

# **Dell EMC OpenManage Ansible Modules**

## **Version 4.0.0**

User's Guide

## Notes, cautions, and warnings

 **NOTE:** A NOTE indicates important information that helps you make better use of your product.

 **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

Dell EMC OpenManage Ansible Modules

Version 4.0.0

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# Overview

**Dell EMC OpenManage Ansible Modules** allows data center and IT administrators to use RedHat Ansible to automate and orchestrate the configuration, deployment, and update of Dell EMC PowerEdge Servers and modular infrastructure by leveraging the management automation capabilities in-built into the Integrated Dell Remote Access Controller (iDRAC), OpenManage Enterprise and OpenManage Enterprise Modular.

OpenManage Ansible Modules simplifies and automates provisioning, deployment, and updates of PowerEdge servers and modular infrastructure. It allows system administrators and software developers to introduce the physical infrastructure provisioning into their software provisioning stack, integrate with existing DevOps pipelines and manage their infrastructure using version-controlled playbooks, server configuration profiles, and templates in line with the **Infrastructure-as-Code** (IaC) principles.

This user guide provides information about using **Dell EMC OpenManage Ansible Modules** and its different use cases.

The latest stable version of OpenManage Ansible Modules is available at [GitHub](#) and [Galaxy](#) . Dell EMC supports modules that are downloaded from these two locations only.

## Topics:

- [Key Features](#)
- [What's new?](#)

## Key Features

The key features in OpenManage Ansible Modules are:

- Manage OpenManage Enterprise profiles.
- Support for managing compliance configuration baselines and generate compliance report on OpenManage Enterprise.
- Discover devices, create static group, and add devices to a static group on OpenManage Enterprise.
- Export SupportAssist device collections from OpenManage Enterprise and OpenManage Enterprise Modular.
- Configure Active Directory service connection and manage Active Directory user group on OpenManage Enterprise.
- Support for updating firmware and managing storage volume configuration using standard Redfish URIs supported by iDRAC.
- Support for managing network, proxy, web server, and time configurations.
- Support for creating, modifying, or deleting single identity pool.
- Support for creating a firmware baseline or catalog.
- Retrieve baseline and baseline compliance details.
- Support for creating, modifying or deleting a user account.
- Perform the supported power state management operations on devices managed by OpenManage Enterprise.
- Support for creating, modifying, deploying, exporting, importing, and cloning a template.
- Get the list and details of all user accounts or of a specific account.
- Get the list and details of templates or of a specific template.
- Support for firmware update of PowerEdge devices and all its components.
- Support for retrieving job details for a given job ID or the entire job queue.
- Support for retrieving the list of all devices with the exhaustive inventory of each device.
- Export a server configuration profile (SCP) containing either the entire server configuration or component level configuration (iDRAC, BIOS, RAID, NIC) to a local file path on Ansible controller or a remote network share.
- Import an SCP from a local file path on Ansible controller or a remote network share.
- Support for configuration of BIOS, Integrated Dell Remote Access Controller (iDRAC), NIC, and RAID.
- Support for firmware update using a firmware repository hosted on CIFS, NFS, HTTP, HTTPS, or FTP shares.
- Support for viewing firmware inventory details.
- Support for Windows, Linux, and ESXi operating system deployments.
- Support for configuring power controls, resetting iDRAC, viewing Lifecycle Controller (LC) job status, deleting LC job, deleting LC job queue, exporting LC logs, and configuring system lockdown mode.
- Retrieve the system inventory details.

 **NOTE:** These features are supported only on iDRAC with enterprise license.

## What's new?

- The `ome_profile` module allows you to create, modify, delete, assign, unassign, and migrate a profile on OpenManage Enterprise.
- The `ome_configuration_compliance_baseline` module allows you to create, modify, delete, and remediate a compliance configuration baseline.
- The `ome_configuration_compliance_info` module allows you to generate a compliance report of devices in configuration compliance baseline report on OpenManage Enterprise.
- The `ome_discovery` module allows you to create, modify, or delete a discovery job.
- The `ome_device_group` module allows you to add devices to a static device group on OpenManage Enterprise.
- The `ome_template_network_vlan` module is updated with an input option, which allows you to apply the modified VLAN settings immediately on the associated servers in the modular system.
- The `ome_diagnostics` module allows you to export application logs and SupportAssist device collection logs from OpenManage Enterprise Modular and export of SupportAssist device collection logs from OpenManage Enterprise.
- The `ome_chassis_slots` module allows you to rename sled slots on OpenManage Enterprise Modular.
- The `ome_groups` module allows you to create, modify, and delete static device groups on OpenManage Enterprise.
- The `ome_active_directory` module allows you to add, modify, and delete OpenManage Enterprise connection with Active Directory service.
- The `ome_domain_user_groups` module allows you to create, modify, or delete an Active Directory user group on OpenManage Enterprise and OpenManage Enterprise Modular.
- The `ome_firmware_baseline` module is updated to support check mode and allows the modification and deletion of firmware baselines.
- The `ome_firmware_catalog` module is updated to support check mode and allows the modification and deletion of firmware catalogs.
- The `ome_firmware_baseline` module is updated to retrieve the device even if it is not in the first 50 device IDs.
- The `ome_firmware_catalog` module is updated to support repositories that are available on the Dell support site.
- The `ome_device_group` module is updated to support adding devices to a group using the IP addresses of the devices and group ID.
- The `idrac_server_config_profile` module is updated to support exporting and importing Server Configuration Profile through HTTP or HTTPS share.

# Getting Started

## Topics:

- [How OpenManage Ansible Modules works](#)
- [Running your first Playbook](#)

## How OpenManage Ansible Modules works

- [How OpenManage Ansible Modules work with iDRAC](#)
- [How OpenManage Ansible Modules work with OME](#)
- [How OpenManage Ansible Modules work with Redfish APIs](#)

## Running your first Playbook

Playbooks are essentially sets of instructions (plays) that you send to run on a single target or groups of targets (hosts).

To see how to run your first iDRAC and OME playbooks, see the following:

- [Running your first iDRAC Playbook](#)
- [Running your first OME Playbook](#)

# Modules for iDRAC

## Topics:

- [How OpenManage Ansible Modules work with iDRAC](#)
- [Running your first iDRAC Playbook](#)
- [Updating Firmware](#)
- [Configuring PowerEdge Servers](#)
- [Deploying operating system](#)
- [Server Inventory](#)
- [Server administration tasks](#)
- [Storage controller](#)

## How OpenManage Ansible Modules work with iDRAC

OpenManage Ansible modules use iDRAC REST APIs based on Redfish standards and Server Configuration Profiles (SCP) for automated configuration, deployment and update of PowerEdge servers. An SCP contains all BIOS, iDRAC, Network and Storage settings of a PowerEdge server. You can apply them to multiple servers, enabling rapid, reliable, and reproducible configuration.

You can perform an SCP operation using any of the following methods:

- Export to or import from a remote network share via CIFS, NFS. Ensure that the remote network share is mounted on the Ansible controller with read-write privileges for user running the Ansible playbooks.
- Export or import via local file streaming (for iDRAC firmware 2.60.60.60 and above).

### Setting up a local mount point for a remote network share

Mount the remote network share (CIFS or NFS) locally on the Ansible controller where you want to run the playbook or modules. Local mount point should have read-write privileges in order for OpenManage Ansible modules to write an SCP file to remote network share that will be imported by iDRAC.

 **NOTE:** Refer to Linux man pages for mounting an NFS or CIFS network share on Ansible control machine.

## Running your first iDRAC Playbook

Before you run a playbook to manage your iDRACs, you need to have a valid inventory of target PowerEdge servers. For more information on inventory, see [Ansible documentation](#).

1. Install OpenManage Ansible Modules either from [GitHub](#) or from [Ansible Galaxy](#). For more details, see Dell EMC OpenManage Ansible Modules Installation Guide.
2. Create an inventory file containing a list of the iDRACs. In the following inventory example, we are using the inventory variables to store the iDRAC IP addresses and the user credentials. For more information on variables, see [Ansible documentation](#).

```
inventory: [PowerEdge]R740.example.com, idrac_ip='192.168.10.10', idrac_user='root',
idrac_password='idrac_password'
```

3. Define a playbook to fetch the hardware inventory of the servers. Create the playbook in the same directory where you created the inventory. Following is a playbook example:

```
playbook.yml

---
- hosts: PowerEdge
  connection: local
  gather_facts: False
```

```
tasks:
- name: Get hardware inventory
  dellemc_get_system_inventory:
    idrac_ip: "{{ idrac_ip }}"
    idrac_user: "{{ idrac_user }}"
    idrac_password: "{{ idrac_password }}"
```

- Now run the playbook. Run the following command from the directory where you created the inventory and the playbook:

```
ansible-playbook playbook.yml -i inventory
```

- Press **Enter**.

With OpenManage Ansible Modules, you can construct a playbook with a set of modules resulting in an automation workflow for configuration, deployments, and updates of PowerEdge servers.

To view the list of all available iDRAC modules:

- Run the following command on the Ansible control machine:

```
ansible-doc -l | grep "idrac"
```

- Press **Enter**.

List of the available iDRAC modules is displayed.

To view the documentation of a module:

- Run the following command on the Ansible control machine:

```
ansible-doc <module name>
```

- Press **Enter**.

## Updating Firmware

You can maintain up-to-date firmware versions of Dell EMC server components to get better efficiency, security protection and enhanced features. Create update sources to do the firmware update.

Following are the tasks for the firmware update activities:

- [View firmware inventory](#)
- [Install firmware](#)

## View firmware inventory

### Module: idrac\_firmware\_info

#### Synopsis

You can view the firmware inventory of a server using this module. This module displays components of a server and the corresponding firmware versions.

Check\_mode support: No

#### Options

**Table 1. idrac\_firmware\_info**

| Parameter/aliases            | Required | Default | Choices | Comments            |
|------------------------------|----------|---------|---------|---------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address    |
| idrac_username               | Yes      | NA      | NA      | iDRAC username      |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC user password |
| idrac_port                   | No       | 443     | NA      | iDRAC port          |

## Return Values

```
msg:
  description: "Fetching the firmware inventory details."
  returned: always
  type: str
  sample: "Successfully fetched the firmware inventory details."
firmware_info:
  type: dict
  description: Details of the firmware.
  returned: success
  sample: {
    "Firmware": [{
      "BuildNumber": "0",
      "Classifications": "10",
      "ComponentID": "102573",
      "ComponentType": "FRMW",
      "DeviceID": null,
      "ElementName": "Power Supply.Slot.1",
      "FQDD": "PSU.Slot.1",
      "HashValue": null,
      "IdentityInfoType": "OrgID:ComponentType:ComponentID",
      "IdentityInfoValue": "DCIM:firmware:102573",
      "InstallationDate": "2018-11-22T03:58:23Z",
      "InstanceID": "DCIM:INSTALLED#0x15__PSU.Slot.1",
      "IsEntity": "true",
      "Key": "DCIM:INSTALLED#0x15__PSU.Slot.1",
      "MajorVersion": "0",
      "MinorVersion": "3",
      "RevisionNumber": "67",
      "RevisionString": null,
      "Status": "Installed",
      "SubDeviceID": null,
      "SubVendorID": null,
      "Updateable": "true",
      "VendorID": null,
      "VersionString": "00.3D.67",
      "impactsTPMmeasurements": "false"
    }]
  }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
        }
      ]
    }
  }
```

## Examples

```
- name: Get Installed Firmware Inventory
  dellemc.openmanage.idrac_firmware_info:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
```

## Install firmware

### Module: idrac\_firmware

**Synopsis:**The firmware can be installed from a repository on a network share (CIFS, NFS, HTTP, HTTPS, FTP) to keep the system updated. To install the firmware, connect to a network share that contains a valid repository of Dell Update Packages (DUPs), and a catalog file describing the DUPs.

Check\_mode support: No

### Options

**Table 2. idrac\_firmware**

| Parameter/aliases            | Required | Default     | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------|----------|-------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| idrac_ip                     | Yes      | NA          | NA      | iDRAC IP Address                                                                                                                                                                                                                                                                                                                                                                                                              |
| idrac_user                   | Yes      | NA          | NA      | iDRAC username                                                                                                                                                                                                                                                                                                                                                                                                                |
| idrac_password/<br>idrac_pwd | Yes      | NA          | NA      | iDRAC user password                                                                                                                                                                                                                                                                                                                                                                                                           |
| idrac_port                   | No       | 443         | NA      | iDRAC port                                                                                                                                                                                                                                                                                                                                                                                                                    |
| job_wait                     | No       | True        | NA      | Provides the option to wait for job completion.                                                                                                                                                                                                                                                                                                                                                                               |
| catalog_file_name            | No       | Catalog.xml | NA      | Catalog file name relative to the I (share_name).                                                                                                                                                                                                                                                                                                                                                                             |
| reboot                       | No       | False       | NA      | Provides the option to reboot during the update process. If I(reboot) is set to C(True), then the system (host) reboots during the update process. If I(reboot) is set to C(False) , then the updates take effect after the system reboots the next time.<br><br>If I(reboot) is set to C(False), and I(apply_update) is set to C(True), then the applicable update packages are staged and applied in the next system reboot |
| share_name                   | Yes      | NA          | NA      | Network share path of update repository. CIFS, NFS, HTP, HTTPS and FTS share types are supported.                                                                                                                                                                                                                                                                                                                             |
| share_user                   | No       | NA          | NA      | User name required to access the network share must be provided as either 'user@domain' or 'domain\user'. This option is mandatory for CIFS network share.                                                                                                                                                                                                                                                                    |
| share_password/<br>share_pwd | No       | NA          | NA      | Network share user password. This option is mandatory for CIFS Network share.                                                                                                                                                                                                                                                                                                                                                 |
| share_mnt                    | Yes      | NA          | NA      | Local mount path of the network share with read/write permission for the Ansible user.                                                                                                                                                                                                                                                                                                                                        |
| ignore_cert_warning          | No       | True        | NA      | Specifies if certificate warnings are ignored when HTTPS share                                                                                                                                                                                                                                                                                                                                                                |

**Table 2. idrac\_firmware (continued)**

| Parameter/aliases | Required | Default | Choices | Comments                                                                                                                                                                                                                                            |
|-------------------|----------|---------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |          |         |         | is used. If C(True) option is set, then the certificate warnings are ignored.                                                                                                                                                                       |
| apply_update      | No       | True    | NA      | If I(apply_update) is set to C(True), then the update packages are applied. If I(apply_update) is set to C(False), then the update packages are not applied, and a firmware compliance report is generated of the components associated with iDRAC. |

## Return Values

```

msg:
    type: str
    description: Overall firmware update status.
    returned: always
    sample: "Successfully updated the firmware."
update_status:
    type: dict
    description: Firmware Update job and progress details from the iDRAC.
    returned: success
    sample: {
        'InstanceID': 'JID_XXXXXXXXXXXX',
        'JobState': 'Completed',
        'Message': 'Job completed successfully.',
        'MessageId': 'REDXXX',
        'Name': 'Repository Update',
        'JobStartTime': 'NA',
        'Status': 'Success',
    }

```

## Example

```

- name: Update firmware from a repository on a NFS Share
  dellemc.openmanage.idrac_firmware:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "192.168.0.0:/share"
    reboot: True
    job_wait: True
    apply_update: True
    catalog_file_name: "Catalog.xml"

- name: Update firmware from a repository on a CIFS Share
  dellemc.openmanage.idrac_firmware:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "\\192.168.0.0\cifs"
    share_user: "share_user"
    share_password: "share_password"
    share_mnt: "/mnt_path"
    reboot: True
    job_wait: True
    apply_update: True
    catalog_file_name: "Catalog.xml"

- name: Update firmware from a repository on a HTTP share
  dellemc.openmanage.idrac_firmware:
    idrac_ip: "192.168.0.1"

```

```

    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "http://downloads.dell.com"
    reboot: True
    job_wait: True
    apply_update: True

- name: Update firmware from a repository on a HTTPS share
  dellemc.openmanage.idrac_firmware:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "https://downloads.dell.com"
    reboot: True
    job_wait: True
    apply_update: True

- name: Update firmware from a repository on a FTP share
  dellemc.openmanage.idrac_firmware:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "ftp://ftp.dell.com"
    reboot: True
    job_wait: True
    apply_update: True

```

## Configuring PowerEdge Servers

Integrated Dell Remote Access Controller (iDRAC) with LC provide the ability to generate a human-readable representation of server configuration using Server Configuration Profile (SCP) feature. This file contains BIOS, iDRAC, LC, network, and RAID configuration settings. You can modify this file as per your need and apply to other servers.

The SCP feature is used in the Ansible module to automate the configuration activity of PowerEdge servers and their components.

Following are the tasks:

- [View LC status](#)
- [Server Configuration Profile](#)
- [Configuring iDRAC](#)
- [Configure BIOS](#)
- [Configure storage volume](#)
- [Configure Collect System Inventory on Restart](#)
- [Configure syslog](#)

## View Lifecycle Controller status

**Module:** `idrac_lifecycle_controller_status_info`

**Synopsis**

This module shows the status of the Lifecycle Controller on a Dell EMC PowerEdge server.

Check\_mode support: No

**Options**

**Table 3. idrac\_lifecycle\_controller\_status\_info**

| Parameter/aliases            | Required | Default | Choices | Comments            |
|------------------------------|----------|---------|---------|---------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address    |
| idrac_user                   | Yes      | NA      | NA      | iDRAC username      |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC user password |

**Table 3. idrac\_lifecycle\_controller\_status\_info (continued)**

| Parameter/aliases | Required | Default | Choices | Comments   |
|-------------------|----------|---------|---------|------------|
| idrac_port        | No       | 443     | NA      | iDRAC port |

**Return Values**

```

msg:
  description: Overall status of fetching lifecycle controller status.
  returned: always
  type: str
  sample: "Successfully fetched the lifecycle controller status."
lc_status_info:
  description: Displays the status of the Lifecycle Controller on a Dell EMC PowerEdge
  server.
  returned: success
  type: dict
  sample: {
    "msg": {
      "LCReady": true,
      "LCStatus": "Ready"
    }
  }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system
administrator."
        }
      ]
    }
  }

```

**Example**

```

-name: Show status of the Lifecycle Controller
dellenc.openmanage.idrac_lifecycle_controller_status_info:
  idrac_ip: "192.168.0.1"
  idrac_user: "user_name"
  idrac_password: "user_password"

```

## Export or Import Server Configuration Profile

**Module: idrac\_server\_config\_profile****Synopsis**

This module allows to export the Server Configuration Profile (SCP) from the iDRAC or import from a network share (CIFS, NFS, HTTP, HTTPS) or a local file.

**Options****Table 4. idrac\_server\_config\_profile**

| Parameter/aliases | Required | Default | Choices | Comments         |
|-------------------|----------|---------|---------|------------------|
| idrac_ip          | Yes      | NA      | NA      | iDRAC IP Address |

**Table 4. idrac\_server\_config\_profile (continued)**

| Parameter/aliases            | Required | Default  | Choices                                                                                                       | Comments                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------|----------|----------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| idrac_user                   | Yes      | NA       | NA                                                                                                            | iDRAC username                                                                                                                                                                                                                                                                                                                                                                                                                       |
| idrac_password/<br>idrac_pwd | Yes      | NA       | NA                                                                                                            | iDRAC user password                                                                                                                                                                                                                                                                                                                                                                                                                  |
| idrac_port                   | No       | 443      | NA                                                                                                            | iDRAC port                                                                                                                                                                                                                                                                                                                                                                                                                           |
| command                      | No       | export   | <ul style="list-style-type: none"> <li>import</li> <li>export</li> </ul>                                      | <ul style="list-style-type: none"> <li>If C(import), will perform SCP import operations.</li> <li>If C(export), will perform SCP export operations.</li> </ul>                                                                                                                                                                                                                                                                       |
| job_wait                     | Yes      | NA       | NA                                                                                                            | Whether to wait for job completion or not.                                                                                                                                                                                                                                                                                                                                                                                           |
| share_name                   | Yes      | NA       | NA                                                                                                            | <ul style="list-style-type: none"> <li>Network share or local path.</li> <li>CIFS, NFS, HTTP, and HTTPS network share types are supported.</li> <li>OMSDK is not required if HTTP or HTTPS location is used for I(share_name).</li> </ul>                                                                                                                                                                                            |
| share_user                   | No       | NA       | NA                                                                                                            | Network share user in the format 'user@domain' or 'domain\\user' if user is a part of a domain, else 'user'. This option is mandatory for CIFS Network Share.                                                                                                                                                                                                                                                                        |
| share_password/<br>share_pwd | No       | NA       | NA                                                                                                            | Network share user password. This option is mandatory for CIFS Network Share.                                                                                                                                                                                                                                                                                                                                                        |
| scp_file                     | No       | NA       | NA                                                                                                            | <ul style="list-style-type: none"> <li>Name of the server configuration profile (SCP) file.</li> <li>This option is mandatory if I(command) is C(import).</li> <li>The default format &lt;idrac_ip&gt;_YYmmdd_HHMMSS_scp is used if this option is not specified for C(import).</li> <li>I(export_format) is used if the valid extension file is not provided for C(import).</li> </ul>                                              |
| scp_components               | No       | ALL      | <ul style="list-style-type: none"> <li>ALL</li> <li>IDRAC</li> <li>BIOS</li> <li>NIC</li> <li>RAID</li> </ul> | <ul style="list-style-type: none"> <li>If C(ALL), the module imports all components configurations from SCP file.</li> <li>If C(iDRAC), the module imports iDRAC configuration from SCP file.</li> <li>If C(BIOS), the module imports BIOS configuration from SCP file.</li> <li>If C(NIC), the module imports NIC configuration from SCP file.</li> <li>If C(RAID), the module imports RAID configuration from SCP file.</li> </ul> |
| shutdown_type                | No       | Graceful | <ul style="list-style-type: none"> <li>Graceful</li> <li>Forced</li> <li>NoReboot</li> </ul>                  | <p>This option is applicable for C(import) command.</p> <ul style="list-style-type: none"> <li>If C(Graceful), it gracefully shuts down the server</li> <li>If C(Forced), it forcefully shuts down the system</li> <li>If C(NoReboot), it does not reboot the server</li> </ul>                                                                                                                                                      |

**Table 4. idrac\_server\_config\_profile (continued)**

| Parameter/aliases    | Required | Default | Choices                                                                                   | Comments                                                                                                                                                                              |
|----------------------|----------|---------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| end_host_power_state | No       | On      | <ul style="list-style-type: none"> <li>On</li> <li>Off</li> </ul>                         | This option is applicable for C(import) state. <ul style="list-style-type: none"> <li>If C(On), End host power state is on</li> <li>If C(Off), End host power state is off</li> </ul> |
| export_format        | No       | XML     | <ul style="list-style-type: none"> <li>JSON</li> <li>XML</li> </ul>                       | Specify the output file format. This option is applicable for C(export) command.                                                                                                      |
| export_use           | No       | Default | <ul style="list-style-type: none"> <li>Default</li> <li>Clone</li> <li>Replace</li> </ul> | Specify the type of server configuration profile (SCP) to be exported. This option is applicable for C(export) state.                                                                 |

## Return Values

```

msg:
  type: str
  description: status of the import or export SCP job.
  returned: always
  sample: "Successfully imported the Server Configuration Profile"
scp_status:
  type: dict
  description: SCP operation job and progress details from the iDRAC.
  returned: success
  sample:
    {
      "Id": "JID_XXXXXXXXXX",
      "JobState": "Completed",
      "JobType": "ImportConfiguration",
      "Message": "Successfully imported and applied Server Configuration Profile.",
      "MessageArgs": [],
      "MessageId": "XXX123",
      "Name": "Import Configuration",
      "PercentComplete": 100,
      "StartTime": "TIME_NOW",
      "Status": "Success",
      "TargetSettingsURI": null,
      "retval": true
    }

```

## Examples

```

- name: Export SCP with iDRAC components in JSON format to a local path
  dellemc.openmanage.idrac_server_config_profile:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "/scp_folder"
    scp_components: iDRAC
    scp_file: example_file
    export_format: JSON
    export_use: Clone
    job_wait: True

- name: Import SCP with iDRAC components in JSON format from a local path
  dellemc.openmanage.idrac_server_config_profile:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "/scp_folder"
    command: import
    scp_components: "iDRAC"
    scp_file: example_file.json
    shutdown_type: Graceful
    end_host_power_state: "On"
    job_wait: False

- name: Export SCP with BIOS components in XML format to a NFS share path with auto-

```

```

generated file name
dellenc.openmanage.idrac_server_config_profile:
  idrac_ip: "192.168.0.1"
  idrac_user: "user_name"
  idrac_password: "user_password"
  share_name: "192.168.0.2:/share"
  scp_components: "BIOS"
  export_format: XML
  export_use: Default
  job_wait: True

- name: Import SCP with BIOS components in XML format from a NFS share path
dellenc.openmanage.idrac_server_config_profile:
  idrac_ip: "192.168.0.1"
  idrac_user: "user_name"
  idrac_password: "user_password"
  share_name: "192.168.0.2:/share"
  command: import
  scp_components: "BIOS"
  scp_file: 192.168.0.1_20210618_162856.xml
  shutdown_type: NoReboot
  end_host_power_state: "Off"
  job_wait: False

- name: Export SCP with RAID components in XML format to a CIFS share path with share
user domain name
dellenc.openmanage.idrac_server_config_profile:
  idrac_ip: "192.168.0.1"
  idrac_user: "user_name"
  idrac_password: "user_password"
  share_name: "\\192.168.0.2\share"
  share_user: share_username@domain
  share_password: share_password
  share_mnt: /mnt/cifs
  scp_file: example_file.xml
  scp_components: "RAID"
  export_format: XML
  export_use: Default
  job_wait: True

- name: Import SCP with RAID components in XML format from a CIFS share path
dellenc.openmanage.idrac_server_config_profile:
  idrac_ip: "192.168.0.1"
  idrac_user: "user_name"
  idrac_password: "user_password"
  share_name: "\\192.168.0.2\share"
  share_user: share_username
  share_password: share_password
  share_mnt: /mnt/cifs
  command: import
  scp_components: "RAID"
  scp_file: example_file.xml
  shutdown_type: Forced
  end_host_power_state: "On"
  job_wait: True

- name: Export SCP with ALL components in JSON format to a HTTP share path
dellenc.openmanage.idrac_server_config_profile:
  idrac_ip: "192.168.0.1"
  idrac_user: "user_name"
  idrac_password: "user_password"
  share_name: "http://192.168.0.3/share"
  share_user: share_username
  share_password: share_password
  scp_file: example_file.json
  scp_components: ALL
  export_format: JSON
  job_wait: False

- name: Import SCP with ALL components in JSON format from a HTTP share path
dellenc.openmanage.idrac_server_config_profile:
  idrac_ip: "192.168.0.1"
  idrac_user: "user_name"

```

```

    idrac_password: "user_password"
    command: import
    share_name: "http://192.168.0.3/share"
    share_user: share_username
    share_password: share_password
    scp_file: example_file.json
    shutdown_type: Graceful
    end_host_power_state: "On"
    job_wait: True

- name: Export SCP with ALL components in XML format to a HTTPS share path without SCP
  file name
  dellemc.openmanage.idrac_server_config_profile:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "https://192.168.0.4/share"
    share_user: share_username
    share_password: share_password
    scp_components: ALL
    export_format: XML
    export_use: Replace
    job_wait: True

- name: Import SCP with ALL components in XML format from a HTTPS share path
  dellemc.openmanage.idrac_server_config_profile:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    command: import
    share_name: "https://192.168.0.4/share"
    share_user: share_username
    share_password: share_password
    scp_file: 192.168.0.1_20160618_164647.xml
    shutdown_type: Graceful
    end_host_power_state: "On"
    job_wait: False

```

## Configuring iDRAC

Following are the modules responsible for configuring specific iDRAC attributes.

- [Configure iDRAC users](#)
- [Configure iDRAC timezone](#)
- [Configure iDRAC eventing](#)
- [Configure iDRAC services](#)
- [Configure iDRAC network](#)

## Configure iDRAC users

**Module: idrac\_user**

### Synopsis

This module allows to perform the following:

- Add a new user account
- Edit a user account
- Enable or disable a user account

Check\_mode support: Yes

### Options

**Table 5. idrac\_user**

| Parameter/aliases            | Required | Default | Choices                                                                                                               | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------|----------|---------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| idrac_ip                     | True     | NA      | NA                                                                                                                    | iDRAC IP Address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| idrac_user                   | True     | NA      | NA                                                                                                                    | iDRAC username                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| idrac_password/<br>idrac_pwd | True     | NA      | NA                                                                                                                    | iDRAC user password                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| idrac_port                   | False    | 443     | NA                                                                                                                    | iDRAC port                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| state                        | False    | NA      | Present, or Absent                                                                                                    | <ul style="list-style-type: none"> <li>Select C(present) to create or modify a user account.</li> <li>Select C(absent) to remove a user account.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| user_name                    | False    | NA      | NA                                                                                                                    | Provide the user name of the account to be created, deleted, or modified.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| user_password                | False    | NA      | NA                                                                                                                    | <p>Provide a password for the newly created user. The password can be changed when the user account is modified.</p> <p>To ensure security, the password must be at least eight characters long and must contain lowercase and upper-case characters, numbers, and special characters.</p>                                                                                                                                                                                                                                                                                                                                                                                         |
| new_user_name                | False    | NA      | NA                                                                                                                    | Provide a user name for the account to be modified.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| privilege                    | False    | NA      | <ul style="list-style-type: none"> <li>NoAccess</li> <li>Readonly</li> <li>Operator</li> <li>Administrator</li> </ul> | <p>Following are the role based privileges:</p> <ul style="list-style-type: none"> <li>Administrator: A user with Administrator privilege can log in to iDRAC, and then configure iDRAC, configure users, clear logs, control and configure system, access virtual console, access virtual media, test alerts, and execute debug commands.</li> <li>Operator: A user with Operator privilege can log in to iDRAC, and then configure iDRAC, control and configure system, access virtual console, access virtual media, and execute debug commands.</li> <li>Read Only: A user with read-only privilege can only log in to iDRAC.</li> <li>None: No privileges assigned</li> </ul> |
| ipmi_lan_privilege           | False    | NA      | <ul style="list-style-type: none"> <li>No_Access</li> <li>Administrator</li> <li>Operator</li> <li>User</li> </ul>    | The Intelligent Platform Management Interface LAN privilege level assigned to the user                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| ipmi_serial_privilege        | False    | NA      | <ul style="list-style-type: none"> <li>No_Access</li> <li>Administrator</li> <li>Operator</li> <li>User</li> </ul>    | The Intelligent Platform Management Interface Serial Port privilege level assigned to the user. This option is only applicable for rack and tower servers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| enable                       | False    | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>                                           | Provides the option to enable or disable a user from logging in to iDRAC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| sol_enable                   | False    | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>                                           | Enables Serial Over LAN(SOL) for the iDRAC user.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

**Table 5. idrac\_user (continued)**

| Parameter/aliases       | Required | Default | Choices                                                                            | Comments                                                                                                                                                                                                                                                                                                            |
|-------------------------|----------|---------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| protocol_enable         | False    | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>        | Select enabled to enable Simple Network Management Protocol version 3 (SNMP V3) support.                                                                                                                                                                                                                            |
| authentication_protocol | No       | NA      | <ul style="list-style-type: none"> <li>T_None</li> <li>SHA</li> <li>MD5</li> </ul> | <p>This option allows to configure one of the following authentication protocol types to authenticate the iDRAC user:</p> <ul style="list-style-type: none"> <li>Secure Hash Algorithm (SHA)</li> <li>Message Digest 5 (MD5)</li> </ul> <p>An authentication protocol is not configured if C(none) is selected.</p> |
| privacy_protocol        | No       | NA      | <ul style="list-style-type: none"> <li>T_None</li> <li>DES</li> <li>AES</li> </ul> | <p>This option allows to configure one of the following privacy encryption protocols for the iDRAC user:</p> <ul style="list-style-type: none"> <li>Data Encryption Standard (DES)</li> <li>Advanced Encryption Standard (AES)</li> </ul> <p>A privacy protocol is not configured if C(none) is selected.</p>       |

## Return Values

```

msg:
  description: Status of the iDRAC user configuration.
  returned: always
  type: str
  sample: "Successfully created user account details."
status:
  description: Configures the iDRAC users attributes.
  returned: success
  type: dict
  sample: {
    "@Message.ExtendedInfo": [{
      "Message": "Successfully Completed Request",
      "MessageArgs": [],
      "MessageArgs@odata.count": 0,
      "MessageId": "Base.1.5.Success",
      "RelatedProperties": [],
      "RelatedProperties@odata.count": 0,
      "Resolution": "None",
      "Severity": "OK"
    }, {
      "Message": "The operation successfully completed.",
      "MessageArgs": [],
      "MessageArgs@odata.count": 0,
      "MessageId": "IDRAC.2.1.SYS413",
      "RelatedProperties": [],
      "RelatedProperties@odata.count": 0,
      "Resolution": "No response action is required.",
      "Severity": "Informational"
    }
  ]
}
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],

```

```

        "Severity": "Critical",
        "Resolution": "Retry the operation. If the issue persists, contact your system
administrator."
    }
]
}
}
}
"""

```

## Example

```

- name: Configure a new iDRAC user
  dellemc.openmanage.idrac_user:
    idrac_ip: 198.162.0.1
    idrac_user: idrac_user
    idrac_password: idrac_passwrod
    action: present
    user_name: user_name
    user_password: user_password
    privilege: Administrator
    ipmi_lan_privilege: Administrator
    ipmi_serial_privilege: Administrator
    enable: true
    sol_enable: true
    protocol_enable: true
    authentication_protocol: SHA
    privacy_protocol: AES

- name: Modify existing iDRAC user username and password
  dellemc.openmanage.idrac_user:
    idrac_ip: 198.162.0.1
    idrac_user: idrac_user
    idrac_password: idrac_passwrod
    action: present
    user_name: user_name
    new_user_name: new_user_name
    user_password: user_password

- name: Remove Delete existing iDRAC user account
  dellemc.openmanage.idrac_user:
    idrac_ip: 198.162.0.1
    idrac_user: idrac_user
    idrac_password: idrac_passwrod
    action: absent
    user_name: user_name

```

## Configure time zone and NTP on iDRAC

### Module: idrac\_timezone\_ntp

#### Synopsis

This module allows to configure time zone and NTP on iDRAC.

Check\_mode support: Yes

#### Options

**Table 6. idrac\_timezone\_ntp**

| Parameter/aliases            | Required | Default | Choices | Comments                      |
|------------------------------|----------|---------|---------|-------------------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address              |
| idrac_user                   | Yes      | NA      | NA      | iDRAC username                |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC user password           |
| idrac_port                   | No       | 443     | NA      | iDRAC port                    |
| share_name                   | Yes      | NA      | NA      | Network share or a local path |

**Table 6. idrac\_timezone\_ntp (continued)**

| Parameter/aliases            | Required | Default | Choices | Comments                                                                                                                                              |
|------------------------------|----------|---------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| share_user                   | No       | NA      | NA      | Network share user name. Use the format 'user@domain' or 'domain \ user' if user is part of a domain.<br><br>This option is mandatory for CIFS share. |
| share_password/<br>share_pwd | No       | NA      | NA      | Network share user password. This option is mandatory for CIFS share.                                                                                 |
| share_mnt                    | No       | NA      | NA      | Local mount path of the network share with read-write permission for Ansible user. This option is mandatory for network shares.                       |
| setup_idrac_timezone         | No       | NA      | NA      | Allows to configure time zone on iDRAC.                                                                                                               |
| enable_ntp                   | No       | NA      | NA      | Allows to enable or disable NTP on iDRAC.                                                                                                             |
| ntp_server_1                 | No       | NA      | NA      | The IP address of the NTP server 1.                                                                                                                   |
| ntp_server_2                 | No       | NA      | NA      | The IP address of the NTP server 2.                                                                                                                   |
| ntp_server_3                 | No       | NA      | NA      | The IP address of the NTP server 3.                                                                                                                   |

**Return Values**

```

msg:
  description: Overall status of the timezone and ntp configuration.
  returned: always
  type: str
  sample: "Successfully configured the iDRAC time settings."
timezone_ntp_status:
  description: Job details of the time zone setting operation.
  returned: success
  type: dict
  sample: {
    "@odata.context": "/redfish/v1/$metadata#DellJob.DellJob",
    "@odata.id": "/redfish/v1/Managers/iDRAC.Embedded.1/Jobs/JID_861801613971",
    "@odata.type": "#DellJob.v1_0_0.DellJob",
    "CompletionTime": "2020-04-06T19:06:01",
    "Description": "Job Instance",
    "EndTime": null,
    "Id": "JID_861801613971",
    "JobState": "Completed",
    "JobType": "ImportConfiguration",
    "Message": "Successfully imported and applied Server Configuration Profile.",
    "MessageArgs": [],
    "MessageId": "SYS053",
    "Name": "Import Configuration",
    "PercentComplete": 100,
    "StartTime": "TIME_NOW",
    "Status": "Success",
    "TargetSettingsURI": null,
    "retval": true
  }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],

```

```

        "Severity": "Critical",
        "Resolution": "Retry the operation. If the issue persists, contact your system
administrator."
    }
]
}
}

```

### Example

```

-name: Configure time zone and NTP on iDRAC
  dellemc.openmanage.idrac_timezone_ntp:
    idrac_ip: "190.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "user_name:/share"
    share_password: "share_password"
    share_user: "user_name"
    share_mnt: "/mnt/share"
    setup_idrac_timezone: "UTC"
    enable_ntp: Enabled
    ntp_server_1: "190.168.0.1"
    ntp_server_2: "190.168.0.2"
    ntp_server_3: "190.168.0.3"

```

## Configure iDRAC eventing

### Module: dellemc\_configure\_idrac\_eventing

#### Synopsis

This module configures iDRAC eventing related attributes.

Check\_mode support: Yes

#### Options

**Table 7. dellemc\_configure\_idrac\_eventing**

| Parameter/aliases            | Required | Default | Choices | Comments                                                                                                                                                  |
|------------------------------|----------|---------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address                                                                                                                                          |
| idrac_user                   | Yes      | NA      | NA      | iDRAC username                                                                                                                                            |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC user password                                                                                                                                       |
| idrac_port                   | No       | 443     | NA      | iDRAC port                                                                                                                                                |
| share_name                   | Yes      | NA      | NA      | CIFS or NFS Network share or a local path                                                                                                                 |
| share_user                   | No       | NA      | NA      | Network share user in the format 'user@domain' or 'domain\user' if user is part of a domain else 'user'. This option is mandatory for CIFS Network share. |
| share_password/<br>share_pwd | No       | NA      | NA      | Network share user password. This option is mandatory for CIFS Network share.                                                                             |
| share_mnt                    | No       | NA      | NA      | Local mount path of the network share with read-write permission for Ansible user. This option is mandatory for CIFS or NFS Network share.                |
| destination_number           | No       | None    | NA      | Destination number for SNMP Trap                                                                                                                          |

**Table 7. dellemc\_configure\_idrac\_eventing (continued)**

| Parameter/aliases | Required | Default | Choices                                                                     | Comments                                     |
|-------------------|----------|---------|-----------------------------------------------------------------------------|----------------------------------------------|
| destination       | No       | None    | NA                                                                          | Destination for SNMP Trap                    |
| snmp_v3_username  | No       | NA      | NA                                                                          | SNMP v3 username for SNMP Trap               |
| snmp_trap_state   | No       | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul> | Whether to Enable or Disable SNMP alert      |
| email_alert_state | No       | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul> | Whether to Enable or Disable Email alert     |
| alert_number      | No       | None    | NA                                                                          | Alert number for Email configuration         |
| address           | No       | NA      | NA                                                                          | Email address for SNMP Trap                  |
| custom_message    | No       | NA      | NA                                                                          | Custom message for SNMP Trap reference       |
| enable_alerts     | No       | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul> | Whether to Enable or Disable iDRAC alerts    |
| authentication    | No       | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul> | Simple Mail Transfer Protocol Authentication |
| smtp_ip_address   | No       | NA      | NA                                                                          | SMTP IP address for communication            |
| smtp_port         | No       | None    | NA                                                                          | SMTP Port number for access                  |
| username          | No       | None    | NA                                                                          | Username for SMTP authentication             |
| password          | No       | None    | NA                                                                          | Password for SMTP authentication             |

**Table 8. Return Values**

| Name           | Description                              | Returned | Type   | Output                                                                                                                                                                                                                                                      |
|----------------|------------------------------------------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| iDRAC eventing | Configures the iDRAC eventing attributes | Success  | String | <a href="https://github.com/dell/dellemc-openmanage-ansible-modules/tree/devel/output/idrac/dellemc_configure_idrac_eventing.md">https://github.com/dell/dellemc-openmanage-ansible-modules/tree/devel/output/idrac/dellemc_configure_idrac_eventing.md</a> |

### Example

```
-name: Configure the iDRAC eventing attributes
  dellemc.openmanage.dellemc_configure_idrac_eventing:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "192.168.0.1:/share"
    share_password: "share_user"
    share_user: "share_password"
    share_mnt: "/mnt/share"
    destination_number: "2"
    destination: "1.1.1.1"
    snmp_v3_username: "None"
    snmp_trap_state: "Enabled"
    email_alert_state: "Disabled"
    alert_number: "1"
    address: "alert_email@company.com"
    custom_message: "Custom Message"
    enable_alerts: "Disabled"
    authentication: "Enabled"
    smtp_ip_address: "192.168.0.1"
    smtp_port: "25"
    username: "username"
    password: "password"
```

## Configure iDRAC services

**Module:** `dellemc_configure_idrac_services`

### Synopsis

This module configures the iDRAC services related attributes.

