

**DME Storage**  
**1.1.0**

# **Ansible Module Plug-in User Guide**

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# About This Document

## Overview

This document describes how to use the DME Storage Ansible module.






## Intended Audience

This document is intended for upgrade personnel. They must:

- Be familiar with the current networking and the version information of related network elements (NEs).
- Have device maintenance experience and be familiar with device operation and maintenance methods.

## Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
 <b>DANGER</b>	Indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.
 <b>WARNING</b>	Indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
 <b>CAUTION</b>	Indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
 <b>NOTICE</b>	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance deterioration, or unanticipated results. NOTICE is used to address practices not related to personal injury.
 <b>NOTE</b>	Supplements the important information in the main text. NOTE is used to address information not related to personal injury, equipment damage, and environment deterioration.

## Change History

Issue	Date	Description
01	2021-05-30	This issue is the first official release.

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# 1 Overview

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Ansible is an automatic O&M tool. It is developed based on Python and can implement batch system configuration, batch program deployment, and batch command execution. The Ansible module is configured in Ansible. After the configuration is complete, Ansible can access the northbound interface of DME Storage to provision and maintain storage resources on DME Storage.

# 2 Preparations

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Plug-In	Python Version	Operating System	Others
DME_Storage- x.x.x- DMEAnsible.zip	Python 3	Linux	Third-party dependency: requests



# 3 Configuring the Ansible Module

---

This section describes how to configure the Ansible module on the Ansible server.

## Procedure

- Step 1** Upload the Ansible module package **DME\_Storage-x.x.x-DMEAnsible.zip** to any directory (for example, **/tmp**) on the target server.
- Step 2** Run the **unzip DME\_Storage-x.x.x-DMEAnsible.zip** command in the directory to decompress the package.
- Step 3** Copy the **hw\_dme\_ansible\_core** directory in the after-decompression directory to the third-party package path in the Python environment.
- To query the third-party package path in the Python environment, follow these steps:
    - Run the **python -V** command to check the default Python version. For example:

```
python -V
Python 3.7.4
```
    - Run the **find / -name site-packages** command to search for the path where **site-packages** resides and select the path that is consistent with the Python version. For example:

```
find / -name site-packages
/usr/lib/python3.7/site-packages
```
  - Run the following command to copy the **hw\_dme\_ansible\_core** directory to the third-party package path in the Python environment:  
**cp -r hw\_dme\_ansible\_core site-packages file path**  
For example: **cp -r hw\_dme\_ansible\_core /usr/lib/python3.7/site-packages/**
- Step 4** Copy the **hw\_dme\_ansible\_module** directory in the after-decompression directory of the plug-in package to the search path of the Ansible module.
- To query the search path of the Ansible module, following these steps:
    - Run the **cat /etc/ansible/ansible.cfg** command to open the configuration file.
    - View the path of the **library** field. For example:

```
library = /usr/share/ansible/plugins/modules/
```

2. Run the following command to copy the **hw\_dme\_ansible\_module** directory to the search path of the Ansible module:

**cp -r hw\_dme\_ansible\_module *Ansible module search path***

For example: **cp -r hw\_dme\_ansible\_module /usr/share/ansible/plugins/modules/**

**----End**

# 4 Using the Ansible Module

---

This section describes how to use the Ansible module.

## Prerequisites

- The Ansible environment has been deployed and the Ansible plug-in has been installed and configured.
- The Ansible module has been configured. For details, see [3 Configuring the Ansible Module](#).
- To enable SSL certificate verification, you must import the SSL certificate of the DME Storage northbound interface to the Ansible environment in advance and transfer the certificate path using the **dme\_certificate\_path** parameter. For details about how to obtain the certificate, see **Updating ER Certificates** in the *DME Storage 1.1.0 Security Maintenance Guide*.

## Configuring the YML File

Use the Ansible module provided by DME Storage to create a YML file on the server. For details about Ansible module parameters, see [5 Ansible Module Reference](#). The following is a configuration example.

---

### NOTICE

The parameters can be replaced with specific values or through parameter transfer.

