NODE_TYPE ...]]
                        Filter by by netbios node types
  --tags [TAGS [TAGS ...]]
                        List of tag strings to filter by in 'key=value' format
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        List of keys of tags to filter by
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        List of value of tags to filter by
```

vpc dhcp-options list-tags

Usage

```
  usage: symp vpc dhcp-options list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent]
                                        [--quote {all,minimal,none,nonnumeric}]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List all DHCP options tags.

Returns

Returns list: Tag objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc dhcp-options remove-tags

Usage

```
  usage: symp vpc dhcp-options remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--force] [--system-tag]
                                          --dhcp_options_id
                                          [--dhcp_options_id ...] --tags
                                          [--tags ...]
```

Description

Delete tags from DHCP-options.

Mandatory

```
positional arguments:
  --dhcp_options_id     IDs of the DHCP options to remove from
  --tags                List of tag strings to remove in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to remove a system tag (available only for admin)
```

vpc dhcp-options update

Usage

```
  usage: symp vpc dhcp-options update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent] [--prefix PREFIX]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      [--name NAME] [--description DESCRIPTION]
                                      dhcp_options_id
```

Description

Update a single VPC DHCP Options set based on the ID supplied and the parameters.

Mandatory

```
positional arguments:
  dhcp_options_id       ID of the requested dhcp_options
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the DHCP Options set
  --description DESCRIPTION
                        The description of the DHCP Options set
```

vpc direct-network add-tags

Usage

```
  usage: symp vpc direct-network add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                         [-c COLUMN] [--max-width <integer>]
                                         [--noindent] [--prefix PREFIX]
                                         [-m [NAME=VALUE [NAME=VALUE ...]]]
                                         [--force] [--system-tag]
                                         --networks_id [--networks_id ...]
                                         --tags [--tags ...]
```

Description

Add tags to direct-networks.

Mandatory

```
positional arguments:
  --networks_id         IDs of the DHCP options to add to
  --tags                List of tag strings to add in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to add a system tag (available only for admin)
```

vpc direct-network attach

Usage

```
  usage: symp vpc direct-network attach
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       network_id vpc_id
```

Description

Attaches a direct network to a VPC, enabling connectivity between the VPC and private external resources.

Mandatory

```
positional arguments:
  network_id            The UUID of the direct network to attach
  vpc_id                The UUID of the vpc to which this network will be attached
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc direct-network create

Usage

```
  usage: symp vpc direct-network create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--vlan-uuid VLAN_UUID]
                                       [--vpc-id VPC_ID] [--name NAME]
                                       [--description DESCRIPTION]
                                       [--external-router-ip EXTERNAL_ROUTER_IP]
                                       project_id vn_group_id vlan cidr_block
                                       gateway_ip allocation_pools
```

Description

Creates a direct-network.

Returns

Returns dict: Direct-Network

Mandatory

```
positional arguments:
  project_id            ID of the project
  vn_group_id           Guest network pool id
  vlan                  Physical network vlan tag for direct network creation
  cidr_block            Required cidr of subnet
  gateway_ip            The direct subnet gateway IP address
```

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```
  allocation_pools      List of allocation pools in subnet for vpc resources in the format:
                        [{"start": <start_ip_address>, "end": <end_ip_address>},...]
                        Note 1: Allocation pools must contain at least 5 ip addresses
                        Note 2: Allocation pools must not contain the gateway ip or the first or last ip
↪addresses of the CIDR block
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --vlan-uuid VLAN_UUID
                        UUID of the VLAN object to allocate to this network from the VLAN pool.
                        Note: If vlan_uuid provided, vlan and vn_group_id should be empty strings
  --vpc-id VPC_ID       ID of subnet VPC
  --name NAME           The name of the network
  --description DESCRIPTION
                        The description of the network
  --external-router-ip EXTERNAL_ROUTER_IP
                        The external router IP address
```

vpc direct-network delete

Usage

```
  usage: symp vpc direct-network delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       network_id
```

Description

Deletes a single direct-network by network ID.

Mandatory

```
positional arguments:
  network_id            ID of the requested network
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc direct-network detach

Usage

```
  usage: symp vpc direct-network detach
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       network_id
```

Description

Detaches a direct-network from a VPC, disabling connectivity between the VPC and private external resources on it.

Mandatory

```
positional arguments:
  network_id            The UUID of the direct network to attach
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc direct-network get

Usage

```
  usage: symp vpc direct-network get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     network_id
```

Description

Returns a direct-network by network ID.

Returns

Returns dict: Direct-Network

Mandatory

```
positional arguments:
  network_id            ID of the requested network
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc direct-network list

Usage

```
  usage: symp vpc direct-network list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                                    [--name [NAME [NAME ...]]]
                                    [--network-id [NETWORK_ID [NETWORK_ID ...]]]
                                    [--vpc-id [VPC_ID [VPC_ID ...]]]
                                    [--cidr-block [CIDR_BLOCK [CIDR_BLOCK ...]]]
                                    [--vn-group-id [VN_GROUP_ID [VN_GROUP_ID ...]]]
                                    [--vlan [VLAN [VLAN ...]]]
                                    [--is-default IS_DEFAULT]
                                    [--tags [TAGS [TAGS ...]]]
                                    [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                    [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
```

Description

Returns list of direct-networks.

Returns

Returns list: Direct-networks

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        List of project IDs to filter by. Maps to AWS ownerId
  --name [NAME [NAME ...]]
                        List of network names to filter by
  --network-id [NETWORK_ID [NETWORK_ID ...]]
                        List of network IDs to filter by
  --vpc-id [VPC_ID [VPC_ID ...]]
                        List of VPC IDs to filter by
  --cidr-block [CIDR_BLOCK [CIDR_BLOCK ...]]
                        List of IPv4 CIDR blocks of the network to filter by
  --vn-group-id [VN_GROUP_ID [VN_GROUP_ID ...]]
                        List of guest network pool ids to filter by
  --vlan [VLAN [VLAN ...]]
                        List of vlan tags to filter by
  --is-default IS_DEFAULT
                        Whether the subnet is the default subnet of the VPC
  --tags [TAGS [TAGS ...]]
                        List of tag strings to filter by in 'key=value' format
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        List of keys of tags to filter by
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        List of value of tags to filter by
```

vpc direct-network list-tags

Usage

```
  usage: symp vpc direct-network list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent]
                                          [--quote {all,minimal,none,nonnumeric}]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List all direct-network tags.

Returns

Returns list: Tag objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc direct-network remove-tags

Usage

```
  usage: symp vpc direct-network remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                            [-c COLUMN] [--max-width <integer>]
                                            [--noindent] [--prefix PREFIX]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                                            [--force] [--system-tag]
                                            --networks_id [--networks_id ...]
                                            --tags [--tags ...]
```

Description

Delete tags from direct networks.

Mandatory

```
positional arguments:
  --networks_id         IDs of the networks to remove from
  --tags                List of tag strings to remove in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to remove a system tag (available only for admin)
```

vpc direct-network update

Usage

```
  usage: symp vpc direct-network update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--name NAME]
                                       [--description DESCRIPTION]
                                       [--gateway-ip GATEWAY_IP]
                                       [--allocation-pools ALLOCATION_POOLS]
                                       [--mtu MTU]
                                       [--external-router-ip EXTERNAL_ROUTER_IP]
                                       network_id
```

Description

Update a single direct-network by network ID.

Mandatory

```
positional arguments:
  network_id            ID of the requested network
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the network
  --description DESCRIPTION
                        The description of the network
  --gateway-ip GATEWAY_IP
                        The direct subnet gateway IP address
  --allocation-pools ALLOCATION_POOLS
                        List of allocation pools in subnet for vpc resources in the format:
                        [{"start": <start_ip_address>, "end": <end_ip_address>},...]
                        Note 1: Allocation pools must contain at least 5 ip addresses
                        Note 2: Allocation pools must not contain the gateway ip or the first or last ip
↪addresses of the CIDR block
  --mtu MTU             The MTU of the network
  --external-router-ip EXTERNAL_ROUTER_IP
                        The external router IP address
```

vpc disassociate-cidr-block

Usage

```
  usage: symp vpc disassociate-cidr-block
[-f {adaptive_table,json,shell,table,value,yaml}]
                                         [-c COLUMN] [--max-width <integer>]
                                         [--noindent] [--prefix PREFIX]
                                         [-m [NAME=VALUE [NAME=VALUE ...]]]
                                         cidr_assoc_id
```

Description

Disassociate a cidr_block from a VPC object.

Mandatory

```
positional arguments:
  cidr_assoc_id         ID of the IPv4 CIDR block to to remove from the VPC
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc disassociate-dhcp-options

Usage

```
  usage: symp vpc disassociate-dhcp-options
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          vpc_id
```

Description

Disassociate a dhcp_option from a VPC object.

Mandatory

```
positional arguments:
  vpc_id                ID of the requested VPC object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc dns add

Usage

```
usage: symp vpc dns add

                        [-h] [-f {adaptive_table,json,shell,table,value,yaml}]
↪[-c COLUMN] [--max-width <integer>] [--noindent]
                        [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                        vpc_id ip_address record_type dns_domain dns_name
```

Description

Creates a DNS record within a VPC context.

Returns

Returns dict: The DNS record

Mandatory

```
positional arguments:
  vpc_id                The ID of a VPC to create the record in
  ip_address            The IP address to resolve to
  record_type           The record type to create - for now only A and AAAA are supported
  dns_domain            The DNS domain part of this record
  dns_name              The DNS name part of this record
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc dns delete

Usage

```
  usage: symp vpc dns delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            record_id
```

Description

Deletes the specified DNS record from the VPC context.

Mandatory

```
positional arguments:
  record_id             The ID of the DNS record to delete
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc dns get

Usage

```
usage: symp vpc dns get

                        [-h] [-f {adaptive_table,json,shell,table,value,yaml}]
↪[-c COLUMN] [--max-width <integer>] [--noindent]
                        [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                        record_id
```

Description

Returns all DNS records according to filter.

Returns

Returns dict: List of DNS records for this ID

Mandatory

```
positional arguments:
  record_id             The record ID to filter on
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc dns get-single

Usage

```
  usage: symp vpc dns get-single
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                record_id ip_address
```

Description

Returns all DNS records according to filter.

Returns

Returns dict: List of DNS records for this ID

Mandatory

```
positional arguments:
  record_id             The record type to filter on
  ip_address            The IP address to filter on
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc dns list

Usage

```
usage: symp vpc dns list

                         [-h] [-f {adaptive_table,csv,json,table,value,yaml}]
↪[-c COLUMN] [--max-width <integer>] [--noindent]
                         [--quote {all,minimal,none,nonnumeric}]
                         [-m [NAME=VALUE [NAME=VALUE ...]]]
                         [--record-id [RECORD_ID [RECORD_ID ...]]]
                         [--ip-address [IP_ADDRESS [IP_ADDRESS ...]]]
                         [--vpc-id [VPC_ID [VPC_ID ...]]] [--only-eni]
                         [--record-type [RECORD_TYPE [RECORD_TYPE ...]]]
                         [--dns-domain [DNS_DOMAIN [DNS_DOMAIN ...]]]
                         [--dns-name [DNS_NAME [DNS_NAME ...]]]
                         [--project-id [PROJECT_ID [PROJECT_ID ...]]]
```

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```
                        [--owner-id [OWNER_ID [OWNER_ID ...]]]
                        [--owner-type [OWNER_TYPE [OWNER_TYPE ...]]]
```

Description

Returns all DNS records according to filter.

Returns

Returns list: List of DNS records

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --record-id [RECORD_ID [RECORD_ID ...]]
                        The record types to filter
  --ip-address [IP_ADDRESS [IP_ADDRESS ...]]
                        The IP addresses to filter
  --vpc-id [VPC_ID [VPC_ID ...]]
                        The IDs of the VPCs to filter
  --only-eni            Filter out non-network-interface DNS records
  --record-type [RECORD_TYPE [RECORD_TYPE ...]]
                        The record types to filter - for now only A is supported
  --dns-domain [DNS_DOMAIN [DNS_DOMAIN ...]]
                        The DNS domain part of the records to filter
  --dns-name [DNS_NAME [DNS_NAME ...]]
                        The DNS name part of the records to filter
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        The IDs of the projects to filter
  --owner-id [OWNER_ID [OWNER_ID ...]]
                        The owner IDs to filter
  --owner-type [OWNER_TYPE [OWNER_TYPE ...]]
                        The owner types to filter
```

vpc dns update

Usage

```
  usage: symp vpc dns update
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            [--ip-address IP_ADDRESS] [--dns-domain DNS_DOMAIN]
                            [--dns-name DNS_NAME]
                            record_id
```

Description

Creates a DNS record within a VPC context.

Returns

Returns dict: The DNS record

Mandatory

```
positional arguments:
  record_id             The IP address to resolve to
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ip-address IP_ADDRESS
                        The IP address to resolve to
  --dns-domain DNS_DOMAIN
                        The DNS domain part of this record
  --dns-name DNS_NAME   The DNS name part of this record
```

vpc elastic-ip add-tags

Usage

```
  usage: symp vpc elastic-ip add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     [--force] [--system-tag]
                                     --eip_id [--eip_id ...] --tags
                                     [--tags ...]
```

Description

Add tags to elastic IPs.

Mandatory

```
positional arguments:
  --eip_id              The ID of the elastic IP to add to
  --tags                List of tag strings to add in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to add a system tag (available only for admin)
```

vpc elastic-ip associate-elastic-ip

Usage

```
  usage: symp vpc elastic-ip associate-elastic-ip
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                [--network-interface-id NETWORK_INTERFACE_ID]
                                                [--instance-id INSTANCE_ID]
```

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```
                                                [--private-ip-address PRIVATE_IP_ADDRESS]
                                                [--prevent-reassociation]
                                                [--allow-port-reassociation]
                                                eip_id
```

Description

Associate a elastic_ip address with an instance or a network interface.