Check\_mode support: Yes

### Options

**Table 9. `dellemc_configure_idrac_services`**

| Parameter                                              | Required | Default | Choices                                                                                                                                                 | Comments                                                                                                                                                  |
|--------------------------------------------------------|----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>idrac_ip</code>                                  | True     | NA      | NA                                                                                                                                                      | iDRAC IP Address                                                                                                                                          |
| <code>idrac_user</code>                                | True     | NA      | NA                                                                                                                                                      | iDRAC username                                                                                                                                            |
| <code>idrac_password/</code><br><code>idrac_pwd</code> | True     | NA      | NA                                                                                                                                                      | iDRAC user password                                                                                                                                       |
| <code>idrac_port</code>                                | False    | 443     | NA                                                                                                                                                      | iDRAC port                                                                                                                                                |
| <code>share_name</code>                                | True     | NA      | NA                                                                                                                                                      | CIFS or NFS Network share or a local path                                                                                                                 |
| <code>share_user</code>                                | False    | NA      | NA                                                                                                                                                      | Network share user in the format 'user@domain' or 'domain\user' if user is part of a domain else 'user'. This option is mandatory for CIFS Network share. |
| <code>share_password/</code><br><code>share_pwd</code> | False    | NA      | NA                                                                                                                                                      | Network share user password. This option is mandatory for CIFS Network share.                                                                             |
| <code>share_mnt</code>                                 | False    | NA      | NA                                                                                                                                                      | Local mount path of the network share with read/write permission for Ansible user. This option is mandatory for CIFS or NFS Network share.                |
| <code>enable_web_server</code>                         | False    | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>                                                                             | Whether to Enable or Disable web server configuration for iDRAC                                                                                           |
| <code>ssl_encryption</code>                            | False    | NA      | <ul style="list-style-type: none"> <li>Auto_Negotiate</li> <li>T_128_Bit_or_higher</li> <li>T_168_Bit_or_higher</li> <li>T_256_Bit_or_higher</li> </ul> | Secure Socket Layer encryption for web server                                                                                                             |
| <code>tls_protocol</code>                              | False    | NA      | <ul style="list-style-type: none"> <li>TLS_1_0_and_Higher</li> <li>TLS_1_1_and_Higher</li> <li>TLS_1_2_Only</li> </ul>                                  | Transport Layer Security for web server                                                                                                                   |
| <code>https_port</code>                                | False    | NA      | NA                                                                                                                                                      | HTTPS access port                                                                                                                                         |
| <code>http_port</code>                                 | False    | NA      | NA                                                                                                                                                      | HTTP access port                                                                                                                                          |
| <code>timeout</code>                                   | False    | NA      | NA                                                                                                                                                      | Timeout value                                                                                                                                             |
| <code>snmp_enable</code>                               | False    | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>                                                                             | Whether to Enable or Disable SNMP protocol for iDRAC                                                                                                      |
| <code>snmp_protocol</code>                             | False    | NA      | <ul style="list-style-type: none"> <li>All</li> <li>SNMPv3</li> </ul>                                                                                   | Type of the SNMP protocol                                                                                                                                 |

**Table 9. dellenc\_configure\_idrac\_services (continued)**

| Parameter      | Required | Default | Choices                  | Comments                                                                                                                                         |
|----------------|----------|---------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| community_name | False    | test    | NA                       | SNMP community name for iDRAC. It is used by iDRAC to validate SNMP queries, and gets received from remote systems requesting SNMP data access.  |
| alert_port     | False    | None    | NA                       | The iDRAC port number that must be used for SNMP traps. The default value is 162, and the acceptable range is between 1 to 65535.                |
| discovery_port | False    | 162     | NA                       | The SNMP agent port on the iDRAC. The default value is 161, and the acceptable range is between 1 to 65535.                                      |
| trap_format    | False    | None    | SNMPv1, SNMPv2 or SNMPv3 | SNMP trap format for iDRAC                                                                                                                       |
| ipmi_lan       | False    | NA      | NA                       | This option used by iDRAC when it sends out SNMP and IPMI traps. The community name is checked by the remote system to which the traps are sent. |

## Return Values

```

msg:
  description: Overall status of iDRAC service attributes configuration.
  returned: always
  type: str
  sample: Successfully configured the iDRAC services settings.
service_status:
  description: Details of iDRAC services attributes configuration.
  returned: success
  type: dict
  sample: {
    "CompletionTime": "2020-04-02T02:43:28",
    "Description": "Job Instance",
    "EndTime": null,
    "Id": "JID_12345123456",
    "JobState": "Completed",
    "JobType": "ImportConfiguration",
    "Message": "Successfully imported and applied Server Configuration Profile.",
    "MessageArgs": [],
    "MessageId": "SYS053",
    "Name": "Import Configuration",
    "PercentComplete": 100,
    "StartTime": "TIME_NOW",
    "Status": "Success",
    "TargetSettingsURI": null,
    "retval": true
  }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",

```

```

        "MessageArgs": [],
        "Severity": "Critical",
        "Resolution": "Retry the operation. If the issue persists, contact your system
administrator."
    }
}
}
}

```

### Example

```

name: Configure the iDRAC services attributes
dellenc.openmanage.dellenc_configure_idrac_services:
  idrac_ip: "192.168.0.1"
  idrac_user: "user_name"
  idrac_password: "user_password"
  share_name: "192.168.0.1:/share"
  share_mnt: "/mnt/share"
  enable_web_server: "Enabled"
  http_port: 80
  https_port: 443
  ssl_encryption: "Auto_Negotiate"
  tls_protocol: "TLS_1_2_Only"
  timeout: "1800"
  snmp_enable: "Enabled"
  snmp_protocol: "SNMPv3"
  community_name: "public"
  alert_port: 162
  discovery_port: 161
  trap_format: "SNMPv3"
  ipmi_lan:
    community_name: "public"

```

## Configure iDRAC network

### Module: idrac\_network

#### Synopsis

This module allows to configure iDRAC network settings.

Check\_mode support: Yes

#### Options

**Table 10. idrac\_network**

| Parameter/aliases            | Required | Default | Choices | Comments                                                                                                                                                |
|------------------------------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address                                                                                                                                        |
| idrac_user                   | Yes      | NA      | NA      | iDRAC username                                                                                                                                          |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC user password                                                                                                                                     |
| idrac_port                   | No       | 443     | NA      | iDRAC port                                                                                                                                              |
| share_name                   | Yes      | NA      | NA      | Network share or a local path                                                                                                                           |
| share_user                   | No       | NA      | NA      | Network share user name. Use the format 'user@domain' or 'domain \\\ user' if user is part of a domain.<br><br>This option is mandatory for CIFS share. |
| share_password/<br>share_pwd | No       | NA      | NA      | Network share user password. This option is mandatory for CIFS share.                                                                                   |

**Table 10. idrac\_network (continued)**

| Parameter/aliases     | Required | Default | Choices                                                                                                                       | Comments                                                                                                                        |
|-----------------------|----------|---------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| share_mnt             | No       | NA      | NA                                                                                                                            | Local mount path of the network share with read-write permission for Ansible user. This option is mandatory for network shares. |
| setup_idrac_nic_vlan  | No       | NA      | NA                                                                                                                            | Allows to configure VLAN on iDRAC                                                                                               |
| register_idrac_on_dns | No       | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>                                                   | Registers iDRAC on a Domain Name System (DNS).                                                                                  |
| dns_idrac_name        | No       | NA      | NA                                                                                                                            | Name of the DNS to register iDRAC                                                                                               |
| auto_config           | No       | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>                                                   | Allows to enable or disable auto-provisioning to automatically acquire domain name from DHCP.                                   |
| static_dns            | No       | NA      | NA                                                                                                                            | Enter the static DNS domain name.                                                                                               |
| vlan_id               | No       | None    | NA                                                                                                                            | Enter the VLAN ID. The VLAN ID must be a number from 1 through 4094.                                                            |
| vlan_priority         | No       | None    | NA                                                                                                                            | Enter the priority for the VLAN ID. The priority value must be a number from 0 through 7.                                       |
| enable_nic            | No       | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>                                                   | Allows to enable or disable the Network Interface Controller (NIC) used by iDRAC.                                               |
| nic_selection         | No       | NA      | <ul style="list-style-type: none"> <li>Dedicated</li> <li>LOM1</li> <li>LOM2</li> <li>LOM3</li> <li>LOM4</li> </ul>           | Select one of the available NICs.                                                                                               |
| failover_network      | No       | NA      | <ul style="list-style-type: none"> <li>ALL</li> <li>LOM1</li> <li>LOM2</li> <li>LOM3</li> <li>LOM4</li> <li>T_None</li> </ul> | Select one of the remaining LOMs. If a network fails, the traffic is routed through the failover network.                       |
| auto_detect           | No       | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>                                                   | Allows to auto detect the available NIC types used by iDRAC.                                                                    |
| auto_negotiation      | No       | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>                                                   | Allows iDRAC to automatically set the duplex mode and network speed.                                                            |
| network_speed         | No       | NA      | <ul style="list-style-type: none"> <li>T_10</li> <li>T_100</li> <li>T_1000</li> </ul>                                         | Select the network speed for the selected NIC.                                                                                  |
| duplex_mode           | No       | NA      | <ul style="list-style-type: none"> <li>Full</li> <li>Half</li> </ul>                                                          | Select the type of data transmission for the NIC.                                                                               |
| nic_mtu               | No       | None    | NA                                                                                                                            | Maximum Transmission Unit of the NIC.                                                                                           |
| ip_address            | No       | NA      | NA                                                                                                                            | Enter a valid iDRAC static IPv4 address.                                                                                        |
| enable_dhcp           | No       | NA      | NA                                                                                                                            | Allows to enable or disable Dynamic Host Configuration Protocol (DHCP) in iDRAC.                                                |
| dns_from_dhcp         | No       | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>                                                   | Allows to enable DHCP to obtain the DNS server address.                                                                         |

**Table 10. idrac\_network (continued)**

| Parameter/aliases | Required | Default | Choices                                                                     | Comments                                            |
|-------------------|----------|---------|-----------------------------------------------------------------------------|-----------------------------------------------------|
| enable_ipv4       | No       | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul> | Allows to enable or disable IPv4 configuration.     |
| static_dns_1      | No       | NA      | NA                                                                          | Enter the preferred static DNS server IPv4 address. |
| static_dns_2      | No       | NA      | NA                                                                          | Enter the preferred static DNS server IPv4 address. |
| static_gateway    | No       | None    | NA                                                                          | Enter the static IPv4 gateway address to iDRAC.     |
| static_net_mask   | No       | None    | NA                                                                          | Enter the static IP subnet mask to iDRAC.           |

## Return Values

```

msg:
  description: Successfully configured the idrac network settings.
  returned: always
  type: str
  sample: "Successfully configured the idrac network settings."
network_status:
  description: Status of the Network settings operation job.
  returned: success
  type: dict
  sample: {
    "@odata.context": "/redfish/v1/$metadata#DellJob.DellJob",
    "@odata.id": "/redfish/v1/Managers/iDRAC.Embedded.1/Jobs/JID_856418531008",
    "@odata.type": "#DellJob.v1_0_2.DellJob",
    "CompletionTime": "2020-03-31T03:04:15",
    "Description": "Job Instance",
    "EndTime": null,
    "Id": "JID_856418531008",
    "JobState": "Completed",
    "JobType": "ImportConfiguration",
    "Message": "Successfully imported and applied Server Configuration Profile.",
    "MessageArgs": [],
    "MessageArgs@odata.count": 0,
    "MessageId": "SYS053",
    "Name": "Import Configuration",
    "PercentComplete": 100,
    "StartTime": "TIME_NOW",
    "Status": "Success",
    "TargetSettingsURI": null,
    "retval": true
  }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
        }
      ]
    }
  }

```

## Example

```
- name: Configure iDRAC network settings
  dellemc.openmanage.idrac_network:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "192.168.0.1:/share"
    share_password: "share_pwd"
    share_user: "share_user"
    share_mnt: "/mnt/share"
    register_idrac_on_dns: Enabled
    dns_idrac_name: None
    auto_config: None
    static_dns: None
    setup_idrac_nic_vlan: Enabled
    vlan_id: 0
    vlan_priority: 1
    enable_nic: Enabled
    nic_selection: Dedicated
    failover_network: T_None
    auto_detect: Disabled
    auto_negotiation: Enabled
    network_speed: T_1000
    duplex_mode: Full
    nic_mtu: 1500
    ip_address: "192.168.0.1"
    enable_dhcp: Enabled
    enable_ipv4: Enabled
    static_dns_1: "192.168.0.1"
    static_dns_2: "192.168.0.1"
    dns_from_dhcp: Enabled
    static_gateway: None
    static_net_mask: None
```

## Configure BIOS

### Module: idrac\_bios

#### Synopsis

This module allows to configure the BIOS attributes.

Check\_mode support: Yes

#### Options

**Table 11. idrac\_bios**

| Parameter/<br>aliases        | Required | Default | Choices | Comments                                                                                                                                                     |
|------------------------------|----------|---------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address                                                                                                                                             |
| idrac_user                   | Yes      | NA      | NA      | iDRAC username                                                                                                                                               |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC user password                                                                                                                                          |
| idrac_port                   | No       | 443     | NA      | iDRAC port                                                                                                                                                   |
| share_name                   | No       | NA      | NA      | Network share or a local path                                                                                                                                |
| share_user                   | No       | NA      | NA      | Network share user name. Use the<br>format 'user@domain' or 'domain \\<br>user' if user is part of a domain.<br><br>This option is mandatory for CIFS share. |

**Table 11. idrac\_bios (continued)**

| Parameter/<br>aliases        | Required | Default | Choices                                                                                                                 | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------|----------|---------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| share_password/<br>share_pwd | No       | NA      | NA                                                                                                                      | Network share user password. This option is mandatory for CIFS share.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| share_mnt                    | No       | NA      | NA                                                                                                                      | Local mount path of the network share with read-write permission for Ansible user. This option is mandatory for network shares.                                                                                                                                                                                                                                                                                                                                                                          |
| boot_mode                    | No       | NA      | <ul style="list-style-type: none"> <li>Bios</li> <li>Uefi</li> </ul>                                                    | <p>(deprecated) Sets boot mode to BIOS or UEFI .</p> <p><b>NOTE:</b> This option is deprecated, and will be removed in later version. Use I(attributes) for configuring the BIOS attributes.</p> <p><b>NOTE:</b> I(boot_mode) is mutually exclusive with I(boot_sources).</p>                                                                                                                                                                                                                            |
| boot_sequence                | No       | NA      | NA                                                                                                                      | <p>(deprecated) Allows to set the boot sequence in BIOS boot mode or Secure UEFI boot mode by rearranging the boot entries in Fully Qualified Device Descriptor (FQDD).</p> <p>Ensure that I(boot_mode) option is provided to determine which boot sequence is applied.</p> <p><b>NOTE:</b> This option is deprecated, and will be removed in later version. Use I(attributes) for configuring the BIOS attributes.</p> <p><b>NOTE:</b> I(boot_sequence) is mutually exclusive with I(boot_sources).</p> |
| nvme_mode                    | No       | NA      | <ul style="list-style-type: none"> <li>NonRaid</li> <li>Raid</li> </ul>                                                 | <p>(deprecated) Configures the NVME mode in iDRAC 9 based PowerEdge servers.</p> <p><b>NOTE:</b> This option is deprecated, and will be removed in later version. Use I(attributes) for configuring the BIOS attributes.</p> <p><b>NOTE:</b> I(nvme_mode) is mutually exclusive with I(boot_sources).</p>                                                                                                                                                                                                |
| secure_boot_mode             | No       | NA      | <ul style="list-style-type: none"> <li>AuditMode,</li> <li>DeployedMode</li> <li>SetupMode</li> <li>UserMode</li> </ul> | <p>(deprecated) Sets the Secure Boot policy on iDRAC 9 based PowerEdge servers</p> <p><b>NOTE:</b> This option is deprecated, and will be removed in later version. Use I(attributes) for configuring the BIOS attributes.</p> <p><b>NOTE:</b> I(secure_boot_mode) is mutually exclusive with I(boot_sources).</p>                                                                                                                                                                                       |
| onetime_boot_mode            | No       | NA      | <ul style="list-style-type: none"> <li>Disabled</li> <li>OneTimeBootSeq</li> </ul>                                      | (deprecated) Configures the one time boot mode setting.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

**Table 11. idrac\_bios (continued)**

| Parameter/<br>aliases | Required | Default | Choices                                                                                                                                                                                           | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------|----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       |          |         | <ul style="list-style-type: none"> <li>OneTimeCustomBootSeqStr</li> <li>OneTimeCustomHddSeqStr</li> <li>OneTimeCustomUefiBootSeqStr</li> <li>OneTimeHddSeq</li> <li>OneTimeUefiBootSeq</li> </ul> | <p><b>NOTE:</b> This option is deprecated, and will be removed in later version. Use I(attributes) for configuring the BIOS attributes.</p> <p><b>NOTE:</b> I(onetime_boot_mode) is mutually exclusive with I(boot_sources).</p>                                                                                                                                                                                                               |
| attributes            | No       | NA      | NA                                                                                                                                                                                                | <p>Dictionary of BIOS attributes and value pair. Attributes should be part of the Redfish Dell BIOS Attribute Registry. Use (https://l(idrac_ip)/redfish/v1/Systems/System.Embedded.1/Bios) to view the Redfish URI.</p> <p>If deprecated options are provided and the same are repeated in I(attributes) then values in I(attributes) will take precedence.</p> <p><b>NOTE:</b> I(attributes) is mutually exclusive with I(boot_sources).</p> |
| boot_sources          | No       | NA      | NA                                                                                                                                                                                                | <p>List of boot devices to set the boot sources settings.</p> <p><b>NOTE:</b> I(boot_sources) is mutually exclusive with I(attributes), I(boot_sequence), I(onetime_boot_mode), I(secure_boot_mode), I(nvme_mode), and I(boot_mode).</p>                                                                                                                                                                                                       |

## Return Values

```

msg:
  description: Configures the BIOS configuration attributes.
  returned: success
  type: dict
  sample: {
    "@odata.context": "/redfish/v1/$metadata#DellJob.DellJob",
    "@odata.id": "/redfish/v1/Managers/iDRAC.Embedded.1/Jobs/JID_873888162305",
    "@odata.type": "#DellJob.v1_0_0.DellJob",
    "CompletionTime": "2020-04-20T18:50:20",
    "Description": "Job Instance",
    "EndTime": null,
    "Id": "JID_873888162305",
    "JobState": "Completed",
    "JobType": "ImportConfiguration",
    "Message": "Successfully imported and applied Server Configuration Profile.",
    "MessageArgs": [],
    "MessageId": "SYS053",
    "Name": "Import Configuration",
    "PercentComplete": 100,
    "StartTime": "TIME_NOW",
    "Status": "Success",
    "TargetSettingsURI": null,
    "retval": true
  }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict

```

```

sample: {
  "error": {
    "code": "Base.1.0.GeneralError",
    "message": "A general error has occurred. See ExtendedInfo for more information.",
    "@Message.ExtendedInfo": [
      {
        "MessageId": "GEN1234",
        "RelatedProperties": [],
        "Message": "Unable to process the request because an error occurred.",
        "MessageArgs": [],
        "Severity": "Critical",
        "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
      }
    ]
  }
}

```

## Examples

```

- name: Configure Bios generic attributes of the BIOS
  dellemc.openmanage.idrac_bios:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    attributes:
      BootMode: "Bios"
      OneTimeBootMode: "Enabled"
      BootSeqRetry: "Enabled"

- name: Configure PXE generic attributes
  dellemc.openmanage.idrac_bios:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    attributes:
      PxeDev1EnDis: "Enabled"
      PxeDev1Protocol: "IPV4"
      PxeDev1VlanEnDis: "Enabled"
      PxeDev1VlanId: 1
      PxeDev1Interface: "NIC.Embedded.1-1-1"
      PxeDev1VlanPriority: 2

- name: Configure boot sources
  dellemc.openmanage.idrac_bios:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    boot_sources:
      - Name: "NIC.Integrated.1-2-3"
        Enabled: true
        Index: 0

- name: Configure boot sources
  dellemc.openmanage.idrac_bios:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    boot_sources:
      - Name: "NIC.Integrated.1-1-1"
        Enabled: true
        Index: 0
      - Name: "NIC.Integrated.2-2-2"
        Enabled: true
        Index: 1
      - Name: "NIC.Integrated.3-3-3"
        Enabled: true
        Index: 2

- name: Configure boot sources - Enabled
  dellemc.openmanage.idrac_bios:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"

```

```

    idrac_password: "user_password"
    boot_sources:
      - Name : "NIC.Integrated.1-1-1"
        Enabled : true

- name: Configure boot sources - Index
  dellemc.openmanage.idrac_bios:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    boot_sources:
      - Name : "NIC.Integrated.1-1-1"
        Index : 0

```

## Configure storage volume

**Module: dellemc\_idrac\_storage\_volume**

### Synopsis

This module hosts the RAID configuration related attributes.

Check\_mode support: Yes

### Options

**Table 12. dellemc\_idrac\_storage\_volume**

| Parameter/aliases            | Required | Default      | Choices                                                                                                                                                     | Comments                                                                                                                                                                                |
|------------------------------|----------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| idrac_ip                     | Yes      | NA           | NA                                                                                                                                                          | iDRAC IP Address                                                                                                                                                                        |
| idrac_user                   | Yes      | NA           | NA                                                                                                                                                          | iDRAC username                                                                                                                                                                          |
| idrac_password/<br>idrac_pwd | Yes      | NA           | NA                                                                                                                                                          | iDRAC user password                                                                                                                                                                     |
| idrac_port                   | No       | 443          | NA                                                                                                                                                          | iDRAC port                                                                                                                                                                              |
| span_depth                   | No       | 1            | NA                                                                                                                                                          | <ul style="list-style-type: none"> <li>Number of spans in the RAID configuration.</li> <li>I(span_depth) is mandatory for C(create) and its value depends on I(volume_type).</li> </ul> |
| span_length                  | No       | 1            | NA                                                                                                                                                          | <ul style="list-style-type: none"> <li>Number of disks in a span.</li> <li>I(span_length) is mandatory for C(create) and its value depends on I(volume_type).</li> </ul>                |
| number_dedicated_hot_spare   | No       | 0            | NA                                                                                                                                                          | Number of Dedicated Hot Spare                                                                                                                                                           |
| volume_type                  | No       | RAID 0       | <ul style="list-style-type: none"> <li>RAID 0</li> <li>RAID 1</li> <li>RAID 5</li> <li>RAID 6</li> <li>RAID 10</li> <li>RAID 50</li> <li>RAID 60</li> </ul> | Provide the required RAID level                                                                                                                                                         |
| disk_cache_policy            | No       | Default      | <ul style="list-style-type: none"> <li>Default</li> <li>Enabled</li> <li>Disabled</li> </ul>                                                                | Disk Cache Policy                                                                                                                                                                       |
| write_cache_policy           | No       | WriteThrough | <ul style="list-style-type: none"> <li>WriteThrough</li> <li>WriteBack</li> </ul>                                                                           | Write Cache Policy                                                                                                                                                                      |

**Table 12. dellemc\_idrac\_storage\_volume (continued)**

| Parameter/aliases   | Required | Default     | Choices                                                                                                     | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------|----------|-------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     |          |             | <ul style="list-style-type: none"> <li>WriteBackForce</li> </ul>                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| read_cache_policy   | No       | NoReadAhead | <ul style="list-style-type: none"> <li>NoReadAhead</li> <li>ReadAhead</li> <li>AdaptiveReadAhead</li> </ul> | Read Cache Policy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| stripe_size         | No       | 65536       | NA                                                                                                          | Provide stripe size value in multiples of 64 * 1024                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| controller_id       | No       | NA          | NA                                                                                                          | Fully Qualified Device Descriptor (FQDD) of the storage controller, for example: RAID.Integrated.1-1<br><i>i</i> <b>NOTE:</b> Controller FQDD is required for C(create) RAID configuration.                                                                                                                                                                                                                                                                                                                   |
| volume_id           | No       | NA          | NA                                                                                                          | Fully Qualified Device Descriptor (FQDD) of the virtual disk, for example: Disk.virtual.0:RAID.Slot.1-1<br><i>i</i> <b>NOTE:</b> This option is used to get the virtual disk information.                                                                                                                                                                                                                                                                                                                     |
| media_type          | No       | None        | <ul style="list-style-type: none"> <li>HDD</li> <li>SDD</li> </ul>                                          | Media type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| protocol            | No       | None        | <ul style="list-style-type: none"> <li>SAS</li> <li>SATA</li> </ul>                                         | Bus protocol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| state               | Yes      | view        | <ul style="list-style-type: none"> <li>create</li> <li>delete</li> <li>view</li> </ul>                      | <ul style="list-style-type: none"> <li>C(create) performs <b>create</b> volume operations.</li> <li>C(delete) performs <b>remove</b> volume operations.</li> <li>C(view) returns the storage view.</li> </ul>                                                                                                                                                                                                                                                                                                 |
| volumes             | No       | NA          | NA                                                                                                          | A list of virtual disk-specific iDRAC attributes. This is applicable for C(create) and C(delete) operations. <ul style="list-style-type: none"> <li>For C(create) operation, name and drives are applicable options, other volume options can also be specified.<br/> <i>i</i> <b>NOTE:</b> The drives is a required option for C(create) operation and accepts either location (list of drive slot) or id (list of drive fqdd).</li> <li>For C(delete) operation, only name option is applicable.</li> </ul> |
| capacity            | No       | NA          | NA                                                                                                          | Virtual disk size in GB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| raid_reset_config   | No       | NA          | NA                                                                                                          | This option represents whether a Reset Config operation needs to be performed on the RAID controller. Reset Config operation deletes all the virtual disks present on the RAID controller.                                                                                                                                                                                                                                                                                                                    |
| raid_init_operation | No       | None        | <ul style="list-style-type: none"> <li>None</li> <li>Fast</li> </ul>                                        | This option represents Initialization Configuration operation to be performed on the virtual disk.                                                                                                                                                                                                                                                                                                                                                                                                            |

## Return Values

```
msg:
  type: str
```

```

description: Overall status of the storage configuration operation.
returned: always
sample: "Successfully completed the view storage volume operation"
storage_status:
  type: dict
  description: Storage configuration job and progress details from the iDRAC.
  returned: success
  sample:
    {
      "Id": "JID_XXXXXXXX",
      "JobState": "Completed",
      "JobType": "ImportConfiguration",
      "Message": "Successfully imported and applied Server Configuration Profile.",
      "MessageId": "XXX123",
      "Name": "Import Configuration",
      "PercentComplete": 100,
      "StartTime": "TIME_NOW",
      "Status": "Success",
      "TargetSettingsURI": null,
      "retval": true
    }

```

## Examples

```

-name: Create single volume
dellenc.openmanage.dellenc_idrac_storage_volume:
  idrac_ip:      "192.168.0.1"
  idrac_user:    "username"
  idrac_password: "password"
  state:        "create"
  controller_id: "RAID.Slot.1-1"
  volumes:
    - drives:
        location: [5]

```

```

-name: Create multiple volume
dellenc.openmanage.dellenc_idrac_storage_volume:
  idrac_ip:      "192.168.0.1"
  idrac_user:    "username"
  idrac_password: "password"
  raid_reset_config: "True"
  state:        "create"
  controller_id: "RAID.Slot.1-1"
  volume_type:   "RAID 1"
  span_depth:    1
  span_length:   2
  number_dedicated_hot_spare: 1
  disk_cache_policy: "Enabled"
  write_cache_policy: "WriteBackForce"
  read_cache_policy: "ReadAhead"
  stripe_size:     65536
  capacity:        100
  raid_init_operation: "Fast"
  volumes:
    - name: "volume_1"
      drives:
        id: ["Disk.Bay.1:Enclosure.Internal.0-1:RAID.Slot.1-1",
             "Disk.Bay.2:Enclosure.Internal.0-1:RAID.Slot.1-1"]
    - name: "volume_2"
      volume_type: "RAID 5"
      span_length: 3
      span_depth: 1
      drives:
        location: [7,3,5]
      disk_cache_policy: "Disabled"
      write_cache_policy: "WriteBack"
      read_cache_policy: "NoReadAhead"
      stripe_size: 131072

```

```
capacity: "200"
raid_init_operation: "None"
```

```
-name: View all volume details
  dellemc.openmanage.dellemc_idrac_storage_volume:
    idrac_ip: "192.168.0.1"
    idrac_user: "username"
    idrac_password: "password"
    state: "view"
```

```
-name: View specific volume details
  dellemc.openmanage.dellemc_idrac_storage_volume:
    idrac_ip: "192.168.0.1"
    idrac_user: "username"
    idrac_password: "password"
    state: "view"
    controller_id: "RAID.Slot.1-1"
    volume_id: "Disk.Virtual.0:RAID.Slot.1-1"
```

```
-name: Delete single volume
  dellemc.openmanage.dellemc_idrac_storage_volume:
    idrac_ip: "192.168.0.1"
    idrac_user: "username"
    idrac_password: "password"
    state: "delete"
  volumes:
    - name: "volume_1"
```

```
-name: Delete multiple volume
  dellemc.openmanage.dellemc_idrac_storage_volume:
    idrac_ip: "192.168.0.1"
    idrac_user: "username"
    idrac_password: "password"
    state: "delete"
  volumes:
    - name: "volume_1"
    - name: "volume_2"
```

## Configure Collect System Inventory on Restart

### Module: dellemc\_idrac\_lc\_attributes

#### Synopsis

This module is responsible for enabling or disabling of **Collect System Inventory on Restart (CSIOR)** property for all iDRAC or LC jobs. When you enable the **CSIOR** property, hardware inventory and part configuration information are discovered and compared with previous system inventory information on every system restart.

Check\_mode support: Yes

#### Options

**Table 13. dellemc\_idrac\_lc\_attributes**

| Parameter/aliases            | Required | Default | Choices | Comments                                  |
|------------------------------|----------|---------|---------|-------------------------------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address                          |
| idrac_user                   | Yes      | NA      | NA      | iDRAC username                            |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC user password                       |
| idrac_port                   | No       | 443     | NA      | iDRAC port                                |
| share_name                   | Yes      | NA      | NA      | CIFS or NFS network share or a local path |

**Table 13. dellenc\_idrac\_lc\_attributes (continued)**

| Parameter/aliases            | Required | Default | Choices                                                                     | Comments                                                                                                                                                  |
|------------------------------|----------|---------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| share_user                   | No       | NA      | NA                                                                          | Network share user in the format 'user@domain' or 'domain\user' if user is part of a domain else 'user'. This option is mandatory for CIFS Network share. |
| share_password/<br>share_pwd | No       | NA      | NA                                                                          | Network share user password. This option is mandatory for CIFS Network share.                                                                             |
| share_mnt                    | No       | NA      | NA                                                                          | Local mount path of the network share with read-write permission for Ansible user. This option is mandatory for CIFS or NFS Network share.                |
| csior                        | Yes      | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul> | Whether to Enable or Disable Collect System Inventory on Restart (CSIOR) property for all iDRAC or LC jobs                                                |

## Return Values

```

msg:
  description: Overall status of iDRAC LC attributes configuration.
  returned: always
  type: str
  sample: Successfully configured the iDRAC LC attributes.
lc_attribute_status:
  description: Collect System Inventory on Restart (CSIOR) property for all iDRAC/LC
  jobs is configured.
  returned: success
  type: dict
  sample: {
    "CompletionTime": "2020-03-30T00:06:53",
    "Description": "Job Instance",
    "EndTime": null,
    "Id": "JID_1234512345",
    "JobState": "Completed",
    "JobType": "ImportConfiguration",
    "Message": "Successfully imported and applied Server Configuration Profile.",
    "MessageArgs": [],
    "MessageArgs@odata.count": 0,
    "MessageId": "SYS053",
    "Name": "Import Configuration",
    "PercentComplete": 100,
    "StartTime": "TIME_NOW",
    "Status": "Success",
    "TargetSettingsURI": null,
    "retval": true
  }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system
administrator."
        }
      ]
    }
  }

```

```
}
}
```

## Example

```
-name: Set up iDRAC LC Attributes
  dellemc.openmanage.dellemc_idrac_lc_attributes:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "192.168.0.1:/share"
    share_mnt: "/mnt/share"
    csior: "Enabled"
```

# Configure syslog

## Module: idrac\_syslog

### Synopsis

This module allows to enable or disable the iDRAC syslog.

Check\_mode support: Yes

### Options

**Table 14. idrac\_syslog**

| Parameter/<br>aliases        | Required | Default | Choices                                                                     | Comments                                                                                                                                                           |
|------------------------------|----------|---------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| idrac_ip                     | Yes      | NA      | NA                                                                          | iDRAC IP Address                                                                                                                                                   |
| idrac_user                   | Yes      | NA      | NA                                                                          | iDRAC username                                                                                                                                                     |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA                                                                          | iDRAC user password                                                                                                                                                |
| idrac_port                   | No       | 443     | NA                                                                          | iDRAC port                                                                                                                                                         |
| share_name                   | Yes      | NA      | NA                                                                          | Network share or a local path                                                                                                                                      |
| share_user                   | No       | NA      | NA                                                                          | Network share user name.<br>Use the format 'user@domain'<br>or 'domain \\ user' if user is<br>part of a domain.<br><br>This option is mandatory for<br>CIFS share. |
| share_password/<br>share_pwd | No       | NA      | NA                                                                          | Network share user password.<br>This option is mandatory for<br>CIFS share.                                                                                        |
| share_mnt                    | No       | NA      | NA                                                                          | Local mount path of the<br>network share with read-write<br>permission for Ansible user.<br>This option is mandatory for<br>network shares.                        |
| syslog                       | Yes      | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul> | Enables or disables the iDRAC<br>syslog.                                                                                                                           |

## Return Values

```
msg:
  description: Overall status of the syslog export operation.
  returned: always
  type: str
  sample: "Successfully fetch the syslogs."
```

```

syslog_status:
  description: Job details of the syslog operation.
  returned: success
  type: dict
  sample: {
    "@odata.context": "/redfish/v1/$metadata#DellJob.DellJob",
    "@odata.id": "/redfish/v1/Managers/iDRAC.Embedded.1/Jobs/JID_852940632485",
    "@odata.type": "#DellJob.v1_0_2.DellJob",
    "CompletionTime": "2020-03-27T02:27:45",
    "Description": "Job Instance",
    "EndTime": null,
    "Id": "JID_852940632485",
    "JobState": "Completed",
    "JobType": "ImportConfiguration",
    "Message": "Successfully imported and applied Server Configuration Profile.",
    "MessageArgs": [],
    "MessageArgs@odata.count": 0,
    "MessageId": "SYS053",
    "Name": "Import Configuration",
    "PercentComplete": 100,
    "StartTime": "TIME_NOW",
    "Status": "Success",
    "TargetSettingsURI": null,
    "retval": true
  }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
        }
      ]
    }
  }
}

```

## Example

```

- name: Enable iDRAC syslog
  dellemc.openmanage.idrac_syslog:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "192.168.0.2:/share"
    share_password: "share_user_pwd"
    share_user: "share_user_name"
    share_mnt: "/mnt/share"
    syslog: "Enabled"

- name: Disable iDRAC syslog
  dellemc.openmanage.idrac_syslog:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "192.168.0.2:/share"
    share_password: "share_user_pwd"
    share_user: "share_user_name"
    share_mnt: "/mnt/share"
    syslog: "Disabled"

```

# Deploying operating system

To provision a bare metal server, it is essential to deploy the required operating system in the device before you start using it. This section describes the process of deploying the operating system on the PowerEdge servers using Ansible.

To automate the process of operating system deployment in an unattended manner using Ansible, the iDRAC's capability is utilized to transfer the customized ISO to iDRAC for boot.

To perform OS deployment, ensure:

- Operating system image is injected with required Dell drivers, and unattended response file.
- iDRAC is enabled, configured, and reachable.
- RAID is configured.

## Boot to a network ISO image

### Module: idrac\_os\_deployment

#### Synopsis

This module facilitates the operating system deployment. You can run this module to boot the target system to a bootable ISO image on a CIFS or NFS share. This module looks for the customized ISO in the configured share location and transfers the image to iDRAC to load it. On the system reboot, the operating system deployment begins.

Check\_mode support: No

#### Options

Table 15. idrac\_os\_deployment

| Parameter/aliases            | Required | Default | Choices | Comments                                                                                                                                                                                      |
|------------------------------|----------|---------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address                                                                                                                                                                              |
| idrac_user                   | Yes      | NA      | NA      | iDRAC username                                                                                                                                                                                |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC password                                                                                                                                                                                |
| idrac_port                   | No       | 443     | NA      | iDRAC port                                                                                                                                                                                    |
| iso_image                    | Yes      | NA      | NA      | Network ISO name                                                                                                                                                                              |
| share_name                   | Yes      | NA      | NA      | CIFS or NFS Network share                                                                                                                                                                     |
| share_user                   | No       | NA      | NA      | User name required to access the network share must be provided as either 'user@domain' or 'domain\user'. This option is mandatory for CIFS network share.                                    |
| share_password/<br>share_pwd | No       | NA      | NA      | Network share user password. This option is mandatory for CIFS Network shares.                                                                                                                |
| expose_duration              | No       | 1080    | NA      | It is the time taken in minutes for the ISO image file to be exposed as a local CD-ROM device to the host server. When the specified time expires, the ISO image gets automatically detached. |

#### Return Values

```
msg:
  type: str
  description: Over all device information status.
  returned: on error
  sample: "Failed to boot to network iso"
boot_status:
  description: Details of the boot to network ISO image operation.
  returned: always
  type: dict
```

```
sample: {
  "DeleteOnCompletion": "false",
  "InstanceID": "DCIM_OSDConcreteJob:1",
  "JobName": "BootToNetworkISO",
  "JobStatus": "Success",
  "Message": "The command was successful.",
  "MessageID": "OSD1",
  "Name": "BootToNetworkISO",
  "Status": "Success",
  "file": "192.168.0.0:/nfsfileshare/unattended_os_image.iso",
  "retval": true
}
```

### Example

```
- name: Boot to Network ISO
  dellemc.openmanage.idrac_os_deployment:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "192.168.0.0:/nfsfileshare"
    iso_image: "unattended_os_image.iso"
    expose_duration: 180
```

## Server Inventory

This section describes the process of retrieving the server inventory of the PowerEdge Servers using Ansible Modules.

### View the system inventory

#### Module: idrac\_system\_info

##### Synopsis

System inventory provides basic and component level detailed inventory information. You can run this module when you want to verify the asset, configured state, inventory, and health-related information for the system and its component.

Check\_mode support: No

##### Options

**Table 16. idrac\_system\_info**

| Parameter/aliases            | Required | Default | Choices | Comments            |
|------------------------------|----------|---------|---------|---------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address    |
| idrac_user                   | Yes      | NA      | NA      | iDRAC username      |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC user password |
| idrac_port                   | No       | 443     | NA      | iDRAC port          |

##### Return Values

```
msg:
  description: "Overall system inventory information status."
  returned: always
  type: str
  sample: "Successfully fetched the system inventory details."
system_info:
  type: dict
  description: Details of the PowerEdge Server System Inventory.
  returned: success
  sample: {
    "BIOS": [
      {
```

```

        "BIOSReleaseDate": "11/26/2019",
        "FQDD": "BIOS.Setup.1-1",
        "InstanceID": "DCIM:INSTALLED#741__BIOS.Setup.1-1",
        "Key": "DCIM:INSTALLED#741__BIOS.Setup.1-1",
        "SMBIOSPresent": "True",
        "VersionString": "2.4.8"
    }
]
}
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
        }
      ]
    }
  }
}

```

#### Example

```

- name: Get System Inventory
  dellemc.openmanage.idrac_system_info:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"

```

## Server administration tasks

This section describes the tasks that you can run using OpenManage Ansible Modules. Following are the tasks:

- [Configure the power state on the PowerEdge servers](#)
- [Reset iDRAC](#)
- [View LC job status](#)
- [Export LC logs](#)
- [Delete LC job](#)
- [Configure System Lockdown Mode](#)

## Configure the power state on the PowerEdge servers

### Module: `dellenc_change_power_state`

#### Synopsis

This module configures the power control options on a PowerEdge server. You can run this module:

- To turn on the server.
- To turn off the server.
- To reboot the server.
- For hard reset of the server.