---

```
---
- name: Query Host List
  connection: local          # Local execution
  vars:                      # Variable list
    limit: 10
    start: 1
  tasks:
    - name: Query Host List   # Task name
      host_queries:          # Ansible module name

#Ansible module parameters
  dme_ip: "{{dme_ip}}"
  dme_port: "{{dme_port}}"
  dme_user: "{{dme_user}}"
```

```
dme_password: "{{dme_password}}"
limit: "{{limit}}"
start: "{{start}}"
sort_key: "{{sort_key}}"
sort_dir: "{{sort_dir}}"
name: "{{name}}"
ip: "{{ip}}"
os_type: "{{os_type}}"
display_status: "{{display_status}}"
managed_status: "{{managed_status}}"
access_mode: "{{access_mode}}"
az_id: "{{az_id}}"
az_ids: "{{az_ids}}"
project_id: "{{project_id}}"

register: result          # Registration return value
- name: Show Host List
  debug:
    msg: "{{result}}"     # Print the return value.
```

## Using the YML File

The command format is as follows:

**ansible-playbook *\*\*\*.yml***

**ansible-playbook *\*\*\*.yml* --extra-vars**

**'{"dme\_ip": "*\*.\*.\*.\**", "dme\_user": "*username*", "dme\_password": "*password*"}'**

In the preceding command, *\*\*\** indicates the name of the YAML file, *\*.\*.\** indicates the IP address, *username* indicates the user name for authenticating the DME Storage northbound interface, and *password* indicates the password for authenticating the DME Storage northbound interface.

For example:

**ansible-playbook host\_querys.yml**

**ansible-playbook host\_querys.yml**

**'{"dme\_ip": "192.168.1.2", "dme\_user": "dmeuser", "dme\_password": "changeme\_123"}'**

# 5 Ansible Module Reference

---

[5.1 LUN](#)

[5.2 Host Group](#)

[5.3 Host](#)

## 5.1 LUN

### 5.1.1 Querying a LUN

#### Module

lun\_query

#### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes

Parameter	Type	Description	Mandatory or Not
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
limit	String	Indicates the number of records displayed on each page.	No
offset	String	Indicates the start position for pagination query.	No
sort_dir	String	Indicates the sorting mode. The value can be <b>asc</b> (ascending order) or <b>desc</b> (descending order).	No
sort_key	String	Indicates the sorting field ( <b>capacity</b> ).	No
name	String	Indicates the LUN name. Fuzzy query is supported. Parameter length: 1 to 255	No
status	String	Indicates the LUN status. The value can be <b>creating</b> , <b>normal</b> , <b>mapping</b> , <b>unmapping</b> , <b>deleting</b> , <b>error</b> , or <b>expanding</b> .	No
service_level_id	string	Indicates the service level ID. Parameter length: 1 to 64	No
volume_wwn	String	Indicates the LUN WWN. Parameter length: 1 to 64	No
storage_id	String	Indicates the storage device ID. Parameter length: 1 to 64	No
pool_raw_id	String	Indicates the storage pool ID on the storage device. Parameter length: 1 to 64 Constraint: The storage device ID must be specified.	No
host_id	String	Indicates the host ID. Parameter length: 1 to 64	No
hostgroup_id	String	Indicates the host group ID. Parameter length: 1 to 64	No

Parameter	Type	Description	Mandatory or Not
unmapped_host_id	String	Indicates the unmapped host ID. Parameter length: 1 to 64	No
unmapped_hostgroup_id	String	Indicates the unmapped host group ID. Parameter length: 1 to 64	No
project_id	String	Indicates the project ID. Parameter length: 1 to 64	No
allocate_type	String	Indicates the provisioning type. The value can be <b>thin</b> or <b>thick</b> .	No
attached	String	Indicates the mapping status. Parameter type: boolean	No
query_mode	String	Indicates the LUN provisioning mode. The value can be <b>service</b> (querying LUNs created from the service level), <b>non-service</b> (querying customized LUNs), or <b>all</b> (querying all LUNs).	No
protected	String	Indicates the LUN protection status.	No
pg_id	String	Indicates the protection group ID. Parameter length: 1 to 64	No

## 5.1.2 Creating a LUN from the Service Level

### Module

lun\_service\_create

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	string	Indicates the floating IP address of DME Storage.	Yes