Returns

Returns str: Association ID

Mandatory

```
positional arguments:
  eip_id                ID of the requested elastic_ip
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --network-interface-id NETWORK_INTERFACE_ID
                        ID of the network_interface_id to associate the elastic_ip with
  --instance-id INSTANCE_ID
                        ID of the instance to associate the elastic_ip with
  --private-ip-address PRIVATE_IP_ADDRESS
                        Private IP Address to associate the elastic_ip with
  --prevent-reassociation
                        Prevent reassociation of the elastic_ip is already associated
  --allow-port-reassociation
                        Allow reassociation to a port that is already associated
```

vpc elastic-ip create

Usage

```
  usage: symp vpc elastic-ip create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--address ADDRESS]
                                    [--project-id PROJECT_ID]
                                    [--pool-id POOL_ID]
```

Description

Creates a new network interface object.

Returns

Returns dict: ElasticIp response

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --address ADDRESS     The requested IPv4 address, may not be
  --project-id PROJECT_ID
                        UUID of the project
  --pool-id POOL_ID     UUID of the pool to allocate from
```

vpc elastic-ip delete

Usage

```
  usage: symp vpc elastic-ip delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--override-protection]
                                    eip_id
```

Description

Deletes a single network interface object based on the ID supplied.

Mandatory

```
positional arguments:
  eip_id                ID of the requested elastic ip
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection
                        If True, will delete even if the EIP is protected from deletion
                        e.g. an internal resource. Allowed only for admins
```

vpc elastic-ip disassociate-elastic-ip

Usage

```
  usage: symp vpc elastic-ip disassociate-elastic-ip
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                    [-c COLUMN]
                                                    [--max-width <integer>]
                                                    [--noindent]
                                                    [--prefix PREFIX]
                                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                    eip_id
```

Description

Disassociate an elastic from address from the instance or network interface it's associated with.

Mandatory

```
positional arguments:
  eip_id                ID of the elastic_ip association
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc elastic-ip get

Usage

```
  usage: symp vpc elastic-ip get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                eip_id
```

Description

Returns a VPC based on a VPC ID.

Returns

Returns dict: ElasticIp response

Mandatory

```
positional arguments:
  eip_id                ID of the elastic IP allocation
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc elastic-ip list

Usage

```
  usage: symp vpc elastic-ip list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent]
                                [--quote {all,minimal,none,nonnumeric}]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--eip-id [EIP_ID [EIP_ID ...]]]
                                [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                                [--association-id [ASSOCIATION_ID [ASSOCIATION_ID ...]]]
                                [--instance-id [INSTANCE_ID [INSTANCE_ID ...]]]
                                [--network-interface-id [NETWORK_INTERFACE_ID [NETWORK_INTERFACE_ID ...
↪]]]
                                [--network-interface-owner-id [NETWORK_INTERFACE_OWNER_ID [NETWORK_
↪INTERFACE_OWNER_ID ...]]]
                                [--private-ip-address [PRIVATE_IP_ADDRESS [PRIVATE_IP_ADDRESS ...]]]
```

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```
                                    [--public-ip [PUBLIC_IP [PUBLIC_IP ...]]]
                                    [--tags [TAGS [TAGS ...]]]
                                    [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                    [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
                                    [--is-managed-resource IS_MANAGED_RESOURCE]
```

Description

Returns all Elastic IPs.

Returns

Returns list: ElasticIp objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --eip-id [EIP_ID [EIP_ID ...]]
                        The ID of the elastic IP
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        ID of a project
  --association-id [ASSOCIATION_ID [ASSOCIATION_ID ...]]
                        The ID of an association with a elastic IP
  --instance-id [INSTANCE_ID [INSTANCE_ID ...]]
                        The ID of the instance to which the elastic IP is attached to
  --network-interface-id [NETWORK_INTERFACE_ID [NETWORK_INTERFACE_ID ...]]
                        The ID of the network interface to which the elastic IP is attached to
  --network-interface-owner-id [NETWORK_INTERFACE_OWNER_ID [NETWORK_INTERFACE_OWNER_ID ...]]
                        The ID of the network interface owner to which the elastic IP is attached to
  --private-ip-address [PRIVATE_IP_ADDRESS [PRIVATE_IP_ADDRESS ...]]
                        Private IPv4 address associated with the elastic IP
  --public-ip [PUBLIC_IP [PUBLIC_IP ...]]
                        The public IPv4 address of the elastic IP
  --tags [TAGS [TAGS ...]]
                        List of tag strings to filter by in 'key=value' format
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        List of keys of tags to filter by
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        List of value of tags to filter by
  --is-managed-resource IS_MANAGED_RESOURCE
                        List only managed or not managed resources, or all if None (default)
```

vpc elastic-ip list-tags

Usage

```
  usage: symp vpc elastic-ip list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent]
                                     [--quote {all,minimal,none,nonnumeric}]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List all elastic IP tags.

Returns

Returns list: Tag objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc elastic-ip remove-tags

Usage

```
  usage: symp vpc elastic-ip remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--force] [--system-tag]
                                        --eip_id [--eip_id ...] --tags
                                        [--tags ...]
```

Description

Delete tags from elastic IPs.

Mandatory

```
positional arguments:
  --eip_id              The ID of the elastic IP to remove from
  --tags                List of tag strings to remove in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to remove a system tag (available only for admin)
```

vpc engine get

Usage

```
  usage: symp vpc engine get
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            engine_id
```

Description

Returns a engine based on a engine ID.

Returns

Returns dict: Engine response

Mandatory

```
positional arguments:
  engine_id             ID of the requested engine object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc engine list

Usage

```
  usage: symp vpc engine list
[-f {adaptive_table,csv,json,table,value,yaml}]
                             [-c COLUMN] [--max-width <integer>] [--noindent]
                             [--quote {all,minimal,none,nonnumeric}]
                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                             [--full-details] [--service-name SERVICE_NAME]
                             [--include-all]
```

Description

Returns all engine objects.

Returns

Returns list: Engine objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --full-details        (Optional) Whether to return all information
  --service-name SERVICE_NAME
                        (Optional) Service name to filter on
  --include-all         (Optional) Whether to include unusable engines
```

vpc engine revision create

Usage

```
  usage: symp vpc engine revision create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--storage-pool-id STORAGE_POOL_ID]
                                       [--default-vm-storage-pool-id DEFAULT_VM_STORAGE_POOL_ID]
                                       [--name NAME]
                                       [--description DESCRIPTION]
                                       [--engine-name ENGINE_NAME]
                                       [--engine-description ENGINE_DESCRIPTION]
                                       [--version-name VERSION_NAME]
                                       [--version-description VERSION_DESCRIPTION]
                                       [--gcm-role-states GCM_ROLE_STATES]
                                       [--gcm-state-file-details GCM_STATE_FILE_DETAILS]
```

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```
                                        [--file-details FILE_DETAILS]
                                        [--service-info SERVICE_INFO]
                                        [--vm-constraints VM_CONSTRAINTS]
                                        [--service-constraints SERVICE_CONSTRAINTS]
                                        [--service-capabilities SERVICE_CAPABILITIES]
                                        [--gcm-info GCM_INFO]
                                        service_name engine_family
                                        version_family sequence logo_variant
                                        logo_contents vm_image_details
```

Description

Creates new revision.

Returns

Returns dict: Revision response

Mandatory

```
positional arguments:
  service_name          The name of the service the engine belongs to
  engine_family         The family the engine belongs to
  version_family        The family the version belongs to
  sequence              The sequence of the revision
  logo_variant          'Version' of the logo
  logo_contents         Contents of the logo in SVG format
  vm_image_details      Information describing the stored images
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --storage-pool-id STORAGE_POOL_ID
                        (Optional) The id of the storage pool on which to store the image
  --default-vm-storage-pool-id DEFAULT_VM_STORAGE_POOL_ID
                        (Optional) The default storage pool ID for VMs
  --name NAME           (Optional) The name of the revision
  --description DESCRIPTION
                        (Optional) The description of the revision
  --engine-name ENGINE_NAME
                        (Optional) The name of the engine
  --engine-description ENGINE_DESCRIPTION
                        (Optional) The description of the engine
  --version-name VERSION_NAME
                        (Optional) The name of the version
  --version-description VERSION_DESCRIPTION
                        (Optional) The description of the version
  --gcm-role-states GCM_ROLE_STATES
                        (Optional) GCM states to use in role
  --gcm-state-file-details GCM_STATE_FILE_DETAILS
                        (Optional) GCM state files to register
  --file-details FILE_DETAILS
                        (Optional) File information
  --service-info SERVICE_INFO
                        (Optional) Service specific information
  --vm-constraints VM_CONSTRAINTS
                        (Optional) Constraints for creating the VM
```

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```
  --service-constraints SERVICE_CONSTRAINTS
                        (Optional) Service specific constraints
  --service-capabilities SERVICE_CAPABILITIES
                        (Optional) Service specific capabilities
  --gcm-info GCM_INFO   (Optional) GCM specific information
```

vpc engine revision delete

Usage

```
  usage: symp vpc engine revision delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        revision_id
```

Description

Deletes a single revision object based on the ID supplied.

Mandatory

```
positional arguments:
  revision_id           ID of the requested revision object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc engine revision get

Usage

```
  usage: symp vpc engine revision get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent] [--prefix PREFIX]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      revision_id
```

Description

Returns a revision based on a revision ID.

Returns

Returns dict: Revision response

Mandatory

```
positional arguments:
  revision_id           ID of the requested revision object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc engine revision list

Usage

```
  usage: symp vpc engine revision list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent]
                                      [--quote {all,minimal,none,nonnumeric}]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      [--full-details]
                                      [--service-name SERVICE_NAME]
                                      [--engine-id ENGINE_ID]
                                      [--version-id VERSION_ID] [--include-all]
```

Description

Returns all revision objects.

Returns

Returns list: Version objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --full-details        (Optional) Whether to return all information
  --service-name SERVICE_NAME
                        (Optional) Service name to filter on
  --engine-id ENGINE_ID
                        (Optional) Engine ID to filter on
  --version-id VERSION_ID
                        (Optional) Version ID to filter on
  --include-all         (Optional) Whether to include unusable revisions
```

vpc engine revision update

Usage

```
  usage: symp vpc engine revision update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--name NAME]
                                        [--description DESCRIPTION]
                                        [--enabled ENABLED]
                                        [--storage-pool-id STORAGE_POOL_ID]
                                        revision_id
```

Description

Modify an engine.

Returns

Returns dict: Revision response

Mandatory

```
positional arguments:
  revision_id           The revision ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           (Optional) The version name
  --description DESCRIPTION
                        (Optional) Description of the version
  --enabled ENABLED     (Optional) False if not to be presented for creation
  --storage-pool-id STORAGE_POOL_ID
                        (Optional) The default storage pool ID for VMs
```

vpc engine update

Usage

```
  usage: symp vpc engine update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>] [--noindent]
                                [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]] [--name NAME]
                                [--description DESCRIPTION] [--enabled ENABLED]
                                [--default-version-id DEFAULT_VERSION_ID]
                                [--logo-variant LOGO_VARIANT]
                                [--logo-contents LOGO_CONTENTS]
                                engine_id
```

Description

Modify an engine.

Mandatory

```
positional arguments:
  engine_id             The engine ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           (Optional) The engine name
  --description DESCRIPTION
                        (Optional) Description of the engine
  --enabled ENABLED     (Optional) False if not to be presented for creation
  --default-version-id DEFAULT_VERSION_ID
                        (Optional) The default version ID
  --logo-variant LOGO_VARIANT
                        'Version' of the logo
  --logo-contents LOGO_CONTENTS
                        Contents of the logo in SVG format
```

vpc engine version get

Usage

```
  usage: symp vpc engine version get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    version_id
```

Description

Returns a version based on a version ID.

Returns

Returns dict: Version response

Mandatory

```
positional arguments:
  version_id            ID of the requested version object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc engine version list

Usage

```
  usage: symp vpc engine version list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent]
                                     [--quote {all,minimal,none,nonnumeric}]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     [--full-details]
                                     [--service-name SERVICE_NAME]
                                     [--engine-id ENGINE_ID] [--include-all]
```

Description

Returns all version objects.