Check\_mode support: Yes

#### Options

**Table 17. dellemc\_change\_power\_state**

| Parameter/aliases            | Required | Default | Choices                                                                                                                                                         | Comments            |
|------------------------------|----------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| idrac_ip                     | Yes      | NA      | NA                                                                                                                                                              | iDRAC IP Address    |
| idrac_user                   | Yes      | NA      | NA                                                                                                                                                              | iDRAC username      |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA                                                                                                                                                              | iDRAC user password |
| idrac_port                   | No       | 443     | NA                                                                                                                                                              | iDRAC port          |
| change_power                 | Yes      | NA      | <ul style="list-style-type: none"> <li>On</li> <li>ForceOff</li> <li>GracefulRestart</li> <li>GracefulShutdown</li> <li>PushPowerButton</li> <li>Nmi</li> </ul> | Desired power state |

**Table 18. Return Values**

| Name                    | Description                                                | Returned | Type   | Output                                                                                                                                                                                                                                          |
|-------------------------|------------------------------------------------------------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power state of a server | Configures the power control options on a PowerEdge server | Success  | String | <a href="https://github.com/dell/dellemc-openmanage-ansible-modules/tree/devel/output/idrac/dellemc_change_power_state.md">https://github.com/dell/dellemc-openmanage-ansible-modules/tree/devel/output/idrac/dellemc_change_power_state.md</a> |

**Example**

```
-name: Change Power State
  dellemc_change_power_state:
    idrac_ip:      "xx.xx.xx.xx"
    idrac_user:    "xxxx"
    idrac_password: "xxxxxxxxx"
    change_power:  "xxxxxxxxx"
```

## Reset iDRAC

**Module: idrac\_reset****Synopsis**

- This module resets iDRAC.
- iDRAC is not accessible for some time after running this module. It is recommended to wait for some time, before trying to connect to iDRAC.

Check\_mode support: Yes

**Options****Table 19. idrac\_reset**

| Parameter/aliases            | Required | Default | Choices | Comments            |
|------------------------------|----------|---------|---------|---------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address    |
| idrac_user                   | Yes      | NA      | NA      | iDRAC username      |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC user password |
| idrac_port                   | No       | 443     | NA      | iDRAC port          |

**Return Values**

```
msg:
  description: Status of the iDRAC reset operation.
```

```

    returned: always
    type: str
    sample: "Successfully performed iDRAC reset."
  reset_status:
    description: Details of iDRAC reset operation.
    returned: always
    type: dict
    sample: {
      "idracreset": {
        "Data": {
          "StatusCode": 204
        },
        "Message": "none",
        "Status": "Success",
        "StatusCode": 204,
        "retval": true
      }
    }
  error_info:
    description: Details of the HTTP Error.
    returned: on HTTP error
    type: dict
    sample: {
      "error": {
        "code": "Base.1.0.GeneralError",
        "message": "A general error has occurred. See ExtendedInfo for more information.",
        "@Message.ExtendedInfo": [
          {
            "MessageId": "GEN1234",
            "RelatedProperties": [],
            "Message": "Unable to process the request because an error occurred.",
            "MessageArgs": [],
            "Severity": "Critical",
            "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
          }
        ]
      }
    }
}

```

### Example

```

-name: Reset iDRAC
  dellemc.openmanage.idrac_reset:
    idrac_ip: "190.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    idrac_port: 443

```

## View Lifecycle Controller job status

**Module:** `idrac_lifecycle_controller_job_status_info`

### Synopsis

This module shows the status of a specific Lifecycle Controller job using its job ID.

Check\_mode support: No

### Options

**Table 20. idrac\_lifecycle\_controller\_job\_status\_info**

| Parameter/aliases            | Required | Default | Choices | Comments            |
|------------------------------|----------|---------|---------|---------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address    |
| idrac_user                   | Yes      | NA      | NA      | iDRAC username      |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC user password |

**Table 20. idrac\_lifecycle\_controller\_job\_status\_info (continued)**

| Parameter/aliases | Required | Default | Choices | Comments                                |
|-------------------|----------|---------|---------|-----------------------------------------|
| idrac_port        | No       | 443     | NA      | iDRAC port                              |
| job_id            | Yes      | NA      | NA      | Job ID in the format "JID_123456789012" |

## Return Values

```

msg:
  description: Overall status of the job facts operation.
  returned: always
  type: str
  sample: "Successfully fetched the job info."
job_info:
  description: Displays the status of a Lifecycle Controller job.
  returned: success
  type: dict
  sample: {
    "ElapsedTimeSinceCompletion": "8742",
    "InstanceID": "JID_844222910040",
    "JobStartTime": "NA",
    "JobStatus": "Completed",
    "JobUntilTime": "NA",
    "Message": "Job completed successfully.",
    "MessageArguments": "NA",
    "MessageID": "RED001",
    "Name": "update:DCIM:INSTALLED#iDRAC.Embedded.1-1#iDRACinfo",
    "PercentComplete": "100",
    "Status": "Success"
  }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
        }
      ]
    }
  }

```

## Example

```

- name: Show status of a Lifecycle Control job
  dellemc.openmanage.idrac_lifecycle_controller_job_status_info:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    job_id: "JID_1234567890"

```

## Export LC logs

**Module:** idrac\_lifecycle\_controller\_logs

**Synopsis**

LC logs provide records of past activities on a managed system. These log files are useful for the server administrators since they provide detailed information about recommended actions and some other technical information that is useful for troubleshooting purposes.

The various types of information available in LC logs are alerts-related, configuration changes on the system hardware components, firmware changes due to an upgrade or downgrade, replaced parts, temperature warnings, detailed timestamps of when the activity has started, severity of the activity, and so on.

This module allows to export Lifecycle Controller logs to a given network share.

Check\_mode support: No

## Options

**Table 21. idrac\_lifecycle\_controller\_logs**

| Parameter/aliases            | Required | Default | Choices                                                                   | Comments                                                                                                                                                     |
|------------------------------|----------|---------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| idrac_ip                     | Yes      | NA      | NA                                                                        | iDRAC IP Address                                                                                                                                             |
| idrac_user                   | Yes      | NA      | NA                                                                        | iDRAC username                                                                                                                                               |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA                                                                        | iDRAC user password                                                                                                                                          |
| idrac_port                   | No       | 443     | NA                                                                        | iDRAC port                                                                                                                                                   |
| share_name                   | Yes      | NA      | NA                                                                        | Network share or a local path                                                                                                                                |
| share_user                   | No       | NA      | NA                                                                        | Network share user name. Use the format 'user@domain' or 'domain\\user' if user is part of a domain.<br><br>This option is mandatory for CIFS Network Share. |
| share_password/<br>share_pwd | No       | NA      | NA                                                                        | Network share user password. This option is mandatory for CIFS Network share.                                                                                |
| job_wait                     | Yes      | NA      | <ul style="list-style-type: none"> <li>• True</li> <li>• False</li> </ul> | Provides the option to wait for job completion                                                                                                               |

## Return Values

```

msg:
  type: str
  description: Status of the export lifecycle controller logs job.
  returned: always
  sample: "Successfully exported the lifecycle controller logs."
lc_logs_status:
  description: Status of the export operation.
  returned: success
  type: dict
  sample: {
    "msg": {
      "Message": "File exported successfully!!",
      "Status": "Success"
    }
  }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",

```

```

        "Resolution": "Retry the operation. If the issue persists, contact your system
administrator."
    }
}
}
}

```

## Example

```

- name: Export Lifecycle Controller logs
  dellemc.openmanage.idrac_lifecycle_controller_logs:
    idrac_ip: "190.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    idrac_port: 443
    share_name: "192.168.0.0:/nfsfileshare"
    share_user: "share_user_name"
    share_password: "share_user_pwd"
    job_wait: True

```

# Delete a Lifecycle Controller job

**Module:** `idrac_lifecycle_controller_jobs`

## Synopsis

This module allows to delete a Lifecycle Controller job using its job ID or delete all jobs.

You can delete an LC job:

- after the job is completed.
- if you do not want to perform the job or if it is taking long to execute.

Check\_mode support: Yes

## Options

**Table 22. idrac\_lifecycle\_controller\_jobs**

| Parameter/aliases            | Required | Default | Choices | Comments                                                                                                                    |
|------------------------------|----------|---------|---------|-----------------------------------------------------------------------------------------------------------------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address                                                                                                            |
| idrac_user                   | Yes      | NA      | NA      | iDRAC username                                                                                                              |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC user password                                                                                                         |
| idrac_port                   | No       | 443     | NA      | iDRAC port                                                                                                                  |
| job_id                       | Yes      | NA      | NA      | Job ID of the specific job to be deleted.<br><br>All the jobs in the job queue are deleted if this option is not specified. |

## Return Values

```

msg:
  type: str
  description: Status of the delete operation.
  returned: always
  sample: 'Successfully deleted the job.'
status:
  type: dict
  description: Details of the delete operation.
  returned: success
  sample: {
    'Message': 'The specified job was deleted',

```

```

        'MessageID': 'SUP020',
        'ReturnValue': '0'
    }
    error_info:
        description: Details of the HTTP Error.
        returned: on HTTP error
        type: dict
        sample: {
            "error": {
                "code": "Base.1.0.GeneralError",
                "message": "A general error has occurred. See ExtendedInfo for more information.",
                "@Message.ExtendedInfo": [
                    {
                        "MessageId": "GEN1234",
                        "RelatedProperties": [],
                        "Message": "Unable to process the request because an error occurred.",
                        "MessageArgs": [],
                        "Severity": "Critical",
                        "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
                    }
                ]
            }
        }
    }
}

```

## Examples

```

- name: Delete Lifecycle Controller job queue
  dellemc.openmanage.idrac_lifecycle_controller_jobs:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    idrac_port: 443

- name: Delete Lifecycle Controller job using a job ID
  dellemc.openmanage.idrac_lifecycle_controller_jobs:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    idrac_port: 443
    job_id: "JID_801841929470"

```

# Configure System Lockdown Mode

**Module:** `dellemc_system_lockdown_mode`

## Synopsis

**System Lockdown Mode** provides a mechanism to protect configuration from any unintentional or accidental changes after the system is provisioned to a certain level.

This module is responsible for enabling or disabling the lockdown mode of a system. When System Lockdown Mode is enabled, the system's configuration is locked and system cannot be configured or updated until the lockdown mode is disabled.

Check\_mode support: No

## Options

**Table 23. dellemc\_system\_lockdown\_mode**

| Parameter/aliases            | Required | Default | Choices | Comments            |
|------------------------------|----------|---------|---------|---------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address    |
| idrac_user                   | Yes      | NA      | NA      | iDRAC username      |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC user password |
| idrac_port                   | No       | 443     | NA      | iDRAC port          |

**Table 23. dellenc\_system\_lockdown\_mode (continued)**

| Parameter/aliases            | Required | Default | Choices                                                                     | Comments                                                                                                                                               |
|------------------------------|----------|---------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| share_name                   | Yes      | NA      | NA                                                                          | CIFS or NFS network share or a local path                                                                                                              |
| share_user                   | No       | NA      | NA                                                                          | Network share user in the format 'user@domain' or user\domain if user is part of a domain else 'user'. This field is mandatory for CIFS Network Share. |
| share_password/<br>share_pwd | No       | NA      | NA                                                                          | Network share user password. This field is mandatory for CIFS Network Share.                                                                           |
| share_mnt                    | No       | NA      | NA                                                                          | Local mount path of the network share with read-write permission for Ansible user. This option is mandatory for CIFS or NFS Network share.             |
| lockdown_mode                | Yes      | NA      | <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul> | Whether to Enable or Disable system lockdown mode                                                                                                      |

## Return Values

```

msg:
  description: "Lockdown mode of the system is configured."
  returned: always
  type: str
  sample: "Successfully completed the lockdown mode operations."
system_lockdown_status:
  type: dict
  description: Storage configuration job and progress details from the iDRAC.
  returned: success
  sample:
    {
      "Data": {
        "StatusCode": 200,
        "body": {
          "@Message.ExtendedInfo": [
            {
              "Message": "Successfully Completed Request",
              "MessageArgs": [],
              "MessageArgs@odata.count": 0,
              "MessageId": "Base.1.0.Success",
              "RelatedProperties": [],
              "RelatedProperties@odata.count": 0,
              "Resolution": "None",
              "Severity": "OK"
            }
          ]
        }
      },
      "Message": "none",
      "Status": "Success",
      "StatusCode": 200,
      "retval": true
    }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",

```

```

        "Resolution": "Retry the operation. If the issue persists, contact your system
administrator."
    }
}
}
}

```

### Example

```

-name: Configure System Lockdown Mode
  dellemc.openmanage.dellemc_system_lockdown_mode:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"
    share_name: "192.168.0.1:/share"
    share_mnt: "/mnt/share"
    lockdown_mode: "Disabled"

```

## Storage controller

This section describes the process of configuring the storage controller settings of the PowerEdge servers using Ansible modules.

## Configure storage controller settings

**Module:** `idrac_redfish_storage_controller`

### Synopsis

This module configures the storage controller settings using Redfish APIs.

### Options

**Table 24. idrac\_redfish-storage-controller**

| Parameter | Required | Default     | Choices                                                                    | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|----------|-------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| baseuri   | True     | NA          | NA                                                                         | IP address of the target out-of-band controller. For example- <ipaddress>:<port>                                                                                                                                                                                                                                                                                                                                                                                                                               |
| username  | True     | NA          | NA                                                                         | Username of the target out-of-band controller.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| password  | True     | NA          | NA                                                                         | Password of the target out-of-band controller.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| command   | False    | AssignSpare | ResetConfig, AssignSpare, SetControllerKey, RemoveControllerKey, or ReKey. | <p>Set of actions to configure the storage controller settings. These actions may require a system reset, depending on the controller's capabilities.</p> <ul style="list-style-type: none"> <li>• C(ResetConfig) - Deletes all the virtual disks and unassigns all hot spares on physical disks.</li> <li>• C(AssignSpare) - Assigns a physical disk as a dedicated or global hot spare for a virtual disk.</li> <li>• C(SetControllerKey) - Sets the key on controllers, which is used to encrypt</li> </ul> |

**Table 24. idrac\_redfish-storage-controller (continued)**

| Parameter     | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|----------|---------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |          |         |         | <p>the drives in Local key Management(LKM).</p> <ul style="list-style-type: none"> <li>• C(RemoveControllerKey) - Erases the encryption key on the controller.</li> <li>• C(ReKey) - Resets the key on the controller.</li> </ul>                                                                                                                                                                                                                        |
| target        | False    | NA      | NA      | <ul style="list-style-type: none"> <li>• Fully Qualified Device Descriptor (FQDD) of the target physical drive that is assigned as a spare.</li> <li>• This [option] is mandatory when I(command) is C(AssignSpare)</li> <li>• If I(volume_id) is not specified or empty, this physical drive will be assigned as a global hot spare.</li> </ul>                                                                                                         |
| volume_id     | False    | NA      | NA      | <ul style="list-style-type: none"> <li>• FQDD of the volumes to which a hot spare is assigned.</li> <li>• [This option is] Applicable if I(command) is C(AssignSpare).</li> <li>• To know the number of volumes to which a hot spare can be assigned, refer iDRAC Redfish API guide.</li> </ul>                                                                                                                                                          |
| controller_id | False    | NA      | NA      | <ul style="list-style-type: none"> <li>• FQDD of the storage controller. For example- 'RAID.Slot.1-1'.</li> <li>• This option is mandatory when I(command) is C(ResetConfig), C(SetControllerKey), C(RemoveControllerKey) and C(ReKey).</li> </ul>                                                                                                                                                                                                       |
| key           | False    | NA      | NA      | <ul style="list-style-type: none"> <li>• A new security key passphrase that the encryption-capable controller uses to create the encryption key. The controller uses the encryption key to lock or unlock access to the Self Encryption Disk(SED).</li> <li>• Only one encryption key can be created for each controller.</li> <li>• This option is mandatory when I(command) is C(SetControllerKey) or C(ReKey), and when I(mode) is C(LKM).</li> </ul> |
| key_id        | False    | NA      | NA      | <ul style="list-style-type: none"> <li>• This is a user supplied text label associated with the passphrase.</li> </ul>                                                                                                                                                                                                                                                                                                                                   |

**Table 24. idrac\_redfish-storage-controller (continued)**

| Parameter | Required | Default | Choices     | Comments                                                                                                                                                                                                                                                                                                                              |
|-----------|----------|---------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |         |             | <ul style="list-style-type: none"> <li>This option is mandatory when l(command) is C(SetControllerKey) or C(ReKey), and when l(mode) is C(LKM).</li> </ul>                                                                                                                                                                            |
| old_key   | False    | NA      | NA          | <ul style="list-style-type: none"> <li>Security key passphrase used by the encryption-capable controller.</li> <li>This option is mandatory when l(command) is C(ReKey) and l(mode) is C(LKM).</li> </ul>                                                                                                                             |
| mode      | False    | NA      | LKM or SEKM | <ul style="list-style-type: none"> <li>Encryption mode of the encryption-capable controller: 1 - Local Key Management (LKM), 2 - Security Enterprise Key Manager(SEKM).</li> <li>This option is applicable only when l(command) is C(ReKey).</li> <li>C(SEKM) requires secure enterprise key manager license on the iDRAC.</li> </ul> |

## Return values

```

msg:
  type: str
  description: Overall status of the storage controller configuration operation.
  returned: always
  sample: "Successfully submitted the job that performs AssignSpare operation"
task:
  type: dict
  description: ID and URI resource of the created job.
  returned: success
  sample: {
    "id": "JID_XXXXXXXXXXXX",
    "uri": "/redfish/v1/Managers/iDRAC.Embedded.1/Jobs/JID_XXXXXXXXXXXX"
  }
error_info:
  type: dict
  description: Details of a http error.
  returned: on http error
  sample: {
    "error": {
      "@Message.ExtendedInfo": [
        {
          "Message": "Cannot run the method because the requested HTTP method is not
allowed.",
          "MessageArgs": [],
          "MessageArgs@odata.count": 0,
          "MessageId": "iDRAC.1.6.SYS402",
          "RelatedProperties": [],
          "RelatedProperties@odata.count": 0,
          "Resolution": "Enter a valid HTTP method and retry the operation. For
information about
valid methods, see the Redfish Users Guide available on the support site.",
          "Severity": "Informational"
        }
      ],
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information"
    }
  }

```

```
}  
}
```

## Examples

```
- name: Assign a dedicated hot spare  
dellenc.openmanage.idrac_redfish_storage_controller:  
  baseuri: "192.168.0.1:443"  
  username: "user_name"  
  password: "user_password"  
  volume_id: "Disk.Virtual.0:RAID.Slot.1-1"  
  target: "Disk.Bay.0:Enclosure.Internal.0-1:RAID.Slot.1-1"  
tags:  
  - assign_dedicated_hot_spare  
  
- name: Assign a global hot spare  
dellenc.openmanage.idrac_redfish_storage_controller:  
  baseuri: "192.168.0.1:443"  
  username: "user_name"  
  password: "user_password"  
  target: "Disk.Bay.0:Enclosure.Internal.0-1:RAID.Slot.1-1"  
tags:  
  - assign_global_hot_spare  
  
- name: Set a controller encryption key  
dellenc.openmanage.idrac_redfish_storage_controller:  
  baseuri: "192.168.0.1:443"  
  username: "user_name"  
  password: "user_password"  
  command: "SetControllerKey"  
  controller_id: "RAID.Slot.1-1"  
  key: "PassPhrase@123"  
  key_id: "mykeyid123"  
tags:  
  - set_controller_key  
  
- name: Rekey in LKM mode  
dellenc.openmanage.idrac_redfish_storage_controller:  
  baseuri: "192.168.0.1:443"  
  username: "user_name"  
  password: "user_password"  
  command: "ReKey"  
  controller_id: "RAID.Slot.1-1"  
  key: "PassPhrase@123"  
  key_id: "mykeyid123"  
  old_key: "OldPassPhrase@123"  
tags:  
  - rekey_lkm  
  
- name: Rekey in SEKM mode  
dellenc.openmanage.idrac_redfish_storage_controller:  
  baseuri: "192.168.0.1:443"  
  username: "user_name"  
  password: "user_password"  
  command: "ReKey"  
  controller_id: "RAID.Slot.1-1"  
  mode: "SEKM"  
tags:  
  - rekey_sekm  
  
- name: Remove the controller key  
dellenc.openmanage.idrac_redfish_storage_controller:  
  baseuri: "192.168.0.1:443"  
  username: "user_name"  
  password: "user_password"  
  command: "RemoveControllerKey"  
  controller_id: "RAID.Slot.1-1"  
tags:  
  - remove_controller_key  
  
- name: Reset configuration  
dellenc.openmanage.idrac_redfish_storage_controller:  
  baseuri: "192.168.0.1:443"
```

```
username: "user_name"
password: "user_password"
command: "ResetConfig"
controller_id: "RAID.Slot.1-1"
tags:
  - reset_config
```

# Modules for OpenManage Enterprise (OME)

## Topics:

- [How OpenManage Ansible Modules work with OME](#)
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## How OpenManage Ansible Modules work with OME

OpenManage Enterprise (OME) is a system management and monitoring application that provides rich sets of features to manage the Dell EMC servers, chassis, storage, and network switches in an enterprise data center or IT environment. Using the comprehensive set of REST APIs provided by OME, system administrators and software developers can discover, configure, provision, update, and manage their entire Dell EMC infrastructure.

OpenManage Ansible modules for OME simplifies and automates the PowerEdge server and modular infrastructure provisioning, deployment, and updates supported by OME. Leveraging the repeatable template configuration and deployment feature provided by OME, administrators can automatically deploy the changes, ensure consistency and thereby significantly improve productivity by reducing manual interactions and errors.

For information on which user roles in OME have the required privileges to run modules, refer [roles and associated privileges for OME](#).

## Running your first OME Playbook

Before you run a playbook to manage your iDRACs using OME, you need to have an inventory file that contains the target OME server details. For more information on inventory, see [Ansible documentation](#)

1. Install OpenManage Ansible Modules either from [GitHub](#) or from [Ansible Galaxy](#). For more details, see Dell EMC OpenManage Ansible Modules Installation Guide.
2. Create an inventory file containing a list of the OMEs. In the following inventory example, we are using the inventory variables to store the OME IP addresses and the user credentials. For more information on variables, see [Ansible documentation](#).

```
inventory:
[PowerEdge]
ome.example.com
ome_ipaddress= '192.168.1.1'
```

```
ome_username='ome_user'
ome_password='ome_password'
```

3. Define a playbook to fetch the server inventory managed by the OME. Create the playbook in the same directory where you created the inventory. Following is a playbook example:

```
playbook.yml

---
- hosts: PowerEdge
  connection: local
  gather_facts: False

  tasks:
  - name: Retrieve basic inventory of all devices.
    ome_device_info:
      hostname: "192.168.0.1"
      username: "username"
      password: "password"
```

4. Now run the playbook. Run the following command from the directory where you created the inventory and the playbook:

```
ansible-playbook playbook.yml -i inventory
```

5. Press **Enter**.

With OpenManage Ansible Modules, you can construct a playbook with a set of modules resulting in an automation workflow for configuration, deployments, and updates of PowerEdge and modular servers.

To view the list of all available OME modules:

1. Run the following command on the Ansible control machine:

```
ansible-doc -l | grep "ome"
```

2. Press **Enter**.

List of the available OME modules is displayed.

To view the documentation of a module:

1. Run the following command on the Ansible control machine:

```
ansible-doc <module name>
```

2. Press **Enter**.

## Manage Devices

### View device information

**Module:** ome\_device\_info

#### Synopsis

This module retrieves the list of devices in the inventory of OpenManage Enterprise along with the details of each device.

#### Options

**Table 25. ome\_device\_info**

| Parameter | Required | Default | Choices | Comments                      |
|-----------|----------|---------|---------|-------------------------------|
| hostname  | Yes      | NA      | NA      | Target IP Address or hostname |
| username  | Yes      | NA      | NA      | Target username               |
| password  | Yes      | NA      | NA      | Target user password          |

**Table 25. ome\_device\_info (continued)**

| Parameter            | Required | Default             | Choices                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Comments                                                                                                                                                                                                                                                                                                                               |
|----------------------|----------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| port                 | No       | 443                 | NA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Target device HTTPS port                                                                                                                                                                                                                                                                                                               |
| fact_subset          | No       | basic_inventor<br>y | <ul style="list-style-type: none"> <li>basic_inventory</li> <li>detailed_inventory</li> <li>subsystem_health</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>C(basic_inventory) returns the list of the devices.</li> <li>C(detailed_inventory) returns the inventory details of specified devices.</li> <li>C(subsystem_health) returns the health status of specified devices.</li> </ul>                                                                  |
| system_query_options | No       | NA                  | <ul style="list-style-type: none"> <li>device_id: A list of unique identifier is applicable for C(detailed_inventory) and C(subsystem_health).</li> <li>device_service_tag: A list of service tags is applicable for C(detailed_inventory) and C(subsystem_health).</li> <li>inventory_type: For C(detailed_inventory), it returns details of the specified inventory type.</li> <li>filter: For C(basic_inventory), it filters the collection of devices. I(filter) query format should be aligned with OData standards.</li> </ul> | <ul style="list-style-type: none"> <li>I(system_query_options) is applicable for the choices of the fact_subset.</li> <li>Either I(device_id) or I(device_service_tag) is mandatory for C(detailed_inventory) and C(subsystem_health).</li> <li>I(device_id) or I(device_service_tag) can be used individually or together.</li> </ul> |

## Return Values

```

msg:
  type: str
  description: Overall device information status.
  returned: on error
  sample: "Failed to fetch the device information"
device_info:
  type: dict
  description: Returns the information collected from the device.
  returned: success
  sample: {
    "value": [
      {
        "Actions": null,
        "AssetTag": null,
        "ChassisServiceTag": null,
        "ConnectionState": true,
        "DeviceManagement": [
          {
            "DnsName": "dnsname.host.com",
            "InstrumentationName": "MX-12345",
            "MacAddress": "11:10:11:10:11:10",
            "ManagementId": 12345,
            "ManagementProfile": [
              {
                "HasCreds": 0,
                "ManagementId": 12345,
                "ManagementProfileId": 12345,
                "ManagementURL": "https://192.168.0.1:443",
                "Status": 1000,
                "StatusDateTime": "2019-01-21 06:30:08.501"
              }
            ],
            "ManagementType": 2,

```

```

        "NetworkAddress": "192.168.0.1"
    }
    ],
    "DeviceName": "MX-0003I",
    "DeviceServiceTag": "MXL1234",
    "DeviceSubscription": null,
    "LastInventoryTime": "2019-01-21 06:30:08.501",
    "LastStatusTime": "2019-01-21 06:30:02.492",
    "ManagedState": 3000,
    "Model": "PowerEdge MX7000",
    "PowerState": 17,
    "SlotConfiguration": {},
    "Status": 4000,
    "SystemId": 2031,
    "Type": 2000
}
]
}

```

## Examples

```

- name: Retrieve basic inventory of all devices
  dellemc.openmanage.ome_device_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"

- name: Retrieve basic inventory for devices identified by IDs 33333 or 11111 using
  filtering
  dellemc.openmanage.ome_device_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    fact_subset: "basic_inventory"
    system_query_options:
      filter: "Id eq 33333 or Id eq 11111"

- name: Retrieve inventory details of specified devices identified by IDs 11111 and 22222
  dellemc.openmanage.ome_device_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    fact_subset: "detailed_inventory"
    system_query_options:
      device_id:
        - 11111
        - 22222

- name: Retrieve inventory details of specified devices identified by service tags
  MXL1234 and MXL4567
  dellemc.openmanage.ome_device_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    fact_subset: "detailed_inventory"
    system_query_options:
      device_service_tag:
        - MXL1234
        - MXL4567

- name: Retrieve details of specified inventory type of specified devices identified by
  ID and service tags
  dellemc.openmanage.ome_device_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    fact_subset: "detailed_inventory"
    system_query_options:
      device_id:

```

```

- 11111
device_service_tag:
- MXL1234
- MXL4567
inventory_type: "serverDeviceCards"

- name: Retrieve subsystem health of specified devices identified by service tags
dellenc.openmanage.ome_device_info:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  fact_subset: "subsystem_health"
  system_query_options:
    device_service_tag:
      - MXL1234
      - MXL4567

```

## Add devices to static device group

**Module: ome\_device\_group**

### Synopsis

This module allows to add devices to a static device group on OpenManage Enterprise.

### Options

**Table 26. ome\_device\_group**

| Parameter           | Required | Default | Choices                                                                   | Comments                                                                                                                                                                                                                 |
|---------------------|----------|---------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname            | True     | NA      | NA                                                                        | Target IP Address or hostname                                                                                                                                                                                            |
| username            | True     | NA      | NA                                                                        | Target username                                                                                                                                                                                                          |
| password            | True     | NA      | NA                                                                        | Target user password                                                                                                                                                                                                     |
| port                | False    | 443     | NA                                                                        | Target HTTPS port                                                                                                                                                                                                        |
| state               | False    | present | <ul style="list-style-type: none"> <li>present</li> <li>absent</li> </ul> | <ul style="list-style-type: none"> <li>C(present) allows to add the devices to a device group.</li> <li>C(absent) currently, this feature is not supported.</li> </ul>                                                   |
| name                | True     | NA      | NA                                                                        | <ul style="list-style-type: none"> <li>Name of the static group to which device(s) need to be added.</li> <li>I(name) is mutually exclusive with I(group_id).</li> </ul>                                                 |
| group_id            | False    | NA      | NA                                                                        | <ul style="list-style-type: none"> <li>ID of the static device group to which device(s) need to be added.</li> <li>I(group_id) is mutually exclusive with I(name).</li> </ul>                                            |
| device_ids          | False    | NA      | NA                                                                        | <ul style="list-style-type: none"> <li>List of ID(s) of the device(s) to be added to the device group.</li> <li>I(device_ids) is mutually exclusive with I(device_service_tags) and I(ip_addresses).</li> </ul>          |
| device_service_tags | False    | NA      | NA                                                                        | <ul style="list-style-type: none"> <li>List of service tag(s) of the device(s) to be added to the device group.</li> <li>I(device_service_tags) is mutually exclusive with I(device_ids) and I(ip_addresses).</li> </ul> |

**Table 26. ome\_device\_group (continued)**

| Parameter    | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------|----------|---------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ip_addresses | False    | NA      | NA      | <ul style="list-style-type: none"> <li>List of IPs of the device(s) to be added to the device group.</li> <li>l(ip_addresses) is mutually exclusive with l(device_ids) and l(device_service_tags).</li> <li>Supported IP address range formats: <ul style="list-style-type: none"> <li>192.35.0.1</li> <li>10.36.0.0 -192.36.0.255</li> <li>192.37.0.0/24</li> <li>fe80::ffff:ffff:ffff:ffff</li> <li>fe80::ffff:192.0.2.0/125</li> <li>fe80::ffff:ffff:ffff:1111-fe80::ffff:ffff:ffff:ffff</li> </ul> </li> <li>C(NOTE) Hostname is not supported.</li> <li>C(NOTE) l(ip_addresses) requires python's netaddr packages to work on IP Addresses.</li> <li>C(NOTE) This module reports success even if one of the IP addresses provided in the l(ip_addresses) list is available in OpenManage Enterprise. The module reports failure only if none of the IP addresses provided in the list are available in OpenManage Enterprise.</li> </ul> |

## Return Values

```

msg:
  type: str
  description: Overall status of the device group settings.
  returned: always
  sample: "Successfully added member(s) to the device group."
group_id:
  type: int
  description: ID of the group.
  returned: success
  sample: 21078
ip_addresses_added:
  type: list
  description: IP Addresses which are added to the device group.
  returned: success
  sample: 21078
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
        }
      ]
    }
  }

```

```

    }
  ]
}
}

```

## Examples

```

- name: Add devices to a static device group by using the group name and device IDs
  dellemc.openmanage.ome_device_group:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    name: "Storage Services"
    device_ids:
      - 11111
      - 11112
      - 11113

- name: Add devices to a static device group by using the group name and device service
tags
  dellemc.openmanage.ome_device_group:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    name: "Storage Services"
    device_service_tags:
      - GHRT2RL
      - KJHDF3S
      - LKIJNG6

- name: Add devices to a static device group by using the group ID and device service
tags
  dellemc.openmanage.ome_device_group:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    group_id: 12345
    device_service_tags:
      - GHRT2RL
      - KJHDF3S

- name: Add devices to a static device group by using the group name and IPv4 addresses
  dellemc.openmanage.ome_device_group:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    name: "Storage Services"
    ip_addresses:
      - 192.35.0.1
      - 192.35.0.5

- name: Add devices to a static device group by using the group ID and IPv6 addresses
  dellemc.openmanage.ome_device_group:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    group_id: 12345
    ip_addresses:
      - fe80::ffff:ffff:ffff:ffff
      - fe80::ffff:ffff:ffff:2222

- name: Add devices to a static device group by using the group ID and supported IPv4
and IPv6 address formats.
  dellemc.openmanage.ome_device_group:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    group_id: 12345

```

```

ip_addresses:
- 192.35.0.1
- 10.36.0.0-192.36.0.255
- 192.37.0.0/24
- fe80::ffff:ffff:ffff:ffff
- ::ffff:192.0.2.0/125
- fe80::ffff:ffff:ffff:1111-fe80::ffff:ffff:ffff:ffff

```

## Manage static device groups

**Module:** ome\_groups

### Synopsis

This module allows to create, modify, and delete static device groups on OpenManage Enterprise.

### Options

**Table 27. ome\_groups**

| Parameter | Required | Default | Choices                                                                   | Comments                                                                                                                                                                                                                                                                      |
|-----------|----------|---------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname  | True     | NA      | NA                                                                        | Target IP Address or hostname                                                                                                                                                                                                                                                 |
| username  | True     | NA      | NA                                                                        | Target username                                                                                                                                                                                                                                                               |
| password  | True     | NA      | NA                                                                        | Target user password                                                                                                                                                                                                                                                          |
| port      | False    | 443     | NA                                                                        | Target HTTPS port                                                                                                                                                                                                                                                             |
| state     | False    | present | <ul style="list-style-type: none"> <li>present</li> <li>absent</li> </ul> | <ul style="list-style-type: none"> <li>C(present) allows to add the devices to a device group.</li> <li>C(absent) allows to delete a device group.</li> </ul>                                                                                                                 |
| name      | False    | NA      | NA                                                                        | <ul style="list-style-type: none"> <li>Name of the group to which devices need to be added.</li> <li>If I(state) is absent, multiple names can be provided.</li> <li>This option is case insensitive.</li> <li>This option is mutually exclusive with I(group_id).</li> </ul> |
| group_id  | False    | NA      | NA                                                                        | <ul style="list-style-type: none"> <li>ID of the device group to be created, modified, or deleted.</li> <li>If I(state) is absent, multiple IDs can be provided.</li> <li>This option is mutually exclusive with I(name).</li> </ul>                                          |
| new_name  | False    | NA      | NA                                                                        | <ul style="list-style-type: none"> <li>New name for the existing device group.</li> <li>This is applicable only when I(state) is C(present).</li> </ul>                                                                                                                       |

**Table 27. ome\_groups (continued)**

| Parameter         | Required | Default       | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------|----------|---------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| description       | False    |               |         | <ul style="list-style-type: none"> <li>• Description for the device group.</li> <li>• This is applicable only when I(state) is C(present).</li> </ul>                                                                                                                                                                                                                                                                                                 |
| parent_group_name | False    | Static Groups | NA      | <ul style="list-style-type: none"> <li>• Name of the parent device group under which the device group to be created or modified.</li> <li>• This is applicable only when I(state) is C(present).</li> <li>• C(NOTE) If device group with such a name does not exist, device group with I(parent_group_name) is created.</li> <li>• This option is case insensitive.</li> <li>• This option is mutually exclusive with I(parent_group_id)p.</li> </ul> |
| parent_group_id   | False    | NA            | NA      | <ul style="list-style-type: none"> <li>• ID of the parent device group under which the device group to be created or modified.</li> <li>• This is applicable only when I(state) is C(present).</li> <li>• This option is mutually exclusive with I(parent_group_name).</li> </ul>                                                                                                                                                                     |

## Return Values

```

msg:
  type: str
  description: Overall status of the device group operation.
  returned: always
  sample: "Successfully deleted the device group(s)."
```

```

group_status:
  description: Details of the device group operation status.
  returned: success
  type: dict
  sample: {
    "Description": "my group description",
    "Id": 12123,
    "MembershipTypeId": 12,
    "Name": "group 1",
    "ParentId": 12345,
    "TypeId": 3000,
    "IdOwner": 30,
    "CreatedBy": "admin",
```

```

    "CreationTime": "2021-01-01 10:10:10.100",
    "DefinitionDescription": "UserDefined",
    "DefinitionId": 400,
    "GlobalStatus": 5000,
    "HasAttributes": false,
    "UpdatedBy": "",
    "UpdateTime": "2021-01-01 11:11:10.100",
    "Visible": true
  }
  group_ids:
    type: list
    elements: int    description: List of the deleted device group IDs.
    returned: when I(state) is C(absent)
    sample: [1234, 5678]
  invalid_groups:
    type: list
    elements: str
    description: List of the invalid device group IDs or names.
    returned: when I(state) is C(absent)
    sample: [1234, 5678]
  error_info:
    description: Details of the HTTP Error.
    returned: on HTTP error
    type: dict
    sample: {
      "error": {
        "code": "Base.1.0.GeneralError",
        "message": "A general error has occurred. See ExtendedInfo for more
information.",
        "@Message.ExtendedInfo": [
          {
            "MessageId": "CGRP9013",
            "RelatedProperties": [],
            "Message": "Unable to update group 12345 with the provided parent
54321 because a group/parent
relationship already exists.",
            "MessageArgs": [
              "12345",
              "54321"
            ],
            "Severity": "Warning",
            "Resolution": "Make sure the entered parent ID does not create a
bidirectional relationship and retry
the operation."
          }
        ]
      }
    }
}

```

## Examples

```

- name: Create a new device group
dellemc.openmanage.ome_groups:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  name: "group 1"
  description: "Group 1 description"
  parent: "group parent 1"

- name: Modify a device group using the group ID
dellemc.openmanage.ome_groups:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  group_id: 1234
  description: "Group description updated"
  parent: "group parent 2"

- name: Delete a device group using the device group name
dellemc.openmanage.ome_groups:

```

```

hostname: "192.168.0.1"
username: "username"
password: "password"
state: absent
name: "group 1"

- name: Delete multiple device groups using the group IDs
  dellemc.openmanage.ome_groups:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    state: absent
    group_id:
      - 1234
      - 5678

```

## Manage device configuration templates

This section describes the specifications for template operations on devices managed by OME for hardware configuration and deployment operations.

Following are the tasks for managing device configuration templates:

1. [View templates](#)
2. [Template operations](#)
3. [Attach or detach an identity pool](#)
4. [Set tagged and untagged vLANs](#)

## View templates

**Module:** `ome_template_info`

### Synopsis

This module retrieves the list and details of all templates or details of a specific template.

### Options

**Table 28. ome\_template\_info**

| Parameter            | Required | Default | Choices                                         | Comments                                                                                                                        |
|----------------------|----------|---------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| hostname             | Yes      | NA      | NA                                              | Target IP Address or hostname                                                                                                   |
| username             | Yes      | NA      | NA                                              | Target username                                                                                                                 |
| password             | Yes      | NA      | NA                                              | Target user password                                                                                                            |
| port                 | No       | 443     | NA                                              | Target device HTTPS port                                                                                                        |
| template_id          | No       | NA      | NA                                              | ID of the template.                                                                                                             |
| system_query_options | No       | NA      | filter: Filter records by the supported values. | Provides the option to filter the output for the supported values. I(filter) query format must be aligned with OData standards. |

### Return Values

```

msg:
  type: str
  description: Overall template facts status.
  returned: on error
  sample: "Failed to fetch the template facts"

```

```

ansible_facts:
  type: dict
  description: Details of the templates.
  returned: success
  sample: {
    "192.168.0.1": {
      "CreatedBy": "system",
      "CreationTime": "1970-01-31 00:00:56.372144",
      "Description": "Tune workload for Performance Optimized Virtualization",
      "HasIdentityAttributes": false,
      "Id": 1,
      "IdentityPoolId": 0,
      "IsBuiltIn": true,
      "IsPersistencePolicyValid": false,
      "IsStatelessAvailable": false,
      "LastUpdatedBy": null,
      "LastUpdatedTime": "1970-01-31 00:00:56.372144",
      "Name": "iDRAC 14G Enable Performance Profile for Virtualization",
      "SourceDeviceId": 0,
      "Status": 0,
      "TaskId": 0,
      "TypeId": 2,
      "ViewTypeId": 4
    }
  }

```

## Examples

```

- name: Retrieve basic details of all templates
  dellemc.openmanage.ome_template_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"

- name: Retrieve details of a specific template identified by its template ID
  dellemc.openmanage.ome_template_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    template_id: 1

- name: Get filtered template info based on name
  dellemc.openmanage.ome_template_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    system_query_options:
      filter: "Name eq 'new template'"

```

# Template operations

## Module: ome\_template

### Synopsis

This module creates, modifies, deploys, deletes, exports, imports, or clones a template.