Parameter	Type	Description	Mandatory or Not
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
description	String	Indicates the description.	No
name	String	Indicates the LUN name.	Yes
capacity	String	Indicates the LUN capacity.	Yes
count	String	Indicates the number of LUNs.	Yes
availability_zone	String	Indicates the AZ ID.	No
start_suffix	String	Indicates the LUN start suffix number.	No
service_level_id	String	Indicates the service level ID.	Yes
storage_id	String	Indicates the storage device ID.	No
host_id	String	Indicates the host ID. This parameter cannot coexist with the host group ID.	No
hostgroup_id	String	Indicates the host group ID. This parameter cannot coexist with the host ID.	No
project_id	String	Indicates the project ID.	No
affinity	String	Indicates whether affinity is enabled.	No
affinity_volume	String	Indicates the ID of the LUN for which affinity is performed.	No



## 5.1.3 Creating a Customized LUN

### Module

lun\_customize\_create

### Parameter Description

Parameter	Type	Description	Man dator y or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
prefetch_policy	String	Indicates the prefetch policy, which affects disk read.	No
prefetch_value	String	Indicates the prefetch policy value. This parameter must be delivered if <b>prefetch_policy</b> (constant or variable prefetch) is delivered.	No
start_lun_id	String	Indicates the start LUN ID.	No
start_suffix	String	Indicates the LUN start suffix number.	No
description	String	Indicates the description.	No
name	String	Indicates the LUN name.	Yes
capacity	String	Indicates the LUN capacity.	Yes

Parameter	Type	Description	Mandatory or Not
count	String	Indicates the number of LUNs.	Yes
smart_tier	String	Indicates the data migration policy.	No
storage_id	String	Indicates the storage device ID.	No
initial_distribute_policy	String	Indicates the initial capacity allocation policy. This parameter is supported only for Huawei OceanStor V3/V5 devices, not for all-flash storage.	No
owner_controller	String	Indicates the owning controller.	No
pool_id	String	Indicates the storage pool ID on the specified storage device.	No
host_id	String	Indicates the host ID. This parameter is mandatory if <b>mapping_info</b> is specified. This parameter cannot coexist with <b>hostgroup_id</b> .	No
hostgroup_id	String	Indicates the host group ID. This parameter is mandatory if <b>mapping_info</b> is specified. This parameter cannot coexist with <b>host_id</b> .	No
min_iops	String	Indicates the minimum IOPS. This parameter is supported for OceanStor V3, V5, and Dorado V6 storage devices and is valid for minimum performance assurance. For OceanStor V3 and V5 storage devices, this parameter is mutually exclusive with <b>max_bandwidth</b> and <b>max_iops</b> .	No
latency	String	Indicates the latency (ms). This parameter is supported only for minimum performance assurance.	No
start_host_lun_id	String	Indicates the start host LUN ID of the mapped LUN.	No

Parameter	Type	Description	Mandatory or Not
mapping_view_raw_id	String	Indicates the mapping view ID on a device.	No
mapping_view_name	String	Indicates the mapping view name on a device.	No
lun_group_raw_id	String	Indicates the LUN group ID on a device.	No
lun_group_name	String	Indicates the LUN group name on a device.	No
port_group_raw_id	String	Indicates the port group ID on a device.	No
min_bandwidth	string	Indicates the minimum bandwidth. This parameter is supported for OceanStor V3, V5, and Dorado V6 storage devices and is valid for minimum performance assurance. For OceanStor V3 and V5 storage devices, this parameter is mutually exclusive with <b>max_bandwidth</b> and <b>max_iops</b> .	No
max_iops	String	Indicates the maximum IOPS. This parameter is supported for all devices and is valid for upper limit control. For OceanStor V3 and V5 storage devices, this parameter is mutually exclusive with <b>min_bandwidth</b> and <b>min_iops</b> .	No
max_bandwidth	String	Indicates the maximum bandwidth. This parameter is supported for all devices and is valid for upper limit control. For OceanStor V3 and V5 storage devices, this parameter is mutually exclusive with <b>min_bandwidth</b> and <b>min_iops</b> .	No
workload_type_raw_id	String	Indicates the application type ID.	No
allocation_type	String	Indicates the LUN provisioning type.	No