Returns

Returns list: Version objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --full-details        (Optional) Whether to return all information
  --service-name SERVICE_NAME
                        (Optional) Service name to filter on
  --engine-id ENGINE_ID
```

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```
                        (Optional) Engine ID to filter on
  --include-all         (Optional) Whether to include unusable versions
```

vpc engine version revisions

Usage

```
  usage: symp vpc engine version revisions
[-f {adaptive_table,csv,json,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent]
                                          [--quote {all,minimal,none,nonnumeric}]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--include-all]
                                          version_id
```

Description

List all revisions for a specified version.

Returns

Returns list: List of revisions in the system

Mandatory

```
positional arguments:
  version_id            The id of the version to retrieve revisions from
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --include-all         (Optional) Whether to include unusable versions
```

vpc engine version update

Usage

```
  usage: symp vpc engine version update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--name NAME]
                                       [--description DESCRIPTION]
                                       [--enabled ENABLED]
                                       [--default-vm-storage-pool-id DEFAULT_VM_STORAGE_POOL_ID]
                                       version_id
```

Description

Modify an engine.

Mandatory

```
positional arguments:
  version_id            The version ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           (Optional) The version name
  --description DESCRIPTION
                        (Optional) Description of the version
  --enabled ENABLED     (Optional) False if not to be presented for creation
  --default-vm-storage-pool-id DEFAULT_VM_STORAGE_POOL_ID
                        (Optional) The default storage pool ID for VMs
```

vpc engine version validate-enabled-revision

Usage

```
  usage: symp vpc engine version validate-enabled-revision
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                          [-c COLUMN]
                                                          [--max-width <integer>]
                                                          [--noindent]
                                                          [--prefix PREFIX]
                                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                          version_id
```

Description

Validate and return the enabled_revision of the specified version.

Returns

Returns dict: Revision response

Mandatory

```
positional arguments:
  version_id            The id of the version to retrieve the enabled_revision from
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc get

Usage

```
usage: symp vpc get

                    [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                      [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                    [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                    [--with-tags]
                    vpc_id
```

Description

Returns a VPC based on a VPC ID.

Returns

Returns dict: VPC response

Mandatory

```
positional arguments:
  vpc_id                ID of the requested VPC object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --with-tags           Flag that indicates if list should get ports-tags or not
```

vpc internet-gateway add-tags

Usage

```
  usage: symp vpc internet-gateway add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--force] [--system-tag]
                                          --internet_gateway_id
                                          [--internet_gateway_id ...] --tags
                                          [--tags ...]
```

Description

Add tags to internet gateways.

Mandatory

```
positional arguments:
  --internet_gateway_id
                        IDs of the internet gateway to add to
  --tags                List of tag strings to add in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to add a system tag (available only for admin)
```

vpc internet-gateway attach

Usage

```
  usage: symp vpc internet-gateway attach
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          internet_gateway_id vpc_id
```

Description

Attaches an Internet gateway to a VPC, enabling connectivity between the Internet and the VPC.

Mandatory

```
positional arguments:
  internet_gateway_id   The ID of the Internet gateway
  vpc_id                The ID of an attached VPC
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc internet-gateway create

Usage

```
  usage: symp vpc internet-gateway create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--name NAME]
                                          [--description DESCRIPTION]
                                          [--project-id PROJECT_ID]
```

Description

Create internet gateway.

Returns

Returns dict: The newly created internet gateway id

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the internet gateway
  --description DESCRIPTION
                        The description of the internet gateway
  --project-id PROJECT_ID
                        UUID of the project
```

vpc internet-gateway delete

Usage

```
  usage: symp vpc internet-gateway delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        internet_gateway_id
```

Description

Remove internet gateway.

Mandatory

```
positional arguments:
  internet_gateway_id   The ID of the Internet gateway
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc internet-gateway detach

Usage

```
  usage: symp vpc internet-gateway detach
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        internet_gateway_id vpc_id
```

Description

Detaches an Internet gateway from a VPC, disabling connectivity between the Internet and the VPC.

Mandatory

```
positional arguments:
  internet_gateway_id   The ID of the Internet gateway
  vpc_id                The ID of an attached VPC
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc internet-gateway get

Usage

```
  usage: symp vpc internet-gateway get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       internet_gateway_id
```

Description

Get internet gateway.

Returns

Returns dict: The internet gateway

Mandatory

```
positional arguments:
  internet_gateway_id   The id of the internet gateway
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc internet-gateway list

Usage

```
  usage: symp vpc internet-gateway list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent]
                                        [--quote {all,minimal,none,nonnumeric}]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--attachment-state [ATTACHMENT_STATE [ATTACHMENT_STATE ...]]]
                                        [--attachment-vpc-id [ATTACHMENT_VPC_ID [ATTACHMENT_VPC_ID ...]]]
                                        [--internet-gateway-id [INTERNET_GATEWAY_ID [INTERNET_GATEWAY_ID .
↪..]]]
                                        [--name [NAME [NAME ...]]]
                                        [--description [DESCRIPTION [DESCRIPTION ...]]]
                                        [--tags [TAGS [TAGS ...]]]
                                        [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                        [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
                                        [--project-id [PROJECT_ID [PROJECT_ID ...]]]
```

Description

Describe internet gateways.

Returns

Returns list: Internet gateway objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --attachment-state [ATTACHMENT_STATE [ATTACHMENT_STATE ...]]
                        The current state of the attachment between the gateway and the VPC (available)
  --attachment-vpc-id [ATTACHMENT_VPC_ID [ATTACHMENT_VPC_ID ...]]
                        The ID of an attached VPC
  --internet-gateway-id [INTERNET_GATEWAY_ID [INTERNET_GATEWAY_ID ...]]
                        The ID of the Internet gateway
  --name [NAME [NAME ...]]
                        The NAME of an internet gateway
  --description [DESCRIPTION [DESCRIPTION ...]]
                        The Description of the internet gateway
  --tags [TAGS [TAGS ...]]
                        List of tag strings to filter by in 'key=value' format
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        List of keys of tags to filter by
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        List of value of tags to filter by
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        The project_id of the Internet gateway
```

vpc internet-gateway list-tags

Usage

```
  usage: symp vpc internet-gateway list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                            [-c COLUMN] [--max-width <integer>]
                                            [--noindent]
                                            [--quote {all,minimal,none,nonnumeric}]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List all internet gateway tags.

Returns

Returns list: Tag objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc internet-gateway remove-tags

Usage

```
  usage: symp vpc internet-gateway remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent] [--prefix PREFIX]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              [--force] [--system-tag]
```

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```
                                                --internet_gateway_id
                                                [--internet_gateway_id ...]
                                                --tags [--tags ...]
```

Description

Delete tags from internet gateways.

Mandatory

```
positional arguments:
  --internet_gateway_id
                        IDs of the internet gateway to remove from
  --tags                List of tag strings to remove in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to remove a system tag (available only for admin)
```

vpc internet-gateway update

Usage

```
  usage: symp vpc internet-gateway update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--name NAME]
                                          [--description DESCRIPTION]
                                          internet_gateway_id
```

Description

Update a single internet_gateway object based on the ID supplied and the parameters.

Mandatory

```
positional arguments:
  internet_gateway_id   ID of the requested internet_gateway
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the internet_gateway
  --description DESCRIPTION
                        The description of the internet_gateway
```

vpc list

Usage

```
usage: symp vpc list

                    [-h] [-f {adaptive_table,csv,json,table,value,yaml}]                        [-c
↪COLUMN] [--max-width <integer>] [--noindent]
                    [--quote {all,minimal,none,nonnumeric}]
                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                    [--vpc-id [VPC_ID [VPC_ID ...]]]
                    [--name [NAME [NAME ...]]]
                    [--description [DESCRIPTION [DESCRIPTION ...]]]
                    [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                    [--cidr [CIDR [CIDR ...]]]
                    [--dhcp-options-id [DHCP_OPTIONS_ID [DHCP_OPTIONS_ID ...]]]
                    [--state [STATE [STATE ...]]]
                    [--edge-network-id [EDGE_NETWORK_ID [EDGE_NETWORK_ID ...]]]
                    [--is-default IS_DEFAULT] [--skip-deleting]
                    [--tags [TAGS [TAGS ...]]]
                    [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                    [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
```

Description

Returns all VPC objects.

Returns

Returns list: Vpc objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --vpc-id [VPC_ID [VPC_ID ...]]
                        List of VPC IDs to filter by
  --name [NAME [NAME ...]]
                        List of VPC names to filter by
  --description [DESCRIPTION [DESCRIPTION ...]]
                        List of VPC description to filter by
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        List of projects IDs to filter by
  --cidr [CIDR [CIDR ...]]
                        List of primary IPv4 CIDR blocks of the VPC to filter by
  --dhcp-options-id [DHCP_OPTIONS_ID [DHCP_OPTIONS_ID ...]]
                        List of DHCP options IDs set to filter by
  --state [STATE [STATE ...]]
                        List of states of the VPC (pending | available) to filter by
  --edge-network-id [EDGE_NETWORK_ID [EDGE_NETWORK_ID ...]]
                        List of edge networks IDs to filter by
  --is-default IS_DEFAULT
                        Filter by default VPCs
  --skip-deleting       Filter VPC in deleting state
  --tags [TAGS [TAGS ...]]
                        List of tag strings to filter by in 'key=value' format
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        List of keys of tags to filter by
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        List of value of tags to filter by
```

vpc list-tags

Usage

```
usage: symp vpc list-tags

                          [-h] [-f {adaptive_table,csv,json,table,value,yaml}]
↪ [-c COLUMN] [--max-width <integer>] [--noindent]
                          [--quote {all,minimal,none,nonnumeric}]
                          [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List all VPC tags.

Returns

Returns list: Tag objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc mode get-cluster-mode

Usage

```
  usage: symp vpc mode get-cluster-mode
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

Return the object name according to type and uuid.

Returns

Returns dict: {“mode”: (legacy|vpc)}

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc mode get-project-mode

Usage

```
  usage: symp vpc mode get-project-mode
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--project-id PROJECT_ID]
```

Description

Return the object name according to type and uuid.

Returns

Returns dict: {"mode": (legacy|vpc)}

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id PROJECT_ID
                        Id of the project to get its network mode
```

vpc nat-gateway add-tags

Usage

```
  usage: symp vpc nat-gateway add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent] [--prefix PREFIX]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      [--force]
                                      --nat_gateway_id [--nat_gateway_id ...]
                                      --tags [--tags ...]
```

Description

Add tags to nat gateways.

Mandatory

```
positional arguments:
  --nat_gateway_id      IDs of the nat gateway to add to
  --tags                List of tag strings to add in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
```

vpc nat-gateway create

Usage

```
  usage: symp vpc nat-gateway create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--name NAME] [--description DESCRIPTION]
                                    network_id allocation_id
```

Description

Create nat gateway.

Returns

Returns dict: The newly created nat gateway id

Mandatory

```
positional arguments:
  network_id            UUID of the network to put nat gateway in
  allocation_id         UUID elastic ip to associate to the nat gateway
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the nat gateway
  --description DESCRIPTION
                        The description of the nat gateway
```

vpc nat-gateway delete

Usage

```
  usage: symp vpc nat-gateway delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    nat_gateway_id
```

Description

Remove nat gateway.

Mandatory

```
positional arguments:
  nat_gateway_id        The ID of the Nat gateway
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc nat-gateway get

Usage

```
  usage: symp vpc nat-gateway get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                nat_gateway_id
```

Description

Get nat gateway.