### Options

**Table 29. ome\_template**

| Parameter | Required | Default | Choices | Comments                      |
|-----------|----------|---------|---------|-------------------------------|
| hostname  | True     | NA      | NA      | Target IP Address or hostname |
| username  | True     | NA      | NA      | Target username               |
| password  | True     | NA      | NA      | Target user password          |
| port      | False    | 443     | NA      | Target device HTTPS port      |

**Table 29. ome\_template (continued)**

| Parameter          | Required | Default    | Choices                                                  | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------|----------|------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| command            | False    | create     | create, modify, deploy, delete, export, import or clone. | <ul style="list-style-type: none"> <li>• C(create) creates a new template.</li> <li>• C(modify) modifies an existing template.</li> <li>• C(deploy) creates a template-deployment job.</li> <li>• C(delete) deletes an existing template.</li> <li>• C/export) exports an existing template.</li> <li>• C(import) creates a template from a specified configuration text in SCP XML format.</li> <li>• C(clone) creates a clone of an existing template.</li> </ul>                                                                                                                                                                                                                                                                                                           |
| template_id        | False    | NA         | NA                                                       | <ul style="list-style-type: none"> <li>• ID of the existing template.</li> <li>• This option is applicable when I(command) is C(modify), C(deploy), C(delete) and C/export).</li> <li>• It is mutually exclusive with I(template_name).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| template_name      | False    | NA         | NA                                                       | <ul style="list-style-type: none"> <li>• Name of the existing template.</li> <li>• This option is applicable when I(command) is C(modify), C(deploy), C(delete).</li> <li>• It is mutually exclusive with I(template_id).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| device_id          | False    | [ ]        | NA                                                       | <ul style="list-style-type: none"> <li>• Specify the list of targeted device IDs when I(command) is C(deploy). When I (Command) is C(create), specify a single device ID.</li> <li>• Either I(device_id), or I(device_service_tag) can be used individually or together.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| device_service_tag | False    | [ ]        | NA                                                       | <ul style="list-style-type: none"> <li>• Specify the list of targeted device service tags when I (command) is C(deploy). When I(Command) is C(create), specify the service tag of a single device.</li> <li>• Either I(device_id), or I(device_service_tag) can be used individually or together.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| device_group_names | False    | [ ]        | NA                                                       | <ul style="list-style-type: none"> <li>• Specify the list of targeted device service tags when I (command) is C(deploy). When I(command) is C(create), specify the service tag of a single device.</li> <li>• Either I(device_id) or I(device_service_tag) is mandatory or both can be applicable.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| template_view_type | False    | Deployment | Deployment, Compliance, Inventory, Sample, or None       | <ul style="list-style-type: none"> <li>• Select the type of view of the OME template.</li> <li>• This is applicable when I(command) is C(create), C(clone), or C(import).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| attributes         | No       | { }        | NA                                                       | <p>Payload data for the template operations. All the variables in this option are added as payload for C(create), C(modify), C(deploy), C(import), and C(clone) operations. It takes the following attributes.</p> <ul style="list-style-type: none"> <li>• Name: Name of the template. This is mandatory when I(command) is C(create), C(import), C(clone), and optional when I(command) is C(modify).</li> <li>• Description for the template. This is applicable when I(command) is C(deploy) or C(modify).</li> <li>• Fqdds: This allows to create [Creates] a template using components from a specified reference server. One or more, of the following values must be specified in a comma-separated string: iDRAC, System, BIOS, NIC, LifeCycleController,</li> </ul> |

**Table 29. ome\_template (continued)**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------|----------|---------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |         |         | <p>RAID, EventFilters, and All. If none of the values are specified, the default value 'All' is selected. This is applicable when I (command) is C(create).</p> <ul style="list-style-type: none"> <li>Options: Allows to control device shutdown or end power state during template deployment. This is applicable when I(command) is C(deploy).</li> <li>Schedule: Provides options to schedule the deployment task immediately, or at a specified time. This is applicable when I (command) is C(deploy).</li> <li>NetworkBootIsoModel: Payload to specify the ISO deployment details. This is applicable when I(command) is C(deploy).</li> <li>Attributes: List of dictionaries of attributes (if any) to be modified in the deployment template. This is applicable for when I(command) is C(deploy) and C(modify).</li> <li>Content: The XML content of template. This is applicable when I(command) is C(import).</li> <li>Type: Template type ID, indicating the type of device for which configuration is supported, such as chassis and servers. This is applicable when I(command) is C(import).</li> <li>Typeld: Template type ID, indicating the type of device for which configuration is supported, such as chassis and servers. This is applicable when I(command) is C(create).</li> </ul> <p> <b>NOTE:</b> See OpenManage Enterprise API Reference Guide for more details.</p> |

## Return Values

```

msg:
  description: Overall status of the template operation.
  returned: always
  type: str
  sample: "Successfully created a template with ID 123"
return_id:
  description: ID of the template used for C(create), C(modify), C(import), and C(clone)
  or task created in case of C(deploy).
  returned: on success
  type: int
  sample: 12
TemplateId:
  description: ID of the template for C(export).
  returned: success, when I(command) is C(export)
  type: int
  sample: 13
Content:
  description: XML content of the exported template.
  returned: success, when I(command) is C(export)
  type: str
  sample: "<SystemConfiguration Model=\"PowerEdge R940\" ServiceTag=\"DG22TR2\"
TimeStamp=\"Tue Sep 24 09:20:57.872551
2019\">\n<Component FQDD=\"AHCI.Slot.6-1\">\n<Attribute
Name=\"RAIDresetConfig\">True</Attribute>\n<Attribute
Name=\"RAIDforeignConfig\">Clear</Attribute>\n</Component>\n<Component
FQDD=\"Disk.Direct.0-0:AHCI.Slot.6-1\">\n
<Attribute Name=\"RAIDPDState\">Ready</Attribute>\n<Attribute
Name=\"RAIDHotSpareStatus\">No</Attribute>\n
</Component>\n<Component FQDD=\"Disk.Direct.1-1:AHCI.Slot.6-1\">\n<Attribute
Name=\"RAIDPDState\">Ready
</Attribute>\n<Attribute Name=\"RAIDHotSpareStatus\">No</Attribute>\n</

```

```

Component>\n</SystemConfiguration>\n"
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system
administrator."
        }
      ]
    }
  }
}

```

## Examples

```

- name: Create a template from a reference device
  dellemc.openmanage.ome_template:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    device_id: 25123
    attributes:
      Name: "New Template"
      Description: "New Template description"

- name: Modify template name, description, and attribute value
  dellemc.openmanage.ome_template:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: "modify"
    template_id: 12
    attributes:
      Name: "New Custom Template"
      Description: "Custom Template Description"
      # Attributes to be modified in the template.
      # For information on any attribute ID, use API /TemplateService/Templates(Id)/
Views(Id)/AttributeViewDetails
      # This section is optional
      Attributes:
        - Id: 1234
          Value: "Test Attribute"
          IsIgnored: false

- name: Deploy template on multiple devices
  dellemc.openmanage.ome_template:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: "deploy"
    template_id: 12
    device_id:
      - 12765
      - 10173
    device_service_tag:
      - 'SVTG123'
      - 'SVTG456'

- name: Deploy template on multiple devices along with the attribute values to be
modified on the target devices
  dellemc.openmanage.ome_template:
    hostname: "192.168.0.1"
    username: "username"

```

```

password: "password"
command: "deploy"
template_id: 12
device_id:
  - 12765
  - 10173
device_service_tag:
  - 'SVTG123'
attributes:
  # Device specific attributes to be modified during deployment.
  # For information on any attribute id, use API /TemplateService/Templates(Id)/
Views(Id)/AttributeViewDetails
  # This section is optional
  Attributes:
    # The device where attribute to be modified during deployment runtime.
    # The Device ID should be mentioned above in the 'device_id' section.
    # Service tags not allowed.
    - DeviceId: 12765
      Attributes:
        - Id : 15645
          Value : "0.0.0.0"
          IsIgnored : false
    - DeviceId: 10173
      Attributes:
        - Id : 18968,
          Value : "hostname-1"
          IsIgnored : false

- name: Deploy template and Operating System (OS) on multiple devices
  dellemc.openmanage.ome_template:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: "deploy"
    template_id: 12
    device_id:
      - 12765
    device_service_tag:
      - 'SVTG123'
    attributes:
      # Include this to install OS on the devices.
      # This section is optional
      NetworkBootIsoModel:
        BootToNetwork: true
        ShareType: "NFS"
        IsoTimeout: 1 # allowable values(1,2,4,8,16) in hours
        IsoPath: "/home/iso_path/filename.iso"
        ShareDetail:
          IPAddress: "192.168.0.2"
          ShareName: "sharename"
          User: "share_user"
          Password: "share_password"
      Options:
        EndHostPowerState: 1
        ShutdownType: 0
        TimeToWaitBeforeShutdown: 300
      Schedule:
        RunLater: true
        RunNow: false

- name: Deploy template on groups
  ome_template:
    hostname: "{{hostname}}"
    username: "{{username}}"
    password: "{{password}}"
    command: "deploy"
    template_id: 12
    device_group_names:
      - server_group_1
      - server_group_2

- name: Deploy template on multiple devices and change the device-level attributes.
  After the template is deployed, install OS using its image

```

```

dellenc.openmanage.ome_template:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  command: "deploy"
  template_id: 12
  device_id:
    - 12765
    - 10173
  device_service_tag:
    - 'SVTG123'
    - 'SVTG456'
  attributes:
    Attributes:
      - DeviceId: 12765
        Attributes:
          - Id : 15645
            Value : "0.0.0.0"
            IsIgnored : false
      - DeviceId: 10173
        Attributes:
          - Id : 18968,
            Value : "hostname-1"
            IsIgnored : false
    NetworkBootIsoModel:
      BootToNetwork: true
      ShareType: "NFS"
      IsoTimeout: 1 # allowable values(1,2,4,8,16) in hours
      IsoPath: "/home/iso_path/filename.iso"
      ShareDetail:
        IpAddress: "192.168.0.2"
        ShareName: "sharename"
        User: "share_user"
        Password: "share_password"
    Options:
      EndHostPowerState: 1
      ShutdownType: 0
      TimeToWaitBeforeShutdown: 300
    Schedule:
      RunLater: true
      RunNow: false

- name: Delete a template
  dellenc.openmanage.ome_template:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: "delete"
    template_id: 12

- name: Export a template
  dellenc.openmanage.ome_template:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: "export"
    template_id: 12

- name: Export template to local xml file
  dellenc.openmanage.ome_template:
    hostname: "{{hostname}}"
    username: "{{username}}"
    password: "{{password}}"
    command: "export"
    template_name: "my_template"
  register: result
  tags:
    - export_xml_to_file

- copy:
  content: "{{ result.Content }}"
  dest: "/path/to/exported_template.xml"
  tags:
    - export_xml_to_file

```

```

- name: Clone a template
  dellemc.openmanage.ome_template:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: "clone"
    template_id: 12
    attributes:
      Name: "New Cloned Template Name"

- name: Import template from XML content
  dellemc.openmanage.ome_template:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: "import"
    attributes:
      Name: "Imported Template Name"
      # Template Type from TemplateService/TemplateTypes
      Type: 2
      # xml string content
      Content: "<SystemConfiguration Model=\"PowerEdge R940\" ServiceTag=\"SVCTAG1\"
TimeStamp=\"Tue Sep 24 09:20:57.872551 2019\">\n<Component
FQDD=\"AHCI.Slot.6-1\">\n<Attribute
Name=\"RAIDresetConfig\">True</Attribute>\n<Attribute
Name=\"RAIDforeignConfig\">Clear</Attribute>\n
</Component>\n<Component FQDD=\"Disk.Direct.0-0:AHCI.Slot.6-1\">\n<Attribute
Name=\"RAIDPDState\">Ready
</Attribute>\n<Attribute Name=\"RAIDHotSpareStatus\">No</Attribute>\n</Component>\n
<Component FQDD=\"Disk.Direct.1-1:AHCI.Slot.6-1\">\n<Attribute
Name=\"RAIDPDState\">Ready</Attribute>\n
<Attribute Name=\"RAIDHotSpareStatus\">No</Attribute>\n</Component>\n</
SystemConfiguration>\n"
      Description: "Imported Template description"

- name: Import template from local XML file
  dellemc.openmanage.ome_template:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: "import"
    attributes:
      name: "Imported Template Name"
      Type: 2
      Content: "{{ lookup('file', '/path/to/xmlfile') }}"

```

## Attach or detach an identity pool

### ome\_template\_identity\_pool

#### Synopsis

This module allows to:

- Attach an identity pool to a requested template.
- Detach an identity pool from a requested template.

#### Options

**Table 30. ome\_template\_identity\_pool**

| Parameter | Required | Default | Choices | Comments                      |
|-----------|----------|---------|---------|-------------------------------|
| hostname  | True     | NA      | NA      | Target IP Address or hostname |
| username  | True     | NA      | NA      | Target username               |
| password  | True     | NA      | NA      | Target user password          |

**Table 30. ome\_template\_identity\_pool (continued)**

| Parameter          | Required | Default | Choices | Comments                                                                                                                                                                                                                                                  |
|--------------------|----------|---------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| port               | False    | 443     | NA      | Target HTTPS port                                                                                                                                                                                                                                         |
| template_name      | True     | NA      | NA      | Name of the template to which an identity pool is attached to or detached from.                                                                                                                                                                           |
| identity_pool_name | False    | NA      | NA      | Name of the identity pool. <ul style="list-style-type: none"> <li>• To attach an identity pool to a template, provide the name of the identity pool.</li> <li>• This option is not applicable when detaching an identity pool from a template.</li> </ul> |

## Return Values

```

msg:
  type: str
  description: Overall identity pool status of the attach or detach operation.
  returned: always
  sample: Successfully attached identity pool to template.
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
        }
      ]
    }
  }

```

## Examples

```

- name: Attach an identity pool to a template
  dellemc.openmanage.ome_template_identity_pool:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    template_name: template_name
    identity_pool_name: identity_pool_name

- name: Detach an identity pool from a template
  dellemc.openmanage.ome_template_identity_pool:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    template_name: template_name

```

## Set tagged and untagged VLANs in a template

### ome\_template\_network\_vlan

#### Synopsis

This module lets you select tagged and untagged VLANs to be used in the OpenManage Enterprise template.

#### Options

**Table 31. ome\_template\_network\_vlan**

| Parameter         | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------|----------|---------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname          | True     | NA      | NA      | Target IP Address or hostname.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| username          | True     | NA      | NA      | Target username                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| password          | True     | NA      | NA      | Target user password                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| port              | False    | 443     | NA      | Target HTTPS port                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| template_name     | False    | NA      | NA      | <ul style="list-style-type: none"><li>Name of the template</li><li>It is mutually exclusive with l(template_id).</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| template_id       | False    | NA      | NA      | <ul style="list-style-type: none"><li>ID of the template</li><li>It is mutually exclusive with l(template_name).</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| nic_identifier    | True     | NA      | NA      | Display name of the NIC port in the template for VLAN configuration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| untagged_networks | False    | NA      | NA      | <p>List of untagged networks and their corresponding NIC ports.</p> <p>Suboptions-</p> <ul style="list-style-type: none"><li>port- NIC port number of the untagged VLAN</li><li>untagged_network_id-<ul style="list-style-type: none"><li>ID of the untagged VLAN</li><li>Enter 0 to clear the untagged VLAN from the port.</li><li>This option is mutually exclusive with l(untagged_network_name).</li><li>To get the VLAN network ID use the API U( <a href="https://l(hostname)/api/NetworkConfigurationService/Networks">https://l(hostname)/api/NetworkConfigurationService/Networks</a>)</li></ul></li><li>untagged_network_name-<ul style="list-style-type: none"><li>Name of the untagged VLAN</li><li>Enter 0 to clear the untagged VLAN from the port.</li><li>This option is mutually exclusive with l(untagged_network_id).</li></ul></li></ul> |
| tagged_networks   | False    | NA      | NA      | <p>List of tagged VLANs and their corresponding NIC ports.</p> <p>Suboptions-</p> <ul style="list-style-type: none"><li>port- NIC port number of the tagged VLAN</li><li>tagged_network_ids-<ul style="list-style-type: none"><li>List of IDs of the tagged VLANs</li><li>Enter [] to remove the tagged VLAN from a port.</li></ul></li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

**Table 31. ome\_template\_network\_vlan (continued)**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|----------|---------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |         |         | <ul style="list-style-type: none"> <li>○ List of l(tagged_network_ids) is combined with list of l(tagged_network_names) when adding tagged VLANs to a port.</li> <li>○ To get the VLAN network ID use the API U( <a href="https://l(hostname)/api/NetworkConfigurationService/Networks">https://l(hostname)/api/NetworkConfigurationService/Networks</a>)</li> <li>● tagged_network_names- <ul style="list-style-type: none"> <li>○ List of names of tagged VLANs</li> <li>○ Enter [] to remove the tagged VLAN from a port.</li> <li>○ List of l(tagged_network_names) is combined with list of l(tagged_network_ids) when adding tagged VLANs to a port.</li> </ul> </li> </ul> |

## Return Values

```

msg:
  type: str
  description: Overall status of the template VLAN operation.
  returned: always
  sample: "Successfully applied the network settings to template"
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "@Message.ExtendedInfo": [{
        "Message": "Unable to process the request because an error occurred:",
        "MessageArgs": "",
        "MessageId": "CGEN6001",
        "RelatedProperties": [],
        "Resolution": "Retry the operation. If the issue persists, contact your
system administrator.",
        "Severity": "Critical"
      }],
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information."
    }
  }

```

## Examples

```

- name: Add tagged or untagged VLANs to a template using VLAN ID and name
  dellemc.openmanage.ome_template_network_vlan:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    template_id: 78
    nic_identifier: NIC Slot 4
    untagged_networks:
      - port: 1
        untagged_network_id: 127656
      - port: 2
        untagged_network_name: vlan2
    tagged_networks:
      - port: 1
        tagged_network_ids:
          - 12767
          - 12768
      - port: 4
        tagged_network_ids:

```

```

- 12767
- 12768
tagged_network_names:
- vlan3
- port: 2
tagged_network_names:
- vlan4
- vlan1

- name: Clear the tagged and untagged VLANs from a template
dellemc.openmanage.ome_template_network_vlan:
hostname: "192.168.0.1"
username: "username"
password: "password"
template_id: 78
nic_identifier: NIC Slot 4
untagged_networks:
- port: 1
untagged_network_id: 0
- port: 2
untagged_network_name: 0
tagged_networks:
- port: 1
tagged_network_ids: []
- port: 4
tagged_network_ids: []
tagged_network_names: []
- port: 2
tagged_network_names: []

```

## Template Service

### Compliance Operations

#### Generate a compliance report

**Module:** ome\_configuration\_compliance\_info

##### Synopsis

This module allows the generation of a compliance report of a specific or all of devices in a configuration compliance baseline.

##### Options

**Table 32. ome\_configuration\_compliance\_info**

| Parameter          | Required | Default | Choices | Comments                                                                               |
|--------------------|----------|---------|---------|----------------------------------------------------------------------------------------|
| hostname           | True     | NA      | NA      | Target IP Address or hostname                                                          |
| username           | True     | NA      | NA      | Target username                                                                        |
| password           | True     | NA      | NA      | Target user password                                                                   |
| port               | False    | 443     | NA      | Target HTTPS port                                                                      |
| baseline           | True     | NA      | NA      | The name of the created baseline.                                                      |
| device_id          | False    | NA      | NA      | The ID of the target device which is associated with the l(baseline).                  |
| device_service_tag | False    | NA      | NA      | <ul style="list-style-type: none"> <li>The device service tag of the target</li> </ul> |

**Table 32. ome\_configuration\_compliance\_info (continued)**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                 |
|-----------|----------|---------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |         |         | device associated with the l(baseline). <ul style="list-style-type: none"> <li>l(device_service_tag) is mutually exclusive with l(device_id).</li> </ul> |

## Return Values

```

msg:
  type: str
  description: Over all compliance report status.
  returned: on error
  sample: "Unable to complete the operation because the entered target baseline name
'baseline' is invalid."
compliance_info:
  type: dict
  description: Returns the compliance report information.
  returned: success
  sample: [{
    "ComplianceAttributeGroups": [{
      "Attributes": [],
      "ComplianceReason": "One or more attributes on the target device(s) does not match
the compliance template.",
      "ComplianceStatus": 2,
      "ComplianceSubAttributeGroups": [{
        "Attributes": [{
          "AttributeId": 75369,
          "ComplianceReason": "Attribute has different value from template",
          "ComplianceStatus": 3,
          "CustomId": 0,
          "Description": null,
          "DisplayName": "Workload Profile",
          "ExpectedValue": "HpcProfile",
          "Value": "NotAvailable"
        }],
        "ComplianceReason": "One or more attributes on the target device(s) does not
match the compliance template.",
        "ComplianceStatus": 2,
        "ComplianceSubAttributeGroups": [],
        "DisplayName": "System Profile Settings",
        "GroupNameId": 1
      }],
      "DisplayName": "BIOS",
      "GroupNameId": 1
    }],
    "ComplianceStatus": "NONCOMPLIANT",
    "DeviceName": "WIN-PLOV8MPIP40",
    "DeviceType": 1000,
    "Id": 25011,
    "InventoryTime": "2021-03-18 00:01:57.809771",
    "Model": "PowerEdge R7525",
    "ServiceTag": "JHMBX53"
  }]
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],

```

```

        "Severity": "Critical",
        "Resolution": "Retry the operation. If the issue persists, contact your system
administrator."
    }
]
}
}

```

## Examples

```

- name: Retrieve the compliance report of all of the devices in the specified
configuration compliance baseline.
  dellemc.openmanage.ome_configuration_compliance_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    baseline: baseline_name

- name: Retrieve the compliance report for a specific device associated with the
baseline using the device ID.
  dellemc.openmanage.ome_configuration_compliance_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    baseline: baseline_name
    device_id: 10001

- name: Retrieve the compliance report for a specific device associated with the
baseline using the device service tag.
  dellemc.openmanage.ome_configuration_compliance_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    baseline: baseline_name
    device_service_tag: 2HFGH3

```

## Create and manage Configuration Compliance Baselines

### Module: ome\_configuration\_compliance\_baseline

#### Synopsis

This module allows to create, modify, and delete a configuration compliance baseline on OpenManage Enterprise. This module also allows to remediate devices that are non-compliant with the baseline by changing the attributes of devices to match with the associated baseline attributes.

#### Options

**Table 33. ome\_configuration\_compliance\_baseline**

| Parameter | Required | Default | Choices                              | Comments                                                                                                                                                                          |
|-----------|----------|---------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname  | True     | NA      | NA                                   | Target IP Address or hostname                                                                                                                                                     |
| username  | True     | NA      | NA                                   | Target username                                                                                                                                                                   |
| password  | True     | NA      | NA                                   | Target user password                                                                                                                                                              |
| port      | False    | 443     | NA                                   | Target HTTPS port                                                                                                                                                                 |
| command   | NA       | create  | create, modify, delete and remediate | <ul style="list-style-type: none"> <li>C(create) creates a configuration baseline from an existing compliance template.C(create) supports C(check_mode) or idempotency</li> </ul> |

**Table 33. ome\_configuration\_compliance\_baseline (continued)**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------|----------|---------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |         |         | <p>checking for only l(names).</p> <ul style="list-style-type: none"> <li>• C(modify) modifies an existing baseline. Only l(names), l(description), l(device_ids), l(device_service_tags), and l(device_group_names) can be modified. l(device_ids), l(device_group_names), and l(device_service_tags) replace the devices previously present in the baseline. .</li> <li>• C(delete) deletes the list of configuration compliance baselines based on the baseline name. Invalid baseline names are ignored.</li> <li>• C(remediate) remediates devices that are non-compliant with the baseline by changing the attributes of devices to match with the associated baseline attributes.</li> <li>• C(remediate) is performed on all the non-compliant devices if either l(device_ids), or l(device_service_tag) is not provided.</li> </ul> |
| names     | True     | NA      | NA      | <ul style="list-style-type: none"> <li>• Name(s) of the configuration compliance baseline.</li> <li>• This option is applicable when l(command) is C(create), C(modify), or C(delete).</li> <li>• Provide the list of configuration compliance baselines names that are supported</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

**Table 33. ome\_configuration\_compliance\_baseline (continued)**

| Parameter           | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                |
|---------------------|----------|---------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     |          |         |         | when I(command) is C(delete).                                                                                                                                                                                                                                                                                                           |
| new_name            | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>• New name of the compliance baseline to be modified.</li> <li>• This option is applicable when I(command) is C(modify).</li> </ul>                                                                                                                                                              |
| template_name       | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>• Name of the compliance template for creating the compliance baseline(s).</li> <li>• Name of the deployment template to be used for creating a compliance baseline.</li> <li>• This option is applicable when I(command) is C(create) and is mutually exclusive with I(template_id).</li> </ul> |
| template_id         | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>• ID of the deployment template to be used for creating a compliance baseline.</li> <li>• This option is applicable when I(command) is C(create) and is mutually exclusive with I(template_name).</li> </ul>                                                                                     |
| device_ids          | False    | NA      | NA      | <ul style="list-style-type: none"> <li>• IDs of the target devices.</li> <li>• This option is applicable when I(command) is C(create), C(modify), or C(remediate), and is mutually exclusive with I(device_service_tag) and I(device_group_names).</li> </ul>                                                                           |
| device_service_tags | False    | NA      | NA      | <ul style="list-style-type: none"> <li>• Service tag of the target device.</li> <li>• This option is applicable when</li> </ul>                                                                                                                                                                                                         |

**Table 33. ome\_configuration\_compliance\_baseline (continued)**

| Parameter          | Required | Default | Choices | Comments                                                                                                                                                                                                                                 |
|--------------------|----------|---------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    |          |         |         | I(command) is C(create), C(modify), or C(remediate) and is mutually exclusive with I(device_ids) and I(device_group_names).                                                                                                              |
| device_group_names | False    | NA      | NA      | <ul style="list-style-type: none"> <li>Name of the target device group.</li> <li>This option is applicable when I(command) is C(create), or C(modify) and is mutually exclusive with I(device_ids) and I(device_service_tag).</li> </ul> |
| description        | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>Description of the compliance baseline.</li> <li>This option is applicable when I(command) is C(create), or C(modify).</li> </ul>                                                                 |
| job_wait           | False    | NA      | NA      | <ul style="list-style-type: none"> <li>Provides the option to wait for job completion.</li> <li>This option is applicable when I(command) is C(create), C(modify), or C(remediate).</li> </ul>                                           |
| job_wait_timeout   | False    | 600     | NA      | <ul style="list-style-type: none"> <li>The maximum wait time of I(job_wait) in seconds. The job will only be tracked for this duration.</li> <li>This option is applicable when I(job_wait) is C(True).</li> </ul>                       |

#### Return Values

```

msg:
  description: Overall status of the configuration compliance baseline operation.
  returned: always
  type: str
  sample: "Successfully created the configuration compliance baseline."
compliance_status:
  description: Status of compliance baseline operation.
  returned: when I(command) is C(create) or C(modify)

```

```

type: dict
sample:
  {
    "Id": 13,
    "Name": "baseline1",
    "Description": null,
    "TemplateId": 102,
    "TemplateName": "one",
    "TemplateType": 2,
    "TaskId": 26584,
    "PercentageComplete": "100",
    "TaskStatus": 2070,
    "LastRun": "2021-02-27 13:15:13.751",
    "BaselineTargets": [
      {
        "Id": 1111,
        "Type": {
          "Id": 1000,
          "Name": "DEVICE"
        }
      }
    ],
    "ConfigComplianceSummary": {
      "ComplianceStatus": "OK",
      "NumberOfCritical": 0,
      "NumberOfWarning": 0,
      "NumberOfNormal": 0,
      "NumberOfIncomplete": 0
    }
  }
}
job_id:
  description:
    - Task ID created when I(command) is C(remediate).
  returned: when I(command) is C(remediate)
  type: int
  sample: 14123
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
        }
      ]
    }
  }
}

```

## Examples

```

- name: Create a configuration compliance baseline using device IDs
  dellemc.openmanage.ome_configuration_compliance_baseline:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    names: "baseline1"
    template_name: "template1"
    description: "description of baseline"
    device_ids:
      - 1111
      - 2222

- name: Create a configuration compliance baseline using device service tags
  dellemc.openmanage.ome_configuration_compliance_baseline:

```

```

hostname: "192.168.0.1"
username: "username"
password: "password"
names: "baseline1"
template_id: 1234
description: "description of baseline"
device_service_tags:
  - "SVCTAG1"
  - "SVCTAG2"

- name: Create a configuration compliance baseline using group names
dellemc.openmanage.ome_configuration_compliance_baseline:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  names: "baseline2"
  template_id: 2
  job_wait_timeout: 1000
  description: "description of baseline"
  device_group_names:
    - "Group1"
    - "Group2"

- name: Delete the configuration compliance baselines
dellemc.openmanage.ome_configuration_compliance_baseline:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  command: delete
  names:
    - baseline1
    - baseline2

- name: Modify a configuration compliance baseline using group names
dellemc.openmanage.ome_configuration_compliance_baseline:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  command: modify
  names: "baseline1"
  new_name: "baseline_update"
  template_name: "template2"
  description: "new description of baseline"
  job_wait_timeout: 1000
  device_group_names:
    - Group1

- name: Remediate specific non-compliant devices to a configuration compliance baseline
using device IDs
dellemc.openmanage.ome_configuration_compliance_baseline:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  command: "remediate"
  names: "baseline1"
  device_ids:
    - 1111

- name: Remediate specific non-compliant devices to a configuration compliance baseline
using device service tags
dellemc.openmanage.ome_configuration_compliance_baseline:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  command: "remediate"
  names: "baseline1"
  device_service_tags:
    - "SVCTAG1"
    - "SVCTAG2"

- name: Remediate all the non-compliant devices to a configuration compliance baseline
dellemc.openmanage.ome_configuration_compliance_baseline:
  hostname: "192.168.0.1"

```

```
username: "username"
password: "password"
command: "remediate"
names: "baseline1"
```

## Manage the device firmware

This section describes the following firmware processes that can be carried out on the devices managed by OME, using OpenManage Ansible Modules-

- [Update device firmware.](#)
- [Create a firmware catalog.](#)
- [Create a firmware baseline.](#)
- [Retrieve the list and details of all the baselines.](#)
- [Retrieve baseline compliance details.](#)

## Update device firmware

**Module: ome\_firmware**

### Synopsis

This module updates the firmware of PowerEdge devices and all its components.

### Options

**Table 34. ome\_firmware**

| Parameter          | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------|----------|---------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname           | True     | NA      | NA      | Target IP Address or hostname                                                                                                                                                                                                                                                                                                                                                                 |
| username           | True     | NA      | NA      | Target username                                                                                                                                                                                                                                                                                                                                                                               |
| password           | True     | NA      | NA      | Target user password                                                                                                                                                                                                                                                                                                                                                                          |
| port               | False    | 443     | NA      | Target HTTPS port                                                                                                                                                                                                                                                                                                                                                                             |
| device_service_tag | False    | NA      | NA      | <ul style="list-style-type: none"> <li>• List of targeted device service tags.</li> <li>• Either l(device_id) or l(device_service_tag) can be used individually or together.</li> <li>• l(device_service_tag) is mutually exclusive with l(device_group_names).</li> </ul>                                                                                                                    |
| device_id          | False    | NA      | NA      | <ul style="list-style-type: none"> <li>• List of targeted device ids.</li> <li>• Either l(device_id), or l(device_service_tag) can be used individually or together.</li> <li>• l(device_id) is mutually exclusive with l(device_group_names).</li> </ul>                                                                                                                                     |
| device_group_names | False    | NA      | NA      | <ul style="list-style-type: none"> <li>• Enter the name of the group to update the firmware of all the devices within the group.</li> <li>• l(device_group_names) is mutually exclusive with l(device_id) and l(device_service_tag).</li> </ul>                                                                                                                                               |
| baseline_name      | False    | NA      | NA      | <ul style="list-style-type: none"> <li>• Enter the baseline name to update the firmware of all the devices or groups of devices against the available compliance report.</li> <li>• The firmware update can also be done by providing the baseline name and the path to the single DUP file. To update multiple baselines at once, provide the baseline names separated by commas.</li> </ul> |

**Table 34. ome\_firmware (continued)**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                      |
|-----------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |         |         | <ul style="list-style-type: none"> <li>l(baseline_names) is mutually exclusive with l(device_group_names), l(device_id) and l(device_service_tag).</li> </ul> |
| dup_file  | False    | NA      | NA      | Executable file to apply on the targets.                                                                                                                      |

## Return Values

```

msg:
  type: str
  description: Overall firmware update status.
  returned: always
  sample: "Successfully submitted the firmware update job."
update_status:
  type: dict
  description: Firmware Update job and progress details from the OME.
  returned: success
  sample: {
    'LastRun': None,
    'CreatedBy': 'user',
    'Schedule': 'startnow',
    'LastRunStatus': {
      'Id': 1111,
      'Name': 'NotRun'
    },
    'Builtin': False,
    'Editable': True,
    'NextRun': None,
    'JobStatus': {
      'Id': 1111,
      'Name': 'New'
    },
    'JobName': 'Firmware Update Task',
    'Visible': True,
    'State': 'Enabled',
    'JobDescription': 'dup test',
    'Params': [{
      'Value': 'true',
      'Key': 'signVerify',
      'JobId': 11111}, {
      'Value': 'false',
      'Key': 'stagingValue',
      'JobId': 11112}, {
      'Value': 'false',
      'Key': 'complianceUpdate',
      'JobId': 11113}, {
      'Value': 'INSTALL_FIRMWARE',
      'Key': 'operationName',
      'JobId': 11114}],
    'Targets': [{
      'TargetType': {
        'Id': 1000,
        'Name': 'DEVICE'},
      'Data': 'DCIM:INSTALLED#701__NIC.Mezzanine.1A-1-1=11111111111111',
      'Id': 11115,
      'JobId': 11116}],
    'StartTime': None,
    'UpdatedBy': None,
    'EndTime': None,
    'Id': 11117,
    'JobType': {
      'Internal': False,
      'Id': 5,
      'Name': 'Update_Task'
    }
  }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict

```

```
sample: {
  "error": {
    "code": "Base.1.0.GeneralError",
    "message": "A general error has occurred. See ExtendedInfo for more information.",
    "@Message.ExtendedInfo": [
      {
        "MessageId": "GEN1234",
        "RelatedProperties": [],
        "Message": "Unable to process the request because an error occurred.",
        "MessageArgs": [],
        "Severity": "Critical",
        "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
      }
    ]
  }
}
```

## Examples

```
- name: Update firmware from a DUP file using device IDs
  dellemc.openmanage.ome_firmware:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    device_id:
      - 11111
      - 22222
    dup_file: "/path/Chassis-System-Management_Firmware_6N9WN_WN64_1.00.01_A00.EXE"

- name: Update firmware from a DUP file using device service tags
  dellemc.openmanage.ome_firmware:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    device_service_tag:
      - KLBR111
      - KLBR222
    dup_file: "/path/Network_Firmware_NTRW0_WN64_14.07.07_A00-00_01.EXE"

- name: Update firmware from a DUP file using a device group name
  dellemc.openmanage.ome_firmware:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    device_group_names:
      - servers
    dup_file: "/path/BIOS_87V69_WN64_2.4.7.EXE"

- name: Update firmware using a baseline name
  dellemc.openmanage.ome_firmware:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    baseline_name: baseline_devices
```

## Create a firmware catalog

### Module: ome\_firmware\_catalog

#### Synopsis

This module allows to create, modify, or delete a firmware catalog.

#### Options

**Table 35. ome\_firmware\_catalog**

| Parameter | Required | Default | Choices | Comments                      |
|-----------|----------|---------|---------|-------------------------------|
| hostname  | True     | NA      | NA      | Target IP Address or hostname |

**Table 35. ome\_firmware\_catalog (continued)**

| Parameter           | Required | Default | Choices                                | Comments                                                                                                                                                                                                                                                              |
|---------------------|----------|---------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| username            | True     | NA      | NA                                     | Target username                                                                                                                                                                                                                                                       |
| password            | True     | NA      | NA                                     | Target user password                                                                                                                                                                                                                                                  |
| port                | False    | 443     | NA                                     | Target HTTPS port                                                                                                                                                                                                                                                     |
| state               | NA       | present | present, or absent                     | <ul style="list-style-type: none"> <li>• C(present) creates or modifies a catalog.</li> <li>• C(absent) deletes an existing catalog.</li> </ul>                                                                                                                       |
| catalog_name        | NA       | NA      | NA                                     | <ul style="list-style-type: none"> <li>• Name of the firmware catalog to be created.</li> <li>• This option is mutually exclusive with l(catalog_id).</li> <li>• Provide the list of firmware catalog names that are supported when l(state) is C(absent).</li> </ul> |
| new_catalog_name    | NA       | NA      | NA                                     | New name of the firmware catalog.                                                                                                                                                                                                                                     |
| catalog_id          | NA       | NA      | NA                                     | <ul style="list-style-type: none"> <li>• ID of the catalog</li> <li>• This option is mutually exclusive with l(catalog_name).</li> <li>• Provide the list of firmware catalog IDs that are supported when l(state) is C(absent).</li> </ul>                           |
| catalog_description | False    | NA      | NA                                     | Description for the catalog.                                                                                                                                                                                                                                          |
| source              | False    | NA      | NA                                     | <ul style="list-style-type: none"> <li>• The share IP address of the system where the firmware catalog is stored on the local network.</li> <li>• By default, this option is set to downloads.dell.com when l(repository_type) is C(DELL_ONLINE).</li> </ul>          |
| source_path         | False    | NA      | NA                                     | <ul style="list-style-type: none"> <li>• Specify the complete path of the catalog file location without the file name.</li> <li>• This option is ignored when l(repository_type) is C(DELL_ONLINE).</li> </ul>                                                        |
| file_name           | False    | NA      | NA                                     | <ul style="list-style-type: none"> <li>• Catalog file name associated with the l(source_path).</li> <li>• This option is ignored when l(repository_type) is C(DELL_ONLINE).</li> </ul>                                                                                |
| repository_type     | False    | HTTPS   | HTTP, NFS, CIFS, HTTPS, or DELL_ONLINE | The type of supported repositories are: HTTP,                                                                                                                                                                                                                         |

**Table 35. ome\_firmware\_catalog (continued)**

| Parameter           | Required | Default | Choices | Comments                                                                                                                                                                                                      |
|---------------------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     |          |         |         | NFS, CIFS, HTTPS, and DELL_ONLINE.                                                                                                                                                                            |
| repository_username | False    | NA      | NA      | User name of the repository where the catalog is stored. This option is mandatory when I(repository_type) is CIFS and is ignored when I(repository_type) is C(DELL_ONLINE).                                   |
| repository_password | False    | NA      | NA      | Password to access the repository. This option is mandatory when I(repository_type) is CIFS, and is ignored when I(repository_type) is C(DELL_ONLINE).                                                        |
| repository_domain   | False    | NA      | NA      | Domain name of the repository. This option is ignored when I(repository_type) is C(DELL_ONLINE).                                                                                                              |
| check_certificate   | False    | False   | NA      | The certificate warnings are ignored when I(repository_type) is HTTPS. If C(True). If not, certificate warnings are not ignored.                                                                              |
| job_wait            | NA       | True    | NA      | <ul style="list-style-type: none"> <li>Provides the option to wait for job completion.</li> <li>This option is applicable when I(state) is C(present).</li> </ul>                                             |
| job_wait_timeout    | NA       | 600     | NA      | <ul style="list-style-type: none"> <li>The maximum wait time of I(job_wait) in seconds. The job is tracked only for this duration.</li> <li>This option is applicable when I(job_wait) is C(True).</li> </ul> |

## Return Values

```
msg:
  description: Overall status of the firmware catalog operation.
  returned: always
  type: str
  sample: "Successfully triggered the job to create a catalog with Task ID : 10094"
catalog_status:
  description: Details of the catalog operation.
  returned: When I(state) is C(present)
  type: dict
  sample: {
    "AssociatedBaselines": [],
    "BaseLocation": null,
    "BundlesCount": 0,
    "Filename": "catalog.gz",
    "Id": 0,
    "LastUpdated": null,
    "ManifestIdentifier": null,
```

```

    "ManifestVersion": null,
    "NextUpdate": null,
    "PredecessorIdentifier": null,
    "ReleaseDate": null,
    "ReleaseIdentifier": null,
    "Repository": {
        "CheckCertificate": true,
        "Description": "HTTPS Desc",
        "DomainName": null,
        "Id": null,
        "Name": "catalog4",
        "Password": null,
        "RepositoryType": "HTTPS",
        "Source": "company.com",
        "Username": null
    },
    "Schedule": null,
    "SourcePath": "catalog",
    "Status": null,
    "TaskId": 10094
}
job_id:
  description: Job ID of the catalog task.
  returned: When catalog job is in a running state.
  type: int
  sample: 10123
catalog_id:
  description: IDs of the deleted catalog.
  returned: When I(state) is C(absent)
  type: int
  sample: 10123
associated baselines:
  description: IDs of the baselines associated with catalog.
  returned: When I(state) is C(absent)
  type: list
  elements: dict
  sample: [
    {
      "BaselineId": 24,
      "BaselineName": "new"
    },
    {
      "BaselineId": 25,
      "BaselineName": "c7"
    },
    {
      "BaselineId": 27,
      "BaselineName": "c4"
    }
  ]
error_info:
  type: dict
  description: Details of the http error.
  returned: on http error
  sample: {
    "error": {
      "@Message.ExtendedInfo": [
        {
          "Message": "Unable to create or update the catalog because a
            repository with the same name already exists.",
          "Resolution": "Enter a different name and retry the operation.",
          "Severity": "Critical"
        }
      ],
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more
information."
    }
  }
}

```

## Examples

```
- name: Create a catalog from HTTPS repository
dellemc.openmanage.ome_firmware_catalog:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  catalog_name: "catalog_name"
  catalog_description: "catalog_description"
  repository_type: "HTTPS"
  source: "downloads.dell.com"
  source_path: "catalog"
  file_name: "catalog.gz"
  check_certificate: True

- name: Create a catalog from HTTP repository
dellemc.openmanage.ome_firmware_catalog:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  catalog_name: "catalog_name"
  catalog_description: "catalog_description"
  repository_type: "HTTP"
  source: "downloads.dell.com"
  source_path: "catalog"
  file_name: "catalog.gz"

- name: Create a catalog using CIFS share
dellemc.openmanage.ome_firmware_catalog:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  catalog_name: "catalog_name"
  catalog_description: "catalog_description"
  repository_type: "CIFS"
  source: "192.167.0.1"
  source_path: "cifs/R940"
  file_name: "catalog.gz"
  repository_username: "repository_username"
  repository_password: "repository_password"
  repository_domain: "repository_domain"

- name: Create a catalog using NFS share
dellemc.openmanage.ome_firmware_catalog:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  catalog_name: "catalog_name"
  catalog_description: "catalog_description"
  repository_type: "NFS"
  source: "192.166.0.2"
  source_path: "/nfs/R940"
  file_name: "catalog.xml"

- name: Create a catalog using a repository from Dell.com
dellemc.openmanage.ome_firmware_catalog:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  catalog_name: "catalog_name"
  catalog_description: "catalog_description"
  repository_type: "DELL_ONLINE"
  check_certificate: True

- name: Modify a catalog using a repository from CIFS share
dellemc.openmanage.ome_firmware_catalog:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  catalog_name: "catalog_name"
  catalog_description: "new catalog_description"
  repository_type: "CIFS"
  source: "192.167.0.2"
```

```

source_path: "cifs/R941"
file_name: "catalog1.gz"
repository_username: "repository_username"
repository_password: "repository_password"
repository_domain: "repository_domain"

- name: Modify a catalog using a repository from Dell.com
  dellemc.openmanage.ome_firmware_catalog:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    catalog_id: 10
    new_catalog_name: "new_catalog_name"
    repository_type: "DELL_ONLINE"
    catalog_description: "catalog_description"

- name: Delete catalog using catalog name
  dellemc.openmanage.ome_firmware_catalog:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    state: absent
    catalog_name: ["catalog_name1", "catalog_name2"]

- name: Delete catalog using catalog ID
  dellemc.openmanage.ome_firmware_catalog:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    state: absent
    catalog_id: [11, 34]

```

## Create a firmware baseline

### Module: ome\_firmware\_baseline

#### Synopsis

This module allows creates a baseline on OpenManage Enterprise and OpenManage Enterprise Modular.