Parameter	Type	Description	Mandatory or Not
compression_enabled	String	Indicates the data compression function. This parameter does not take effect if <b>workload_type</b> is specified.	No
deduplication_enabled	String	Indicates the deduplication function. This parameter does not take effect if <b>workload_type</b> is specified.	No

## 5.1.4 Adding a LUN to a Service Level

### Module

lun\_add\_to\_service\_level

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
service_level_id	String	Indicates the service level ID. Parameter length: 1 to 64	Yes

Parameter	Type	Description	Mandatory or Not
attributes_auto_change	String	Indicates whether to refresh LUN properties based on the service level parameters when a LUN is associated with a service level.	No
volume_wwns	String	Indicates the LUN WWN list. Parameter length: The WWN length of each LUN ranges from 1 to 64. A maximum of 100 WWNs are supported.	Yes

## 5.1.5 Removing a LUN from a Service Level

### Module

lun\_remove\_service\_level

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No

Parameter	Type	Description	Mandatory or Not
volume_wwns	String	Indicates the LUN WWN list. Parameter length: The WWN length of each LUN ranges from 1 to 64. A maximum of 100 WWNs are supported.	Yes

## 5.1.6 Changing the Service Level of a LUN

### Module

lun\_update\_service\_level

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
service_level_id	String	Indicates the service level ID. Parameter length: 1 to 64	Yes
attributes_auto_change	String	Indicates whether to refresh LUN properties based on the service level parameters when a LUN is associated with a service level.	No

Parameter	Type	Description	Mandatory or Not
volume_wwns	String	Indicates the LUN WWN list. Parameter length: The WWN length of each LUN ranges from 1 to 64. A maximum of 100 WWNs are supported.	Yes

## 5.1.7 Deleting a LUN

### Module

lun\_delete

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
volume_wwns	String	Indicates the LUN WWN list. Parameter length: The WWN length of each LUN ranges from 1 to 64. A maximum of 100 WWNs are supported.	Yes

## 5.1.8 Modifying a LUN

### Module

lun\_modify

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
volume_wwn	String	Indicates the LUN WWN. Parameter length: 1 to 64	Yes
name	String	Indicates the new LUN name. Parameter length: 1 to 255 Constraint: The value can contain only letters, digits, periods (.), underscores (_), and hyphens (-). For the OceanStor Dorado 6.1.0 storage system and systems of later versions, the value contains 1 to 255 bytes. In other scenarios, the value contains 1 to 31 bytes.	No
description	String	Indicates the sorting mode. The value can be <b>asc</b> (ascending order) or <b>desc</b> (descending order).	No



Parameter	Type	Description	Mandatory or Not
owner_controller	String	Indicates the owning controller. Parameter length: 0 to 255 Constraint: Change operations are supported only for customized LUNs.	No
prefetch_value	String	Indicates the prefetch policy value. Value range: int32 Constraint: This parameter must be delivered if <b>prefetch_policy</b> (constant or variable prefetch) is delivered. The constant prefetch size ranges from 0 KB to 1024 KB. The variable prefetch size ranges from 0 to 1024 times. Change operations are supported only for customized LUNs.	No
smarttier	String	Indicates the data migration policy. The value can be <b>0</b> (no migration), <b>1</b> (automatic migration), <b>2</b> (migration to the high-performance tier), or <b>3</b> (migration to the low-performance tier). The default value is <b>0</b> .	No
qos_enabled	String	Indicates whether to enable SmartQoS. Parameter type: boolean	No
maxbandwidth	String	QoS attribute – Maximum bandwidth. Value range: int32 Constraint: This parameter is supported for all devices and is valid for upper limit control. For OceanStor V3 and V5 storage devices, this parameter is mutually exclusive with <b>minbandwidth</b> and <b>miniops</b> .	No