Returns

Returns dict: The nat gateway

Mandatory

```
positional arguments:
  nat_gateway_id        The id of the nat gateway
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc nat-gateway list

Usage

```
  usage: symp vpc nat-gateway list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent]
                                  [--quote {all,minimal,none,nonnumeric}]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  [--nat-gateway-id [NAT_GATEWAY_ID [NAT_GATEWAY_ID ...]]]
                                  [--state [STATE [STATE ...]]]
                                  [--network-id [NETWORK_ID [NETWORK_ID ...]]]
                                  [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                                  [--vpc-id [VPC_ID [VPC_ID ...]]]
                                  [--name [NAME [NAME ...]]]
                                  [--description [DESCRIPTION [DESCRIPTION ...]]]
                                  [--tags [TAGS [TAGS ...]]]
                                  [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                  [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
                                  [--user-id [USER_ID [USER_ID ...]]]
```

Description

Describe nat gateways.

Returns

Returns list: Nat gateway objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --nat-gateway-id [NAT_GATEWAY_ID [NAT_GATEWAY_ID ...]]
                        The ID of the Nat gateway
  --state [STATE [STATE ...]]
                        The state pf the Nat gateway
  --network-id [NETWORK_ID [NETWORK_ID ...]]
                        The network of the Nat gateway
  --project-id [PROJECT_ID [PROJECT_ID ...]]
```

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```
                        The project of the Nat gateway
  --vpc-id [VPC_ID [VPC_ID ...]]
                        The id of the vpc of the nat gateway
  --name [NAME [NAME ...]]
                        The name of an nat gateway
  --description [DESCRIPTION [DESCRIPTION ...]]
                        The description of an nat gateway
  --tags [TAGS [TAGS ...]]
                        List of tag strings to filter by in 'key=value' format
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        List of keys of tags to filter by
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        List of value of tags to filter by
  --user-id [USER_ID [USER_ID ...]]
                        List of user ids of the Nat gateway
```

vpc nat-gateway remove-tags

Usage

```
  usage: symp vpc nat-gateway remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--force]
                                        --nat_gateway_id
                                        [--nat_gateway_id ...] --tags
                                        [--tags ...]
```

Description

Delete tags from NAT gateways.

Mandatory

```
positional arguments:
  --nat_gateway_id      IDs of the nat gateway to remove from
  --tags                List of tag strings to remove in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
```

vpc nat-gateway update

Usage

```
  usage: symp vpc nat-gateway update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--name NAME] [--description DESCRIPTION]
                                    nat_gateway_id
```

Description

Update a single nat_gateway object based on the ID supplied and the parameters.

Mandatory

```
positional arguments:
  nat_gateway_id        The ID of the Nat gateway
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the nat_gateway
  --description DESCRIPTION
                        The description of the nat_gateway
```

vpc nat-gateway upgrade

Usage

```
  usage: symp vpc nat-gateway upgrade
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     nat_gateway_id
```

Description

Upgrade the NAT Gateway VM.

Mandatory

```
positional arguments:
  nat_gateway_id        ID of the requested NAT Gateway object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc network add-tags

Usage

```
  usage: symp vpc network add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]] [--force]
                                    [--system-tag]
                                    --networks_id [--networks_id ...] --tags
                                    [--tags ...]
```

Description

Add tags to networks.

Mandatory

```
positional arguments:
  --networks_id         IDs of the DHCP options to add to
  --tags                List of tag strings to add in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to add a system tag (available only for admin)
```

vpc network create

Usage

```
  usage: symp vpc network create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--name NAME] [--description DESCRIPTION]
                                [--tags [TAGS [TAGS ...]]]
                                vpc_id cidr_block
```

Description

Creates a network.

Returns

Returns dict: Network response

Mandatory

```
positional arguments:
  vpc_id                ID of subnet VPC
  cidr_block            Required cidr of subnet
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the network
  --description DESCRIPTION
                        The description of the network
  --tags [TAGS [TAGS ...]]
                        List of tag strings to add in 'key=value' format
```

vpc network delete

Usage

```
  usage: symp vpc network delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                network_id
```

Description

Deletes a single network object based on the ID supplied.

Mandatory

```
positional arguments:
  network_id            ID of the requested network
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc network get

Usage

```
  usage: symp vpc network get
[-f {adaptive_table,json,shell,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--prefix PREFIX]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              network_id
```

Description

Returns a network based on a network ID.

Returns

Returns dict: Networks response

Mandatory

```
positional arguments:
  network_id            ID of the requested network
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc network get-default-network-id

Usage

```
  usage: symp vpc network get-default-network-id
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                project_id
```

Description

Return the default network id of the default VPC of a project.

Returns

Returns dict: A dictionary containing the result

Mandatory

```
positional arguments:
  project_id            The project id to query
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc network list

Usage

```
  usage: symp vpc network list
[-f {adaptive_table,csv,json,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>] [--noindent]
                               [--quote {all,minimal,none,nonnumeric}]
                               [-m [NAME=VALUE [NAME=VALUE ...]]]
                               [--network-id [NETWORK_ID [NETWORK_ID ...]]]
                               [--name [NAME [NAME ...]]]
                               [--vpc-id [VPC_ID [VPC_ID ...]]]
                               [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                               [--cidr-block [CIDR_BLOCK [CIDR_BLOCK ...]]]
                               [--is-default IS_DEFAULT]
                               [--tags [TAGS [TAGS ...]]]
                               [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                               [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
                               [--allow-non-vpc-direct-networks]
```

Description

Returns all networks.

Returns

Returns list: Networks objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --network-id [NETWORK_ID [NETWORK_ID ...]]
                        List of network IDs to filter by
  --name [NAME [NAME ...]]
                        List of network names to filter by
  --vpc-id [VPC_ID [VPC_ID ...]]
                        List of VPC IDs to filter by
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        List of project IDs to filter by. Maps to AWS ownerId
  --cidr-block [CIDR_BLOCK [CIDR_BLOCK ...]]
                        List of IPv4 CIDR blocks of the network to filter by
  --is-default IS_DEFAULT
                        Whether the subnet is the default subnet of the VPC
  --tags [TAGS [TAGS ...]]
                        List of tag strings to filter by in 'key=value' format
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        List of keys of tags to filter by
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        List of value of tags to filter by
  --allow-non-vpc-direct-networks
                        Whether to include detached direct-networks
```

vpc network list-tags

Usage

```
  usage: symp vpc network list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent]
                                    [--quote {all,minimal,none,nonnumeric}]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List all network tags.

Returns

Returns list: Tag objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc network remove-tags

Usage

```
  usage: symp vpc network remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--force] [--system-tag]
                                    --networks_id [--networks_id ...] --tags
                                    [--tags ...]
```

Description

Delete tags from networks.

Mandatory

```
positional arguments:
  --networks_id         IDs of the networks to remove from
  --tags                List of tag strings to remove in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to remove a system tag (available only for admin)
```

vpc network reset

Usage

```
  usage: symp vpc network reset
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>] [--noindent]
                                [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]] [--hard]
                                network_id
```

Description

Reset all DHCP servers of a network.

Mandatory

```
positional arguments:
  network_id            ID of the network
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --hard                Do hard reset, this may cause connectivity discontinuity
```

vpc network set-default

Usage

```
  usage: symp vpc network set-default
[-f {adaptive_table,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent] [--prefix PREFIX]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
                                     network_id
```

Description

Set the network as default subnet in VPC.

Mandatory

```
positional arguments:
  network_id            The network ID to set as default subnet
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc network update

Usage

```
  usage: symp vpc network update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--name NAME] [--description DESCRIPTION]
                                [--mtu MTU]
                                network_id
```

Description

Update a single network object based on the ID supplied and the parameters.

Mandatory

```
positional arguments:
  network_id            ID of the requested network
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the network
  --description DESCRIPTION
                        The description of the network
  --mtu MTU             The MTU of the network
```

vpc network-interface add-tags

Usage

```
  usage: symp vpc network-interface add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                            [-c COLUMN] [--max-width <integer>]
                                            [--noindent] [--prefix PREFIX]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                                            [--force] [--system-tag]
                                            --network_interface_ids
                                            [--network_interface_ids ...]
                                            --tags [--tags ...]
```

Description

Add tags to network interfaces.

Mandatory

```
positional arguments:
  --network_interface_ids
                        IDs of the network interfaces to add to
  --tags                List of tag strings to add in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to add a system tag (available only for admin)
```

vpc network-interface create

Usage

```
  usage: symp vpc network-interface create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--name NAME]
                                          [--description DESCRIPTION]
                                          [--secondary-ip-address-count SECONDARY_IP_ADDRESS_COUNT]
                                          [--private-ip-addresses PRIVATE_IP_ADDRESSES]
                                          [--project-id PROJECT_ID]
                                          [--security-groups [SECURITY_GROUPS [SECURITY_GROUPS ...]]]
                                          [--mac-address MAC_ADDRESS]
                                          [--private-dns-name PRIVATE_DNS_NAME]
                                          network_id
```

Description

Creates a new network interface object.

Returns

Returns dict: NetworkInterface

Mandatory

```
positional arguments:
  network_id            The UUID of the network to which the interface belongs
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the network interface
  --description DESCRIPTION
                        A description provided by the user
  --secondary-ip-address-count SECONDARY_IP_ADDRESS_COUNT
                        The number of secondary private IPv4 addresses to assign
  --private-ip-addresses PRIVATE_IP_ADDRESSES
                        One or more private IPv4 addresses in the format
                        [{"private_ip_address": "1.2.3.4", "primary": true}]
  --project-id PROJECT_ID
                        The UUID of the project to which this network interface belongs
  --security-groups [SECURITY_GROUPS [SECURITY_GROUPS ...]]
                        One or more security group IDs
  --mac-address MAC_ADDRESS
                        The MAC address of the network interface (unicast only)
  --private-dns-name PRIVATE_DNS_NAME
                        Private DNS name
```

vpc network-interface delete

Usage

```
  usage: symp vpc network-interface delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--override-protection]
                                          network_interface_id
```

Description

Deletes a single network interface object based on the ID supplied.

Mandatory

```
positional arguments:
  network_interface_id  ID of the requested network interface
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection
                        If True, will delete even if the eni is protected from deletion
                        e.g. an internal resource. Allowed only for admins
```

vpc network-interface get

Usage

```
  usage: symp vpc network-interface get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--with-tags]
                                       network_interface_id
```

Description

Returns a Network Interface of a VPC network.

Returns

Returns dict: NetworkInterfaces response

Mandatory

```
positional arguments:
  network_interface_id  ID of the requested network interface
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --with-tags           Flag that indicates if the response should include user tags
```

vpc network-interface list

Usage

```
  usage: symp vpc network-interface list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent]
                                        [--quote {all,minimal,none,nonnumeric}]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--network-interface-id [NETWORK_INTERFACE_ID [NETWORK_INTERFACE_
↪ID ...]]]
                                        [--name [NAME [NAME ...]]]
                                        [--description [DESCRIPTION [DESCRIPTION ...]]]
                                        [--vpc-id [VPC_ID [VPC_ID ...]]]
                                        [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                                        [--network-id [NETWORK_ID [NETWORK_ID ...]]]
                                        [--private-ip-address [PRIVATE_IP_ADDRESS [PRIVATE_IP_ADDRESS ...
↪]]]
                                        [--public-ip-address [PUBLIC_IP_ADDRESS [PUBLIC_IP_ADDRESS ...]]]
                                        [--association-id [ASSOCIATION_ID [ASSOCIATION_ID ...]]]
                                        [--instance-id [INSTANCE_ID [INSTANCE_ID ...]]]
                                        [--attachment-ids [ATTACHMENT_IDS [ATTACHMENT_IDS ...]]]
                                        [--attachment-status [ATTACHMENT_STATUS [ATTACHMENT_STATUS ...]]]
                                        [--security-group-id [SECURITY_GROUP_ID [SECURITY_GROUP_ID ...]]]
                                        [--security-group-name [SECURITY_GROUP_NAME [SECURITY_GROUP_NAME
↪...]]]
```

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```
                                        [--private-dns-name [PRIVATE_DNS_NAME [PRIVATE_DNS_NAME ...]]]
                                        [--delete-on-termination DELETE_ON_TERMINATION]
                                        [--source-dest-check SOURCE_DEST_CHECK]
                                        [--port-security-enabled PORT_SECURITY_ENABLED]
                                        [--tags [TAGS [TAGS ...]]]
                                        [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                        [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
                                        [--with-tags]
                                        [--is-managed-resource IS_MANAGED_RESOURCE]
```

Description

Returns all network interfaces.

Returns

Returns list: NetworkInterfaces objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --network-interface-id [NETWORK_INTERFACE_ID [NETWORK_INTERFACE_ID ...]]
                        IDs to filter by
  --name [NAME [NAME ...]]
                        The name of a particular element
  --description [DESCRIPTION [DESCRIPTION ...]]
                        The description of a particular element
  --vpc-id [VPC_ID [VPC_ID ...]]
                        The IDs of the VPC to filter by
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        ID of a project
  --network-id [NETWORK_ID [NETWORK_ID ...]]
                        The UUID of a network. This maps to subnet-id in AWS
  --private-ip-address [PRIVATE_IP_ADDRESS [PRIVATE_IP_ADDRESS ...]]
                        Private IPv4 addresses associated with the network interface
  --public-ip-address [PUBLIC_IP_ADDRESS [PUBLIC_IP_ADDRESS ...]]
                        The public IPv4 addresses associated with a private IP of the network interface
  --association-id [ASSOCIATION_ID [ASSOCIATION_ID ...]]
                        The ID of an association with a floating IP
  --instance-id [INSTANCE_ID [INSTANCE_ID ...]]
                        The ID of the instance to which the network interface is attached
  --attachment-ids [ATTACHMENT_IDS [ATTACHMENT_IDS ...]]
                        The attachment IDs
  --attachment-status [ATTACHMENT_STATUS [ATTACHMENT_STATUS ...]]
                        Attachment status
  --security-group-id [SECURITY_GROUP_ID [SECURITY_GROUP_ID ...]]
                        The ID of a security group associated with the network interface
  --security-group-name [SECURITY_GROUP_NAME [SECURITY_GROUP_NAME ...]]
                        The name of a security group associated with the network interface
  --private-dns-name [PRIVATE_DNS_NAME [PRIVATE_DNS_NAME ...]]
                        The private DNS name of the network interface (IPv4)
  --delete-on-termination DELETE_ON_TERMINATION
                        Indicates whether the attachment is deleted when an instance is terminated
  --source-dest-check SOURCE_DEST_CHECK
                        Indicates whether to performs IP Addresses source/destination checking
  --port-security-enabled PORT_SECURITY_ENABLED
                        Indicates whether to enable/disable anti-spoofing checks (MAC level)
```

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```
  --tags [TAGS [TAGS ...]]
                        List of tag strings to filter by in 'key=value' format
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        List of keys of tags to filter by
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        List of value of tags to filter by
  --with-tags           Flag that indicates if list should get ports-tags or not
  --is-managed-resource IS_MANAGED_RESOURCE
                        List only managed or not managed resources, or all if None (default)
```

vpc network-interface list-tags

Usage

```
  usage: symp vpc network-interface list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                            [-c COLUMN]
                                            [--max-width <integer>]
                                            [--noindent]
                                            [--quote {all,minimal,none,nonnumeric}]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List all network interface tags.