#### Options

**Table 36. ome\_firmware\_baseline**

| Parameter     | Required | Default | Choices            | Comments                                                                                                                                          |
|---------------|----------|---------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname      | True     | NA      | NA                 | OpenManage Enterprise or OpenManage Enterprise Modular IP address or hostname.                                                                    |
| username      | True     | NA      | NA                 | OpenManage Enterprise or OpenManage Enterprise Modular username.                                                                                  |
| password      | True     | NA      | NA                 | OpenManage Enterprise or OpenManage Enterprise Modular user password.                                                                             |
| port          | False    | 443     | NA                 | OpenManage Enterprise or OpenManage Enterprise Modular HTTPS port.                                                                                |
| state         | False    | present | present, or absent | <ul style="list-style-type: none"> <li>• C(present) creates or modifies a baseline.</li> <li>• C(absent) deletes an existing baseline.</li> </ul> |
| baseline_name | False    | NA      | NA                 | <ul style="list-style-type: none"> <li>• Name of the baseline.</li> </ul>                                                                         |

**Table 36. ome\_firmware\_baseline (continued)**

| Parameter            | Required | Default | Choices | Comments                                                                                                                                                                                                               |
|----------------------|----------|---------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                      |          |         |         | <ul style="list-style-type: none"> <li>This option is mutually exclusive with I(baseline_id).</li> </ul>                                                                                                               |
| baseline_id          | False    | NA      | NA      | <ul style="list-style-type: none"> <li>ID of the baseline</li> <li>This option is mutually exclusive with I(baseline_name).</li> </ul>                                                                                 |
| baseline_description | False    | NA      | NA      | Description for the baseline.                                                                                                                                                                                          |
| new_baseline_name    | False    | NA      | NA      | New name of the baseline.                                                                                                                                                                                              |
| catalog_name         | False    | NA      | NA      | Name of the catalog to be associated with the baseline.                                                                                                                                                                |
| downgrade_enabled    | False    | True    | NA      | Indicates whether firmware downgrade is allowed for the devices in the baseline                                                                                                                                        |
| is_64_bit            | False    | True    | NA      | Indicates if the repository contains 64-bit DUPs.                                                                                                                                                                      |
| device_ids           | False    | NA      | NA      | List of device IDs. This option is mutually exclusive with I(device_service_tags) and I(device_group_names).                                                                                                           |
| device_service_tags  | False    | NA      | NA      | List of device service tags. This option is mutually exclusive with I(device_ids) and I(device_group_names).                                                                                                           |
| device_group_names   | False    | NA      | NA      | List of group names. This option is mutually exclusive with I(device_ids) and I(device_service_tags).                                                                                                                  |
| job_wait             | NA       | True    | Na      | <ul style="list-style-type: none"> <li>Provides the option to wait for the job completion.</li> <li>This option is applicable when I(state) is C(present).</li> </ul>                                                  |
| job_wait_timeout     | NA       | 600     | NA      | <ul style="list-style-type: none"> <li>The maximum wait time of I(job_wait) in seconds. The job is tracked only for the specified duration.</li> <li>This option is applicable when I(job_wait) is C(True).</li> </ul> |

#### Return Values

```

msg:
  type: str
  description: Overall baseline information.
  returned: on error
  sample: "Successfully fetched firmware baseline information."
baseline_info:
  type: dict
  description: Details of the baselines.
  returned: success
  sample: {

```

```

"@odata.id": "/api/UpdateService/Baselines(239)",
"@odata.type": "#UpdateService.Baselines",
"CatalogId": 22,
"ComplianceSummary": {
  "ComplianceStatus": "CRITICAL",
  "NumberOfCritical": 1,
  "NumberOfDowngrade": 0,
  "NumberOfNormal": 0,
  "NumberOfWarning": 0
},
"Description": "baseline_description",
"DeviceComplianceReports@odata.navigationLink": "/api/UpdateService/
Baselines(239)/DeviceComplianceReports",
"DowngradeEnabled": true,
"Id": 239,
"Is64Bit": true,
"LastRun": "2020-05-22 16:42:40.307",
"Name": "baseline_name",
"RepositoryId": 12,
"RepositoryName": "HTTP DELL",
"RepositoryType": "DELL_ONLINE",
"Targets": [
  {
    "Id": 10342,
    "Type": {
      "Id": 1000,
      "Name": "DEVICE"
    }
  }
],
"TaskId": 41415,
"TaskStatusId": 2060
}

```

## Examples

```

- name: Create baseline from device IDs
  dellemc.openmanage.ome_firmware_baseline:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    baseline_name: "baseline_name"
    baseline_description: "baseline_description"
    catalog_name: "catalog_name"
    device_ids:
      - 1010
      - 2020

- name: Create baseline from device service tags
  dellemc.openmanage.ome_firmware_baseline:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    baseline_name: "baseline_name"
    baseline_description: "baseline_description"
    catalog_name: "catalog_name"
    device_service_tags:
      - "SVCTAG1"
      - "SVCTAG2"

- name: Create baseline from device group names
  dellemc.openmanage.ome_firmware_baseline:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    baseline_name: "baseline_name"
    baseline_description: "baseline_description"
    catalog_name: "catalog_name"
    device_group_names:
      - "Group1"
      - "Group2"

- name: Delete a baseline

```

```

dell EMC.openmanage.ome_firmware_baseline:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  state: absent
  baseline_name: "baseline_name"

```

## Retrieve firmware baseline details

**Module:** ome\_firmware\_baseline\_info

### Synopsis

This module retrieves the list and details of all the baselines on OpenManage Enterprise.

### Options

**Table 37. ome\_firmware\_baseline\_info**

| Paramter       | Required | Default | Choices | Comments                                                                                                      |
|----------------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------|
| hostname       | True     | NA      | NA      | Target IP address or hostname                                                                                 |
| username       | True     | NA      | NA      | Target username                                                                                               |
| password       | True     | NA      | NA      | Target password                                                                                               |
| port           | False    | 443     | NA      | Target HTTPS port                                                                                             |
| baseline_name: | False    | NA      | NA      | Name of the baseline. If I(baseline_name) is not provided, all the available firmware baselines are returned. |

### Return Values

```

msg:
  type: str
  description: Overall baseline information.
  returned: on error
  sample: "Successfully fetched firmware baseline information."
baseline_info:
  type: dict
  description: Details of the baselines.
  returned: success
  sample: {
    "@odata.id": "/api/UpdateService/Baselines(239)",
    "@odata.type": "#UpdateService.Baselines",
    "CatalogId": 22,
    "ComplianceSummary": {
      "ComplianceStatus": "CRITICAL",
      "NumberOfCritical": 1,
      "NumberOfDowngrade": 0,
      "NumberOfNormal": 0,
      "NumberOfWarning": 0
    },
    "Description": "baseline_description",
    "DeviceComplianceReports@odata.navigationLink": "/api/UpdateService/
Baselines(239)/DeviceComplianceReports",
    "DowngradeEnabled": true,
    "Id": 239,
    "Is64Bit": true,
    "LastRun": "2020-05-22 16:42:40.307",
    "Name": "baseline_name",
    "RepositoryId": 12,
    "RepositoryName": "HTTP DELL",
    "RepositoryType": "DELL_ONLINE",
    "Targets": [
      {

```

```

        "Id": 10342,
        "Type": {
            "Id": 1000,
            "Name": "DEVICE"
        }
    },
    ],
    "TaskId": 41415,
    "TaskStatusId": 2060
}

```

## Examples

```

- name: Retrieve details of all the available firmware baselines
  dellemc.openmanage.ome_firmware_baseline_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"

- name: Retrieve details of a specific firmware baseline identified by its baseline name
  dellemc.openmanage.ome_firmware_baseline_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    baseline_name: "baseline_name"

```

## Retrieve firmware baseline compliance details

**Module:** ome\_firmware\_baseline\_compliance\_info

### Synopsis

This module allows to retrieve firmware compliance for a list of devices, or against a specified baseline.

### Options

**Table 38. ome\_firmware\_baseline\_compliance\_info**

| Parameter     | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                           |
|---------------|----------|---------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname      | True     | NA      | NA      | Target share address or hostname.                                                                                                                                                                                                                                                                                                                  |
| username      | True     | NA      | NA      | Target username.                                                                                                                                                                                                                                                                                                                                   |
| password      | True     | NA      | NA      | Target user password.                                                                                                                                                                                                                                                                                                                              |
| port          | False    | 443     | NA      | Target HTTPS port.                                                                                                                                                                                                                                                                                                                                 |
| baseline_name | False    | NA      | NA      | <ul style="list-style-type: none"> <li>Name of the baseline for which the device based compliance report is generated.</li> <li>This option is mandatory for generating baseline based device compliance report.</li> <li>l(baseline_name) is mutually exclusive with l(device_ids), l(device_service_tags), and l(device_group_names).</li> </ul> |
| device_ids    | False    | NA      | NA      | <ul style="list-style-type: none"> <li>A list of unique identifiers for which the device based compliance report is generated.</li> </ul>                                                                                                                                                                                                          |

**Table 38. ome\_firmware\_baseline\_compliance\_info (continued)**

| Parameter           | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------|----------|---------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     |          |         |         | <ul style="list-style-type: none"> <li>• Either l(device_ids), l(device_service_tags), or l(device_group_names) is required to generate device based compliance report.</li> <li>• l(device_ids) is mutually exclusive with l(device_service_tags), l(device_group_names), and l(baseline_name).</li> <li>• Devices without reports are ignored.</li> </ul>                                                                                              |
| device_service_tags | False    | NA      | NA      | <ul style="list-style-type: none"> <li>• A list of service tags for which the device based compliance report is generated.</li> <li>• Either l(device_ids), l(device_service_tags), or l(device_group_names) is required to generate device based compliance report.</li> <li>• l(device_service_tags) is mutually exclusive with l(device_ids), l(device_group_names), and l(baseline_name).</li> <li>• Devices without reports are ignored.</li> </ul> |
| device_group_names  | False    | NA      | NA      | <ul style="list-style-type: none"> <li>• A list of group names for which the device based compliance report is generated.</li> <li>• Either l(device_ids), l(device_service_tags), or l(device_group_names) is required to generate device based compliance report.</li> <li>• l(device_group_names) is mutually exclusive with l(device_ids), l(device_service_tags), and l(baseline_name).</li> <li>• Devices without reports are ignored.</li> </ul>  |

#### Return values

```

msg:
  type: str
  description: Overall baseline compliance report status.
  returned: on error
  sample: "Failed to fetch the compliance baseline information"
baseline_compliance_info:
  type: dict
  description: Details of the baseline compliance report.
  returned: success
  sample: [

```

```

{
  "CatalogId": 53,
  "ComplianceSummary": {
    "ComplianceStatus": "CRITICAL",
    "NumberOfCritical": 2,
    "NumberOfDowngrade": 0,
    "NumberOfNormal": 0,
    "NumberOfWarning": 0
  },
  "Description": "",
  "DeviceComplianceReports": [
    {
      "ComplianceStatus": "CRITICAL",
      "ComponentComplianceReports": [
        {
          "ComplianceDependencies": [],
          "ComplianceStatus": "DOWNGRADE",
          "Criticality": "Ok",
          "CurrentVersion": "OSC_1.1",
          "Id": 1258,
          "ImpactAssessment": "",
          "Name": "OS COLLECTOR 2.1",
          "Path": "FOLDER04118304M/2/
Diagnostics_Application_JCCH7_WN64_4.0_A00_01.EXE",
          "PrerequisiteInfo": "",
          "RebootRequired": false,
          "SourceName":
"DCIM:INSTALLED#802__OSCollector.Embedded.1",
          "TargetIdentifier": "101734",
          "UniqueIdentifier":
"xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx",
          "UpdateAction": "DOWNGRADE",
          "Uri": "http://www.dell.com/support/home/us/en/19/
Drivers/DriversDetails?driverId=XXXXX",
          "Version": "4.0"
        },
        {
          "ComplianceDependencies": [],
          "ComplianceStatus": "CRITICAL",
          "Criticality": "Recommended",
          "CurrentVersion": "DN02",
          "Id": 1259,
          "ImpactAssessment": "",
          "Name": "TOSHIBA AL14SE 1.8 TB 2.5 12Gb 10K 512n SAS HDD
Drive",
          "Path": "FOLDER04086111M/1/SAS-
Drive_Firmware_VDGFM_WN64_DN03_A00.EXE",
          "PrerequisiteInfo": "",
          "RebootRequired": true,
          "SourceName":
"DCIM:INSTALLED#304_C_Disk.Bay.1:Enclosure.Internal.0-1:RAID.Integrated.1-1",
          "TargetIdentifier": "103730",
          "UniqueIdentifier":
"xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx",
          "UpdateAction": "UPGRADE",
          "Uri": "http://www.dell.com/support/home/us/en/19/
Drivers/DriversDetails?driverId=XXXXX",
          "Version": "DN03"
        }
      ],
      "DeviceId": 11603,
      "DeviceModel": "PowerEdge R630",
      "DeviceName": null,
      "DeviceTypeId": 1000,
      "DeviceTypeName": "CPGCGS",
      "FirmwareStatus": "Non-Compliant",
      "Id": 194,
      "RebootRequired": true,
      "ServiceTag": "MXL1234"
    }
  ],
  "DowngradeEnabled": true,
  "Id": 53,

```

```

        "Is64Bit": false,
        "LastRun": "2019-09-27 05:08:16.301",
        "Name": "baseline1",
        "RepositoryId": 43,
        "RepositoryName": "catalog2",
        "RepositoryType": "CIFS",
        "Targets": [
            {
                "Id": 11603,
                "Type": {
                    "Id": 1000,
                    "Name": "DEVICE"
                }
            }
        ],
        "TaskId": 11710,
        "TaskStatusId": 0
    }
]
error_info:
  type: dict
  description: Details of http error.
  returned: on http error
  sample: {
    "error": {
      "@Message.ExtendedInfo": [
        {
          "Message": "Unable to retrieve baseline list either because the
device ID(s) entered are invalid",
          "Resolution": "Make sure the entered device ID(s) are valid and
retry the operation.",
          "Severity": "Critical"
        }
      ],
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more
information."
    }
  }
}

```

## Examples

```

- name: Retrieves baseline based compliance report for specific device IDs
  dellemc.openmanage.ome_firmware_baseline_compliance_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    device_ids:
      - 11111
      - 22222

- name: Retrieves device based compliance report for specific device service Tags
  dellemc.openmanage.ome_firmware_baseline_compliance_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    device_service_tags:
      - MXL1234
      - MXL4567

- name: Retrieves device based compliance report for specific group names
  dellemc.openmanage.ome_firmware_baseline_compliance_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    device_group_names:
      - "group1"
      - "group2"

```

```
- name: Retrieves device compliance report for a specific baseline
  dellemc.openmanage.ome_firmware_baseline_compliance_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    baseline_name: "baseline_name"
```

## Manage jobs

This section describes the modules using which you can manage job operations.

Following are the tasks for managing jobs:

- [View job details](#)
- [Manage power state operations](#)

## View job details

**Module:** `ome_job_info`

### Synopsis

Get job details for a given job ID or an entire job queue on OpenMange Enterprise.

### Options

**Table 39. ome\_job\_info**

| Parameter            | Required | Default | Choices                                                                                                                                                                                                                                | Comments                             |
|----------------------|----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| hostname             | Yes      | NA      | NA                                                                                                                                                                                                                                     | Target IP Address or hostname        |
| username             | Yes      | NA      | NA                                                                                                                                                                                                                                     | Target username                      |
| password             | Yes      | NA      | NA                                                                                                                                                                                                                                     | Target user password                 |
| port                 | No       | 443     | NA                                                                                                                                                                                                                                     | Target HTTPS port                    |
| job_id               | No       | NA      | NA                                                                                                                                                                                                                                     | Unique ID of the job                 |
| system_query_options | No       | NA      | <ul style="list-style-type: none"> <li>• top: Number of records to return. Default value is 100.</li> <li>• skip: Number of records to skip. Default value is 0.</li> <li>• filter: Filter records by the values supported.</li> </ul> | Options for pagination of the output |

### Return Values

```
msg:
  description: Overall status of the job facts operation.
  returned: always
  type: str
job_info:
  description: Details of the OpenManage Enterprise jobs.
  returned: success
  type: dict
  sample: {
    "value": [
      {
        "Builtin": false,
        "CreatedBy": "system",
        "Editable": true,
        "EndTime": null,
        "Id": 12345,
        "JobDescription": "Refresh Inventory for Device",
```

```

    "JobName": "Refresh Inventory for Device",
    "JobStatus": {
        "Id": 2080,
        "Name": "New"
    },
    "JobType": {
        "Id": 8,
        "Internal": false,
        "Name": "Inventory_Task"
    },
    "LastRun": "2000-01-29 10:51:34.776",
    "LastRunStatus": {
        "Id": 2060,
        "Name": "Completed"
    },
    "NextRun": null,
    "Params": [],
    "Schedule": "",
    "StartTime": null,
    "State": "Enabled",
    "Targets": [
        {
            "Data": "",
            "Id": 123123,
            "JobId": 12345,
            "TargetType": {
                "Id": 1000,
                "Name": "DEVICE"
            }
        }
    ],
    "UpdatedBy": null,
    "Visible": true
}
}]

```

## Examples

```

- name: Get all jobs details
  dellemc.openmanage.ome_job_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"

- name: Get job details for ID
  dellemc.openmanage.ome_job_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    job_id: 12345

- name: Get filtered job details
  dellemc.openmanage.ome_job_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    system_query_options:
      top: 2
      skip: 1
      filter: "JobType/Id eq 8"

```

# Manage power state operations

## Module: ome\_power\_state

### Synopsis

This module performs the supported power state management operations.

## Options

**Table 40. ome\_power\_state**

| Parameter          | Required | Default | Choices                                                                                                                 | Comments                                                                                                                                                                                      |
|--------------------|----------|---------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname           | Yes      | NA      | NA                                                                                                                      | Target IP Address or hostname                                                                                                                                                                 |
| username           | Yes      | NA      | NA                                                                                                                      | Target username                                                                                                                                                                               |
| password           | Yes      | NA      | NA                                                                                                                      | Target user password                                                                                                                                                                          |
| port               | No       | 443     | NA                                                                                                                      | Target device HTTPS port                                                                                                                                                                      |
| power_state        | Yes      | NA      | <ul style="list-style-type: none"> <li>on</li> <li>off</li> <li>coldboot</li> <li>warmboot</li> <li>shutdown</li> </ul> | Desired end power state                                                                                                                                                                       |
| device_id          | No       | NA      | NA                                                                                                                      | Targeted device id.<br> <b>NOTE:</b> I(device_id) is mutually exclusive with I(device_service_tag).          |
| device_service_tag | No       | NA      | NA                                                                                                                      | Targeted device service tag.<br> <b>NOTE:</b> I(device_service_tag) is mutually exclusive with I(device_id). |

## Return Values

```

msg:
  type: str
  description: "Overall power state operation job status."
  returned: always
  sample: "Power State operation job submitted successfully."
job_status:
  type: dict
  description: "Power state operation job and progress details from the OME."
  returned: success
  sample: {
    "Builtin": false,
    "CreatedBy": "user",
    "Editable": true,
    "EndTime": null,
    "Id": 11111,
    "JobDescription": "DeviceAction_Task",
    "JobName": "DeviceAction_Task_PowerState",
    "JobStatus": {
      "Id": 1111,
      "Name": "New"
    },
    "JobType": {
      "Id": 1,
      "Internal": false,
      "Name": "DeviceAction_Task"
    },
    "LastRun": "2019-04-01 06:39:02.69",
    "LastRunStatus": {
      "Id": 1112,
      "Name": "Running"
    },
    "NextRun": null,
    "Params": [
      {
        "JobId": 11111,
        "Key": "powerState",
        "Value": "2"
      },
      {
        "JobId": 11111,

```

```

        "Key": "operationName",
        "Value": "POWER_CONTROL"
    },
],
"Schedule": "",
"StartTime": null,
"State": "Enabled",
"Targets": [
    {
        "Data": "",
        "Id": 11112,
        "JobId": 11111,
        "TargetType": {
            "Id": 0000,
            "Name": "DEVICE"
        },
    },
],
],
"UpdatedBy": null,
"Visible": true
}

```

## Examples

```

- name: Power state operation based on device ID
  dellemc.openmanage.ome_powerstate:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    device_id: 11111
    power_state: "off"

- name: Power state operation based on device service tag
  dellemc.openmanage.ome_powerstate:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    device_service_tag: "KLBR111"
    power_state: "on"

- name: Power state operation based on list of device IDs
  dellemc.openmanage.ome_powerstate:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    device_id: "{{ item.device_id }}"
    power_state: "{{ item.state }}"
  with_items:
    - { "device_id": 11111, "state": "on" }
    - { "device_id": 22222, "state": "off" }

- name: Power state operation based on list of device service tags
  dellemc.openmanage.ome_powerstate:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    device_service_tag: "{{ item.service_tag }}"
    power_state: "{{ item.state }}"
  with_items:
    - { "service_tag": "KLBR111", "state": "on" }
    - { "service_tag": "KLBR222", "state": "off" }

```

## Manage users

The following tasks are responsible for managing user accounts:

- [View user account details](#)

- [Configure user accounts](#)

## View user account details

**Module:** ome\_user\_info

**Synopsis**

This module retrieves the list and basic details of all user accounts or details of a specific user account.

**Options**

**Table 41. ome\_user\_info**

| Parameter            | Required | Default | Choices                                         | Comments                                                                                                                        |
|----------------------|----------|---------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| hostname             | Yes      | NA      | NA                                              | Target IP Address or hostname                                                                                                   |
| username             | Yes      | NA      | NA                                              | Target username                                                                                                                 |
| password             | Yes      | NA      | NA                                              | Target user password                                                                                                            |
| port                 | No       | 443     | NA                                              | Target device HTTPS port                                                                                                        |
| account_id           | No       | NA      | NA                                              | Unique ID of the account                                                                                                        |
| system_query_options | No       | NA      | filter: Filter records for the supported values | Provides the option to filter the output for the supported values. I(filter) query format must be aligned with OData standards. |

**Return Values**

```
msg:
  type: str
  description: Over all status of fetching user facts.
  returned: on error
  sample: "Failed to fetch the user facts"
user_info:
  type: dict
  description: Details of the users.
  returned: success
  sample: {
    "192.168.0.1": {
      "Id": "1814",
      "UserId": 1,
      "DirectoryServiceId": 0,
      "Description": "user name description",
      "Name": "user_name",
      "Password": null,
      "UserName": "user_name",
      "RoleId": "10",
      "Locked": false,
      "IsBuiltin": true,
      "Enabled": true
    }
  }
```

**Examples**

```
- name: Retrieve basic details of all accounts
  dellemc.openmanage.ome_user_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"

- name: Retrieve details of a specific account identified by its account ID
```

```
dellemc.openmanage.ome_user_info:
hostname: "192.168.0.1"
username: "username"
password: "password"
account_id: 1
```

```
- name: Get filtered user info based on user name
dellemc.openmanage.ome_user_info:
hostname: "192.168.0.1"
username: "username"
password: "password"
system query options:
  filter: "Username eq 'test'"
```

## Configure user accounts

**Module: ome\_user**

### Synopsis

This module:

- creates a new user account.
- modifies or deletes an existing user account.

### Options

**Table 42. ome\_user**

| Parameter  | Required | Default | Choices                                                                       | Comments                                                                                                                                                                                                                                                                                                                      |
|------------|----------|---------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname   | Yes      | NA      | NA                                                                            | Target IP Address or hostname                                                                                                                                                                                                                                                                                                 |
| username   | Yes      | NA      | NA                                                                            | Target username                                                                                                                                                                                                                                                                                                               |
| password   | Yes      | NA      | NA                                                                            | Target user password                                                                                                                                                                                                                                                                                                          |
| port       | No       | 443     | NA                                                                            | Target device HTTPS port                                                                                                                                                                                                                                                                                                      |
| state      | No       | present | <ul style="list-style-type: none"> <li>• present</li> <li>• absent</li> </ul> | <ul style="list-style-type: none"> <li>• C(present) creates a user in case the I(Username) provided inside I(attributes) does not exist .</li> <li>• C(present) modifies a user in case the I(Username) provided inside I(attributes) exists .</li> <li>• C(absent) deletes an existing user.</li> </ul>                      |
| user_id    | No       | NA      | NA                                                                            | <ul style="list-style-type: none"> <li>• ID of the user to be deleted.</li> <li>• Either I (user_id) or I (name) is mandatory for C (absent) operation.</li> </ul>                                                                                                                                                            |
| name       | No       | NA      | NA                                                                            | <ul style="list-style-type: none"> <li>• Name of the user to be deleted</li> <li>• Either I (user_id) or I (name) is mandatory for C (absent) operation.</li> </ul>                                                                                                                                                           |
| attributes | No       | { }     | NA                                                                            | Payload data for the user operations. It can take the following attributes for C(present): <ul style="list-style-type: none"> <li>• UserTypeId</li> <li>• DirectoryServiceId</li> <li>• Description</li> <li>• Name</li> <li>• Password</li> <li>• UserName</li> <li>• RoleId</li> <li>• Locked</li> <li>• Enabled</li> </ul> |

**Table 42. ome\_user (continued)**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                             |
|-----------|----------|---------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |         |         | <p> <b>NOTE:</b> OME will throw an error message if required parameter is not provided for the operation.</p> <p> <b>NOTE:</b> See OpenManage Enterprise API Reference Guide for more details.</p> |

## Return Values

```

msg:
  description: Overall status of the user operation.
  returned: always
  type: str
  sample: "Successfully created a User"
user_status:
  description: Details of the user operation when I(state) is C(present).
  returned: When I(state) is C(present).
  type: dict
  sample:
    {
      "Description": "Test user creation",
      "DirectoryServiceId": 0,
      "Enabled": true,
      "Id": "61546",
      "IsBuiltin": false,
      "Locked": false,
      "Name": "test",
      "ObjectGuid": null,
      "Oem": null,
      "Password": null,
      "PlainTextPassword": null,
      "RoleId": "10",
      "UserName": "test",
      "UserId": 1
    }

```

## Examples

```

- name: Create user with required parameters
  dellemc.openmanage.ome_user:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    attributes:
      UserName: "user1"
      Password: "UserPassword"
      RoleId: "10",
      Enabled: True

- name: Create user with all parameters
  dellemc.openmanage.ome_user:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    attributes:
      UserName: "user2"
      Description: "user2 description"
      Password: "UserPassword"
      RoleId: "10"
      Enabled: True
      DirectoryServiceId: 0
      UserId: 1
      Locked: False
      Name: "user2"

- name: Modify existing user
  dellemc.openmanage.ome_user:
    hostname: "192.168.0.1"

```

```
username: "username"
password: "password"
state: "present"
attributes:
  UserName: "user3"
  RoleId: "10"
  Enabled: True
  Description: "Modify user Description"

- name: Delete existing user using ID
  dellemc.openmanage.ome_user:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    state: "absent"
    user_id: "1234"

- name: Delete existing user using name
  dellemc.openmanage.ome_user:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    state: "absent"
    name: "name"
```

# Manage identity pool

Identity pools are used in template-based deployment of servers. They facilitate the virtualization of network identities required for accessing systems using Ethernet, iSCSI, FCoE, or Fibre Channel (FC). This section describes how to manage the settings of an identity pool.

## Manage Identity pool settings

**Module: ome\_identity\_pool**

**Synopsis**

This module allows to create, modify, or delete a single identity pool on OpenManage Enterprise.

**Options**

**Table 43. ome\_identity\_pool**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                                                                                       |
|-----------|----------|---------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname  | True     | NA      | NA      | Target IP Address or hostname                                                                                                                                                                                                  |
| username  | True     | NA      | NA      | Target username                                                                                                                                                                                                                |
| password  | True     | NA      | NA      | Target user password                                                                                                                                                                                                           |
| port      | False    | 443     | NA      | Target HTTPS port                                                                                                                                                                                                              |
| state     | False    | Present | Present | <ul style="list-style-type: none"><li>C(present) modifies an existing identity pool. If the provided I (pool_name) does not exist, it creates an identity pool.</li><li>C(absent) deletes an existing identity pool.</li></ul> |
| pool_name | True     | NA      | NA      | This option is mandatory if I(command) is C(present) when creating, modifying, and deleting an identity pool.                                                                                                                  |

**Table 43. ome\_identity\_pool (continued)**

| Parameter         | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| new_pool_name     | False    | NA      | NA      | <ul style="list-style-type: none"> <li>After creating an identity pool, l(pool_name) can be changed to l(new_pool_name).</li> <li>This option is ignored when creating an identity pool.</li> </ul>                                                                                                                                                                                                                                                                                               |
| pool_description  | False    | NA      | NA      | Description of the identity pool.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| ethernet_settings | False    | NA      | NA      | <p>Applicable for creating and modifying an identity pool using Ethernet settings.</p> <p>l(starting_mac_address) and l(identity_count) are required to create an identity pool.</p> <p>Suboptions-</p> <ul style="list-style-type: none"> <li>starting_mac_address- Starting MAC address of the Ethernet setting.</li> <li>identity_count- Number of MAC addresses.</li> </ul>                                                                                                                   |
| fcoe_settings     | False    | NA      | NA      | <p>Applicable for creating and modifying an identity pool using FCoE settings.</p> <p>l(starting_mac_address) and l(identity_count) are required to create an identity pool.</p> <p>Suboptions-</p> <ul style="list-style-type: none"> <li>starting_mac_address- Starting MAC address of the FCoE setting.</li> <li>identity_count- Number of MAC addresses.</li> </ul>                                                                                                                           |
| iscsi_settings    | False    | NA      | NA      | <p>Applicable for creating and modifying an identity pool using iSCSI settings.</p> <p>l(starting_mac_address), l(identity_count), l(iqn_prefix), l(ip_range) and l(subnet_mask) are required to create an identity pool.</p> <p>Suboptions:</p> <ul style="list-style-type: none"> <li>starting_mac_address- Starting MAC address of the iSCSI setting.</li> <li>identity_count- Number of MAC addresses</li> <li>initiator_config- Applicable for creating and modifying an identity</li> </ul> |

**Table 43. ome\_identity\_pool (continued)**

| Parameter                | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          |          |         |         | <p>pool using iSCSI Initiator settings</p> <ul style="list-style-type: none"> <li>• <code>iqn_prefix</code>- IQN prefix addresses</li> <li>• <code>initiator_ip_pool_settings</code> - Applicable for creating and modifying an identity pool using iSCSI Initiator IP pool settings</li> <li>• <code>ip_range</code>- Range of non-multicast IP addresses</li> <li>• <code>subnet_mask</code>- Subnet mask for <code>l(ip_range)</code></li> <li>• <code>gateway</code>- IP address of gateway</li> <li>• <code>primary_dns_server</code>- IP address of the primary DNS server.</li> <li>• <code>secondary_dns_server</code>- IP address of the secondary DNS server</li> </ul>                       |
| <code>FC_settings</code> | False    | NA      | NA      | <p>Applicable for creating and modifying an identity pool using fibre channel (FC) settings.</p> <p><code>l(starting_address)</code> and <code>l(identity_count)</code> are required to create an identity pool.</p> <p>This option allows OpenManage Enterprise to generate a Worldwide port name (WWPN) and Worldwide node name (WWNN) address. The value <code>0x2001</code> is prefixed to the beginning address for the generation of a WWPN, and <code>0x2000</code> for a WWNN.</p> <p>suboptions:</p> <ul style="list-style-type: none"> <li>• <code>starting_address</code>- Starting MAC address of the FC setting</li> <li>• <code>identity_count</code>- Number of MAC addresses</li> </ul> |

#### Return Values

```

msg:
  type: str
  description: "Overall status of the identity pool operation"
  returned: always
  sample: "Successfully created an identity pool."
pool_status:
  type: dict
  description: Details of the user operation when I(state) is C(present).
  returned: success
  sample: {
    "Id":29,
```

```

        "IsSuccessful":True,
        "Issues":[]
    }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "@Message.ExtendedInfo": [{
        "Message": "Unable to process the request because an error occurred:
          Ethernet-MAC Range overlap found (in this Identity Pool or in a different one)
      .",
        "MessageArgs": [Ethernet-MAC Range overlap found (in this Identity Pool or in a
different one)"],
        "MessageId": "CGEN6001",
        "RelatedProperties": [],
        "Resolution": "Retry the operation. If the issue persists, contact your system
administrator.",
        "Severity": "Critical"
      }],

      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information."
    }}

```

## Examples

```

- name: Create an identity pool using ethernet, FCoE, iSCSI and FC settings
  dellemc.openmanage.ome_identity_pool:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    state: present
    pool_name: "pool1"
    pool_description: "Identity pool with Ethernet, FCoE, iSCSI and FC settings"
    ethernet_settings:
      starting_mac_address: "50:50:50:50:50:00"
      identity_count: 60
    fcoe_settings:
      starting_mac_address: "70:70:70:70:70:00"
      identity_count: 75
    iscsi_settings:
      starting_mac_address: "60:60:60:60:60:00"
      identity_count: 30
      initiator_config:
        ign_prefix: "iqn.myprefix."
      initiator_ip_pool_settings:
        ip_range: "10.33.0.1-10.33.0.255"
        subnet_mask: "255.255.255.0"
        gateway: "192.168.4.1"
        primary_dns_server : "10.8.8.8"
        secondary_dns_server : "8.8.8.8"
    fc_settings:
      starting_address: "30:30:30:30:30:00"
      identity_count: 45

- name: Create an identity pool using only ethernet settings
  dellemc.openmanage.ome_identity_pool:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    pool_name: "pool2"
    pool_description: "create identity pool with ethernet"
    ethernet_settings:
      starting_mac_address: "aa-bb-cc-dd-ee-aa"
      identity_count: 80

- name: Modify an identity pool
  dellemc.openmanage.ome_identity_pool:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"

```

```

pool_name: "pool2"
new_pool_name: "pool3"
pool_description: "modifying identity pool with ethernet and fcoe settings"
ethernet_settings:
    starting_mac_address: "90-90-90-90-90-90"
    identity_count: 61
fcoe_settings:
    starting_mac_address: "aabb.ccdd.5050"
    identity_count: 77

-name: Modify an identity pool using iSCSI and FC settings
dellmc.openmanage.ome_identity_pool:
    hostname: "{{hostname}}"
    username: "{{username}}"
    password: "{{password}}"
    pool_name: "pool_new"
    new_pool_name: "pool_new2"
    pool_description: "modifying identity pool with iscsi and fc settings"
    iscsi_settings:
        identity_count: 99
        initiator_config:
            iqn_prefix: "iqn1.myprefix2."
        initiator_ip_pool_settings:
            gateway: "192.168.4.5"
    fc_settings:
        starting_address: "10:10:10:10:10:10"
        identity_count: 98

- name: Delete an identity pool
dellmc.openmanage.ome_identity_pool:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    state: "absent"
    pool_name: "pool2"

```

## Manage application settings

This section describes how to manage the following settings on OpenManage enterprise:

- [Manage proxy configuration](#)
- [Manage a network configuration](#)
- [Manage a web server configuration](#)
- [Manage time configuration](#)
- [Generate and upload a certificate signing request](#)

## Manage proxy configuration

**Module:** `ome_application_network_proxy`

### Synopsis

This module allows the configuration of a network proxy.

### Options

**Table 44. ome\_application\_network\_proxy**

| Parameter | Required | Default | Choices | Comments                      |
|-----------|----------|---------|---------|-------------------------------|
| hostname  | True     | NA      | NA      | Target IP Address or hostname |
| username  | True     | NA      | NA      | Target username               |
| password  | True     | NA      | NA      | Target user password          |

**Table 44. ome\_application\_network\_proxy (continued)**

| Parameter             | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                          |
|-----------------------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| port                  | False    | 443     | NA      | Target HTTPS port                                                                                                                                                                                                                                                                                 |
| enable_proxy          | True     | NA      | NA      | <ul style="list-style-type: none"> <li>Enables or disables the HTTP proxy configuration.</li> <li>If l(enable_proxy) is false, the HTTP proxy configuration is set to its default value.</li> </ul>                                                                                               |
| ip_address            | False    | NA      | NA      | <ul style="list-style-type: none"> <li>Proxy server address</li> <li>This option is mandatory when l(enable_proxy) is true.</li> </ul>                                                                                                                                                            |
| proxy_port            | False    | NA      | NA      | <ul style="list-style-type: none"> <li>Port number of the proxy server.</li> <li>This option is mandatory when l(enable_proxy) is true.</li> </ul>                                                                                                                                                |
| enable_authentication | False    | NA      | NA      | <ul style="list-style-type: none"> <li>Enables or disables proxy authentication.</li> <li>If l(enable_authentication) is true, a username and password must be provided.</li> <li>If l(enable_authentication) is false, the proxy username and password are set to its default values.</li> </ul> |
| proxy_username        | False    | NA      | NA      | Username of the proxy server. This option is mandatory when l(enable_authentication) is true.                                                                                                                                                                                                     |
| proxy_password        | False    | NA      | NA      | Password of the proxy server. This option is mandatory when l(enable_authentication) is true.                                                                                                                                                                                                     |

#### Return Values

```

msg:
  type: str
  description: Overall status of the network proxy configuration change.
  returned: always
  sample: "Successfully updated network proxy configuration."
proxy_setting:
  type: dict

```

```

description: Updated network proxy configuration.
returned: success
sample: {
    "EnableAuthentication": true,
    "EnableProxy": true,
    "IpAddress": "192.168.0.2",
    "Password": null,
    "PortNumber": 444,
    "Username": "root"
}
error_info:
description: Details of the HTTP error.
returned: on HTTP error
type: dict
sample: {
    "error": {
        "@Message.ExtendedInfo": [
            {
                "Message": "Unable to complete the request because the input value
for PortNumber is missing or an invalid value is entered.",
                "MessageArgs": [
                    "PortNumber"
                ],
                "MessageId": "CGEN6002",
                "RelatedProperties": [],
                "Resolution": "Enter a valid value and retry the operation.",
                "Severity": "Critical"
            }
        ],
        "code": "Base.1.0.GeneralError",
        "message": "A general error has occurred. See ExtendedInfo for more
information."
    }
}

```

## Examples

```

- name: Update proxy configuration and enable authentication
  dellemc.openmanage.ome_application_network_proxy:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    enable_proxy: true
    ip_address: "192.168.0.2"
    proxy_port: 444
    enable_authentication: true
    proxy_username: "proxy_username"
    proxy_password: "proxy_password"

- name: Reset proxy authentication
  dellemc.openmanage.ome_application_network_proxy:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    enable_proxy: true
    ip_address: "192.168.0.2"
    proxy_port: 444
    enable_authentication: false

- name: Reset proxy configuration
  dellemc.openmanage.ome_application_network_proxy:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    enable_proxy: false

```

# Manage network configuration

**Module:** ome\_application\_network\_address

## Synopsis

This module allows the configuration of a DNS and an IPV4 or IPV6 network on OpenManage Enterprise. It is only applicable on versions 3.3 and above of OpenManage Enterprise and OpenManage Enterprise Modular.