Parameter	Type	Description	Mandatory or Not
minbandwidth	String	QoS attribute – Minimum bandwidth.  Constraint: This parameter is supported for OceanStor Dorado V6 and OceanStor V3/V5 storage devices, and is valid for minimum performance assurance. For OceanStor V3 and V5 storage devices, this parameter is mutually exclusive with <b>maxbandwidth</b> and <b>maxiops</b> .	No
maxiops	String	QoS attribute – Maximum IOPS.  Constraint: This parameter is supported for all devices and is valid for upper limit control. For OceanStor V3 and V5 storage devices, this parameter is mutually exclusive with <b>minbandwidth</b> and <b>miniops</b> .	No
miniops	String	QoS attribute – Minimum IOPS.  Constraint: This parameter is supported for OceanStor Dorado V6 and OceanStor V3/V5 storage devices, and is valid for minimum performance assurance. For OceanStor V3 and V5 storage devices, this parameter is mutually exclusive with <b>maxbandwidth</b> and <b>maxiops</b> .	No
control_policy	String	QoS attribute – Control policy. Value range: 0 (minimum performance assurance) and 1 (upper limit control)  Constraint: OceanStor Dorado V6 storage systems support both minimum performance assurance and upper limit control, OceanStor Dorado V3 storage systems support upper limit control only, and OceanStor V3/V5 storage systems support either minimum performance assurance or upper limit control.	No

Parameter	Type	Description	Mandatory or Not
latency	String	QoS attribute – Latency. Value range: int32 Constraint: The unit is ms. This parameter is supported only for minimum performance assurance.	No

## 5.2 Host Group

### 5.2.1 Creating a Host Group

#### Module

hostgroup\_create

#### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No

Parameter	Type	Description	Mandatory or Not
name	String	Indicates the host group name. Parameter length: 1 to 255 Constraint: The value can contain only uppercase letters, lowercase letters, digits, underscores (_), hyphens (-), and periods (.).	Yes
host_ids	String	Indicates the host ID list. Parameter length: 1 to 64 Constraint: A maximum of 100 hosts can be added at a time.	Yes
azs	String	Indicates the AZ ID list. Parameter length: 1 to 64 Constraint: A maximum of 40 AZs can be associated for a single request.	No
project_id	String	Indicates the project ID. Parameter length: 1 to 64	No
description	String	Host group description parameter length: 0 to 63	No

## 5.2.2 Deleting a Host Group

### Module

hostgroup\_delete

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No

Parameter	Type	Description	Mandatory or Not
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
hostgroup_id	String	Indicates the host group ID. Parameter length: 1 to 64	Yes
sync_to_storage	String	Indicates whether to automatically delete the corresponding host group from the storage system when the host group is removed. If this parameter is not specified, the default value <b>false</b> is used.	No

## 5.2.3 Modifying Host Group Details

### Module

hostgroup\_modify\_detail

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No

Parameter	Type	Description	Mandatory or Not
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
hostgroup_id	String	Indicates the host group ID. Parameter length: 1 to 64	Yes
name	String	Indicates the host group name. Parameter length: 1 to 255 Constraint: The value can contain only uppercase letters, lowercase letters, digits, underscores (_), hyphens (-), and periods (.).	Yes
azs	String	Indicates the AZ ID list. Parameter length: 1 to 64 Constraint: A maximum of 40 AZs can be associated for a single request.	No
project_id	String	Indicates the project ID. Parameter length: 1 to 64	No
description	String	Indicates the host group description. Parameter length: 0 to 63	No

## 5.2.4 Adding a Host to a Host Group

### Module

hostgroup\_add\_host

## Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
hostgroup_id	String	Indicates the host group ID. Parameter length: 1 to 64	Yes
host_ids	String	Indicates the host ID list. Parameter length: 1 to 64 Constraint: A maximum of 100 hosts can be added at a time.	Yes
sync_to_storage	String	Indicates whether to automatically add the corresponding host from the storage to a host group. If this parameter is not specified, the default value <b>false</b> is used.	No

## 5.2.5 Removing a Host from a Host Group

### Module

hostgroup\_remove\_host

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No

Parameter	Type	Description	Mandatory or Not
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
hostgroup_id	String	Indicates the host group ID. Parameter length: 1 to 64	Yes
host_ids	String	Indicates the host ID list. Parameter length: 1 to 64 Constraint: A maximum of 100 hosts can be added at a time.	Yes
sync_to_storage	String	Indicates whether to automatically add the corresponding host from the storage to a host group. If this parameter is not specified, the default value <b>false</b> is used.	No