Returns

Returns list: Tag objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc network-interface remove-tags

Usage

```
  usage: symp vpc network-interface remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent] [--prefix PREFIX]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              [--force] [--system-tag]
                                              --network_interface_ids
                                              [--network_interface_ids ...]
                                              --tags [--tags ...]
```

Description

Delete tags from network interfaces.

Mandatory

```
positional arguments:
  --network_interface_ids
                        IDs of the network interfaces to remove from
  --tags                List of tag strings to remove in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to remove a system tag (available only for admin)
```

vpc network-interface reset

Usage

```
  usage: symp vpc network-interface reset
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--hard]
                                        instance_id
```

Description

Reset all network interfaces of an instance.

Mandatory

```
positional arguments:
  instance_id           ID of the instance to perform network reset on
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --hard                Whether to ignore non-existing resources
```

vpc network-interface update

Usage

```
  usage: symp vpc network-interface update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                         [-c COLUMN] [--max-width <integer>]
                                         [--noindent] [--prefix PREFIX]
                                         [-m [NAME=VALUE [NAME=VALUE ...]]]
                                         [--description DESCRIPTION]
                                         [--name NAME]
                                         [--private-dns-name PRIVATE_DNS_NAME]
                                         [--src-dst-check SRC_DST_CHECK]
                                         [--security-group-id [SECURITY_GROUP_ID [SECURITY_GROUP_ID ...
↪]]]
                                         [--delete-on-termination DELETE_ON_TERMINATION]
```

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```
                                        [--port-security-enabled PORT_SECURITY_ENABLED]
                                        network_interface_id
```

Description

Update a single network interface object based on the ID supplied and the parameters.

Mandatory

```
positional arguments:
  network_interface_id  ID of the requested network interface
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        A description provided by the user
  --name NAME           The name of the network interface
  --private-dns-name PRIVATE_DNS_NAME
                        Indicates whether the network interface performs source/destination checking
  --src-dst-check SRC_DST_CHECK
                        Indicates whether the network interface performs source/destination checking
  --security-group-id [SECURITY_GROUP_ID [SECURITY_GROUP_ID ...]]
                        The ID of a security group associated with the network interface
  --delete-on-termination DELETE_ON_TERMINATION
                        Indicates whether the attachment is deleted when an instance is terminated
  --port-security-enabled PORT_SECURITY_ENABLED
                        Indicates whether to enable/disable anti-spoofing checks (MAC level)
```

vpc peering accept

Usage

```
  usage: symp vpc peering accept
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                peering_id
```

Description

Accept a requested vpc peering connection.

Mandatory

```
positional arguments:
  peering_id            ID of the peering connection
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc peering add-tags

Usage

```
  usage: symp vpc peering add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]] [--force]
                                    --peering_id [--peering_id ...] --tags
                                    [--tags ...]
```

Description

Add tags to vpc peering.

Mandatory

```
positional arguments:
  --peering_id          IDs of the vpc peering to add to
  --tags                List of tag strings to add in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
```

vpc peering create

Usage

```
  usage: symp vpc peering create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--name NAME] [--description DESCRIPTION]
                                requester_vpc_id accepter_vpc_id
```

Description

Create a new vpc peering connection.

Returns

Returns dict: The create result

Mandatory

```
positional arguments:
  requester_vpc_id      The id of the first vpc participating in the vpc connection
  accepter_vpc_id       The id of the second vpc participating in the vpc connection
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Name of vpc peering connection
  --description DESCRIPTION
                        Description of vpc peering connection
```

vpc peering delete

Usage

```
  usage: symp vpc peering delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                peering_id
```

Description

Delete an existing vpc peering connection.

Returns

Returns dict: The delete result

Mandatory

```
positional arguments:
  peering_id            The id of the first vpc participating in the vpc connection
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc peering list

Usage

```
  usage: symp vpc peering list
[-f {adaptive_table,csv,json,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--quote {all,minimal,none,nonnumeric}]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              [--accepter-vpc-info-cidr-block [ACCEPTER_VPC_INFO_CIDR_BLOCK [ACCEPTER_
↪VPC_INFO_CIDR_BLOCK ...]]]
                              [--accepter-vpc-info-project-id [ACCEPTER_VPC_INFO_PROJECT_ID [ACCEPTER_
↪VPC_INFO_PROJECT_ID ...]]]
                              [--accepter-vpc-info-vpc-id [ACCEPTER_VPC_INFO_VPC_ID [ACCEPTER_VPC_INFO_
↪VPC_ID ...]]]
                              [--requester-vpc-info-cidr-block [REQUESTER_VPC_INFO_CIDR_BLOCK [REQUESTER_
↪VPC_INFO_CIDR_BLOCK ...]]]
                              [--requester-vpc-info-project-id [REQUESTER_VPC_INFO_PROJECT_ID [REQUESTER_
↪VPC_INFO_PROJECT_ID ...]]]
                              [--requester-vpc-info-vpc-id [REQUESTER_VPC_INFO_VPC_ID [REQUESTER_VPC_
↪INFO_VPC_ID ...]]]
```

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```
                              [--name [NAME [NAME ...]]]
                              [--description [DESCRIPTION [DESCRIPTION ...]]]
                              [--status-code [STATUS_CODE [STATUS_CODE ...]]]
                              [--ids [IDS [IDS ...]]]
                              [--tags [TAGS [TAGS ...]]]
                              [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                              [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
```

Description

Describes one or more of your VPC peering connections.

Returns

Returns list: VPC peering objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --accepter-vpc-info-cidr-block [ACCEPTER_VPC_INFO_CIDR_BLOCK [ACCEPTER_VPC_INFO_CIDR_BLOCK ...]]
                        The IPv4 CIDR block of the accepter VPC
  --accepter-vpc-info-project-id [ACCEPTER_VPC_INFO_PROJECT_ID [ACCEPTER_VPC_INFO_PROJECT_ID ...]]
                        The project id of the accepter vpc
  --accepter-vpc-info-vpc-id [ACCEPTER_VPC_INFO_VPC_ID [ACCEPTER_VPC_INFO_VPC_ID ...]]
                        The ID of the accepter VPC
  --requester-vpc-info-cidr-block [REQUESTER_VPC_INFO_CIDR_BLOCK [REQUESTER_VPC_INFO_CIDR_BLOCK ...]]
                        The IPv4 CIDR block of the requester VPC
  --requester-vpc-info-project-id [REQUESTER_VPC_INFO_PROJECT_ID [REQUESTER_VPC_INFO_PROJECT_ID ...]]
                        The project id of the requester VPC
  --requester-vpc-info-vpc-id [REQUESTER_VPC_INFO_VPC_ID [REQUESTER_VPC_INFO_VPC_ID ...]]
                        The ID of the requester VPC
  --name [NAME [NAME ...]]
                        The name of the VPC peering connection
  --description [DESCRIPTION [DESCRIPTION ...]]
                        The description of the VPC peering connection
  --status-code [STATUS_CODE [STATUS_CODE ...]]
                        The status of the VPC peering connection
  --ids [IDS [IDS ...]]
                        The ID of the VPC peering connection
  --tags [TAGS [TAGS ...]]
                        List of tag strings to filter by in 'key=value' format
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        List of keys of tags to filter by
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        List of value of tags to filter by
```

vpc peering reject

Usage

```
  usage: symp vpc peering reject
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                peering_id
```

Description

Reject a requested vpc peering connection.

Mandatory

```
positional arguments:
  peering_id            ID of the peering connection
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc peering remove-tags

Usage

```
  usage: symp vpc peering remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--force]
                                    --peering_id [--peering_id ...] --tags
                                    [--tags ...]
```

Description

Delete tags from route tables.

Mandatory

```
positional arguments:
  --peering_id          IDs of the vpc peering to remove from
  --tags                List of tag strings to remove in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
```

vpc peering update

Usage

```
  usage: symp vpc peering update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                [--name NAME] [--description DESCRIPTION]
                                [--accepter-name ACCEPTER_NAME]
                                [--accepter-description ACCEPTER_DESCRIPTION]
                                peering_id
```

Description

Update a single network object based on the ID supplied and the parameters.

Mandatory

```
positional arguments:
  peering_id            ID of the requested peering connection
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the peering connection
  --description DESCRIPTION
                        The description of the peering connection
  --accepter-name ACCEPTER_NAME
                        The name seen by the accepter (admin only)
  --accepter-description ACCEPTER_DESCRIPTION
                        The description seen by the accepter (admin only)
```

vpc project action

Usage

```
  usage: symp vpc project action
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                project_id action
```

Description

Perform an action on a vpc project.

Returns

Returns dict: Result: true/false + entity-type: count remaining

Mandatory

```
positional arguments:
  project_id            UUID of the project
```

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```
  action                The action to perform.
                        Possible values: delete_dry_run, enable_flowlogs, disable_flowlogs
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc project delete

Usage

```
  usage: symp vpc project delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                project_id
```

Description

Delete a vpc project config object.

Mandatory

```
positional arguments:
  project_id            UUID of the project
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc project get

Usage

```
  usage: symp vpc project get
[-f {adaptive_table,json,shell,table,value,yaml}]
                             [-c COLUMN] [--max-width <integer>] [--noindent]
                             [--prefix PREFIX]
                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                             project_id
```

Description

Get the vpc project config object.

Returns

Returns dict: Project config object

Mandatory

```
positional arguments:
  project_id            UUID of the project
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc project list

Usage

```
  usage: symp vpc project list
[-f {adaptive_table,csv,json,table,value,yaml}]
                              [-c COLUMN] [--max-width <integer>] [--noindent]
                              [--quote {all,minimal,none,nonnumeric}]
                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                              [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                              [--edge-network-id [EDGE_NETWORK_ID [EDGE_NETWORK_ID ...]]]
                              [--edgenet-ip-pool-id [EDGENET_IP_POOL_ID [EDGENET_IP_POOL_ID ...]]]
                              [--flowlogs-enabled FLOWLOGS_ENABLED]
```

Description

Returns all vpc project config objects.