### NOTE:

- The configuration changes can only be applied to one interface at a time.
- Once the configuration changes are applied, the system management consoles might be unreachable for some time, based on the changes made.

## Options

**Table 45. ome\_application\_network\_address**

| Parameter          | Required | Default | Choices      | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------|----------|---------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname           | True     | NA      | NA           | Target IP Address or hostname                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| username           | True     | NA      | NA           | Target username                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| password           | True     | NA      | NA           | Target user password                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| port               | False    | 443     | NA           | Target HTTPS port                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| enable_nic         | False    | True    | NA           | Enable or disable Network Interface Card (NIC) configuration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| interface_name     | False    | NA      | NA           | <ul style="list-style-type: none"><li>• If there are multiple interfaces, network configuration changes can be applied to a single interface using the interface name of the NIC.</li><li>• If this option is not specified, the primary interface is chosen by default.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ipv4_configuration | False    | NA      | ipv4 options | <p>IPv4 network configuration</p> <p> <b>NOTE:</b> Ensure that you have an alternate interface to access OpenManage Enterprise as these options can change the current IPv4 address for l(hostname).</p> <p>Suboptions:</p> <ul style="list-style-type: none"><li>• enable: Enable or disable access to the network using IPv4.</li><li>• enable_dhcp: Enable or disable the automatic request to get an IPv4 address from the IPv4 Dynamic Host Configuration Protocol (DHCP) server.</li></ul> <p>If this option is true, then OpenManage Enterprise retrieves the IP configuration—IPv4 address, subnet mask, and gateway from a DHCP server on the existing network.</p> <ul style="list-style-type: none"><li>• static_ip_address: Static IPv4 address. This option is applicable when l(enable_dhcp) is false.</li><li>• static_subnet_mask: Static IPv4 subnet mask address. This option is applicable when l(enable_dhcp) is false.</li><li>• static_gateway: Static IPv4 gateway address. This option is applicable when l(enable_dhcp) is false.</li><li>• use_dhcp_for_dns_server_names: This option allows to automatically request and obtain a DNS server IPv4 address from the DHCP server. This option is applicable when l(enable_dhcp) is true.</li><li>• static_preferred_dns_server: Static IPv4 DNS preferred server. This option is applicable when l(use_dhcp_for_dns_server_names) is false.</li></ul> |

**Table 45. ome\_application\_network\_address (continued)**

| Parameter          | Required | Default | Choices      | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------|----------|---------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    |          |         |              | <ul style="list-style-type: none"> <li>static_alternate_dns_server: Static IPv4 DNS alternate server. This option is applicable when l(use_dhcp_for_dns_server_names) is false.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| ipv6_configuration | False    | NA      | ipv6 options | <p>IPv6 network configuration</p> <p><b>NOTE:</b> Ensure that you have an alternate interface to access OpenManage Enterprise as these options can change the current IPv6 address for l(hostname).</p> <p>Suboptions:</p> <ul style="list-style-type: none"> <li>enable: Enable or disable access to the network using IPv6.</li> <li>enable_auto_configuration: Enable or disable the automatic request to get an IPv6 address from the IPv6 DHCP server or router advertisements(RA).<br/>If l(enable_auto_configuration) is true, then OpenManage Enterprise retrieves the IP configuration—IPv6 address, prefix, and gateway, from a DHCPv6 server on the existing network.</li> <li>static_ip_address: Static IPv6 address. This is applicable when l(enable_auto_configuration) is false.</li> <li>static_prefix_length: Static IPv6 prefix length. This is applicable when l(enable_auto_configuration) is false.</li> <li>static_gateway: Static IPv6 gateway address. This is applicable when l(enable_auto_configuration) is false.</li> <li>use_dhcp_for_dns_server_names: This option allows to automatically request and obtain a DNS server IPv6 address from the DHCP server. This is applicable when l(enable_auto_configuration) is true.</li> <li>static_preferred_dns_server: Static IPv6 DNS preferred server. This is applicable when l(use_dhcp_for_dns_server_names) is false.</li> <li>static_alternate_dns_server: Static IPv6 DNS alternate server. This is applicable when l(use_dhcp_for_dns_server_names) is false.</li> </ul> |
| management_vlan    |          |         |              | <ul style="list-style-type: none"> <li>vLAN configuration</li> <li>These settings are only applicable for OpenManage Enterprise Modular.</li> </ul> <p>Suboptions:</p> <ul style="list-style-type: none"> <li>enable_vlan: <ul style="list-style-type: none"> <li>Enable or disable vLAN for management.</li> <li>The vLAN configuration cannot be updated if the l(register_with_dns) field under l(dns_configuration) is true.</li> <li><b>WARNING</b> Ensure that the network cable is plugged to the correct port after the vLAN configuration changes have been made. If not, the configuration change may not be effective.</li> </ul> </li> <li>vlan_id: <ul style="list-style-type: none"> <li>vLAN ID</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

**Table 45. ome\_application\_network\_address (continued)**

| Parameter         | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------|----------|---------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |          |         |         | <ul style="list-style-type: none"> <li>○ This option is applicable when l(enable_vlan) is true.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                |
| dns_configuration | False    | NA      | NA      | DNS settings<br>Suboptions: <ul style="list-style-type: none"> <li>• register_with_dns: Register or unregister l(dns_name) on the DNS Server. This option cannot be updated if vLAN configuration changes.</li> <li>• use_dhcp_for_dns_domain_name: Get the l(dns_domain_name) using a DHCP server.</li> <li>• dns_name: DNS name for l(hostname). This is applicable when l(register_with_dns) is true.</li> <li>• dns_domain_name: Static DNS domain name. This is applicable when l(use_dhcp_for_dns_domain_name) is false.</li> </ul> |
| reboot_delay      | False    | NA      | NA      | The time in seconds, after which settings are applied. This option is not mandatory.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

#### Return values

```

msg:
  type: str
  description: Overall status of the network address configuration change.
  returned: always
  sample: Successfully updated network address configuration
network_configuration:
  type: dict
  description: Updated application network address configuration.
  returned: on success
  sample: {
    "Delay": 0,
    "DnsConfiguration": {
      "DnsDomainName": "",
      "DnsName": "MX-SVCTAG",
      "RegisterWithDNS": false,
      "UseDHCPForDNSDomainName": true
    },
    "EnableNIC": true,
    "InterfaceName": "eth0",
    "PrimaryInterface": true,
    "Ipv4Configuration": {
      "Enable": true,
      "EnableDHCP": false,
      "StaticAlternateDNSServer": "",
      "StaticGateway": "192.168.0.2",
      "StaticIPAddress": "192.168.0.3",
      "StaticPreferredDNSServer": "192.168.0.4",
      "StaticSubnetMask": "255.255.254.0",
      "UseDHCPForDNSServerNames": false
    },
    "Ipv6Configuration": {
      "Enable": true,
      "EnableAutoConfiguration": true,
      "StaticAlternateDNSServer": "",
      "StaticGateway": "",
      "StaticIPAddress": "",
      "StaticPreferredDNSServer": "",
      "StaticPrefixLength": 0,
      "UseDHCPForDNSServerNames": true
    },
    "ManagementVLAN": {
      "EnableVLAN": false,
      "Id": 1
    }
  }

```

```

error_info:
  description: Details of the HTTP error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "@Message.ExtendedInfo": [
        {
          "Message": "Unable to update the address configuration because a dependent
field is missing for Use DHCP
          for DNS Domain Name, Enable DHCP for ipv4 or Enable Autoconfig for ipv6
settings for valid configuration .",
          "MessageArgs": [
            "Use DHCP for DNS Domain Name, Enable DHCP for ipv4 or Enable Autoconfig
for ipv6 settings for valid
            configuration"
          ],
          "MessageId": "CAPP1304",
          "RelatedProperties": [],
          "Resolution": "Make sure that all dependent fields contain valid content and
retry the operation.",
          "Severity": "Critical"
        }
      ],
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information."
    }
  }

```

## Examples

```

- name: IPv4 network configuration for primary interface
  dellemc.openmanage.ome_application_network_address:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    enable_nic: true
    ipv4_configuration:
      enable: true
      enable_dhcp: false
      static_ip_address: 192.168.0.2
      static_subnet_mask: 255.255.254.0
      static_gateway: 192.168.0.3
      use_dhcp_for_dns_server_names: false
      static_preferred_dns_server: 192.168.0.4
      static_alterate_dns_server: 192.168.0.5
    reboot_delay: 5

- name: IPv6 network configuration for primary interface
  dellemc.openmanage.ome_application_network_address:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    ipv6_configuration:
      enable: true
      enable_auto_configuration: true
      static_ip_address: 2626:f2f2:f081:9:1c1c:f1f1:4747:10
      static_prefix_length: 10
      static_gateway: 2626:f2f2:f081:9:1c1c:f1f1:4747:1
      use_dhcp_for_dns_server_names: true
      static_preferred_dns_server: 2626:f2f2:f081:9:1c1c:f1f1:4747:2
      static_alterate_dns_server: 2626:f2f2:f081:9:1c1c:f1f1:4747:3
    reboot_delay: 10

- name: Management vLAN configuration for primary interface
  dellemc.openmanage.ome_application_network_address:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    management_vlan:
      enable_vlan: true
      vlan_id: 3344
    dns_configuration:

```

```

    register_with_dns: false
    reboot_delay: 1

- name: DNS settings
  dellemc.openmanage.ome_application_network_address:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    ipv4_configuration:
      enable: true
      use_dhcp_for_dns_server_names: false
      static_preferred_dns_server: 192.168.0.4
      static_alternate_dns_server: 192.168.0.5
    dns_configuration:
      register_with_dns: true
      use_dhcp_for_dns_domain_name: false
      dns_name: "MX-SVCTAG"
      dns_domain_name: "dnslocaldomain"
    reboot_delay: 1

- name: Disable nic interface eth1
  dellemc.openmanage.ome_application_network_address:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    enable_nic: false
    interface_name: eth1

- name: Complete network settings for interface eth1
  dellemc.openmanage.ome_application_network_address:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    enable_nic: true
    interface_name: eth1
    ipv4_configuration:
      enable: true
      enable_dhcp: false
      static_ip_address: 192.168.0.2
      static_subnet_mask: 255.255.254.0
      static_gateway: 192.168.0.3
      use_dhcp_for_dns_server_names: false
      static_preferred_dns_server: 192.168.0.4
      static_alternate_dns_server: 192.168.0.5
    ipv6_configuration:
      enable: true
      enable_auto_configuration: true
      static_ip_address: 2607:f2b1:f081:9:1c8c:f1c7:47e:f120
      static_prefix_length: 10
      static_gateway: ffff::2607:f2b1:f081:9
      use_dhcp_for_dns_server_names: true
      static_preferred_dns_server: 2626:f2f2:f081:9:1c1c:f1f1:4747:1
      static_alternate_dns_server: 2626:f2f2:f081:9:1c1c:f1f1:4747:2
    dns_configuration:
      register_with_dns: false
      use_dhcp_for_dns_domain_name: true
      dns_name: "MX-SVCTAG"
      dns_domain_name: "dnslocaldomain"
    reboot_delay: 1

```

## Manage web server configuration

**Module:** ome\_application\_network\_webserver

### Synopsis

This module allows the configuration of a network web server.

### Options

**Table 46. ome\_application\_network\_webserver**

| Parameter         | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                            |
|-------------------|----------|---------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname          | True     | NA      | NA      | Target IP Address or hostname                                                                                                                                                                                                                                                                       |
| username          | True     | NA      | NA      | Target username                                                                                                                                                                                                                                                                                     |
| password          | True     | NA      | NA      | Target user password                                                                                                                                                                                                                                                                                |
| port              | False    | 443     | NA      | Target HTTPS port                                                                                                                                                                                                                                                                                   |
| webserver_port    | False    | NA      | NA      | Port number used by OpenManage Enterprise to establish a secure server connection.<br><br> <b>WARNING: A change in port number results in a loss of connectivity in the current session for a minute or more.</b> |
| webserver_timeout | False    | NA      | NA      | <ul style="list-style-type: none"> <li>The duration, in minutes, after which a web user interface session is automatically disconnected.</li> <li>If a change is made to the session timeout, it will only take effect after the next login.</li> </ul>                                             |

## Return Values

```

msg:
  type: str
  description: Overall status of the network web server configuration change.
  returned: always
  sample: "Successfully updated network web server configuration."
webserver_configuration:
  type: dict
  description: Updated application network web server configuration.
  returned: success
  sample: {
    "TimeOut": 20,
    "PortNumber": 443,
    "EnableWebServer": true
  }
error_info:
  description: Details of the HTTP error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "@Message.ExtendedInfo": [
        {
          "Message": "Unable to complete the request because the input value
            for PortNumber is missing or an invalid value is entered.",
          "MessageArgs": [
            "PortNumber"
          ],
          "MessageId": "CGEN6002",
          "RelatedProperties": [],
          "Resolution": "Enter a valid value and retry the operation.",
          "Severity": "Critical"
        }
      ],
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information."
    }
  }

```

## Examples

```

- name: Update web server port and session time out configuration
  dellemc.openmanage.ome_application_network_webserver:
    hostname: "192.168.0.1"

```

```
username: "username"
password: "password"
webserver_port: 443
webserver_timeout: 10
```

- name: Update session time out  
dellenc.openmanage.ome\_application\_network\_webserver:  
hostname: "192.168.0.1"  
username: "username"  
password: "password"  
webserver\_timeout: 30
- name: Update web server port  
dellenc.openmanage.ome\_application\_network\_webserver:  
hostname: "192.168.0.1"  
username: "username"  
password: "password"  
webserver\_port: 8443

## Manage time configuration

### Module: ome\_application\_network\_time

#### Synopsis

This module allows the configuration of network time.

#### Options

**Table 47. ome\_application\_network\_time**

| Parameters             | Required | Default | Choices | Comments                                                                                                                                                                                                                              |
|------------------------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname               | True     | NA      | NA      | Target IP Address or hostname                                                                                                                                                                                                         |
| username               | True     | NA      | NA      | Target username                                                                                                                                                                                                                       |
| password               | True     | NA      | NA      | Target user password                                                                                                                                                                                                                  |
| port                   | False    | 443     | NA      | Target HTTPS port                                                                                                                                                                                                                     |
| enable_ntp             | True     | NA      | NA      | <ul style="list-style-type: none"> <li>This option enables or disables Network Time Protocol(NTP).</li> <li>If l(enable_ntp) is false, then the NTP addresses reset to their default values.</li> </ul>                               |
| system_time            | False    | NA      | NA      | <ul style="list-style-type: none"> <li>Time in the current system.</li> <li>This option is only applicable when l(enable_ntp) is false.</li> <li>This option must be provided in following format - 'yyyy-mm-dd hh:mm:ss'.</li> </ul> |
| time_zone              | False    | NA      | NA      | <ul style="list-style-type: none"> <li>The valid time zone ID to be used.</li> <li>This option is applicable for both system time and NTP time synchronization.</li> </ul>                                                            |
| primary_ntp_address    | False    | NA      | NA      | <ul style="list-style-type: none"> <li>The primary NTP address</li> <li>This option is applicable when l(enable_ntp) is true.</li> </ul>                                                                                              |
| secondary_ntp_address1 | False    | NA      | NA      | <ul style="list-style-type: none"> <li>The first secondary NTP address</li> <li>This option is applicable when l(enable_ntp) is true.</li> </ul>                                                                                      |

**Table 47. ome\_application\_network\_time (continued)**

| Parameters             | Required | Default | Choices | Comments                                                                                                                                          |
|------------------------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| secondary_ntp_address2 | False    | NA      | NA      | <ul style="list-style-type: none"> <li>The second secondary NTP address</li> <li>This option is applicable when l(enable_ntp) is true.</li> </ul> |

## Return Values

```

msg:
  type: str
  description: Overall status of the network time configuration change.
  returned: always
  sample: "Successfully configured network time."
proxy_configuration:
  type: dict
  description: Updated application network time configuration.
  returned: success
  sample: {
    "EnableNTP": false,
    "JobId": null,
    "PrimaryNTPAddress": null,
    "SecondaryNTPAddress1": null,
    "SecondaryNTPAddress2": null,
    "SystemTime": null,
    "TimeSource": "Local Clock",
    "TimeZone": "TZ_ID_1",
    "TimeZoneIdLinux": null,
    "TimeZoneIdWindows": null,
    "UtcTime": null
  }
error_info:
  description: Details of the HTTP error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "@Message.ExtendedInfo": [
        {
          "Message": "Unable to complete the request because the input value
            for SystemTime is missing or an invalid value is entered.",
          "MessageArgs": [
            "SystemTime"
          ],
          "MessageId": "CGEN6002",
          "RelatedProperties": [],
          "Resolution": "Enter a valid value and retry the operation.",
          "Severity": "Critical"
        }
      ],
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more
        information."
    }
  }

```

## Examples

```

- name: Configure system time
  dellemc.openmanage.ome_application_network_time:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    enable_ntp: false
    system_time: "2020-03-31 21:35:18"
    time_zone: "TZ_ID_11"

- name: Configure NTP server for time synchronization
  dellemc.openmanage.ome_application_network_time:
    hostname: "192.168.0.1"

```

```

username: "username"
password: "password"
enable_ntp: true
time_zone: "TZ_ID_66"
primary_ntp_address: "10.136.112.220"
secondary_ntp_address1: "10.136.112.221"
secondary_ntp_address2: "10.136.112.222"

```

## Generate and upload a certificate signing request

**Module: ome\_application\_certificate**

### Synopsis

This module allows the generation of a new certificate signing request (CSR) and to upload the certificate on OpenManage Enterprise.

 **NOTE:** If a certificate is uploaded, which is identical to an already existing certificate, it is accepted by the module.

### Options

**Table 48. ome\_application\_certificate**

| Parameters         | Required | Default | Choices | Comments                                                                                                                                            |
|--------------------|----------|---------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname           | True     | NA      | NA      | Target IP address or hostname                                                                                                                       |
| username           | True     | NA      | NA      | Target username                                                                                                                                     |
| password           | True     | NA      | NA      | Target user password                                                                                                                                |
| port               | False    | 443     | NA      | Target HTTPS port                                                                                                                                   |
| command            | False    | NA      | NA      | C(generate_csr) allows the generation of a CSR and C(upload) uploads the certificate.                                                               |
| distinguished_name | False    | NA      | NA      | Name of the certificate issuer. This option is applicable for C(generate_csr).                                                                      |
| department_name    | False    | NA      | NA      | Name of the department that issued the certificate. This option is applicable for C(generate_csr).                                                  |
| business_name      | False    | NA      | NA      | Name of the business that issued the certificate. This option is applicable for C(generate_csr).                                                    |
| locality           | False    | NA      | NA      | Local address of the issuer of the certificate. This option is applicable for C(generate_csr).                                                      |
| country_state      | False    | NA      | NA      | State in which the issuer resides. This option is applicable for C(generate_csr).                                                                   |
| country            | False    | NA      | NA      | Country in which the issuer resides. This option is applicable for C(generate_csr).                                                                 |
| email              | False    | NA      | NA      | Email associated with the issuer. This option is applicable for C(generate_csr).                                                                    |
| upload_file        | False    | NA      | NA      | Local path where the certificate file is uploaded. This option is applicable for C(upload). Once the certificate is uploaded, OpenManage Enterprise |

**Table 48. ome\_application\_certificate (continued)**

| Parameters | Required | Default | Choices | Comments                              |
|------------|----------|---------|---------|---------------------------------------|
|            |          |         |         | cannot be accessed for a few seconds. |

## Return Values

```
msg:
  type: str
  description: Overall status of the certificate signing request.
  returned: always
  sample: "Successfully generated certificate signing request."
csr_status:
  type: dict
  description: details of the generated certificate.
  returned: on success
  sample:
    {"CertificateData": "-----BEGIN CERTIFICATE REQUEST-----MIIFFjCCAv4
    CAQAwGZ8xCzAJBgNVBAYTA1VTMQ4wDAYDVQQIDAVUZXhhczETMBEGA1UEBwwKUm91
    bmQgUm9jazESMBAGA1UECgwJRGVsbCBJbmMuMRwwGgYDVQQQLDBNSZWlvdGUgQWNjZ
    XNzIEdyb3VwMRwwGgYDVQQDDDBNob3N0bmN8Mq6gnvxVmucGbUGmRyrXizGcpTCj5p
    Uv7cALZWqoHblPirAgjmJ8PipTkV93bWr0i34tUJgEb9g/aHOJ6nV4zAyc3zhfqjt
    p4PHAABqIXPe0tbiqj7WZwE6GPPaW5seRGvzAIPuwn4kod4tXB0DQt4kSIh9TyCSG
    mh5mBAMdOD7Wd0ddXxmeoFJPa/sYQJZarJ/TPr2JAJAAKdxz2XLPokLHmjG02Xje3
    RWQDNm+ngR/UTdXs/51kLrSwlU2LXFaqeBdcrwMdiZCOJPsf16kf9fxobvqScdRYl
    gjJO7S5UcjJkBkeNURc080N9DCknV4bO1lo9BOA4aEhjo9gFFIUNk8iscMJJqyvHh
    BhzRSWH6fx7u9NGhnlDEOoyJnjceuI7zDS3CT/7pByuCoDc+dK2DezansSJHV4xYC
    eBmO14MpukxfoMxbSXZUdfkQgZZ1LmJGTyH0omGIm0KC+7g2ITZf1FrR8HcjEbKgV
    ZopugdSPXGp4P7eLRA/xIIP3GbrRXbSAumAO5fNefVsIzxZ34fw50+msj/IH/IAJy
    EP3fq8iflVyV3hQjlUPSq/ZGYy7vPvwZGHgPPDXjvNVggyD7zKSOkKZIyOL2Xvpom
    1cuJlveYniuZkVvENkRNxzTmKlZUlyk4326Xauw=====END CERTIFICATE REQUEST-----"
    }
error_info:
  description: Details of the HTTP error.
  returned: on HTTP error
  type: dict
  sample:
    {
      "error": {
        "code": "Base.1.0.GeneralError",
        "message": "A general error has occurred. See ExtendedInfo for more
information.",
        "@Message.ExtendedInfo": [
          {
            "MessageId": "CSEC9002",
            "RelatedProperties": [],
            "Message": "Unable to upload the certificate because the certificate
file provided is invalid.",
            "MessageArgs": [],
            "Severity": "Critical",
            "Resolution": "Make sure the CA certificate and private key are
correct and retry the operation."
          }
        ]
      }
    }
```

## Examples

```
- name: Generate a certificate signing request
  dellemc.openmanage.ome_application_certificate:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: "generate_csr"
    distinguished_name: "hostname.com"
    department_name: "Remote Access Group"
    business_name: "Dell Inc."
    locality: "Round Rock"
    country_state: "Texas"
```

```

country: "US"
email: "support@dell.com"

- name: Upload the certificate
  dellemc.openmanage.ome_application_certificate:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: "upload"
    upload_file: "/path/certificate.cer"

```

## Manage network configuration

The following tasks allow to manage a network on OpenManage Enterprise:

- [Create a VLAN](#)
- [View information about a VLAN](#)
- [Port partitioning and port break out](#)

## Create, modify, or delete a VLAN

**Module: ome\_network\_vlan**

### Synopsis

This module allows to:

- Create a VLAN on OpenManage Enterprise.
- Modify or delete an existing VLAN on OpenManage Enterprise.

### Options

**Table 49. ome\_network\_vlan**

| Parameters | Required | Default | Choices            | Comments                                                                                                                                                                                                                         |
|------------|----------|---------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname   | True     | NA      | NA                 | Target IP Address or hostname                                                                                                                                                                                                    |
| username   | True     | NA      | NA                 | Target username                                                                                                                                                                                                                  |
| password   | True     | NA      | NA                 | Target user password                                                                                                                                                                                                             |
| port       | False    | 443     | NA                 | Target HTTPS port                                                                                                                                                                                                                |
| state      | True     | present | present and absent | <ul style="list-style-type: none"> <li>• C(present) creates a new VLAN or modifies an existing VLAN.</li> <li>• C(absent) deletes an existing VLAN.</li> <li>• Deleting a VLAN can impact the network infrastructure.</li> </ul> |
| name       | True     | NA      | NA                 | Provide the I(name) of the VLAN to be created, deleted, or modified.                                                                                                                                                             |
| new_name   | False    | NA      | NA                 | Provide the I(name) of the VLAN to be modified.                                                                                                                                                                                  |

**Table 49. ome\_network\_vlan (continued)**

| Parameters   | Required | Default | Choices                                                                                                                                                                                                                                                | Comments                                                                                                                                                                                                                                                                                                |
|--------------|----------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| description  | False    | NA      | NA                                                                                                                                                                                                                                                     | Provide a short description of the VLAN to be created or modified.                                                                                                                                                                                                                                      |
| vlan_minimum | False    | NA      | NA                                                                                                                                                                                                                                                     | The minimum value of the VLAN range.                                                                                                                                                                                                                                                                    |
| vlan_maximum | False    | NA      | NA                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>The maximum value of the VLAN range.</li> <li>A single value VLAN is created if the vlan_maximum and vlan_minimum values are the same.</li> </ul>                                                                                                                |
| type         | False    | NA      | General Purpose (Bronze), General Purpose (Silver), General Purpose (Gold), General Purpose (Platinum), Cluster Interconnect, Hypervisor Management, Storage - iSCSI, Storage - FCoE, Storage - Data Replication, VM Migration, and VMWare FT Logging. | <ul style="list-style-type: none"> <li>Types of the supported VLAN networks.</li> <li>For the description of each network type, use API U(<a href="https://l(hostname)/api/NetworkConfigurationService/NetworkTypes">https://l(hostname)/api/NetworkConfigurationService/NetworkTypes</a> ).</li> </ul> |

## Return Values

```

msg:
  type: str
  description: Overall status of the VLAN operation.
  returned: always
  sample: "Successfully created the VLAN."
vlan_status:
  type: dict
  description: Details of the VLAN that is either created or modified.
  returned: when I(state=present)
  sample: {
    "@odata.context": "/api/$metadata#NetworkConfigurationService.Network",
    "@odata.type": "#NetworkConfigurationService.Network",
    "@odata.id": "/api/NetworkConfigurationService/Networks(1234)",
    "Id": 1234,
    "Name": "vlan1",
    "Description": "VLAN description",
    "VlanMaximum": 130,
    "VlanMinimum": 140,
    "Type": 1,
    "CreatedBy": "admin",
    "CreationTime": "2020-01-01 05:54:36.113",
    "UpdatedBy": null,
    "UpdateTime": "2020-01-01 05:54:36.113",
    "InternalRefNWUId": "6d6effcc-eca4-44bd-be07-1234ab5cd67e"
  }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "code": "Base.1.0.GeneralError",
    "message": "A general error has occurred. See ExtendedInfo for more
information."
  }

```

```

"@Message.ExtendedInfo": [
  {
    "MessageId": "CTEM1043",
    "RelatedProperties": [],
    "Message": "Unable to create or update the network because the entered
VLAN minimum 0 (unsure of what the 0 refers to)
is not within a valid range ( 1 - 4000 or 4021 - 4094 ).",
    "MessageArgs": [
      "0",
      "1",
      "4000",
      "4021",
      "4094"
    ],
    "Severity": "Warning",
    "Resolution": "Enter a valid VLAN minimum as identified in the message
and retry the operation."
"Enter a valid minimum VLAN ID as identified in the message and retry the operation."
  ]
]
}

```

## Examples

```

- name: Create a VLAN range
  dellemc.openmanage.ome_network_vlan:
    hostname: "{{hostname}}"
    username: "{{username}}"
    password: "{{password}}"
    state: present
    name: "vlan1"
    description: "VLAN desc"
    type: "General Purpose (Bronze)"
    vlan_minimum: 35
    vlan_maximum: 40
    tags: create_vlan_range

- name: Create a VLAN with a single value
  dellemc.openmanage.ome_network_vlan:
    hostname: "{{hostname}}"
    username: "{{username}}"
    password: "{{password}}"
    state: present
    name: "vlan2"
    description: "VLAN desc"
    type: "General Purpose (Bronze)"
    vlan_minimum: 127
    vlan_maximum: 127
    tags: create_vlan_single

- name: Modify a VLAN
  dellemc.openmanage.ome_network_vlan:
    hostname: "{{hostname}}"
    username: "{{username}}"
    password: "{{password}}"
    state: present
    name: "vlan1"
    new_name: "vlan_gold1"
    description: "new description"
    type: "General Purpose (Gold)"
    vlan_minimum: 45
    vlan_maximum: 50
    tags: modify_vlan

- name: Delete a VLAN
  dellemc.openmanage.ome_network_vlan:
    hostname: "{{hostname}}"
    username: "{{username}}"
    password: "{{password}}"
    state: "absent"
    name: "vlan1"
    tags: delete_vlan

```

## Retrieve VLAN information

**Module:** ome\_network\_vlan\_info

### Synopsis

This module allows to retrieve the following:

- A list of all the network VLANs with their detailed information.
- Information about a specific network VLAN using VLAN I(id) or VLAN I(name).

### Options

**Table 50. ome\_network\_vlan\_info**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                               |
|-----------|----------|---------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname  | True     | NA      | NA      | Target IP Address or hostname                                                                                                                                          |
| username  | True     | NA      | NA      | Target username                                                                                                                                                        |
| password  | True     | NA      | NA      | Target user password                                                                                                                                                   |
| port      | False    | 443     | NA      | Target HTTPS port                                                                                                                                                      |
| id        | False    | NA      | NA      | <ul style="list-style-type: none"><li>• A unique identifier of the network VLAN available in the device.</li><li>• I(id) and I(name) are mutually exclusive.</li></ul> |
| name      | False    | NA      | NA      | <ul style="list-style-type: none"><li>• A unique name of the network VLAN available in the device.</li><li>• I(name) and I(id) are mutually exclusive.</li></ul>       |

### Return Values

```
msg:
  type: dict
  description: Detailed information of the network VLAN(s).
  returned: success
  sample: {
    "msg": "Successfully retrieved the network VLAN information.",
    "network_vlan_info": [
      {
        "CreatedBy": "admin",
        "CreationTime": "2020-09-02 18:48:42.129",
        "Description": "Description of Logical Network - 1",
        "Id": 20057,
        "InternalRefNWUId": "42b9903d-93f8-4184-adcf-0772e4492f71",
        "Name": "Network VLAN - 1",
        "Type": {
          "Description": "This is the network for general purpose traffic. QOS
Priority : Bronze.",
          "Id": 1,
          "Name": "General Purpose (Bronze)",
          "NetworkTrafficType": "Ethernet",
          "QosType": {
            "Id": 4,
            "Name": "Bronze"
          },
          "VendorCode": "GeneralPurpose"
        },
        "UpdatedBy": null,
```

```

        "UpdateTime": "2020-09-02 18:48:42.129",
        "VlanMaximum": 111,
        "VlanMinimum": 111
    },
    {
        "CreatedBy": "admin",
        "CreationTime": "2020-09-02 18:49:11.507",
        "Description": "Description of Logical Network - 2",
        "Id": 20058,
        "InternalRefNWUUIId": "e46ccb3f-ef57-4617-ac76-46c56594005c",
        "Name": "Network VLAN - 2",
        "Type": {
            "Description": "This is the network for general purpose traffic. QOS
Priority : Silver.",
            "Id": 2,
            "Name": "General Purpose (Silver)",
            "NetworkTrafficType": "Ethernet",
            "QosType": {
                "Id": 3,
                "Name": "Silver"
            },
            "VendorCode": "GeneralPurpose"
        },
        "UpdatedBy": null,
        "UpdateTime": "2020-09-02 18:49:11.507",
        "VlanMaximum": 112,
        "VlanMinimum": 112
    }
]
}
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system
administrator."
        }
      ]
    }
  }
}

```

## Examples

```

- name: Retrieve information about all network VLANs available in the device
  ome_network_vlan_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"

- name: Retrieve information about a network VLAN using the VLAN ID
  ome_network_vlan_info:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    id: 12345

- name: Retrieve information about a network VLAN using the VLAN name
  ome_network_vlan_info:
    hostname: "192.168.0.1"
    username: "username"

```

```
password: "password"
name: "Network VLAN - 1"
```

## Port breakout

### ome\_network\_port\_breakout

#### Synopsis

- This module allows to automate the breaking out of IOMs in fabric mode into logical sub ports.
- The port breakout operation is only supported in OpenManage Enterprise Modular.

#### Options

**Table 51. ome\_network\_port\_breakout**

| Parameter     | Required | Default | Choices | Comments                                                                                                                                                                             |
|---------------|----------|---------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname      | True     | NA      | NA      | Target IP address or hostname                                                                                                                                                        |
| username      | True     | NA      | NA      | Target username                                                                                                                                                                      |
| password      | True     | NA      | NA      | Target user password                                                                                                                                                                 |
| port          | False    | 443     | NA      | Target HTTPS port                                                                                                                                                                    |
| target_port   | True     | NA      | NA      | The ID of the port in the switch to breakout. Enter the port ID in the format: Service tag:port. For example, 2HB7NX2:ethernet1/1/13.                                                |
| breakout_type | True     | NA      | NA      | <ul style="list-style-type: none"><li>• The preferred breakout type. For example, 4X10GE.</li><li>• To revoke the default breakout configuration, enter 'HardwareDefault'.</li></ul> |

#### Return Values

```
msg:
  description: Overall status of the port configuration.
  returned: always
  type: str
  sample: Port breakout configuration job submitted successfully.

breakout_status:
  description: Details of the OpenManage Enterprise jobs.
  returned: success
  type: dict
  sample: {
    "Builtin": false,
    "CreatedBy": "root",
    "Editable": true,
    "EndTime": null,
    "Id": 11111,
    "JobDescription": "",
    "JobName": "Breakout Port",
    "JobStatus": {"Id": 1112, "Name": "New"},
    "JobType": {"Id": 3, "Internal": false, "Name": "DeviceAction_Task"},
    "LastRun": null,
    "LastRunStatus": {"Id": 1113, "Name": "NotRun"},
    "NextRun": null,
    "Params": [
      {"JobId": 11111, "Key": "operationName", "Value": "CONFIGURE_PORT_BREAK_OUT"},
```

```

    {"JobId": 11111, "Key": "interfaceId", "Value": "2HB7NX2:phy-port1/1/11"},
    {"JobId": 11111, "Key": "breakoutType", "Value": "1X40GE"}],

    "Schedule": "startnow",
    "StartTime": null,
    "State": "Enabled",
    "Targets": [
        {"Data": "", "Id": 11112, "JobId": 34206, "TargetType": { "Id": 1000, "Name":
"DEVICE"}}}

    ],

    "UpdatedBy": null,
    "UserGenerated": true,
    "Visible": true
}
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system
administrator."
        }
      ]
    }
  }
}

```

## Examples

```

- name: Port breakout configuration
  dellemc.openmanage.ome_network_port_breakout:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    target_port: "2HB7NX2:phy-port1/1/11"
    breakout_type: "1X40GE"
- name: Revoke the default breakout configuration
  dellemc.openmanage.ome_network_port_breakout:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    target_port: "2HB7NX2:phy-port1/1/11"
    breakout_type: "HardwareDefault"

```

# Manage fabrics

This section describes how to create a fabric on OpenManage Enterprise Modular and to add an uplink for any fabric.

## Create, modify, or delete a fabric on OpenManage Enterprise

### ome\_smart\_fabric

#### Synopsis

This module allows to create a fabric, and modify or delete an existing fabric on OpenManage Enterprise Modular.

## Options

**Table 52. ome\_smart\_fabric**

| Parameter                  | Required | Default | Choices                                                                                                                                                        | Comments                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------|----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname                   | True     | NA      | NA                                                                                                                                                             | Target IP Address or hostname                                                                                                                                                                                                                                                                                                                                              |
| username                   | True     | NA      | NA                                                                                                                                                             | Target username                                                                                                                                                                                                                                                                                                                                                            |
| password                   | True     | NA      | NA                                                                                                                                                             | Target user password                                                                                                                                                                                                                                                                                                                                                       |
| port                       | False    | 443     | NA                                                                                                                                                             | Target HTTPS port                                                                                                                                                                                                                                                                                                                                                          |
| state                      | True     | present | present, or absent                                                                                                                                             | <ul style="list-style-type: none"> <li>• C(present) creates a new fabric or modifies an existing fabric.</li> <li>• C(absent) deletes an existing fabric.</li> </ul> <p><b>NOTE:</b> The create, modify, or delete fabric operation takes around 15-20 minutes to complete. It is recommended not to start another operation until the current operation is completed.</p> |
| name                       | True     | NA      | NA                                                                                                                                                             | Provide the I(name) of the fabric to be created, deleted or modified.                                                                                                                                                                                                                                                                                                      |
| new_name                   | False    | NA      | NA                                                                                                                                                             | Provide the I(name) of the fabric to be modified.                                                                                                                                                                                                                                                                                                                          |
| description                | False    | NA      | NA                                                                                                                                                             | Provide a short description of the fabric to be created or modified.                                                                                                                                                                                                                                                                                                       |
| fabric_design              | False    | NA      | '2xMX5108n_Ethernet_Switches_in_same_chassis', '2xMX9116n_Fabric_Switching_Engines_in_same_chassis', '2xMX9116n_Fabric_Switching_Engines_in_different_chassis' | <ul style="list-style-type: none"> <li>• Specify the fabric topology.</li> <li>• I(fabric_design) is mandatory for fabric creation.</li> </ul>                                                                                                                                                                                                                             |
| primary_switch_service_tag | False    | NA      | NA                                                                                                                                                             | <ul style="list-style-type: none"> <li>• Service tag of the first switch.</li> <li>• I(primary_switch_service_tag) is mandatory for fabric creation.</li> <li>• I(primary_switch_service_tag) must belong to the model selected in I(fabric_design).</li> </ul>                                                                                                            |

**Table 52. ome\_smart\_fabric (continued)**

| Parameter                    | Required | Default | Choices              | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------|----------|---------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| secondary_switch_service_tag | False    | NA      | NA                   | <ul style="list-style-type: none"> <li>Service tag of the second switch.</li> <li>I(secondary_switch_service_tag) is mandatory for fabric creation.</li> <li>I(primary_switch_service_tag) must belong to the model selected in I(fabric_design).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                    |
| override_LLDP_configuration  | False    | NA      | Enabled, or Disabled | <ul style="list-style-type: none"> <li>Enable this configuration to allow Fabric Management Address to be included in LLDP messages.</li> </ul> <p> <b>NOTE:</b> OpenManage Enterprise Modular 1.0 does not support this option.</p> <p> <b>NOTE:</b> Some software networking solutions require a single management address to be transmitted by all Ethernet switches to represent the entire fabric. Enable this feature only when connecting to such a solution.</p> |

## Return Values

```

msg:
  type: str
  description: Overall status of the fabric operation.
  returned: always
  sample: "Successfully created the fabric."
fabric_id:
  type: str
  description: Details of the fabric that is either created or modified.
  returned: when I(state=present)
  sample: "1312cceb-c3dd-4348-95c1-d8541a17d776"
additional_info:
  type: dict
  description: Additional details of the fabric operation.
  returned: when I(state=present) and additional information present in response.
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more
information.",
      "@Message.ExtendedInfo": [
        {
          "RelatedProperties": [],

```

```

        "Message": "ABC.",
        "MessageArgs": [],
        "Severity": "Informational",
        "Resolution": "XYZ"
    }
}
}

```

## Examples

```

- name: Create a fabric
  dellemc.openmanage.ome_smart_fabric:
    hostname: "{{hostname}}"
    username: "{{username}}"
    password: "{{password}}"
    state: present
    name: "fabric1"
    description: "fabric desc"
    fabric_design: "2xMX9116n_Fabric_Switching_Engines_in_different_chassis"
    primary_switch_service_tag: "SVTG123"
    secondary_switch_service_tag: "PXYT456"
    override_LLDP_configuration: "Enabled"

- name: Modify a fabric
  dellemc.openmanage.ome_smart_fabric:
    hostname: "{{hostname}}"
    username: "{{username}}"
    password: "{{password}}"
    state: present
    name: "fabric1"
    new_name: "fabric_gold1"
    description: "new description"

- name: Delete a fabric
  dellemc.openmanage.ome_smart_fabric:
    hostname: "{{hostname}}"
    username: "{{username}}"
    password: "{{password}}"
    state: "absent"
    name: "fabric1"

```

# Create, modify, or delete an uplink for a fabric

## ome\_smart\_fabric\_uplink

### Synopsis

This module allows to create, modify, or delete an uplink for a fabric.