## 5.2.6 Querying a Host Group

### Module

hostgroup\_querys

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No



Parameter	Type	Description	Mandatory or Not
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
limit	String	Indicates the number of records displayed on each page.	No
start	String	Indicates the start position for pagination query.	No
sort_dir	String	Indicates the sorting mode. The value can be <b>asc</b> (ascending order) or <b>desc</b> (descending order).	No
sort_key	string	Indicates the sorting field. Parameter type: enum Value range: <b>host_count</b> (number of hosts in the host group)	No
name	String	Indicates the host group name. Parameter length: 1 to 255 Constraint: The value can contain only uppercase letters, lowercase letters, digits, underscores (_), hyphens (-), and periods (.).	Yes
az_ids	String	Indicates the AZ ID list. Parameter type: array (string) Parameter length: 1 to 64	No
project_id	String	Indicates the project ID. Parameter length: 1 to 64	No
managed_status	String	Indicates the takeover status. Value range: UNKNOWN, NORMAL, TAKE_OVERING, TAKE_ERROR, TAKE_OVER_ALARM	No

## 5.2.7 Mapping LUNs to a Host Group

### Module

map\_hostgroup

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
volume_wwns	String	Indicates the LUN WWN list. Parameter length: The WWN length of each LUN ranges from 1 to 64. A maximum of 100 WWNs are supported.	Yes
hostgroup_id	String	Indicates the host group ID. Parameter length: 0 to 64	Yes
storage_id	String	Mapping policy parameter. Indicates the storage device ID. Parameter length: 0 to 64	No
start_host_lun_id	String	Mapping policy parameter. Indicates the start host LUN ID. Value range: int32	No

Parameter	Type	Description	Mandatory or Not
auto_zoning	String	Mapping policy parameter. Indicates whether to automatically plan zones. If this parameter is not specified or is set to <b>false</b> , zones are not planned.	No
zone_policy_id	String	Mapping policy parameter. Indicates the zone policy. If this parameter is not specified, the default zone policy is used for zone planning. Parameter length: 0 to 64  Constraint: This parameter is valid only when <b>auto_zoning</b> is set to <b>true</b> .	No
target_fcports	String	Mapping policy parameter. Indicates the port WWN list.  Parameter length: 0 to 63  Constraint: This parameter is mutually exclusive with <b>target_fcportgroups</b> . This parameter is valid when <b>auto_zoning</b> is set to <b>true</b> .	No
target_fcportgroups	String	Mapping policy parameter. Indicates the port group ID list.  Parameter length: 0 to 63  Constraint: This parameter is mutually exclusive with <b>target_fcports</b> . This parameter is valid when <b>auto_zoning</b> is set to <b>true</b> .	No
mapping_view_id	String	Mapping view parameter. Indicates the mapping view ID on the device.  Parameter length: 0 to 31	No
mapping_view_name	String	Mapping view parameter. Indicates the mapping view name on the device.  Parameter length: 0 to 31	No

Parameter	Type	Description	Mandatory or Not
lun_group_id	String	Mapping view parameter. Indicates the LUN group ID on the device. Parameter length: 0 to 31	No
lun_group_name	String	Mapping view parameter. Indicates the LUN group name on the device. Parameter length: 0 to 255	No
port_group_id	String	Mapping view parameter. Indicates the port group ID on the device. Parameter length: 0 to 31	No

## 5.2.8 Unmapping LUNs from a Host Group

### Module

unmap\_hostgroup

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes

Parameter	Type	Description	Mandatory or Not
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
volume_wwns	String	Indicates the LUN WWN list. Parameter length: The WWN length of each LUN ranges from 1 to 64. A maximum of 100 WWNs are supported.	Yes
hostgroup_id	String	Indicates the host group ID. Parameter length: 0 to 64	Yes