Returns

Returns list: Project objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        Filter by UUID of the project
  --edge-network-id [EDGE_NETWORK_ID [EDGE_NETWORK_ID ...]]
                        Filter by UUID of the neutron edge network
  --edgenet-ip-pool-id [EDGENET_IP_POOL_ID [EDGENET_IP_POOL_ID ...]]
                        Filter by UUID of the edge network ip pool
  --flowlogs-enabled FLOWLOGS_ENABLED
                        Whether to enabled flowlogsfor this project
```

vpc project provision

Usage

```
  usage: symp vpc project provision
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--edge-network-id EDGE_NETWORK_ID]
                                    [--edgenet-ip-pool-id EDGENET_IP_POOL_ID]
                                    [--edge-subnet-id EDGE_SUBNET_ID]
                                    [--without-default-vpc]
                                    project_id
```

Description

Creates a new vpc project config object.

Mandatory

```
positional arguments:
  project_id            UUID of the project
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --edge-network-id EDGE_NETWORK_ID
                        UUID of the neutron edge network
  --edgenet-ip-pool-id EDGENET_IP_POOL_ID
                        UUID of the edge network ip pool
  --edge-subnet-id EDGE_SUBNET_ID
                        UUID of the neutron subnet on the selected end network
  --without-default-vpc
                        Whether to create a default VPC for this project
```

vpc project reset-edge-network

Usage

```
  usage: symp vpc project reset-edge-network
[-f {adaptive_table,json,shell,table,value,yaml}]
                                            [-c COLUMN] [--max-width <integer>]
                                            [--noindent] [--prefix PREFIX]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                                            [--force]
                                            project_id
```

Description

Set the edge network if no other edge network is already attached.

Mandatory

```
positional arguments:
  project_id            UUID of the project
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Will force deletion of all resources
```

vpc project set-edge-network

Usage

```
  usage: symp vpc project set-edge-network
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--edge-network-id EDGE_NETWORK_ID]
                                          [--edgenet-ip-pool-id EDGENET_IP_POOL_ID]
                                          [--edge-subnet-id EDGE_SUBNET_ID]
                                          project_id
```

Description

Set the edge network if no other edge network is already attached.

Mandatory

```
positional arguments:
  project_id            UUID of the project
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --edge-network-id EDGE_NETWORK_ID
                        UUID of the neutron edge network
  --edgenet-ip-pool-id EDGENET_IP_POOL_ID
                        UUID of the edge network ip pool
  --edge-subnet-id EDGE_SUBNET_ID
                        UUID of the neutron subnet on the selected end network
```

vpc project upgrade-for-edge

Usage

```
  usage: symp vpc project upgrade-for-edge
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          project_id
```

Description

Upgrade project to support the new version of edge network.

Mandatory

```
positional arguments:
  project_id            UUID of the project
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc remove-tags

Usage

```
  usage: symp vpc remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                             [-c COLUMN] [--max-width <integer>] [--noindent]
                             [--prefix PREFIX]
                             [-m [NAME=VALUE [NAME=VALUE ...]]] [--force]
                             [--system-tag]
                             --vpc_ids [--vpc_ids ...] --tags [--tags ...]
```

Description

Delete tags from VPC objects.

Mandatory

```
positional arguments:
  --vpc_ids             IDs of the VPCs to remove from
  --tags                List of tag strings to remove in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to remove a system tag (available only for admin)
```

vpc route add

Usage

```
  usage: symp vpc route add
[-f {adaptive_table,json,shell,table,value,yaml}]
                           [-c COLUMN] [--max-width <integer>] [--noindent]
                           [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                           [--gateway-id GATEWAY_ID]
                           [--instance-id INSTANCE_ID]
                           [--nat-gateway-id NAT_GATEWAY_ID]
                           [--network-interface-id NETWORK_INTERFACE_ID]
                           [--vpc-connection-id VPC_CONNECTION_ID]
                           destination_cidr_block route_table_id
```

Description

Creates a route in a route table within a VPC.

Returns

Returns dict: The create result

Mandatory

```
positional arguments:
  destination_cidr_block
                        The IPv4 CIDR address block used for the destination match
  route_table_id        The ID of the route table for the route
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --gateway-id GATEWAY_ID
                        The ID of an Internet gateway or virtual private gateway attached to your VPC
  --instance-id INSTANCE_ID
                        The ID of a NAT instance in your VPC
  --nat-gateway-id NAT_GATEWAY_ID
                        (IPv4 traffic only) The ID of a NAT gateway
  --network-interface-id NETWORK_INTERFACE_ID
                        The ID of a network interface
  --vpc-connection-id VPC_CONNECTION_ID
                        The ID of a VPC peering connection
```

vpc route remove

Usage

```
  usage: symp vpc route remove
[-f {adaptive_table,json,shell,table,value,yaml}]
                             [-c COLUMN] [--max-width <integer>] [--noindent]
                             [--prefix PREFIX]
                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                             destination_cidr_block route_table_id
```

Description

Deletes the specified route from the specified route table.

Returns

Returns dict: The remove result

Mandatory

```
positional arguments:
  destination_cidr_block
                        The IPv4 CIDR address block used for the destination match
  route_table_id        The ID of the route table for the route
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc route-table add-tags

Usage

```
  usage: symp vpc route-table add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--noindent] [--prefix PREFIX]
                                      [-m [NAME=VALUE [NAME=VALUE ...]]]
                                      [--force] [--system-tag]
```

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```
                                        --route_table_id [--route_table_id ...]
                                        --tags [--tags ...]
```

Description

Add tags to route tables.

Mandatory

```
positional arguments:
  --route_table_id      IDs of the route table to add to
  --tags                List of tag strings to add in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to add a system tag (available only for admin)
```

vpc route-table associate

Usage

```
  usage: symp vpc route-table associate
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--network-id NETWORK_ID]
                                        [--association-id ASSOCIATION_ID]
                                        route_table_id
```

Description

Associate a network with a route table or replace association.

Returns

Returns dict: New association ID

Mandatory

```
positional arguments:
  route_table_id        ID of the requested router
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --network-id NETWORK_ID
                        ID of the network to associate the route table with
                        (optional - either this or association_id must be defined)
  --association-id ASSOCIATION_ID
                        ID of the association to replace
                        (optional - either this or network_id must be defined)
```

vpc route-table create

Usage

```
  usage: symp vpc route-table create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--name NAME] [--description DESCRIPTION]
                                    [--tags [TAGS [TAGS ...]]]
                                    vpc_id
```

Description

Creates a route table.

Returns

Returns dict: Route Table response

Mandatory

```
positional arguments:
  vpc_id                ID of route table VPC
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           Name of route table
  --description DESCRIPTION
                        Description of route table
  --tags [TAGS [TAGS ...]]
                        List of tag strings to add in 'key=value' format
```

vpc route-table delete

Usage

```
  usage: symp vpc route-table delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    route_table_id
```

Description

Delete a route table.

Mandatory

```
positional arguments:
  route_table_id        ID of the requested route table
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc route-table disassociate

Usage

```
  usage: symp vpc route-table disassociate
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          association_id
```

Description

Delete a network association.

Mandatory

```
positional arguments:
  association_id        ID of the network association
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc route-table get

Usage

```
  usage: symp vpc route-table get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                 [-c COLUMN] [--max-width <integer>]
                                 [--noindent] [--prefix PREFIX]
                                 [-m [NAME=VALUE [NAME=VALUE ...]]]
                                 [--with-implicit-associations]
                                 route_table_id
```

Description

Returns a route table based on a route table ID.

Returns

Returns dict: RouteTables response

Mandatory

```
positional arguments:
  route_table_id        ID of the requested route table
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --with-implicit-associations
                        Include implicit associations
```

vpc route-table list

Usage

```
  usage: symp vpc route-table list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--noindent]
                                  [--quote {all,minimal,none,nonnumeric}]
                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                  [--route-table-id [ROUTE_TABLE_ID [ROUTE_TABLE_ID ...]]]
                                  [--vpc-id [VPC_ID [VPC_ID ...]]]
                                  [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                                  [--name [NAME [NAME ...]]]
                                  [--association-route-table-association-id [ASSOCIATION_ROUTE_TABLE_
↪ASSOCIATION_ID [ASSOCIATION_ROUTE_TABLE_ASSOCIATION_ID ...]]]
                                  [--association-route-table-id [ASSOCIATION_ROUTE_TABLE_ID [ASSOCIATION_
↪ROUTE_TABLE_ID ...]]]
                                  [--association-network-id [ASSOCIATION_NETWORK_ID [ASSOCIATION_NETWORK_
↪ID ...]]]
                                  [--association-main [ASSOCIATION_MAIN [ASSOCIATION_MAIN ...]]]
                                  [--route-destination-cidr-block [ROUTE_DESTINATION_CIDR_BLOCK [ROUTE_
↪DESTINATION_CIDR_BLOCK ...]]]
                                  [--route-destination-prefix-list-id [ROUTE_DESTINATION_PREFIX_LIST_ID
↪[ROUTE_DESTINATION_PREFIX_LIST_ID ...]]]
                                  [--route-gateway-id [ROUTE_GATEWAY_ID [ROUTE_GATEWAY_ID ...]]]
                                  [--route-network-interface-id [ROUTE_NETWORK_INTERFACE_ID [ROUTE_
↪NETWORK_INTERFACE_ID ...]]]
                                  [--route-nat-gateway-id [ROUTE_NAT_GATEWAY_ID [ROUTE_NAT_GATEWAY_ID ...
↪]]]
                                  [--route-vpc-peering-connection-id [ROUTE_VPC_PEERING_CONNECTION_ID
↪[ROUTE_VPC_PEERING_CONNECTION_ID ...]]]
                                  [--route-origin [ROUTE_ORIGIN [ROUTE_ORIGIN ...]]]
                                  [--route-state [ROUTE_STATE [ROUTE_STATE ...]]]
                                  [--with-implicit-associations]
                                  [--tags [TAGS [TAGS ...]]]
                                  [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                  [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
```

Description

Describes one or more of your route tables.

Returns

Returns list: The result of the query

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --route-table-id [ROUTE_TABLE_ID [ROUTE_TABLE_ID ...]]
```

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```
                        The ID of the route table
  --vpc-id [VPC_ID [VPC_ID ...]]
                        The ID of the VPC for the route table
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        The ID of the project
  --name [NAME [NAME ...]]
                        The name of the route table
  --association-route-table-association-id [ASSOCIATION_ROUTE_TABLE_ASSOCIATION_ID [ASSOCIATION_ROUTE_
↪TABLE_ASSOCIATION_ID ...]]
                        The ID of an association ID for the route table
  --association-route-table-id [ASSOCIATION_ROUTE_TABLE_ID [ASSOCIATION_ROUTE_TABLE_ID ...]]
                        The ID of the route table involved in the association
  --association-network-id [ASSOCIATION_NETWORK_ID [ASSOCIATION_NETWORK_ID ...]]
                        The ID of the network involved in the association
  --association-main [ASSOCIATION_MAIN [ASSOCIATION_MAIN ...]]
                        Indicates whether the route table is the main route table for the VPC (true |
↪false)
  --route-destination-cidr-block [ROUTE_DESTINATION_CIDR_BLOCK [ROUTE_DESTINATION_CIDR_BLOCK ...]]
                        The IPv4 CIDR range specified in a route in the table
  --route-destination-prefix-list-id [ROUTE_DESTINATION_PREFIX_LIST_ID [ROUTE_DESTINATION_PREFIX_LIST_ID .
↪..]]
                        The ID (prefix) of the AWS service specified in a route in the table
  --route-gateway-id [ROUTE_GATEWAY_ID [ROUTE_GATEWAY_ID ...]]
                        The ID of a gateway specified in a route in the table
  --route-network-interface-id [ROUTE_NETWORK_INTERFACE_ID [ROUTE_NETWORK_INTERFACE_ID ...]]
                        The ID of an eni specified in a route in the table
  --route-nat-gateway-id [ROUTE_NAT_GATEWAY_ID [ROUTE_NAT_GATEWAY_ID ...]]
                        The ID of a NAT gateway
  --route-vpc-peering-connection-id [ROUTE_VPC_PEERING_CONNECTION_ID [ROUTE_VPC_PEERING_CONNECTION_ID ...
↪]]
                        The ID of a VPC peering connection
  --route-origin [ROUTE_ORIGIN [ROUTE_ORIGIN ...]]
                        Describes how the route was created
  --route-state [ROUTE_STATE [ROUTE_STATE ...]]
                        The state of a route in the route table (active | blackhole)
  --with-implicit-associations
                        Include implicit associations
  --tags [TAGS [TAGS ...]]
                        List of tag strings to filter by in 'key=value' format
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        List of keys of tags to filter by
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        List of value of tags to filter by
```

vpc route-table list-tags

Usage

```
  usage: symp vpc route-table list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent]
                                       [--quote {all,minimal,none,nonnumeric}]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List all route table tags.

Returns

Returns list: Tag objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc route-table remove-tags

Usage

```
  usage: symp vpc route-table remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--force] [--system-tag]
                                        --route_table_id
                                        [--route_table_id ...] --tags
                                        [--tags ...]
```

Description

Delete tags from route tables.

Mandatory

```
positional arguments:
  --route_table_id      IDs of the route table to remove from
  --tags                List of tag strings to remove in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to remove a system tag (available only for admin)
```

vpc route-table reset

Usage

```
  usage: symp vpc route-table reset
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]] [--hard]
                                    route_table_id
```

Description

Reset all network interfaces of a route-table.

Mandatory

```
positional arguments:
  route_table_id        ID of the route_table to reset network interfaces
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --hard                Do hard reset, this may cause connectivity discontinuity
```

vpc route-table update

Usage

```
  usage: symp vpc route-table update
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    [--name NAME] [--description DESCRIPTION]
                                    route_table_id
```

Description

Update a single route table object based on the ID supplied and the parameters.

Mandatory

```
positional arguments:
  route_table_id        ID of the requested route table
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name of the route table
  --description DESCRIPTION
                        The description of the route table
```

vpc route-target list

Usage

```
  usage: symp vpc route-target list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                   [-c COLUMN] [--max-width <integer>]
                                   [--noindent]
                                   [--quote {all,minimal,none,nonnumeric}]
                                   [-m [NAME=VALUE [NAME=VALUE ...]]]
                                   [--entity-id [ENTITY_ID [ENTITY_ID ...]]]
                                   [--vpc-id [VPC_ID [VPC_ID ...]]]
                                   [--target-type [TARGET_TYPE [TARGET_TYPE ...]]]
                                   [--ip-address [IP_ADDRESS [IP_ADDRESS ...]]]
                                   [--network-id [NETWORK_ID [NETWORK_ID ...]]]
                                   [--vm-id [VM_ID [VM_ID ...]]]
```

Description

Returns all route targets objects.

Returns

Returns list: RouteTarget objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --entity-id [ENTITY_ID [ENTITY_ID ...]]
                        Filter by UUID of the entity
  --vpc-id [VPC_ID [VPC_ID ...]]
                        Filter by UUID of the vpc
  --target-type [TARGET_TYPE [TARGET_TYPE ...]]
                        Filter by UUID of the edge network ip pool
  --ip-address [IP_ADDRESS [IP_ADDRESS ...]]
                        IP address of the entity
  --network-id [NETWORK_ID [NETWORK_ID ...]]
                        ID of the network the entity belongs to
  --vm-id [VM_ID [VM_ID ...]]
                        ID of the vm of the entity
```

vpc security-group add-tags

Usage

```
  usage: symp vpc security-group add-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                        [-c COLUMN] [--max-width <integer>]
                                        [--noindent] [--prefix PREFIX]
                                        [-m [NAME=VALUE [NAME=VALUE ...]]]
                                        [--force] [--system-tag]
                                        --security_group_id
                                        [--security_group_id ...] --tags
                                        [--tags ...]
```

Description

Add tags to security groups.