### Options

Table 53. ome\_smart\_fabric\_uplink

| Parameter | Required | Default | Choices            | Comments                                                                                                                                                                       |
|-----------|----------|---------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname  | True     | NA      | NA                 | Target IP Address or hostname                                                                                                                                                  |
| username  | True     | NA      | NA                 | Target username                                                                                                                                                                |
| password  | True     | NA      | NA                 | Target user password                                                                                                                                                           |
| port      | False    | 443     | NA                 | Target HTTPS port                                                                                                                                                              |
| state     | True     | present | present, or absent | <ul style="list-style-type: none"> <li>C(present)-               <ul style="list-style-type: none"> <li>Creates a new uplink with the provided l(name).</li> </ul> </li> </ul> |

**Table 53. ome\_smart\_fabric\_uplink (continued)**

| Parameter   | Required | Default | Choices                                                                     | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|----------|---------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             |          |         |                                                                             | <ul style="list-style-type: none"> <li>○ Modifies an existing uplink with the provided I(name).</li> <li>● C(absent) - Deletes the uplink with the provided I(name).</li> </ul> <p><b>WARNING:</b><br/>Delete operation can impact the network infrastructure.</p>                                                                                                                                                                                          |
| fabric_name | True     | NA      | NA                                                                          | Provide the I(fabric_name) of the fabric for which the uplink is to be configured.                                                                                                                                                                                                                                                                                                                                                                          |
| name        | True     | NA      | NA                                                                          | Provide the I(name) of the uplink to be created, modified, or deleted.                                                                                                                                                                                                                                                                                                                                                                                      |
| new_name    | False    | NA      | NA                                                                          | Provide the new I(new_name) for the uplink.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| description | False    | NA      | NA                                                                          | Provide a short description for the uplink to be created or modified.                                                                                                                                                                                                                                                                                                                                                                                       |
| uplink_type | False    | NA      | Ethernet, FCoE, FC Gateway, FC Direct Attach, or Ethernet-no Spanning Tree. | Specify the uplink type.<br><b>NOTE:</b> The uplink type cannot be changed for an existing uplink.                                                                                                                                                                                                                                                                                                                                                          |
| ufd_enable  | False    | NA      | Enabled, or Disabled                                                        | <p>Add or Remove the uplink to the Uplink Failure Detection (UFD) group. The UFD group identifies the loss of connectivity to the upstream switch and notifies the servers that are connected to the switch. During an uplink failure, the switch disables the corresponding downstream server ports. The downstream servers can then select alternate connectivity routes, if available.</p> <p><b>WARNING:</b> The firmware version of the I/O Module</p> |

**Table 53. ome\_smart\_fabric\_uplink (continued)**

| Parameter                    | Required | Default | Choices | Comments                                                                                                                                                                        |
|------------------------------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              |          |         |         | <b>running the Fabric Manager must support this configuration feature. If not, uplink creation will be successful with an appropriate error message in response.</b>            |
| primary_switch_service_tag   | False    | NA      | NA      | Service tag of the primary switch.                                                                                                                                              |
| primary_switch_ports         | False    | NA      | NA      | <ul style="list-style-type: none"> <li>The IOM slots to be connected to the primary switch.</li> <li>l(primary_switch_service_tag) is mandatory for this option.</li> </ul>     |
| secondary_switch_service_tag | False    | NA      | NA      | Service tag of the secondary switch.                                                                                                                                            |
| secondary_switch_ports       | False    | NA      | NA      | <ul style="list-style-type: none"> <li>The IOM slots to be connected to the secondary switch.</li> <li>l(secondary_switch_service_tag) is mandatory for this option.</li> </ul> |
| tagged_networks:             | False    | NA      | NA      | VLANs to be associated with the uplink l(name).                                                                                                                                 |
| untagged_network             | False    | NA      | NA      | Specify the name of the VLAN to be added as untagged to the uplink.                                                                                                             |

## Return Values

```

msg:
  type: str
  description: Overall status of the uplink operation.
  returned: always
  sample: "Successfully modified the uplink."
uplink_id:
  type: str
  description: Returns the ID when an uplink is created or modified
  returned: when l(state=present)
  sample: "ddc3d260-fd71-46a1-97f9-708e12345678"
additional_info:
  type: dict
  description: Additional details of the fabric operation.
  returned: when l(state=present) and additional information present in response.
  sample: {
    "error": {
      "@Message.ExtendedInfo": [
        {
          "Message": "Unable to configure the Uplink Failure Detection mode on the
uplink because the firmware

```

```

        version of the I/O Module running the Fabric Manager does not support
the configuration feature.",
        "MessageArgs": [],
        "MessageId": "CDEV7151",
        "RelatedProperties": [],
        "Resolution": "Update the firmware version of the I/O Module running the
Fabric Manager and retry
the operation. For information about the recommended I/O Module firmware
versions, see the
OpenManage Enterprise-Modular User's Guide available on the support
site.",
        "Severity": "Informational"
    }
],
"code": "Base.1.0.GeneralError",
"message": "A general error has occurred. See ExtendedInfo for more information."
}
}

```

## Examples

```

- name: Create an Uplink
  dellemc.openmanage.ome_smart_fabric_uplink:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    state: "present"
    fabric_name: "fabric1"
    name: "uplink1"
    description: "CREATED from OMAM"
    uplink_type: "Ethernet"
    ufd_enable: "Enabled"
    primary_switch_service_tag: "ABC1234"
    primary_switch_ports:
      - ethernet1/1/13
      - ethernet1/1/14
    secondary_switch_service_tag: "XYZ1234"
    secondary_switch_ports:
      - ethernet1/1/13
      - ethernet1/1/14
    tagged_networks:
      - vlan1
      - vlan3
    untagged_network: vlan2
    tags: create_uplink

- name: Modify an existing uplink
  dellemc.openmanage.ome_smart_fabric_uplink:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    state: "present"
    fabric_name: "fabric1"
    name: "uplink1"
    new_name: "uplink2"
    description: "Modified from OMAM"
    uplink_type: "Ethernet"
    ufd_enable: "Disabled"
    primary_switch_service_tag: "DEF1234"
    primary_switch_ports:
      - ethernet1/2/13
      - ethernet1/2/14
    secondary_switch_service_tag: "TUV1234"
    secondary_switch_ports:
      - ethernet1/2/13
      - ethernet1/2/14
    tagged_networks:
      - vlan11
      - vlan33
    untagged_network: vlan22
    tags: modify_uplink

- name: Delete an Uplink

```

```

dellemc.openmanage.ome_smart_fabric_uplink:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  state: "absent"
  fabric_name: "fabric1"
  name: "uplink1"
  tags: delete_uplink

- name: Modify an Uplink name
  dellemc.openmanage.ome_smart_fabric_uplink:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    state: "present"
    fabric_name: "fabric1"
    name: "uplink1"
    new_name: "uplink2"
    tags: modify_uplink_name

- name: Modify Uplink ports
  dellemc.openmanage.ome_smart_fabric_uplink:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    state: "present"
    fabric_name: "fabric1"
    name: "uplink1"
    description: "uplink ports modified"
    primary_switch_service_tag: "ABC1234"
    primary_switch_ports:
      - ethernet1/1/6
      - ethernet1/1/7
    secondary_switch_service_tag: "XYZ1234"
    secondary_switch_ports:
      - ethernet1/1/9
      - ethernet1/1/10
    tags: modify_ports

- name: Modify Uplink networks
  dellemc.openmanage.ome_smart_fabric_uplink:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    state: "present"
    fabric_name: "fabric1"
    name: "create1"
    description: "uplink networks modified"
    tagged_networks:
      - vlan4
    tags: modify_networks

```

## Manage Profiles

### Create and manage profiles

#### Module: ome\_profile

#### Synopsis

This module allows to create, modify, delete, assign, unassign, and migrate a profile on OpenManage Enterprise.

#### Options

**Table 54. ome\_profile**

| Parameter   | Required | Default | Choices                                               | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------|----------|---------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname    | True     | NA      | NA                                                    | Target IP Address or hostname                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| username    | True     | NA      | NA                                                    | Target username                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| password    | True     | NA      | NA                                                    | Target user password                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| port        | False    | 443     | NA                                                    | Target HTTPS port                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| command     | NA       | create  | create, modify, delete, assign, unassign, and migrate | <ul style="list-style-type: none"> <li>• C(create) creates new profiles.</li> <li>• C(modify) modifies an existing profile. Only l(name), l(description), l(boot_to_network_iso), and l(attributes) can be modified.</li> <li>• C(delete) deletes an existing profile.</li> <li>• C(assign) Deploys an existing profile on a target device and returns a task ID.</li> <li>• C(unassign) unassigns a profile from a specified target and returns a task ID.</li> <li>• C(migrate) migrates an existing profile and returns a task ID.</li> </ul> |
| name_prefix | NA       | Profile | NA                                                    | <ul style="list-style-type: none"> <li>• The name provided when creating a profile is used a prefix followed by the number assigned to it by OpenManage Enterprise.</li> <li>• This is applicable only for a create operation.</li> <li>• This option is mutually exclusive with l(name).</li> </ul>                                                                                                                                                                                                                                             |
| name        | NA       | NA      | NA                                                    | <ul style="list-style-type: none"> <li>• Name of the profile.</li> <li>• This is applicable for modify, delete, assign, unassign, and migrate operations.</li> <li>• This option is mutually exclusive with l(name_prefix) and</li> </ul>                                                                                                                                                                                                                                                                                                        |

**Table 54. ome\_profile (continued)**

| Parameter          | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                      |
|--------------------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    |          |         |         | l(number_of_profiles).                                                                                                                                                                                                                                                                                        |
| new_name           | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>• New name of the profile.</li> <li>• Applicable when l(command) is C(modify).</li> </ul>                                                                                                                                                                              |
| number_of_profiles | NA       | 1       | NA      | <ul style="list-style-type: none"> <li>• Provide the number of profiles to be created.</li> <li>• This is applicable when l(name_prefix) is used with C(create).</li> <li>• This option is mutually exclusive with l(name).</li> <li>• Openmanage Enterprise can create a maximum of 100 profiles.</li> </ul> |
| template_name      | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>• Name of the template for creating the profile(s).</li> <li>• This is applicable when l(command) is C(create).</li> <li>• This option is mutually exclusive with l(template_id).</li> </ul>                                                                           |
| template_id        | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>• ID of the template.</li> <li>• This is applicable when l(command) is C(create).</li> <li>• This option is mutually exclusive with l(template_name).</li> </ul>                                                                                                       |
| device_id          | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>• ID of the target device.</li> <li>• This is applicable when l(command) is C(assign) and C(migrate).</li> <li>• This option is mutually exclusive with l(device_service_tag).</li> </ul>                                                                              |
| device_service_tag | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>• Identifier of the target device.</li> </ul>                                                                                                                                                                                                                          |

**Table 54. ome\_profile (continued)**

| Parameter           | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------|----------|---------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     |          |         |         | <ul style="list-style-type: none"> <li>• This is typically 7 to 8 characters in length.</li> <li>• This is applicable when I(command) is C(assign), and C(migrate).</li> <li>• This option is mutually exclusive with I(device_id).</li> <li>• If the device does not exist when I(command) is C(assign) then the profile is auto-deployed.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                |
| description         | NA       | NA      | NA      | Description of the profile.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| boot_to_network_iso | NA       | NA      | NA      | <p>Details of the Share ISO. This is applicable when I(command) is C(create), C(assign), and C(modify).</p> <p>Sub-options</p> <ul style="list-style-type: none"> <li>• boot_to_network: Enable or disable a network share.</li> <li>• share_type: Type of network share.</li> <li>• share_ip: IP address of the network share.</li> <li>• share_user: User name when I(share_type) is C(CIFS).</li> <li>• share_password: User password when I(share_type) is C(CIFS).</li> <li>• workgroup: User workgroup when I(share_type) is C(CIFS).</li> <li>• iso_path: Specify the full ISO path including the share name.</li> <li>• iso_timeout: Set the number of hours that the network ISO file will remain mapped to the target device(s).</li> </ul> |

**Table 54. ome\_profile (continued)**

| Parameter  | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------|----------|---------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| filters    | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>Filters the profiles based on selected criteria.</li> <li>This is applicable when I(command) is C(delete) or C(unassign).</li> <li>This supports suboption I(ProfileIds) which takes a list of profile IDs.</li> <li>This also supports OData filter expressions with the suboption I(Filters).</li> <li>See OpenManage Enterprise REST API guide for the filtering options available.</li> <li>I(WARNING) When this option is used in case of C(unassign), task ID is not returned for any of the profiles affected.</li> </ul> |
| force      | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>Provides the option to force the migration of a profile even if the source device cannot be contacted.</li> <li>This option is applicable when I(command) is C(migrate).</li> </ul>                                                                                                                                                                                                                                                                                                                                              |
| attributes | NA       | NA      | NA      | <p>Attributes for C(modify) and C(assign).</p> <p>Sub-options</p> <ul style="list-style-type: none"> <li>Attributes: <ul style="list-style-type: none"> <li>List of attributes to be modified, when I(command) is C(modify).</li> <li>List of attributes to be overridden when I(command) is C(assign).</li> </ul> </li> <li>Options:</li> </ul>                                                                                                                                                                                                                        |

**Table 54. ome\_profile (continued)**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                         |
|-----------|----------|---------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |         |         | <ul style="list-style-type: none"> <li>○ Provides the different shut down options.</li> <li>○ This is applicable when I(command) is C(assign).</li> <li>● Schedule: <ul style="list-style-type: none"> <li>○ Schedule for profile deployment.</li> <li>○ This is applicable when I(command) is C(assign).</li> </ul> </li> </ul> |

## Return Values

```

msg:
  description: Overall status of the profile operation.
  returned: always
  type: str
  sample: "Successfully created 2 profile(s)."
profile_ids:
  description: IDs of the profiles created.
  returned: when I(command) is C(create)
  type: list
  sample: [1234, 5678]
job_id:
  description:
    - Task ID created when I(command) is C(assign), C(migrate) or C(unassign).
    - C(assign) and C(unassign) operations do not trigger a task if a profile is auto-
      deployed.
  returned: when I(command) is C(assign), C(migrate) or C(unassign)
  type: int
  sample: 14123
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system
administrator."
        }
      ]
    }
  }

```

## Examples

```

- name: Create two profiles from a template
  dellemc.openmanage.ome_profile:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    template_name: "template 1"

```

```

    name_prefix: "omam_profile"
    number_of_profiles: 2

- name: Create profile with NFS share
  dellemc.openmanage.ome_profile:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: create
    template_name: "template 1"
    name_prefix: "omam_profile"
    number_of_profiles: 1
    boot_to_network_iso:
      boot_to_network: True
      share_type: NFS
      share_ip: "192.168.0.1"
      iso_path: "path/to/my_iso.iso"
      iso_timeout: 8

- name: Create profile with CIFS share
  dellemc.openmanage.ome_profile:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: create
    template_name: "template 1"
    name_prefix: "omam_profile"
    number_of_profiles: 1
    boot_to_network_iso:
      boot_to_network: True
      share_type: CIFS
      share_ip: "192.168.0.2"
      share_user: "username"
      share_password: "password"
      workgroup: "workgroup"
      iso_path: "\\path\\to\\my_iso.iso"
      iso_timeout: 8

- name: Modify profile name with NFS share and attributes
  dellemc.openmanage.ome_profile:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: modify
    name: "Profile 00001"
    new_name: "modified profile"
    description: "new description"
    boot_to_network_iso:
      boot_to_network: True
      share_type: NFS
      share_ip: "192.168.0.3"
      iso_path: "path/to/my_iso.iso"
      iso_timeout: 8
    attributes:
      Attributes:
        - Id: 4506
          Value: "server attr 1"
          IsIgnored: true
        - Id: 4507
          Value: "server attr 2"
          IsIgnored: true

- name: Delete a profile using profile name
  dellemc.openmanage.ome_profile:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: "delete"
    name: "Profile 00001"

- name: Delete profiles using filters
  dellemc.openmanage.ome_profile:
    hostname: "192.168.0.1"

```

```

username: "username"
password: "password"
command: "delete"
filters:
  SelectAll: True
  Filters: =contains(ProfileName,'Profile 00002')

- name: Delete profiles using profile list filter
dellemc.openmanage.ome_profile:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  command: "delete"
  filters:
    ProfileIds:
      - 17123
      - 16124

- name: Assign a profile to target along with network share
dellemc.openmanage.ome_profile:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  command: assign
  name: "Profile 00001"
  device_id: 12456
  boot_to_network_iso:
    boot_to_network: True
    share_type: NFS
    share_ip: "192.168.0.1"
    iso_path: "path/to/my_iso.iso"
    iso_timeout: 8
  attributes:
    Attributes:
      - Id: 4506
        Value: "server attr 1"
        IsIgnored: true
    Options:
      ShutdownType: 0
      TimeToWaitBeforeShutdown: 300
      EndHostPowerState: 1
      StrictCheckingVlan: True
    Schedule:
      RunNow: True
      RunLater: False

- name: Unassign a profile using profile name
dellemc.openmanage.ome_profile:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  command: "unassign"
  name: "Profile 00003"

- name: Unassign profiles using filters
dellemc.openmanage.ome_profile:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  command: "unassign"
  filters:
    SelectAll: True
    Filters: =contains(ProfileName,'Profile 00003')

- name: Unassign profiles using profile list filter
dellemc.openmanage.ome_profile:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  command: "unassign"
  filters:
    ProfileIds:
      - 17123

```

```
- 16123
```

```
- name: Migrate a profile
  dellemc.openmanage.ome_profile:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    command: "migrate"
    name: "Profile 00001"
    device_id: 12456
```

## Device discovery

### Manage discovery jobs

**Module:** ome\_discovery

#### Synopsis

This module allows to create, modify, or delete a discovery job.

#### Options

**Table 55. ome\_discovery**

| Parameter          | Required | Default | Choices             | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------|----------|---------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname           | True     | NA      | NA                  | Target IP Address or hostname                                                                                                                                                                                                                                                                                                                                                                                                                         |
| username           | True     | NA      | NA                  | Target username                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| password           | True     | NA      | NA                  | Target user password                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| port               | False    | 443     | NA                  | Target HTTPS port                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| state              | NA       | present | present, and absent | <ul style="list-style-type: none"><li>• C(present) creates a discovery job or modifies an existing discovery job.</li><li>• I(discovery_job_name) is mandatory for the creation of a new discovery job.</li><li>• If multiple discoveries of the same I(discovery_job_name) exist, then the new discovery job will not be created.</li><li>• C(absent) deletes an existing discovery job(s) with the specified given I(discovery_job_name).</li></ul> |
| discovery_job_name | NA       | NA      | NA                  | <ul style="list-style-type: none"><li>• Name of the discovery configuration job.</li><li>• This option is mutually</li></ul>                                                                                                                                                                                                                                                                                                                          |

**Table 55. ome\_discovery (continued)**

| Parameter        | Required | Default | Choices              | Comments                                                                                                                                                                                               |
|------------------|----------|---------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  |          |         |                      | exclusive with l(discovery_id).                                                                                                                                                                        |
| discovery_id     | NA       | NA      | NA                   | <ul style="list-style-type: none"> <li>ID of the discovery configuration group.</li> <li>This option is mutually exclusive with l(discovery_job_name).</li> </ul>                                      |
| new_name         | NA       | NA      | NA                   | New name of the discovery configuration job.                                                                                                                                                           |
| schedule         | NA       | RunNow  | RunNow, and RunLater | <ul style="list-style-type: none"> <li>Provides the option to schedule the discovery job.</li> <li>If C(RunLater) is selected, then l(cron) must be specified.</li> </ul>                              |
| cron             | NA       | NA      | NA                   | Provide a cron expression based on Quartz cron format.                                                                                                                                                 |
| trap_destination | NA       | False   | NA                   | Enable OpenManage Enterprise to receive the incoming SNMP traps from the discovered                                                                                                                    |
| community_string | NA       | False   | NA                   | Enable the use of SNMP community strings to receive SNMP traps using Application Settings in OpenManage Enterprise. This option is available only for the discovered iDRAC servers and MX7000 chassis. |
| email_recipient  | NA       | NA      | NA                   | Enter the email address to which notifications are to be sent about the discovery job status. Configure the SMTP settings to allow sending notifications to an email address.                          |
| job_wait         | NA       | True    | NA                   | <ul style="list-style-type: none"> <li>Provides the option to wait for job completion.</li> <li>This option is applicable when l(state) is C(present).</li> </ul>                                      |

**Table 55. ome\_discovery (continued)**

| Parameter                | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------|----------|---------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| job_wait_timeout         | NA       | 10800   | NA      | <ul style="list-style-type: none"> <li>• The maximum wait time of I(job_wait) in seconds. The job is tracked only for this duration.</li> <li>• This option is applicable when I(job_wait) is C(True).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ignore_partial_failure   | NA       | False   | NA      | <ul style="list-style-type: none"> <li>• Provides the option to ignore partial failures. Partial failures occur when there is a combination of both discovered and undiscovered IPs.</li> <li>• If C(False), then the partial failure is not ignored, and the module will error out.</li> <li>• If C(True), then the partial failure is ignored.</li> <li>• This option is only applicable if I(job_wait) is C(True).</li> </ul>                                                                                                                                                                                                                                                                                                           |
| discovery_config_targets | False    |         | NA      | <ul style="list-style-type: none"> <li>• Provide the list of discovery targets.</li> <li>• Each discovery target is a set of I(network_address_detail), I(device_types), and one or more protocol credentials.</li> <li>• This is mandatory when I(state) is C(present).</li> </ul> <p> <b>WARNING:</b> Modification of this field is not supported, this field is overwritten every time. Ensure to provide all the required details for this field.</p> <p><b>Suboptions</b></p> <ul style="list-style-type: none"> <li>• network_address_detail: <ul style="list-style-type: none"> <li>◦ Provide the list of IP addresses,</li> </ul> </li> </ul> |

**Table 55. ome\_discovery (continued)**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------|----------|---------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |         |         | <p>host names, or the range of IP addresses of the devices to be discovered or included.</p> <ul style="list-style-type: none"> <li>○ Sample Valid IP Range Formats: <ul style="list-style-type: none"> <li>■ 192.35.0.0</li> <li>■ 192.36.0.0-10.36.0.255</li> <li>■ 192.37.0.0/24</li> <li>■ 2345:f2b1:f083:135::5500/118</li> <li>■ 2345:f2b1:f083:135::a500-2607:f2b1:f083:135::a600</li> <li>■ hostname.domain.tld</li> <li>■ hostname</li> <li>■ 2345:f2b1:f083:139::22a</li> </ul> </li> <li>○ Sample Invalid IP Range Formats: <ul style="list-style-type: none"> <li>■ 192.35.0.*</li> <li>■ 192.36.0.0-255</li> <li>■ 192.35.0.0/255.255.255.0</li> </ul> </li> <li>○ <b>NOTE:</b> The range size for the number of IP addresses is limited to 16,385 (0x4001).</li> <li>○ <b>NOTE:</b> Both IPv6 and IPv6 CIDR formats are supported.</li> <li>● device_types: <ul style="list-style-type: none"> <li>○ Provide the types of devices to be discovered.</li> <li>○ The accepted types are SERVER, CHASSIS, NETWORK and STORAGE. A</li> </ul> </li> </ul> |

**Table 55. ome\_discovery (continued)**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |         |         | <p>combination or all of the types can be provided</p> <ul style="list-style-type: none"> <li>○ Supported protocols for each device type are: <ul style="list-style-type: none"> <li>▪ SERVER - l(wsman), l(redfish), l(snmpp), l(ipmi), l(ssh) and l(vmware).</li> <li>▪ CHASSIS - l(wsman) and l(redfish).</li> <li>▪ NETWORK SWITCH - l(snmpp).</li> <li>▪ STORAGE - l(storage) and l(snmpp).</li> </ul> </li> <li>● wsman: Web Services-Management (WS-Man).</li> </ul> <p><b>Suboptions:</b></p> <ul style="list-style-type: none"> <li>○ username: Provide a username for the protocol.</li> <li>○ password: Provide a password for the protocol.</li> <li>○ domain: Provide a domain for the protocol.</li> <li>○ port: Enter the port number that the job must use to discover the devices.</li> <li>○ retries: Enter the number of repeated attempts required to discover a device.</li> <li>○ timeout: Enter the time after which a job must stop running.</li> </ul> |

**Table 55. ome\_discovery (continued)**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------|----------|---------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |         |         | <ul style="list-style-type: none"> <li>○ cn_check: Enable the Common Name (CN) check.</li> <li>○ ca_check: Enable the Certificate Authority (CA) check.</li> <li>○ certificate_data: Provide certificate details for the CA check.</li> <li>● redfish: Redfish protocol.</li> </ul> <p><b>Suboptions:</b></p> <ul style="list-style-type: none"> <li>○ username: Provide a username for the protocol.</li> <li>○ password: Provide a password for the protocol.</li> <li>○ domain: Provide a domain for the protocol.</li> <li>○ port: Enter the port number that the job must use to discover the devices.</li> <li>○ retries: Enter the number of repeated attempts required to discover a device.</li> <li>○ timeout: Enter the time after which a job must stop running.</li> <li>○ cn_check: Enable the Common Name (CN) check.</li> <li>○ ca_check: Enable the Certificate Authority (CA) check.</li> <li>○ certificate_data: Provide certificate</li> </ul> |

**Table 55. ome\_discovery (continued)**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |         |         | <p>details for the CA check.</p> <ul style="list-style-type: none"> <li>• snmp: Simple Network Management Protocol (SNMP).</li> </ul> <p><b>Suboptions:</b></p> <ul style="list-style-type: none"> <li>○ community: Community string for the SNMP protocol.</li> <li>○ port: Enter the port number that the job must use to discover the devices.</li> <li>○ retries: Enter the number of repeated attempts required to discover a device.</li> <li>○ timeout: Enter the time after which a job must stop running.</li> <li>○ cn_check: Enable the Common Name (CN) check.</li> <li>○ ca_check: Enable the Certificate Authority (CA) check.</li> <li>○ certificate_data: Provide certificate details for the CA check.</li> <li>• vmware: VMWARE protocol.</li> </ul> <p><b>Suboptions:</b></p> <ul style="list-style-type: none"> <li>○ username: Provide a username for the protocol.</li> <li>○ password: Provide a password for the protocol.</li> <li>○ domain: Provide a domain for the protocol.</li> </ul> |

**Table 55. ome\_discovery (continued)**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|----------|---------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |         |         | <ul style="list-style-type: none"> <li>○ port: Enter the port number that the job must use to discover the devices.</li> <li>○ retries: Enter the number of repeated attempts required to discover a device.</li> <li>○ timeout: Enter the time after which a job must stop running.</li> <li>○ cn_check: Enable the Common Name (CN) check.</li> <li>○ ca_check: Enable the Certificate Authority (CA) check.</li> <li>○ certificate_data: Provide certificate details for the CA check.</li> <li>● ssh: Secure Shell (SSH). <ul style="list-style-type: none"> <li><b>Suboptions:</b> <ul style="list-style-type: none"> <li>○ username: Provide a username for the protocol.</li> <li>○ password: Provide a password for the protocol.</li> <li>○ domain: Provide a domain for the protocol.</li> <li>○ port: Enter the port number that the job must use to discover the devices.</li> <li>○ retries: Enter the number of repeated attempts required to discover a device.</li> </ul> </li> </ul> </li> </ul> |

**Table 55. ome\_discovery (continued)**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------|----------|---------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |         |         | <ul style="list-style-type: none"> <li>○ timeout: Enter the time after which a job must stop running.</li> <li>○ check_known_hosts: Verify the known host key.</li> <li>○ is_sudo_user: Use the SUDO option.</li> <li>● ipmi: Intelligent Platform Management Interface (IPMI). <ul style="list-style-type: none"> <li><b>Suboptions:</b> <ul style="list-style-type: none"> <li>○ username: Provide a username for the protocol.</li> <li>○ password: Provide a password for the protocol.</li> <li>○ domain: Provide a domain for the protocol.</li> <li>○ port: Enter the port number that the job must use to discover the devices.</li> <li>○ retries: Enter the number of repeated attempts required to discover a device.</li> <li>○ timeout: Enter the time after which a job must stop running.</li> <li>○ kgkey: KgKey for the IPMI protocol.</li> </ul> </li> </ul> </li> </ul> |

#### Return Values

```

msg:
  description: Overall status of the discovery operation.
  returned: always
  type: str
  sample: "Successfully deleted 1 discovery job(s)."
```

discovery\_status:

```

  description:
    - Details of the discovery job created or modified.
    - If I(job_wait) is true, Completed and Failed IPs are also listed.
  returned: when I(state) is C(present)
  type: dict
```

```

sample: {
  "DiscoveredDevicesByType": [
    {
      "Count": 3,
      "DeviceType": "SERVER"
    }
  ],
  "Completed": [
    "192.168.24.17",
    "192.168.24.20",
    "192.168.24.22"
  ],
  "Failed": [
    "192.168.24.15",
    "192.168.24.16",
    "192.168.24.18",
    "192.168.24.19",
    "192.168.24.21",
    "host123"
  ],
  "DiscoveryConfigDiscoveredDeviceCount": 3,
  "DiscoveryConfigEmailRecipient": "myemail@dell.com",
  "DiscoveryConfigExpectedDeviceCount": 9,
  "DiscoveryConfigGroupId": 125,
  "JobDescription": "D1",
  "JobEnabled": true,
  "JobEndTime": "2021-01-01 06:27:29.99",
  "JobId": 12666,
  "JobName": "D1",
  "JobNextRun": null,
  "JobProgress": "100",
  "JobSchedule": "startnow",
  "JobStartTime": "2021-01-01 06:24:10.071",
  "JobStatusId": 2090,
  "LastUpdateTime": "2021-01-01 06:27:30.001",
  "UpdatedBy": "admin"
}
discovery_ids:
  description: IDs of the discoveries with duplicate names.
  returned: when discoveries with duplicate name exist for I(state) is C(present)
  type: list
  sample: [1234, 5678]
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
        }
      ]
    }
  }
}

```

## Examples

```

- name: Discover servers in a range
  dellemc.openmanage.ome_discovery:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    discovery_job_name: "Discovery_server_1"

```

```

discovery_config_targets:
- network_address_detail:
  - 192.96.24.1-192.96.24.255
device_types:
- SERVER
wsman:
  username: user
  password: password

- name: Discover chassis in a range
dellenc.openmanage.ome_discovery:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  discovery_job_name: "Discovery_chassis_1"
  discovery_config_targets:
    - network_address_detail:
      - 192.96.24.1-192.96.24.255
    device_types:
      - CHASSIS
  wsman:
    username: user
    password: password

- name: Discover switches in a range
dellenc.openmanage.ome_discovery:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  discovery_job_name: "Discover_switch_1"
  discovery_config_targets:
    - network_address_detail:
      - 192.96.24.1-192.96.24.255
    device_types:
      - NETWORK SWITCH
  snmp:
    community: snmp_creds

- name: Discover storage in a range
dellenc.openmanage.ome_discovery:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  discovery_job_name: "Discover_storage_1"
  discovery_config_targets:
    - network_address_detail:
      - 192.96.24.1-192.96.24.255
    device_types:
      - STORAGE
  storage:
    username: user
    password: password

- name: Delete a discovery job
dellenc.openmanage.ome_discovery:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  state: "absent"
  discovery_job_name: "Discovery-123"

- name: Schedule the discovery of multiple devices and enable trap to receive alerts
receiving
dellenc.openmanage.ome_discovery:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  state: "absent"
  discovery_job_name: "Discovery-123"
  discovery_config_targets:
    - network_address_detail:
      - 192.96.24.1-192.96.24.255
      - 192.96.0.0/24

```

```

- 192.96.26.108
device_types:
- SERVER
- CHASSIS
- STORAGE
- NETWORK SWITCH
wsman:
  username: wsman_user
  password: wsman_pwd
redfish:
  username: redfish_user
  password: redfish_pwd
storage:
  username: root
  password: https_pwd
snmp:
  community: snmp_community
- network_address_detail:
  - 192.96.25.1-192.96.25.255
  - ipmihost
  - esxiserver
  - sshserver
device_types:
- SERVER
ssh:
  username: ssh_user
  password: ssh_pwd
vmware:
  username: vm_user
  password: vmware_pwd
ipmi:
  username: ipmi_user
  password: ipmi_pwd
schedule: RunLater
cron: "0 0 9 ? * MON,WED,FRI *"
trap_destination: True
community_string: True
email_recipient: OpenManageAnsible@dell.com

```

## Manage Chassis

### Rename chassis slots

**Module:** ome\_chassis\_slots

#### Synopsis

This module allows to rename sled slots on OpenManage Enterprise Modular either using device id or device service tag or using chassis service tag and slot number.

#### Options

**Table 56. ome\_diagnostics**

| Parameter      | Required | Default | Choices | Comments                                                                                                |
|----------------|----------|---------|---------|---------------------------------------------------------------------------------------------------------|
| hostname       | True     | NA      | NA      | Target IP Address or hostname                                                                           |
| username       | True     | NA      | NA      | Target username                                                                                         |
| password       | True     | NA      | NA      | Target user password                                                                                    |
| port           | False    | 443     | NA      | Target HTTPS port                                                                                       |
| device_options | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>The ID or service tag of the sled in the slot and the</li> </ul> |

**Table 56. ome\_diagnostics (continued)**

| Parameter    | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |          |         |         | <p>new name for the slot.</p> <ul style="list-style-type: none"> <li>• I(device_options) is mutually exclusive with I(slot_options).</li> </ul> <p>Suboptions:</p> <ul style="list-style-type: none"> <li>• device_id: <ul style="list-style-type: none"> <li>◦ Device ID of the sled in the slot.</li> <li>◦ This is mutually exclusive with I(device_service_tag).</li> </ul> </li> <li>• device_service_tag: <ul style="list-style-type: none"> <li>◦ Service tag of the sled in the slot.</li> <li>◦ This is mutually exclusive with I(device_id).</li> </ul> </li> <li>• slot_name: <ul style="list-style-type: none"> <li>◦ Provide name for the slot.</li> <li>◦ Required: True</li> </ul> </li> </ul>                                                                                                             |
| slot_options | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>• The service tag of the chassis, slot number of the slot to be renamed, and the new name for the slot.</li> <li>• I(slot_options) is mutually exclusive with I(device_options).</li> </ul> <p>Suboptions:</p> <ul style="list-style-type: none"> <li>• chassis_service_tag <ul style="list-style-type: none"> <li>◦ Service tag of the chassis.</li> <li>◦ Required: True</li> </ul> </li> <li>• slots <ul style="list-style-type: none"> <li>◦ The slot number and the new name for the slot.</li> <li>◦ Required: True</li> </ul> <p>Suboptions:</p> <ul style="list-style-type: none"> <li>◦ slot_number <ul style="list-style-type: none"> <li>▪ The slot number of the slot to be renamed.</li> <li>▪ Required: True</li> </ul> </li> <li>◦ slot_name</li> </ul> </li> </ul> |

**Table 56. ome\_diagnostics (continued)**

| Parameter | Required | Default | Choices | Comments                                                                                             |
|-----------|----------|---------|---------|------------------------------------------------------------------------------------------------------|
|           |          |         |         | <ul style="list-style-type: none"> <li>Provide name for the slot.</li> <li>Required: True</li> </ul> |

## Return Values

```

msg:
  type: str
  description: Overall status of the slot rename operation.
  returned: always
  sample: "Successfully renamed the slot(s)."
```

slot\_info:

```

  description:
    - Information of the slots that are renamed successfully.
    - C(NOTE) Only slots which were renamed will be populated.
  type: list
  elements: dict
  returned: if at least one slot renamed
  sample: [
    {
      "ChassisId": 10053,
      "ChassisServiceTag": "ABCD123",
      "DeviceName": "",
      "DeviceType": 1000,
      "JobId": 15746,
      "SlotId": "10072",
      "SlotName": "slot_op2",
      "SlotNumber": "6",
      "SlotType": 2000
    },
    {
      "ChassisId": 10053,
      "ChassisName": "MX-ABCD123",
      "ChassisServiceTag": "ABCD123",
      "DeviceType": "3000",
      "JobId": 15747,
      "SlotId": "10070",
      "SlotName": "slot_op2",
      "SlotNumber": "4",
      "SlotType": "2000"
    },
    {
      "ChassisId": "10053",
      "ChassisName": "MX-PQRS123",
      "ChassisServiceTag": "PQRS123",
      "DeviceId": "10054",
      "DeviceServiceTag": "XYZ5678",
      "DeviceType": "1000",
      "JobId": 15761,
      "SlotId": "10067",
      "SlotName": "a1",
      "SlotNumber": "1",
      "SlotType": "2000"
    }
  ]
```

rename\_failed\_slots:

```

  description:
    - Information of the valid slots that are not renamed.
    - C(NOTE) Only slots which failed to rename will be populated.
  type: list
  elements: dict
  returned: if at least one slot renaming fails
  sample: [
    {
      "ChassisId": "12345",
```

```

        "ChassisName": "MX-ABCD123",
        "ChassisServiceTag": "ABCD123",
        "DeviceType": "4000",
        "JobId": 1234,
        "JobStatus": "Aborted",
        "SlotId": "10061",
        "SlotName": "c2",
        "SlotNumber": "1",
        "SlotType": "4000"
    },
    {
        "ChassisId": "10053",
        "ChassisName": "MX-PQRS123",
        "ChassisServiceTag": "PQRS123",
        "DeviceType": "1000",
        "JobId": 0,
        "JobStatus": "HTTP Error 400: Bad Request",
        "SlotId": "10069",
        "SlotName": "b2",
        "SlotNumber": "3",
        "SlotType": "2000"
    }
]
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more
information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "CGEN1014",
          "RelatedProperties": [],
          "Message": "Unable to complete the operation because an invalid value is
entered for the property
Invalid json type: STRING for Edm.Int64 property: Id .",
          "MessageArgs": [
            "Invalid json type: STRING for Edm.Int64 property: Id"
          ],
          "Severity": "Critical",
          "Resolution": "Enter a valid value for the property and retry the
operation. For more information about
valid values, see the OpenManage Enterprise-Modular User's Guide
available on the support site."
        }
      ]
    }
  }
}

```

## Examples

```

- name: Rename the slots in multiple chassis using slot number and chassis service tag
  ome_chassis_slots:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    slot_options:
      - chassis_service_tag: ABC1234
        slots:
          - slot_number: 1
            slot_name: sled_name_1
          - slot_number: 2
            slot_name: sled_name_2
      - chassis_service_tag: ABC1235
        slots:
          - slot_number: 1
            slot_name: sled_name_1
          - slot_number: 2
            slot_name: sled_name_2

```

```

- name: Rename single slot name of the sled using sled ID
  dellemc.openmanage.ome_chassis_slots:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    device_options:
      - device_id: 10054
        slot_name: slot_device_name_1

- name: Rename single slot name of the sled using sled service tag
  dellemc.openmanage.ome_chassis_slots:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    device_options:
      - device_service_tag: ABC1234
        slot_name: service_tag_slot

- name: Rename multiple slot names of the devices
  dellemc.openmanage.ome_chassis_slots:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    device_options:
      - device_id: 10054
        slot_name: sled_name_1
      - device_service_tag: ABC1234
        slot_name: sled_name_2
      - device_id: 10055
        slot_name: sled_name_3
      - device_service_tag: PQR1234
        slot_name: sled_name_4

```

## Manage Active Directory service and user groups

### Configure Active Directory service

**Module:** ome\_active\_directory

#### Synopsis

This module allows to add, modify, and delete OpenManage Enterprise connection with Active Directory Service.