## 5.3 Host

### 5.3.1 Adding a Host

#### Module

host\_add

#### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No

Parameter	Type	Description	Mandatory or Not
access_mode	String	Indicates the host addition mode. Value range: <b>NONE</b> (no authentication)	Yes
type	String	Indicates the host operating system. The value can be <b>UNKNOWN, LINUX, WINDOWS, SUSE, EULER, REDHAT, CENTOS, WINDOWSSERVER2012, SOLARIS, HPUX, AIX, XENSER, MACOS, VMWAREESX, ORACLE, or OPENVMS.</b>	Yes
host_name	String	Indicates the host name. Parameter length: 1 to 255 Constraint: The value can contain only uppercase letters, lowercase letters, digits, underscores (_), hyphens (-), and periods (.).	No
description	String	Indicates the host description. Parameter length: 0 to 63	No
iscsi_initiator	String	Indicates the host iSCSI initiator list. Parameter length: 1 to 223 Constraint: The FC initiator and iSCSI initiator parameters cannot be left empty at the same time. The initiator names are separated by commas (,).	No
FC_initiator	String	Indicates the host FC initiator list. Parameter length: 1 to 223 Constraint: The FC initiator and iSCSI initiator parameters cannot be left empty at the same time. The initiator names are separated by commas (,).	No
azs	String	Indicates the AZ ID list. Parameter length: 1 to 64 Constraint: A maximum of 40 AZs can be associated for a single request.	No
project_id	String	Indicates the project ID. Parameter length: 1 to 64	No
multipath_type	String	Indicates the multipathing software type. The value can be <b>default</b> or <b>third_party</b> .	No

Parameter	Type	Description	Mandatory or Not
path_type	String	Indicates the initiator path type. The value can be <b>optimal_path</b> or <b>non_optimal_path</b> . Constraint: This parameter is required only when third-party multipathing software is used.	No
failover_mode	String	Indicates the initiator switchover mode. The value can be <b>early_version_alua</b> , <b>common_alua</b> , <b>alua_not_used</b> , or <b>special_alua</b> . Constraint: This parameter is required only when third-party multipathing software is used.	No
special_mode_type	String	Indicates the special mode type of an initiator. The value can be <b>mode_zero</b> , <b>mode_one</b> , <b>mode_two</b> , or <b>mode_three</b> . Constraint: This parameter is required only when the special switchover mode is used.	No

## 5.3.2 Modifying Host Addition Information

### Module

host\_modify\_accessioninfo

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No

Parameter	Type	Description	Mandatory or Not
host_id	String	Indicates the host ID. Parameter length: 1 to 64	Yes
ip	String	Indicates the access IP address of the host. Parameter length: 0 to 127 Constraint: Only IPv4 addresses are supported. This parameter is mandatory when the host addition mode is <b>NONE</b> (no authentication). If this parameter is left empty, the IP address remains unchanged.	No
port	String	Indicates the port for adding the host. Constraint: This parameter is mandatory when the host addition mode is <b>NONE</b> (no authentication). If this parameter is left empty, the port remains unchanged.	No
username	String	User name for adding the host. Parameter length: 1 to 255 Constraint: This parameter is mandatory when the host addition mode is <b>NONE</b> (no authentication). If this parameter is left empty, the user name remains unchanged.	No
password	String	Password for adding the host. Parameter length: 1 to 1024 Constraint: This parameter is mandatory when the host addition mode is <b>NONE</b> (no authentication). If this parameter is left empty, the password remains unchanged.	No
project_id	String	Indicates the project ID. Parameter length: 0 to 64 Constraint: If this field is left empty, the project ID remains unchanged. If this field is set to an empty string, the project is disassociated. If this field is set to a non-empty string that is different from the original project ID, the host is associated with the new project.	No
azs	String	Indicates the AZ ID list. Parameter length: 1 to 64 Constraint: A maximum of 40 AZs can be associated. If the value is empty or an empty list, AZs are disassociated.	No



Parameter	Type	Description	Mandatory or Not
sync_to_storage	String	Indicates whether to modify the host name, IP address, and operating system on the storage device synchronously. If the parameter is left empty, the default value <b>false</b> is used.	No
description	String	Indicates the host description. Parameter length: 0 to 63	No
multipath_type	String	Indicates the multipathing software type. The value can be <b>default</b> or <b>third_party</b> .	No
path_type	String	Indicates the initiator path type. The value can be <b>optimal_path</b> or <b>non_optimal_path</b> . Constraint: This parameter is required only when third-party multipathing software is used.	No
failover_mode	String	Indicates the initiator switchover mode. The value can be <b>early_version_alua</b> , <b>common_alua</b> , <b>alua_not_used</b> , or <b>special_alua</b> . Constraint: This parameter is required only when third-party multipathing software is used.	No
special_mode_type	String	Indicates the special mode type of an initiator. The value can be <b>mode_zero</b> , <b>mode_one</b> , <b>mode_two</b> , or <b>mode_three</b> . Constraint: This parameter is required only when the special switchover mode is used.	No