Mandatory

```
positional arguments:
  --security_group_id   IDs of the security group to add to
  --tags                List of tag strings to add in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to add a system tag (available only for admin)
```

vpc security-group authorize-egress

Usage

```
  usage: symp vpc security-group authorize-egress
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
                                                  [--noindent] [--prefix PREFIX]
                                                  [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                  [--ip-permissions IP_PERMISSIONS]
                                                  group_id
```

Description

Adds one or more egress rules to a security group for use with a VPC.

Returns

Returns dict: The result of the operation

Mandatory

```
positional arguments:
  group_id              The security group ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ip-permissions IP_PERMISSIONS
                        List of IP permissions objects to authorize in the form:
                        [{"from_port": <start_port>, "to_port": <end_port>, "ip_protocol": <ip_protocol>
                        , "groups": [{"group_id": <group_id>, "description": <group_description>}],
                        "ip_ranges": [{"cidr_ip": <cidr_ip>, "description": <cidr_description>}],
                        "ipv6_ranges": [{"cidr_ipv6": <cidr_ipv6>, "description": <cidr_description>}],
                        }]
                        where ip_protocol is one of the enums:
                        - tcp
                        - udp
                        - icmp
                        - -1
                        Example: [{"from_port": 80, "to_port": 80, "ip_protocol": "tcp"
                        , "groups": [{"group_id": "e0cb226c-1ee6-47a0-925e-a6f99f12e331"
                        , "description": "Rule for group e0cb226c-1ee6-47a0-925e-a6f99f12e331"}]}]
```

vpc security-group authorize-ingress

Usage

```
  usage: symp vpc security-group authorize-ingress
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                   [-c COLUMN]
                                                   [--max-width <integer>]
                                                   [--noindent]
                                                   [--prefix PREFIX]
                                                   [-m [NAME=VALUE [NAME=VALUE ...]]]
```

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```
                                                [--ip-permissions IP_PERMISSIONS]
                                                group_id
```

Description

Adds one or more ingress rules to a security group.

Returns

Returns dict: The result of the operation

Mandatory

```
positional arguments:
  group_id              The ID of the security group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ip-permissions IP_PERMISSIONS
                        List of IP permissions objects to authorize in the form:
                        [{"from_port": <start_port>, "to_port": <end_port>, "ip_protocol": <ip_protocol>
                        , "groups": [{"group_id": <group_id>, "description": <group_description>}],
                        "ip_ranges": [{"cidr_ip": <cidr_ip>, "description": <cidr_description>}],
                        "ipv6_ranges": [{"cidr_ipv6": <cidr_ipv6>, "description": <cidr_description>}],
                        }]
                        where ip_protocol is one of the enums:
                        - tcp
                        - udp
                        - icmp
                        - -1
                        Example: [{"from_port": 80, "to_port": 80, "ip_protocol": "tcp"
                        , "groups": [{"group_id": "e0cb226c-1ee6-47a0-925e-a6f99f12e331"
                        , "description": "Rule for group e0cb226c-1ee6-47a0-925e-a6f99f12e331"}]}]
```

vpc security-group create

Usage

```
  usage: symp vpc security-group create
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--description DESCRIPTION]
                                       [--tags [TAGS [TAGS ...]]] [--hidden]
                                       name vpc_id
```

Description

Creates a security group.

Returns

Returns dict: The security group return result

Mandatory

```
positional arguments:
  name                  The name of the security group
  vpc_id                The associated VPC ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --description DESCRIPTION
                        The description of the security groups
  --tags [TAGS [TAGS ...]]
                        List of tag strings to set in 'key=value' format
  --hidden              This parameter is deprecated and will be ignored
                        Security groups can no longer be hidden
```

vpc security-group delete

Usage

```
  usage: symp vpc security-group delete
[-f {adaptive_table,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--noindent] [--prefix PREFIX]
                                       [-m [NAME=VALUE [NAME=VALUE ...]]]
                                       [--group-id GROUP_ID] [--name NAME]
                                       [--override-protection]
```

Description

Deletes the specified Security Group. You must detach or delete all resources that are associated with the security group before you can delete it.

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --group-id GROUP_ID   The security group ID
  --name NAME           The security group name
  --override-protection
                        If True, will delete even if the EIP is protected from deletion
                        e.g. an internal resource. Allowed only for admins
```

vpc security-group delete-by-id

Usage

```
  usage: symp vpc security-group delete-by-id
[-f {adaptive_table,json,shell,table,value,yaml}]
                                          [-c COLUMN]
                                          [--max-width <integer>]
                                          [--noindent] [--prefix PREFIX]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
                                          [--override-protection]
                                          group_id
```

Description

Deletes the specified Security Group. You must detach or delete all resources that are associated with the security group before you can delete it.

Mandatory

```
positional arguments:
  group_id              The security group ID
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --override-protection
                        If True, will delete even if the EIP is protected from deletion
                        e.g. an internal resource. Allowed only for admins
```

vpc security-group get

Usage

```
  usage: symp vpc security-group get
[-f {adaptive_table,json,shell,table,value,yaml}]
                                    [-c COLUMN] [--max-width <integer>]
                                    [--noindent] [--prefix PREFIX]
                                    [-m [NAME=VALUE [NAME=VALUE ...]]]
                                    group_id
```

Description

Return the security group details.

Returns

Returns dict: Security group object

Mandatory

```
positional arguments:
  group_id              The ID of the security group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc security-group list

Usage

```
  usage: symp vpc security-group list
[-f {adaptive_table,csv,json,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--noindent]
                                     [--quote {all,minimal,none,nonnumeric}]
                                     [-m [NAME=VALUE [NAME=VALUE ...]]]
```

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```
                                    [--group-id [GROUP_ID [GROUP_ID ...]]]
                                    [--name [NAME [NAME ...]]]
                                    [--description [DESCRIPTION [DESCRIPTION ...]]]
                                    [--vpc-id [VPC_ID [VPC_ID ...]]]
                                    [--project-id [PROJECT_ID [PROJECT_ID ...]]]
                                    [--egress-permissions-cidr [EGRESS_PERMISSIONS_CIDR [EGRESS_
↪PERMISSIONS_CIDR ...]]]
                                    [--egress-permissions-from-port [EGRESS_PERMISSIONS_FROM_PORT
↪[EGRESS_PERMISSIONS_FROM_PORT ...]]]
                                    [--egress-permissions-group-id [EGRESS_PERMISSIONS_GROUP_ID [EGRESS_
↪PERMISSIONS_GROUP_ID ...]]]
                                    [--egress-permissions-group-name [EGRESS_PERMISSIONS_GROUP_NAME
↪[EGRESS_PERMISSIONS_GROUP_NAME ...]]]
                                    [--egress-permissions-ipv6-cidr [EGRESS_PERMISSIONS_IPV6_CIDR
↪[EGRESS_PERMISSIONS_IPV6_CIDR ...]]]
                                    [--egress-permissions-protocol [EGRESS_PERMISSIONS_PROTOCOL [EGRESS_
↪PERMISSIONS_PROTOCOL ...]]]
                                    [--egress-permissions-to-port [EGRESS_PERMISSIONS_TO_PORT [EGRESS_
↪PERMISSIONS_TO_PORT ...]]]
                                    [--egress-permissions-project-id [EGRESS_PERMISSIONS_PROJECT_ID
↪[EGRESS_PERMISSIONS_PROJECT_ID ...]]]
                                    [--ingress-permissions-cidr [INGRESS_PERMISSIONS_CIDR [INGRESS_
↪PERMISSIONS_CIDR ...]]]
                                    [--ingress-permissions-from-port [INGRESS_PERMISSIONS_FROM_PORT
↪[INGRESS_PERMISSIONS_FROM_PORT ...]]]
                                    [--ingress-permissions-group-id [INGRESS_PERMISSIONS_GROUP_ID
↪[INGRESS_PERMISSIONS_GROUP_ID ...]]]
                                    [--ingress-permissions-group-name [INGRESS_PERMISSIONS_GROUP_NAME
↪[INGRESS_PERMISSIONS_GROUP_NAME ...]]]
                                    [--ingress-permissions-ipv6-cidr [INGRESS_PERMISSIONS_IPV6_CIDR
↪[INGRESS_PERMISSIONS_IPV6_CIDR ...]]]
                                    [--ingress-permissions-protocol [INGRESS_PERMISSIONS_PROTOCOL
↪[INGRESS_PERMISSIONS_PROTOCOL ...]]]
                                    [--ingress-permissions-to-port [INGRESS_PERMISSIONS_TO_PORT
↪[INGRESS_PERMISSIONS_TO_PORT ...]]]
                                    [--ingress-permissions-project-id [INGRESS_PERMISSIONS_PROJECT_ID
↪[INGRESS_PERMISSIONS_PROJECT_ID ...]]]
                                    [--tags [TAGS [TAGS ...]]]
                                    [--tag-keys [TAG_KEYS [TAG_KEYS ...]]]
                                    [--tag-values [TAG_VALUES [TAG_VALUES ...]]]
                                    [--show-hidden]
                                    [--is-managed-resource IS_MANAGED_RESOURCE]
```

Description

List all security groups.