#### Options

**Table 57. ome\_active\_directory**

| Parameter     | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                          |
|---------------|----------|---------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname      | True     | NA      | NA      | Target IP Address or hostname                                                                                                                                                                                                                                                                                     |
| username      | True     | NA      | NA      | Target username                                                                                                                                                                                                                                                                                                   |
| password      | True     | NA      | NA      | Target user password                                                                                                                                                                                                                                                                                              |
| port          | False    | 443     | NA      | Target HTTPS port                                                                                                                                                                                                                                                                                                 |
| domain_server | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>Enter the domain name or FQDN or IP address of the domain controller.</li> <li>If l(domain_controller_lookup) is C(DNS), enter the domain name to query DNS for the domain controllers.</li> <li>If l(domain_controller_lookup) is C(MANUAL), enter the FQDN or</li> </ul> |

**Table 57. ome\_active\_directory (continued)**

| Parameter                | Required | Default | Choices                                                                   | Comments                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------|----------|---------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          |          |         |                                                                           | <p>the IP address of the domain controller.</p> <ul style="list-style-type: none"> <li>For multiple domain controllers, a maximum of three values are supported.</li> </ul>                                                                                                                                                                                |
| domain_controller_lookup | NA       | DNS     | <ul style="list-style-type: none"> <li>DNS</li> <li>MANUAL</li> </ul>     | Select the Domain Controller Lookup method.                                                                                                                                                                                                                                                                                                                |
| domain_controller_port   | NA       | 3269    | NA                                                                        | <ul style="list-style-type: none"> <li>Domain controller port.</li> <li>By default, Global Catalog Address port number 3269 is populated.</li> <li>For the Domain Controller Access, enter 636 as the port number.</li> <li>C(NOTE), Only LDAPS ports are supported.</li> </ul>                                                                            |
| group_domain             | NA       | NA      | NA                                                                        | Provide the group domain in the format C(example.com) or C(ou=org, dc=example, dc=com).                                                                                                                                                                                                                                                                    |
| id                       | NA       | NA      | NA                                                                        | <ul style="list-style-type: none"> <li>Provide the ID of the existing Active Directory service connection.</li> <li>This is applicable for modification and deletion.</li> <li>This is mutually exclusive with l(name).</li> </ul>                                                                                                                         |
| name                     | NA       | NA      | NA                                                                        | <ul style="list-style-type: none"> <li>Provide a name for the Active Directory connection.</li> <li>This is applicable for creation and deletion.</li> <li>This is mutually exclusive with l(name).</li> </ul>                                                                                                                                             |
| network_timeout          | NA       | 120     | NA                                                                        | <ul style="list-style-type: none"> <li>Enter the network timeout duration in seconds.</li> <li>The supported timeout duration range is 15 to 300 seconds.</li> </ul>                                                                                                                                                                                       |
| search_timeout           | NA       | 120     | NA                                                                        | <ul style="list-style-type: none"> <li>Enter the search timeout duration in seconds.</li> <li>The supported timeout duration range is 15 to 300 seconds.</li> </ul>                                                                                                                                                                                        |
| state                    | NA       | present | <ul style="list-style-type: none"> <li>present</li> <li>absent</li> </ul> | <ul style="list-style-type: none"> <li>C(present) allows to create or modify an Active Directory service.</li> <li>C(absent) allows to delete a Active Directory service.</li> </ul>                                                                                                                                                                       |
| test_connection          | NA       | no      | NA                                                                        | <ul style="list-style-type: none"> <li>Enables testing the connection to the domain controller.</li> <li>The connection to the domain controller is tested with the provided Active Directory service details.</li> <li>If test fails, module will error out.</li> <li>If C(yes), l(domain_username) and l(domain_password) has to be provided.</li> </ul> |

**Table 57. ome\_active\_directory (continued)**

| Parameter            | Required | Default | Choices | Comments                                                                                                                                                                                                                                               |
|----------------------|----------|---------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| domain_password      | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>Provide the domain password.</li> <li>This is applicable when l(test_connection) is C(yes).</li> </ul>                                                                                                          |
| domain_username      | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>Provide the domain username either in the UPN (username@domain) or NetBIOS (domain\\username) format.</li> <li>This is applicable when l(test_connection) is C(yes).</li> </ul>                                 |
| validate_certificate | NA       | no      | NA      | <ul style="list-style-type: none"> <li>Enables validation of SSL certificate of the domain controller.</li> <li>The module will always report change when this is C(yes).</li> </ul>                                                                   |
| certificate_file     | NA       | NA      | NA      | <ul style="list-style-type: none"> <li>Provide the full path of the SSL certificate.</li> <li>The certificate should be a Root CA Certificate encoded in Base64 format.</li> <li>This is applicable when l(validate_certificate) is C(yes).</li> </ul> |

## Return Values

```

msg:
  type: str
  description: Overall status of the Active Directory operation.
  returned: always
  sample: "Successfully renamed the slot(s)."
```

```

active_directory:
  type: dict
  description: The Active Directory that was added, modified or deleted by this module.
  returned: on change
  sample: {
    "Name": "ad_test",
    "Id": 21789,
    "ServerType": "MANUAL",
    "ServerName": ["192.168.20.181"],
    "DnsServer": [],
    "GroupDomain": "dellemcdomain.com",
    "NetworkTimeOut": 120,
    "Password": null,
    "SearchTimeOut": 120,
    "ServerPort": 3269,
    "CertificateValidation": false
  }
```

```

error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error_info": {
      "error": {
        "@Message.ExtendedInfo": [
          {
            "Message": "Unable to connect to the LDAP or AD server because the
              entered credentials are invalid.",
            "MessageArgs": [],
            "MessageId": "CSEC5002",
            "RelatedProperties": [],
            "Resolution": "Make sure the server input configuration
              are valid and retry the operation.",
            "Severity": "Critical"
          }
        ]
      }
    }
  }
```

```

        }
    ],
    "code": "Base.1.0.GeneralError",
    "message": "A general error has occurred. See ExtendedInfo for more
information."
}
}
}

```

## Examples

```

- name: Add Active Directory service using DNS lookup along with the test connection
  dellemc.openmanage.ome_active_directory:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    name: my_ad1
    domain_server:
      - domainname.com
    group_domain: domainname.com
    test_connection: yes
    domain_username: user@domainname
    domain_password: domain_password

- name: Add Active Directory service using IP address of the domain controller with
certificate validation
  dellemc.openmanage.ome_active_directory:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    name: my_ad2
    domain_controller_lookup: MANUAL
    domain_server:
      - 192.68.20.181
    group_domain: domainname.com
    validate_certificate: yes
    certificate_file: "/path/to/certificate/file.cer"

- name: Modify domain controller IP address, network_timeout and group_domain
  dellemc.openmanage.ome_active_directory:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    name: my_ad2
    domain_controller_lookup: MANUAL
    domain_server:
      - 192.68.20.189
    group_domain: newdomain.in
    network_timeout: 150

- name: Delete Active Directory service
  dellemc.openmanage.ome_active_directory:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    name: my_ad2
    state: absent

- name: Test connection to existing Active Directory service with certificate validation
  dellemc.openmanage.ome_active_directory:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    name: my_ad2
    test_connection: yes
    domain_username: user@domainname
    domain_password: domain_password
    validate_certificate: yes
    certificate_file: "/path/to/certificate/file.cer"

```

# Manage Active Directory user group

Module: ome\_domain\_user\_groups

## Synopsis

This module allows to create, modify, or delete an Active Directory user group on OpenManage Enterprise and OpenManage Enterprise Modular.

## Options

Table 58. ome\_domain\_user\_group

| Parameter       | Required | Default | Choices                                                                | Comments                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------|----------|---------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname        | True     | NA      | NA                                                                     | Target IP Address or hostname                                                                                                                                                                                                                                                                                                                                                        |
| username        | True     | NA      | NA                                                                     | Target username                                                                                                                                                                                                                                                                                                                                                                      |
| password        | True     | NA      | NA                                                                     | Target user password                                                                                                                                                                                                                                                                                                                                                                 |
| port            | False    | 443     | NA                                                                     | Target HTTPS port                                                                                                                                                                                                                                                                                                                                                                    |
| state           | NA       | present | <ul style="list-style-type: none"><li>present</li><li>absent</li></ul> | <ul style="list-style-type: none"><li>C(present) creates or modifies the Active Directory user group.</li><li>C(absent) deletes an existing Active Directory user group.</li></ul>                                                                                                                                                                                                   |
| group_name      | True     | NA      | NA                                                                     | <ul style="list-style-type: none"><li>The desired Active Directory user group name to be imported or removed.</li><li>"Examples for user group name: Administrator or Account Operators or Access Control Assistance Operator"</li><li>l(group_name) value is case insensitive</li></ul>                                                                                             |
| role            | NA       | NA      | NA                                                                     | <ul style="list-style-type: none"><li>The desired roles and privilege for the imported Active Directory user group.</li><li>"OpenManage Enterprise Modular Roles: CHASSIS ADMINISTRATOR, COMPUTE MANAGER, STORAGE MANAGER, FABRIC MANAGER, VIEWER"</li><li>"OpenManage Enterprise Roles: ADMINISTRATOR, DEVICE MANAGER, VIEWER"</li><li>l(role) value is case insensitive.</li></ul> |
| directory_name  | NA       | NA      | NA                                                                     | <ul style="list-style-type: none"><li>The directory name set while adding the Active Directory.</li><li>l(directory_name) is mutually exclusive with l(directory_id).</li></ul>                                                                                                                                                                                                      |
| directory_id    | NA       | NA      | NA                                                                     | <ul style="list-style-type: none"><li>The ID of the Active Directory.</li><li>l(directory_id) is mutually exclusive with l(directory_name).</li></ul>                                                                                                                                                                                                                                |
| domain_username | NA       | NA      | NA                                                                     | <ul style="list-style-type: none"><li>Active directory domain username.</li><li>"Example: username@domain or domain\\username"</li></ul>                                                                                                                                                                                                                                             |
| domain_password | NA       | NA      | NA                                                                     | Active directory domain password.                                                                                                                                                                                                                                                                                                                                                    |

## Return Values

```
msg:
  type: str
  description: Overall status of the Active Directory user group operation.
  returned: always
  sample: Successfully deleted the active directory user group.
domain_user_status:
  description: Details of the domain user operation, when I(state) is C(present).
  returned: When I(state) is C(present).
  type: list
  sample: {
    "Description": null,
    "DirectoryServiceId": 16097,
    "Enabled": true,
    "Id": "16617",
    "IsBuiltin": false,
    "IsVisible": true,
    "Locked": false,
    "Name": "Account Operators",
    "ObjectGuid": "a491859c-031e-42a3-ae5e-0ab148ecf1d6",
    "ObjectSid": null,
    "Oem": null,
    "Password": null,
    "PlainTextPassword": null,
    "RoleId": "16",
    "UserName": "Account Operators",
    "UserId": 2
  }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
        }
      ]
    }
  }
```

## Examples

```
- name: Create Active Directory user group
  dellemc.openmanage.ome_domain_user_groups:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    state: present
    group_name: account operators
    directory_name: directory_name
    role: administrator
    domain_username: username@domain
    domain_password: domain_password

- name: Update Active Directory user group
  dellemc.openmanage.ome_domain_user_groups:
    hostname: "192.168.0.1"
    username: "username"
```

```

password: "password"
state: present
group_name: account operators
role: viewer

- name: Delete active directory user group
  dellemc.openmanage.ome_domain_user_groups:
    hostname: "192.168.0.1"
    username: "username"
    password: "password"
    state: absent
    group_name: administrators

```

## Diagnostics

### Export SupportAssist Collections

**Module:** ome\_diagnostics

#### Synopsis

This module allows to export SupportAssist collection logs from OpenManage Enterprise and OpenManage Enterprise Modular and application logs from OpenManage Enterprise Modular to a CIFS or NFS share.

#### Options

**Table 59. ome\_diagnostics**

| Parameter           | Required | Default | Choices | Comments                                                                                                                                                                                                                                |
|---------------------|----------|---------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname            | True     | NA      | NA      | Target IP Address or hostname                                                                                                                                                                                                           |
| username            | True     | NA      | NA      | Target username                                                                                                                                                                                                                         |
| password            | True     | NA      | NA      | Target user password                                                                                                                                                                                                                    |
| port                | False    | 443     | NA      | Target HTTPS port                                                                                                                                                                                                                       |
| device_ids          | False    | NA      | NA      | <ul style="list-style-type: none"> <li>List of target device IDs.</li> <li>This is applicable for C(support_assist_collection) logs.</li> <li>This option is mutually exclusive with l(device_ids) and l(device_group_name).</li> </ul> |
| device_service_tags | False    | NA      | NA      | <ul style="list-style-type: none"> <li>List of target identifier.</li> <li>This is applicable for C(support_assist_collection) logs.</li> <li>This option is mutually exclusive with l(device_ids) and l(device_group_name).</li> </ul> |
| device_group_name   | False    | NA      | NA      | <ul style="list-style-type: none"> <li>Name of the device group to export</li> </ul>                                                                                                                                                    |

**Table 59. ome\_diagnostics (continued)**

| Parameter           | Required | Default                   | Choices                                                                                              | Comments                                                                                                                                                                                                                                                                                                                                                      |
|---------------------|----------|---------------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     |          |                           |                                                                                                      | <p>C(support_assist_collection) logs of all devices within the group.</p> <ul style="list-style-type: none"> <li>• This is applicable for C(support_assist_collection) logs.</li> <li>• This option is not applicable for OpenManage Enterprise Modular.</li> <li>• is option is mutually exclusive with I(device_ids) and I(device_service_tags).</li> </ul> |
| log_type            | NA       | support_assist_collection | <ul style="list-style-type: none"> <li>• application</li> <li>• support_assist_collection</li> </ul> | <ul style="list-style-type: none"> <li>• Select this option to mask the personal identification information such as IPAddress, DNS, alert destination, email, gateway, inet6, MacAddress, netmask etc.</li> <li>• This option is applicable for C(application) of I(log_type).</li> </ul>                                                                     |
| mask_sensitive_info | NA       | False                     | NA                                                                                                   | <ul style="list-style-type: none"> <li>• Select this option to mask the personal identification information such as IPAddress, DNS, alert destination, email, gateway, inet6, MacAddress, netmask etc.</li> <li>• This option is applicable for C(application) of I(log_type).</li> </ul>                                                                     |
| log_selectors       | NA       | NA                        | <ul style="list-style-type: none"> <li>• OS_LOGS</li> <li>• RAID_LOGS</li> </ul>                     | <ul style="list-style-type: none"> <li>• By default, the SupportAssist logs contains only hardware logs. To collect additional logs such as OS logs or RAID logs, specify these option in the choices list.</li> <li>• If not provided the default hardware log will be exported.</li> <li>• C(OS_LOGS) to collect OS Logs.</li> </ul>                        |

**Table 59. ome\_diagnostics (continued)**

| Parameter        | Required | Default | Choices                                                                 | Comments                                                                                                                                                                                     |
|------------------|----------|---------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  |          |         |                                                                         | <ul style="list-style-type: none"> <li>• C(RAID_LOGS) to collect RAID controller logs.</li> <li>• This option is applicable only for C(support_assist_collection) of I(log_type).</li> </ul> |
| share_address    | True     | NA      | NA                                                                      | Network share IP address.                                                                                                                                                                    |
| share_name       | True     | NA      | NA                                                                      | <ul style="list-style-type: none"> <li>• Network share path.</li> <li>• Filename is auto generated and should not be provided as part of I(share_name).</li> </ul>                           |
| share_type       | True     | NA      | <ul style="list-style-type: none"> <li>• NFS</li> <li>• CIFS</li> </ul> | Network share type                                                                                                                                                                           |
| share_user       | NA       | NA      | NA                                                                      | <ul style="list-style-type: none"> <li>• Network share username.</li> <li>• This option is applicable for C(CIFS) of I(share_type).</li> </ul>                                               |
| share_password   | NA       | NA      | NA                                                                      | <ul style="list-style-type: none"> <li>• Network share password</li> <li>• This option is applicable for C(CIFS) of I(share_type).</li> </ul>                                                |
| share_domain     | NA       | NA      | NA                                                                      | <ul style="list-style-type: none"> <li>• Network share domain name.</li> <li>• This option is applicable for C(CIFS) if I(share_type).</li> </ul>                                            |
| job_wait         | NA       | True    | NA                                                                      | <ul style="list-style-type: none"> <li>• Whether to wait for the Job completion or not.</li> <li>• def</li> </ul>                                                                            |
| job_wait_timeout | NA       | 60      | NA                                                                      | <ul style="list-style-type: none"> <li>• The maximum wait time of I(job_wait) in minutes.</li> <li>• This option is applicable I(job_wait) is true.</li> </ul>                               |
| test_connection  | NA       | False   | NA                                                                      | <ul style="list-style-type: none"> <li>• Test the availability of the network share location.</li> <li>• I(job_wait) and I(job_wait_timeout) options are not</li> </ul>                      |

Table 59. ome\_diagnostics (continued)

| Parameter | Required | Default | Choices | Comments                              |
|-----------|----------|---------|---------|---------------------------------------|
|           |          |         |         | applicable for<br>l(test_connection). |

## Return Values

```

msg:
  type: str
  description: "Overall status of the export log."
  returned: always
  sample: "Export log job completed successfully."
"jog_status":
  type: dict
  description: Details of the export log operation status.
  returned: success
  sample: {
    "Builtin": false,
    "CreatedBy": "root",
    "Editable": true,
    "EndTime": None,
    "Id": 12778,
    "JobDescription": "Export device log",
    "JobName": "Export Log",
    "JobStatus": {"Id": 2080, "Name": "New"},
    "JobType": {"Id": 18, "Internal": false,
    "Name": "DebugLogs_Task"},
    "LastRun": "2021-07-06 10:52:50.519",
    "LastRunStatus": {"Id": 2060, "Name": "Completed"},
    "NextRun": None,
    "Schedule": "startnow",
    "StartTime": None,
    "State": "Enabled",
    "UpdatedBy": None,
    "UserGenerated": true,
    "Visible": true,
    "Params": [
      {"JobId": 12778, "Key": "maskSensitiveInfo", "Value": "FALSE"},
      {"JobId": 12778, "Key": "password", "Value":
"tY86w7q92u0QzvvykuF0gQQ"},
      {"JobId": 12778, "Key": "userName", "Value": "administrator"},
      {"JobId": 12778, "Key": "shareName", "Value": "iso"},
      {"JobId": 12778, "Key": "OPERATION_NAME", "Value": "EXTRACT_LOGS"},
      {"JobId": 12778, "Key": "shareType", "Value": "CIFS"},
      {"JobId": 12778, "Key": "shareAddress", "Value": "100.96.32.142"}
    ],
    "Targets": [{"Data": "", "Id": 10053, "JobId": 12778, "TargetType": {"Id": 1000,
    "Name": "DEVICE"}}]
  }
error_info:
  description: Details of the HTTP Error.
  returned: on HTTP error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system
administrator."
        }
      ]
    }
  }
}

```

## Examples

```
- name: Export application log using CIFS share location
dellenc.openmanage.ome_diagnostics:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  share_type: CIFS
  share_address: "192.168.0.2"
  share_user: share_username
  share_password: share_password
  share_name: cifs_share
  log_type: application
  mask_sensitive_info: false
  test_connection: true

- name: Export application log using NFS share location
dellenc.openmanage.ome_diagnostics:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  share_address: "192.168.0.3"
  share_type: NFS
  share_name: nfs_share
  log_type: application
  mask_sensitive_info: true
  test_connection: true

- name: Export SupportAssist log using CIFS share location
dellenc.openmanage.ome_diagnostics:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  share_address: "192.168.0.3"
  share_user: share_username
  share_password: share_password
  share_name: cifs_share
  share_type: CIFS
  log_type: support_assist_collection
  device_ids: [10011, 10022]
  log_selectors: [OS_LOGS]
  test_connection: true

- name: Export SupportAssist log using NFS share location
dellenc.openmanage.ome_diagnostics:
  hostname: "192.168.0.1"
  username: "username"
  password: "password"
  share_address: "192.168.0.3"
  share_type: NFS
  share_name: nfs_share
  log_type: support_assist_collection
  device_group_name: group_name
  test_connection: true
```

## Modules for Redfish APIs

### Topics:

- How OpenManage Ansible Modules work with Redfish APIs
- Firmware update using standard Redfish URI
- Manage storage volume configuration
- Manage device power state

## How OpenManage Ansible Modules work with Redfish APIs

The Redfish Scalable Platforms Management API is a standard defined by the Distributed Management Task Force (DMTF). Redfish is a next-generation systems management interface standard which enables scalable, secure, and open server management. It is an interface that uses RESTful interface semantics to access data that is defined in model format to perform out-of-band systems management.

OpenManage Ansible modules use standard redfish URIs supported by iDRAC, to perform firmware updates or manage storage volume configurations on PowerEdge servers.

## Firmware update using standard Redfish URI

### Module: redfish\_firmware

#### Synopsis

- This module allows the firmware update of only one component at a time. If the module is run for more than one component, an error message is returned.
- Depending on the component, the firmware update is applied after an automatic or manual reboot.

#### Options

**Table 60. redfish\_firmware**

| Parameter | Required | Default | Choices | Comments                                                                                                                                                                      |
|-----------|----------|---------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| baseuri   | True     | NA      | NA      | IP Address of the target out-of-band controller. For example- <ipaddress>:<port>                                                                                              |
| username  | True     | NA      | NA      | Username of the target out-of-band controller .                                                                                                                               |
| password  | True     | NA      | NA      | Password of the target out-of-band controller .                                                                                                                               |
| image_uri | True     | NA      | NA      | <ul style="list-style-type: none"> <li>• Firmware image location URI or local path.</li> <li>• For example- U(http://&lt;web_address&gt;/components.exe) or /home/</li> </ul> |

**Table 60. redfish\_firmware (continued)**

| Parameter         | Required | Default | Choices                                                   | Comments                                                                                                                                                                                                                                             |
|-------------------|----------|---------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |          |         |                                                           | firmware_repo/<br>component.exe                                                                                                                                                                                                                      |
| transfer_protocol | False    | HTTP    | HTTP, HTTPS, FTP, NSF, CIFS, FTP, OEM, SCP, SFTP, or TFTP | <ul style="list-style-type: none"> <li>Protocol used to transfer the firmware image file.</li> <li>Applicable for URI-based update.</li> </ul> <p><b>NOTE:</b> Dell PowerEdge servers support transfer protocols only through HTTP-based shares.</p> |

## Return values

```

msg:
  description: Overall status of the firmware update task.
  returned: always
  type: str
  sample: Successfully submitted the firmware update task.
task:
  description: Returns ID and URI of the created task.
  returned: success
  type: dict
  sample: {
    "id": "JID_XXXXXXXXXXXX",
    "uri": "/redfish/v1/TaskService/Tasks/JID_XXXXXXXXXXXX"
  }
error_info:
  type: dict
  description: Details of a http error.
  returned: on http error
  sample: {
    "error": {
      "@Message.ExtendedInfo": [
        {
          "Message": "Unable to complete the operation because the JSON data
format entered is invalid.",
          "Resolution": "Do the following and the retry the operation:
1) Enter the correct JSON data format and retry the operation.
2) Make sure that no syntax error is present in JSON data format.
3) Make sure that a duplicate key is not present in JSON data
format.",
          "Severity": "Critical"
        },
        {
          "Message": "The request body submitted was malformed JSON and
could not be parsed by the receiving service.",
          "Resolution": "Ensure that the request body is valid JSON and
resubmit the request.",
          "Severity": "Critical"
        }
      ],
      "code": "Base.1.2.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more
information."
    }
  }

```

## Examples

```
- name: Update the firmware from a single executable file available in a HTTP protocol
  dellemc.openmanage.redfish_firmware:
    baseuri: "192.168.0.1"
    username: "user_name"
    password: "user_password"
    image_uri: "http://192.168.0.2/firmware_repo/component.exe"
    transfer_protocol: "HTTP"

- name: Update the firmware from a single executable file available in a local path
  dellemc.openmanage.redfish_firmware:
    baseuri: "192.168.0.1"
    username: "user_name"
    password: "user_password"
    image_uri: "/home/firmware_repo/component.exe"
```

# Manage storage volume configuration

## Module: redfish\_storage\_volume

### Synopsis

This module allows to create, modify, initialize, or delete a single storage volume.

### Options

**Table 61. redfish\_storage\_volume**

| Parameter     | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                 |
|---------------|----------|---------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| baseuri       | True     | NA      | NA      | IP address of the target out-of-band controller. For example- <ipaddress>:<port>                                                                                                                                                                                                         |
| username      | True     | NA      | NA      | Username of the target out-of-band controller.                                                                                                                                                                                                                                           |
| password      | True     | NA      | NA      | Password of the target out-of-band controller.                                                                                                                                                                                                                                           |
| controller_id | False    | NA      | NA      | <ul style="list-style-type: none"><li>Fully Qualified Device Descriptor (FQDD) of the storage controller.</li><li>For example- RAID.Slot.1-1.</li><li>This option is mandatory when I(state) is C(present) when creating a volume.</li></ul>                                             |
| volume_id     | False    | NA      | NA      | <ul style="list-style-type: none"><li>FQDD of existing volume.</li><li>For example- Disk.Virtual.4:RAID.Slot.1-1.</li><li>This option is mandatory in the following scenarios:-<ul style="list-style-type: none"><li>I(state) is C(present), when updating a volume.</li></ul></li></ul> |

Table 61. redfish\_storage\_volume (continued)

| Parameter   | Required | Default | Choices                                                                                | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------|----------|---------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             |          |         |                                                                                        | <ul style="list-style-type: none"> <li>o I(state) is C(absent), when deleting a volume.</li> <li>o I(command) is C(initialize), when initializing a volume.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                           |
| state       | False    | NA      | Present, or absent.                                                                    | <ul style="list-style-type: none"> <li>• C(present) creates a storage volume for a specified I (controller_id), or modifies the storage volume for a specified I (volume_id).</li> </ul> <p><b>NOTE:</b> Modification of an existing volume depends on drive and controller capabilities.</p> <ul style="list-style-type: none"> <li>• C(absent) deletes the volume for a specified I(volume_id).</li> </ul>                                                                                                                                                                     |
| command     | False    | NA      | Initialize                                                                             | C(initialize) initializes an existing storage volume for a specified I (volume_id).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| volume_type | False    | NA      | NonRedundant, Mirrored,StripedWithParity, SpannedMirrors, or SpannedStripesWithParity. | <p>One of the following volume types must be selected to create a volume-</p> <ul style="list-style-type: none"> <li>• C(Mirrored) The volume is a mirrored device.</li> <li>• C(NonRedundant) The volume is a non-redundant storage device.</li> <li>• C(SpannedMirrors) The volume is a spanned set of mirrored devices.</li> <li>• C(SpannedStripesWithParity) The volume is a spanned set of devices which uses parity to retain redundant information.</li> <li>• C(StripedWithParity) The volume is a device which uses parity to retain redundant information.</li> </ul> |
| name        | False    | NA      | NA                                                                                     | <ul style="list-style-type: none"> <li>• Name of the volume to be created.</li> <li>• Only applicable when I(state) is C(present).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                    |

**Table 61. redfish\_storage\_volume (continued)**

| Parameter             | Required | Default | Choices                                                         | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------|----------|---------|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| drives                | False    | NA      | NA                                                              | <ul style="list-style-type: none"> <li>• FQDD of the Physical disks.</li> <li>• For example- Disk.Bay.0:Enclosure.Internal.0-1:RAID.Slot.1-1.</li> <li>• Only applicable when I(state) is C(present) when creating a new volume.</li> </ul>                                                                                                                                                                                                                                                      |
| block_size_bytes      | False    | NA      | NA                                                              | Block size in bytes.Only applicable when I(state) is C(present).                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| capacity_bytes        | False    | NA      | NA                                                              | <ul style="list-style-type: none"> <li>• Virtual disk size in bytes.</li> <li>• Only applicable when I(state) is C(present).</li> </ul>                                                                                                                                                                                                                                                                                                                                                          |
| optimum_io_size_bytes | False    | NA      | NA                                                              | <ul style="list-style-type: none"> <li>• Stripe size value must be in multiples of 64 * 1024.</li> <li>• Only applicable when I(state) is C(present).</li> </ul>                                                                                                                                                                                                                                                                                                                                 |
| encryption_types      | False    | NA      | NativeDriveEncryption, ControllerAssisted, or SoftwareAssisted. | <p>The following encryption types can be selected.</p> <ul style="list-style-type: none"> <li>• C(ControllerAssisted) The volume is encrypted by the storage controller entity.</li> <li>• C(NativeDriveEncryption) The volume utilizes the native drive encryption capabilities of the drive hardware.</li> <li>• C(SoftwareAssisted) The volume is encrypted by the software running on the system or the operating system.</li> <li>• Only applicable when I(state) is C(present).</li> </ul> |
| encrypted             | False    | NA      | NA                                                              | <ul style="list-style-type: none"> <li>• Indicates whether volume is currently utilizing encryption or not.</li> <li>• Only applicable when I(state) is C(present).</li> </ul>                                                                                                                                                                                                                                                                                                                   |
| oem                   | False    | NA      | NA                                                              | <ul style="list-style-type: none"> <li>• Includes OEM extended payloads.</li> <li>• Only applicable when I(state) is I(present).</li> </ul>                                                                                                                                                                                                                                                                                                                                                      |
| initialize_type       | False    | NA      | Fast, or slow.                                                  | <ul style="list-style-type: none"> <li>• Initialization type of existing volume.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                      |

Table 61. redfish\_storage\_volume (continued)

| Parameter | Required | Default | Choices | Comments                                                                                            |
|-----------|----------|---------|---------|-----------------------------------------------------------------------------------------------------|
|           |          |         |         | <ul style="list-style-type: none"> <li>Only applicable when I(command) is C(initialize).</li> </ul> |

## Return Values

```

msg:
  description: Overall status of the storage configuration operation.
  returned: always
  type: str
  sample: "Successfully submitted create volume task."
task:
  type: dict
  description: Returns ID and URI of the created task.
  returned: success
  sample: {
    "id": "JID_XXXXXXXXXXXX",
    "uri": "/redfish/v1/TaskService/Tasks/JID_XXXXXXXXXXXX"
  }
error_info:
  type: dict
  description: Details of a http error.
  returned: on http error
  sample: {
    "error": {
      "@Message.ExtendedInfo": [
        {
          "Message": "Unable to perform configuration operations because a
            configuration job for the device already exists.",
          "MessageArgs": [],
          "MessageArgs@odata.count": 0,
          "MessageId": "IDRAC.1.6.STOR023",
          "RelatedProperties": [],
          "RelatedProperties@odata.count": 0,
          "Resolution": "Wait for the current job for the device to complete
            or cancel the current job before attempting more configuration
            operations on the device.",
          "Severity": "Informational"
        }
      ],
      "code": "Base.1.2.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information"
    }
  }

```

## Examples

```

- name: Create a volume with supported options
  dellemc.openmanage.redfish_storage_volume:
    baseuri: "192.168.0.1"
    username: "username"
    password: "password"
    state: "present"
    volume_type: "Mirrored"
    name: "VD0"
    controller_id: "RAID.Slot.1-1"
    drives:
      - Disk.Bay.5:Enclosure.Internal.0-1:RAID.Slot.1-1
      - Disk.Bay.6:Enclosure.Internal.0-1:RAID.Slot.1-1
    block_size_bytes: 512
    capacity_bytes: 299439751168
    optimum_io_size_bytes: 65536
    encryption_types: NativeDriveEncryption
    encrypted: true

- name: Create a volume with minimum options
  dellemc.openmanage.redfish_storage_volume:
    baseuri: "192.168.0.1"

```

```

username: "username"
password: "password"
state: "present"
controller_id: "RAID.Slot.1-1"
volume_type: "NonRedundant"
drives:
  - Disk.Bay.1:Enclosure.Internal.0-1:RAID.Slot.1-1

- name: Modify a volume's encryption type settings
  dellemc.openmanage.redfish_storage_volume:
    baseuri: "192.168.0.1"
    username: "username"
    password: "password"
    state: "present"
    volume_id: "Disk.Virtual.5:RAID.Slot.1-1"
    encryption_types: "ControllerAssisted"
    encrypted: true

- name: Delete an existing volume
  dellemc.openmanage.redfish_storage_volume:
    baseuri: "192.168.0.1"
    username: "username"
    password: "password"
    state: "absent"
    volume_id: "Disk.Virtual.5:RAID.Slot.1-1"

- name: Initialize an existing volume
  dellemc.openmanage.redfish_storage_volume:
    baseuri: "192.168.0.1"
    username: "username"
    password: "password"
    command: "initialize"
    volume_id: "Disk.Virtual.6:RAID.Slot.1-1"
    initialize_type: "Slow"

```

# Manage device power state

**Module: redfish\_powerstate**

**Synopsis**

This module allows to manage the different power states of the specified device.

**Options**

**Table 62. redfish\_powerstate**

| Parameter  | Required | Default | Choices                                                                                                                       | Comments                                                                                                                                                                                  |
|------------|----------|---------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| baseuri    | True     | NA      | NA                                                                                                                            | IP address of the target out-of-band controller. For example- <ipaddress>:<port>                                                                                                          |
| username   | True     | NA      | NA                                                                                                                            | Username of the target out-of-band controller.                                                                                                                                            |
| password   | True     | NA      | NA                                                                                                                            | Password of the target out-of-band controller.                                                                                                                                            |
| reset_type | True     | NA      | "ForceOff", "ForceOn", "ForceRestart", "GracefulRestart", "GracefulShutdown", "Nmi", "On", "PowerCycle", or "PushPowerButton" | This option resets the device. <ul style="list-style-type: none"> <li>• C(ForceOff): Turns off the device immediately.</li> <li>• C(ForceOn): Turns on the device immediately.</li> </ul> |

**Table 62. redfish\_powerstate (continued)**

| Parameter   | Required | Default | Choices | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------|----------|---------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             |          |         |         | <ul style="list-style-type: none"> <li>• C(ForceRestart): Turns off the device immediately, and then restarts the server.</li> <li>• C(GracefulRestart): Performs graceful shutdown of the device, and then restarts the device.</li> <li>• C(GracefulShutdown): Performs a graceful shutdown of the device, and then turns off the device.</li> <li>• If C(Nmi): Sends a diagnostic interrupt to the device. This is usually a non-maskable interrupt (NMI) on x86 systems.</li> <li>• C(On): Turns on the device.</li> <li>• C(PowerCycle): Performs a power cycle on the device.</li> <li>• C(PushPowerButton): Simulates the pressing of a physical power button on the device.</li> </ul> <p>When a power control operation is performed, which is not supported on the device, an error message is displayed with the list of operations that can be performed.</p> |
| resource_id | False    | NA      | NA      | <ul style="list-style-type: none"> <li>• The unique identifier of the device being managed. For example- U ( https://&lt;l(baseuri)&gt;/redfish/v1/Systems/&lt;l(resource_id)&gt; ).</li> <li>• This option is mandatory for l(base_uri) with multiple devices.</li> <li>• To get the device details, use the API U(https://</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

**Table 62. redfish\_powerstate (continued)**

| Parameter | Required | Default | Choices | Comments                         |
|-----------|----------|---------|---------|----------------------------------|
|           |          |         |         | <l(baseuri)>/redfish/v1/Systems) |

## Examples

```
- name: Manage power state of the device
  dellemc.openmanage.redfish_powerstate:
    baseuri: "192.168.0.1"
    username: "username"
    password: "password"
    reset_type: "On"

- name: Manage power state of a specified device
  dellemc.openmanage.redfish_powerstate:
    baseuri: "192.168.0.1"
    username: "username"
    password: "password"
    reset_type: "ForceOff"
    resource_id: "System.Embedded.1"
```

## Return values

```
msg:
  description: Overall status of the reset operation
  returned: always
  type: str
  sample: "Successfully applied the reset type: 'On'."
error_info:
  type: dict
  description: Details of a the HTTP error.
  returned: on http error
  sample: {
    "error": {
      "@Message.ExtendedInfo": [
        {
          "Message": "Unable to complete the operation because the resource
            /redfish/v1/Systems/System.Embedded.1/Actions/ComputerSystem.Reset
entered in is
not found.",
          "MessageArgs": [
            "/redfish/v1/Systems/System.Embedded.1/Actions/ComputerSystem.Reset"
          ],
          "MessageArgs@odata.count": 1,
          "MessageId": "IDRAC.2.1.SYS403",
          "RelatedProperties": [],
          "RelatedProperties@odata.count": 0,
          "Resolution": "Enter the correct resource and retry the operation.
            For information about valid resource,
            see the Redfish Users Guide available on the support site.",
          "Severity": "Critical"
        }
      ],
      "code": "Base.1.5.GeneralError",
      "message": "A general generic error has occurred. See ExtendedInfo for more
information"
    }
  }
'''
```

## Deprecated modules

The OpenManage Ansible modules listed here are deprecated.

### Topics:

- [View firmware inventory](#)
- [View the system inventory](#)

## View firmware inventory

**Module:** `dellemc_get_firmware_inventory`

### Synopsis

You can view the firmware inventory of a server using this module. This module displays components of a server and the corresponding firmware versions.

Check\_mode support: No

### Options

**Table 63. dellemc\_get\_firmware\_inventory**

| Parameter/aliases            | Required | Default | Choices | Comments            |
|------------------------------|----------|---------|---------|---------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address    |
| idrac_username               | Yes      | NA      | NA      | iDRAC username      |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC user password |
| idrac_port                   | No       | 443     | NA      | iDRAC port          |

### Return Values

```

ansible_facts:
  description: Displays components and their firmware versions. Also, list of the
  firmware
    dictionaries (one dictionary per firmware).
  returned: success
  type: complex
  sample: {
    [
      {
        "BuildNumber": "0",
        "Classifications": "10",
        "ComponentID": "101100",
        "ComponentType": "FRMW",
        "DeviceID": null,
        "ElementName": "Power Supply.Slot.1",
        "FQDD": "PSU.Slot.1",
        "IdentityInfoType": "OrgID:ComponentType:ComponentID",
        "IdentityInfoValue": "DCIM:firmware:101100",
        "InstallationDate": "2018-01-18T07:25:08Z",
        "InstanceID": "DCIM:INSTALLED#0x15__PSU.Slot.1",
        "IsEntity": "true",
        "Key": "DCIM:INSTALLED#0x15__PSU.Slot.1",
        "MajorVersion": "0",
        "MinorVersion": "1",
        "RevisionNumber": "7",
        "RevisionString": null,
        "Status": "Installed",
      }
    ]
  }

```

```

        "SubDeviceID": null,
        "SubVendorID": null,
        "Updateable": "true",
        "VendorID": null,
        "VersionString": "00.1D.7D",
        "impactsTPMmeasurements": "false"
    }
]
}

```

### Example

```

- name: Get Installed Firmware Inventory
  dellemc.openmanage.dellemc_get_firmware_inventory:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"

```

## View the system inventory

### Module: dellemc\_get\_system\_inventory

#### Synopsis

System inventory provides basic and component level detailed inventory information. You can run this module when you want to verify the asset, configured state, inventory, and health-related information for the system and its component.

Check\_mode support: No

#### Options

**Table 64. dellemc\_get\_system\_inventory**

| Parameter/aliases            | Required | Default | Choices | Comments            |
|------------------------------|----------|---------|---------|---------------------|
| idrac_ip                     | Yes      | NA      | NA      | iDRAC IP Address    |
| idrac_user                   | Yes      | NA      | NA      | iDRAC username      |
| idrac_password/<br>idrac_pwd | Yes      | NA      | NA      | iDRAC user password |
| idrac_port                   | No       | 443     | NA      | iDRAC port          |

#### Return Values

```

ansible_facts:
  description: Displays the Dell EMC PowerEdge Server System Inventory.
  returned: success
  type: complex
  sample: {
    "SystemInventory": {
      "BIOS": [
        {
          "BIOSReleaseDate": "10/19/2017",
          "FQDD": "BIOS.Setup.1-1",
          "InstanceID": "DCIM:INSTALLED#741__BIOS.Setup.00",
          "Key": "DCIM:INSTALLED#741__BIOS.Setup.00",
          "SMBIOSPresent": "True",
          "VersionString": "1.2.11"
        }
      ],
    "CPU": [
      {
        "CPUFamily": "Intel(R) Xeon(TM)",
        "Characteristics": "64-bit capable",
        "CurrentClockSpeed": "2.3 GHz",
        "DeviceDescription": "CPU 1",
        "ExecuteDisabledCapable": "Yes",

```

```

    ]
  }
}
msg:
  description: Details of the Error occurred.
  returned: on error
  type: dict
  sample: {
    "error": {
      "code": "Base.1.0.GeneralError",
      "message": "A general error has occurred. See ExtendedInfo for more information.",
      "@Message.ExtendedInfo": [
        {
          "MessageId": "GEN1234",
          "RelatedProperties": [],
          "Message": "Unable to process the request because an error occurred.",
          "MessageArgs": [],
          "Severity": "Critical",
          "Resolution": "Retry the operation. If the issue persists, contact your system administrator."
        }
      ]
    }
  }
}

```

### Example

```

- name: Get System Inventory
  dellemc.openmanage.dellemc_get_system_inventory:
    idrac_ip: "192.168.0.1"
    idrac_user: "user_name"
    idrac_password: "user_password"

```