Returns

Returns list: Security group objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --group-id [GROUP_ID [GROUP_ID ...]]
                        The ID of the security group
  --name [NAME [NAME ...]]
```

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```
                        The name of the security group
  --description [DESCRIPTION [DESCRIPTION ...]]
                        The description of the security groups
  --vpc-id [VPC_ID [VPC_ID ...]]
                        The ID of the VPC specified when the security group was created
  --project-id [PROJECT_ID [PROJECT_ID ...]]
                        The Symphony project ID of the owner of the security group
  --egress-permissions-cidr [EGRESS_PERMISSIONS_CIDR [EGRESS_PERMISSIONS_CIDR ...]]
                        An IPv4 CIDR block for an outbound security group rule
  --egress-permissions-from-port [EGRESS_PERMISSIONS_FROM_PORT [EGRESS_PERMISSIONS_FROM_PORT ...]]
                        For an outbound rule, the start of port range for the TCP and UDP protocols, or
↪an ICMP type number
  --egress-permissions-group-id [EGRESS_PERMISSIONS_GROUP_ID [EGRESS_PERMISSIONS_GROUP_ID ...]]
                        The ID of a security group that has been referenced in an outbound security group
↪rule
  --egress-permissions-group-name [EGRESS_PERMISSIONS_GROUP_NAME [EGRESS_PERMISSIONS_GROUP_NAME ...]]
                        The name of a security group that has been referenced in an outbound security
↪group rule
  --egress-permissions-ipv6-cidr [EGRESS_PERMISSIONS_IPV6_CIDR [EGRESS_PERMISSIONS_IPV6_CIDR ...]]
                        An IPv6 CIDR block for an outbound security group rule
  --egress-permissions-protocol [EGRESS_PERMISSIONS_PROTOCOL [EGRESS_PERMISSIONS_PROTOCOL ...]]
                        The IP protocol for an outbound security group rule (tcp | udp | icmp or a
↪protocol number)
  --egress-permissions-to-port [EGRESS_PERMISSIONS_TO_PORT [EGRESS_PERMISSIONS_TO_PORT ...]]
                        For an outbound rule, the end of port range for the TCP and UDP protocols, or an
↪ICMP code
  --egress-permissions-project-id [EGRESS_PERMISSIONS_PROJECT_ID [EGRESS_PERMISSIONS_PROJECT_ID ...]]
                        The ID of a Symphony project that has been referenced in an outbound security
↪group rule
  --ingress-permissions-cidr [INGRESS_PERMISSIONS_CIDR [INGRESS_PERMISSIONS_CIDR ...]]
                        An IPv4 CIDR block for an inbound security group rule
  --ingress-permissions-from-port [INGRESS_PERMISSIONS_FROM_PORT [INGRESS_PERMISSIONS_FROM_PORT ...]]
                        For an inbound rule, the start of port range for the TCP and UDP protocols, or an
↪ICMP type number
  --ingress-permissions-group-id [INGRESS_PERMISSIONS_GROUP_ID [INGRESS_PERMISSIONS_GROUP_ID ...]]
                        The ID of a security group that has been referenced in an inbound security group
↪rule
  --ingress-permissions-group-name [INGRESS_PERMISSIONS_GROUP_NAME [INGRESS_PERMISSIONS_GROUP_NAME ...]]
                        The name of a security group that has been referenced in an inbound security
↪group rule
  --ingress-permissions-ipv6-cidr [INGRESS_PERMISSIONS_IPV6_CIDR [INGRESS_PERMISSIONS_IPV6_CIDR ...]]
                        An IPv6 CIDR block for an inbound security group rule
  --ingress-permissions-protocol [INGRESS_PERMISSIONS_PROTOCOL [INGRESS_PERMISSIONS_PROTOCOL ...]]
                        The IP protocol for an inbound security group rule (tcp | udp | icmp or a
↪protocol number)
  --ingress-permissions-to-port [INGRESS_PERMISSIONS_TO_PORT [INGRESS_PERMISSIONS_TO_PORT ...]]
                        For an inbound rule, the end of port range for the TCP and UDP protocols, or an
↪ICMP code
  --ingress-permissions-project-id [INGRESS_PERMISSIONS_PROJECT_ID [INGRESS_PERMISSIONS_PROJECT_ID ...]]
                        The ID of a Symphony project that has been referenced in an inbound security
↪group rule
  --tags [TAGS [TAGS ...]]
                        List of tag strings to filter by in 'key=value' format
  --tag-keys [TAG_KEYS [TAG_KEYS ...]]
                        List of keys of tags to filter by
  --tag-values [TAG_VALUES [TAG_VALUES ...]]
                        List of value of tags to filter by
```

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```
  --show-hidden         This parameter is deprecated and will be ignored
                        Security groups can no longer be hidden
  --is-managed-resource IS_MANAGED_RESOURCE
                        List only managed or not managed resources, or all if None (default)
```

vpc security-group list-tags

Usage

```
  usage: symp vpc security-group list-tags
[-f {adaptive_table,csv,json,table,value,yaml}]
                                          [-c COLUMN] [--max-width <integer>]
                                          [--noindent]
                                          [--quote {all,minimal,none,nonnumeric}]
                                          [-m [NAME=VALUE [NAME=VALUE ...]]]
```

Description

List all security groups tags.

Returns

Returns list: Tag objects

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc security-group remove-tags

Usage

```
  usage: symp vpc security-group remove-tags
[-f {adaptive_table,json,shell,table,value,yaml}]
                                            [-c COLUMN] [--max-width <integer>]
                                            [--noindent] [--prefix PREFIX]
                                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                                            [--force] [--system-tag]
                                            --security_group_id
                                            [--security_group_id ...] --tags
                                            [--tags ...]
```

Description

Delete tags from security groups.

Mandatory

```
positional arguments:
  --security_group_id   IDs of the security group to remove from
  --tags                List of tag strings to remove in 'key=value' format
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --force               Whether to ignore non-existing resources
  --system-tag          Whether to remove a system tag (available only for admin)
```

vpc security-group revoke-egress

Usage

```
  usage: symp vpc security-group revoke-egress
[-f {adaptive_table,json,shell,table,value,yaml}]
                                              [-c COLUMN]
                                              [--max-width <integer>]
                                              [--noindent] [--prefix PREFIX]
                                              [-m [NAME=VALUE [NAME=VALUE ...]]]
                                              [--ip-permissions IP_PERMISSIONS]
                                              group_id
```

Description

Removes one or more egress rules from a security group for VPC.

Returns

Returns dict: The result of the operation

Mandatory

```
positional arguments:
  group_id              The ID of the security group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ip-permissions IP_PERMISSIONS
                        List of IP permissions objects to revoke in the form:
                        [{"from_port": <start_port>, "to_port": <end_port>, "ip_protocol": <ip_protocol>
                        ,"groups": [{"group_id": <group_id>}], "ip_ranges": [{"cidr_ip": <cidr_ip>}]
                        , "ipv6_ranges": [{"cidr_ipv6": <cidr_ipv6>}],}]
                        where ip_protocol is one of the enums:
                        - tcp
                        - udp
                        - icmp
                        - -1
                        Example: [{"from_port": 80, "to_port": 80, "ip_protocol": "tcp"
                        , "groups": [{"group_id": "e0cb226c-1ee6-47a0-925e-a6f99f12e331"}]}]
```

vpc security-group revoke-ingress

Usage

```
  usage: symp vpc security-group revoke-ingress
[-f {adaptive_table,json,shell,table,value,yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--noindent] [--prefix PREFIX]
                                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                                [--ip-permissions IP_PERMISSIONS]
                                                group_id
```

Description

Removes one or more ingress rules from a security group.

Returns

Returns dict: The result of the operation

Mandatory

```
positional arguments:
  group_id              The ID of the security group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ip-permissions IP_PERMISSIONS
                        List of IP permissions objects to revoke in the form:
                        [{"from_port": <start_port>, "to_port": <end_port>, "ip_protocol": <ip_protocol>
                        ,"groups": [{"group_id": <group_id>}], "ip_ranges": [{"cidr_ip": <cidr_ip>}]
                        , "ipv6_ranges": [{"cidr_ipv6": <cidr_ipv6>}],}]
                        where ip_protocol is one of the enums:
                        - tcp
                        - udp
                        - icmp
                        - -1
                        Example: [{"from_port": 80, "to_port": 80, "ip_protocol": "tcp"
                        , "groups": [{"group_id": "e0cb226c-1ee6-47a0-925e-a6f99f12e331"}]}]
```

vpc security-group set-rules

Usage

```
  usage: symp vpc security-group set-rules
[-f {adaptive_table,json,shell,table,value,yaml}]
                                           [-c COLUMN] [--max-width <integer>]
                                           [--noindent] [--prefix PREFIX]
                                           [-m [NAME=VALUE [NAME=VALUE ...]]]
                                           [--permissions PERMISSIONS]
                                           group_id
```

Description

Synchronizes the rules with the provided permissions.

Returns

Returns dict: The result of the operation

Mandatory

```
positional arguments:
  group_id              The ID of the security group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --permissions PERMISSIONS
                        The IP permissions to set in the format:
                        {"ip_permissions_egress": [{
                        "from_port": <start_port>,
                        "to_port": <end_port>,
                        "ip_protocol": <ip_protocol>,
                        "groups": [{"group_id": <group_id>, "description": <group_description>}],
                        "ip_ranges": [{"cidr_ip": <cidr_ip>, "description": <cidr_description>}],
                        "ipv6_ranges": [{"cidr_ipv6": <cidr_ipv6>, "description": <cidr_description>}],}]
                        , "ip_permissions_ingress": [{...}]}
                        where ip_protocol is one of the enums:
                        - tcp
                        - udp
                        - icmp
                        - -1
                        Example: {"ip_permissions_egress":[{"ip_ranges":[{"cidr_ip":"0.0.0.0/0"
                        , "description":"Rule for ANY egress"}],"ip_protocol":-1
                        ,"groups":[{"group_id": "e0cb226c-1ee6-47a0-925e-a6f99f12e331"
                        ,"description":"Rule for group e0cb226c-1ee6-47a0-925e-a6f99f12e331"},],}],
                        ip_permissions_ingress:[{"ip_ranges":[{"cidr_ip":"0.0.0.0/0","description":"Rule
↪for ANY ingress"}], "ip_protocol":-1
                        ,"groups":[{"group_id": "e0cb226c-1ee6-47a0-925e-a6f99f12e331"
                        ,"description":"Rule for group e0cb226c-1ee6-47a0-925e-a6f99f12e331"}]}]}
```

vpc security-group update-security-group-rule-descriptions-egress

Usage

```
usage: symp vpc security-group update-security-group-rule-descriptions-egress
       [-h] [-f {adaptive_table,json,shell,table,value,yaml}] [-c COLUMN]
       [--max-width <integer>] [--noindent] [--prefix PREFIX]
       [-m [NAME=VALUE [NAME=VALUE ...]]] [--ip-permissions IP_PERMISSIONS]
       group_id
```

Description

Updates description of security group egress rule.

Returns

Returns dict: The result of the operation

Mandatory

```
positional arguments:
  group_id              The ID of the security group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ip-permissions IP_PERMISSIONS
                        The IP permissions to update
```

vpc security-group update-security-group-rule-descriptions-ingress

Usage

```
usage: symp vpc security-group update-security-group-rule-descriptions-ingress
       [-h] [-f {adaptive_table,json,shell,table,value,yaml}] [-c COLUMN]
       [--max-width <integer>] [--noindent] [--prefix PREFIX]
       [-m [NAME=VALUE [NAME=VALUE ...]]] [--ip-permissions IP_PERMISSIONS]
       group_id
```

Description

Updates description of security group ingress rule.

Returns

Returns dict: The result of the operation

Mandatory

```
positional arguments:
  group_id              The ID of the security group
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --ip-permissions IP_PERMISSIONS
                        The IP permissions to update
```

vpc set-default

Usage

```
  usage: symp vpc set-default
[-f {adaptive_table,json,shell,table,value,yaml}]
                             [-c COLUMN] [--max-width <integer>] [--noindent]
                             [--prefix PREFIX]
                             [-m [NAME=VALUE [NAME=VALUE ...]]]
                             vpc_id
```

Description

Sets VPC to be the default VPC of the project.

Mandatory

```
positional arguments:
  vpc_id                ID of the requested VPC object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc update

Usage

```
usage: symp vpc update

                      [-h] [-f {adaptive_table,json,shell,table,value,yaml}]                          [-
↪c COLUMN] [--max-width <integer>] [--noindent]
                      [--prefix PREFIX] [-m [NAME=VALUE [NAME=VALUE ...]]]
                      [--name NAME] [--description DESCRIPTION]
                      [--enable-dns-support ENABLE_DNS_SUPPORT]
                      [--enable-dns-hostnames ENABLE_DNS_HOSTNAMES]
                      [--dns-vm-network-id DNS_VM_NETWORK_ID]
                      [--reset-dns-vm-network-id]
                      [--enable-service-vm ENABLE_SERVICE_VM]
                      vpc_id
```

Description

Update a single VPC object.

Mandatory

```
positional arguments:
  vpc_id                ID of the requested VPC object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
  --name NAME           The name for this VPC
  --description DESCRIPTION
                        The description for this VPC
  --enable-dns-support ENABLE_DNS_SUPPORT
                        Enable/disable DNS support in VPC
  --enable-dns-hostnames ENABLE_DNS_HOSTNAMES
                        Enable/disable DNS hostnames in VPC (noop)
  --dns-vm-network-id DNS_VM_NETWORK_ID
                        ID of the network in which the internal DNS service VM will be created.
                        If not set, the unroutable default IP address 169.254.64.253 will be used.
                        This network cannot be changed while DNS support is enabled in the VPC
  --reset-dns-vm-network-id
                        Reset the VPC network to create the DNS VM
                        using the default non-routable 169.254.64.253 address
  --enable-service-vm ENABLE_SERVICE_VM
                        Create/destroy service-VM in VPC
```

vpc upgrade-dns

Usage

```
  usage: symp vpc upgrade-dns
[-f {adaptive_table,json,shell,table,value,yaml}]
                            [-c COLUMN] [--max-width <integer>] [--noindent]
                            [--prefix PREFIX]
                            [-m [NAME=VALUE [NAME=VALUE ...]]]
                            vpc_id
```

Description

Upgrade the VPC DNS service VM.

Mandatory

```
positional arguments:
  vpc_id                ID of the requested VPC object
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```

vpc upgrade-for-edge

Usage

```
  usage: symp vpc upgrade-for-edge
[-f {adaptive_table,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--noindent] [--prefix PREFIX]
                                [-m [NAME=VALUE [NAME=VALUE ...]]]
                                vpc_id
```

Description

Upgrade VPC to support the new version of edge network.

Mandatory

```
positional arguments:
  vpc_id                ID of the VPC to upgrade
```

Optional

```
optional arguments:
  -h, --help            show this help message and exit
```