### 5.3.3 Modifying Basic Host Information

#### Module

host\_modify\_general

## Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	string	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
host_id	String	Indicates the host ID. Parameter length: 1 to 64	Yes
ip	String	Indicates the access IP address of the host. If this parameter is left empty, the IP address remains unchanged. Parameter length: 0 to 127	No
host_name	String	Indicates the host name. Parameter length: 1 to 255 Constraint: The value can contain only uppercase letters, lowercase letters, digits, underscores (_), hyphens (-), and periods (.). If the value is empty, the host name remains unchanged.	No
os_type	String	Indicates the host type. If the value is empty, the host type remains unchanged. The value can be <b>LINUX, WINDOWS, WINDOWSSERVER2012, SOLARIS, HPUX, AIX, XENSERVER, MACOS, VMWAREESX, ORACLE, or OPENVMS</b> .	No
azs	String	Indicates the AZ ID list. Parameter type: array (string) Parameter length: 1 to 64	No
project_id	String	Indicates the project ID. Parameter length: 0 to 64	No

## 5.3.4 Mapping LUNs to a Host

### Module

map\_host

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
volume_wwns	String	Indicates the LUN WWN list. Parameter length: The WWN length of each LUN ranges from 1 to 64. A maximum of 100 WWNs are supported.	Yes
host_id	String	Indicates the host ID. Parameter length: 1 to 64	Yes
storage_id	String	Mapping policy parameter. Indicates the storage device ID. Parameter length: 0 to 64	No
start_host_lun_id	String	Mapping policy parameter. Indicates the start host LUN ID. Value range: int32	No

Parameter	Type	Description	Mandatory or Not
auto_zoning	String	Mapping policy parameter. Indicates whether to automatically plan zones. If this parameter is not specified or is set to <b>false</b> , zones are not planned.	No
zone_policy_id	String	Mapping policy parameter. Indicates the zone policy. If this parameter is not specified, the default zone policy is used for zone planning. Parameter length: 0 to 64 Constraint: This parameter is valid only when <b>auto_zoning</b> is set to <b>true</b> .	No
target_fcports	String	Mapping policy parameter. Indicates the port WWN list. Parameter length: 0 to 63 Constraint: This parameter is mutually exclusive with <b>target_fcportgroups</b> . This parameter is valid when <b>auto_zoning</b> is set to <b>true</b> .	No
target_fcportgroups	String	Mapping policy parameter. Indicates the port group ID list. Parameter length: 0 to 63 Constraint: This parameter is mutually exclusive with <b>target_fcports</b> . This parameter is valid when <b>auto_zoning</b> is set to <b>true</b> .	No
mapping_view_id	String	Mapping view parameter. Indicates the mapping view ID on the device. Parameter length: 0 to 31	No
mapping_view_name	String	Mapping view parameter. Indicates the mapping view name on the device. Parameter length: 0 to 31	No

Parameter	Type	Description	Mandatory or Not
lun_group_id	String	Mapping view parameter. Indicates the LUN group ID on the device. Parameter length: 0 to 31	No
lun_group_name	String	Mapping view parameter. Indicates the LUN group name on the device. Parameter length: 0 to 255	No
port_group_id	String	Mapping view parameter. Indicates the port group ID on the device. Parameter length: 0 to 31	No

## 5.3.5 Unmapping LUNs from a Host

### Module

unmap\_host

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes

Parameter	Type	Description	Mandatory or Not
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
volume_wwns	String	Indicates the LUN WWN list. Parameter length: The WWN length of each LUN ranges from 1 to 64. A maximum of 100 WWNs are supported.	Yes
host_id	String	Indicates the host ID. Parameter length: 0 to 64	Yes

## 5.3.6 Querying a Host

### Module

host\_querys

### Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
limit	String	Indicates the number of records displayed on each page.	No

Parameter	Type	Description	Mandatory or Not
start	String	Indicates the start position for pagination query.	No
sort_dir	String	Indicates the sorting mode. Parameter type: enum The value can be <b>asc</b> (ascending order) or <b>desc</b> (descending order).	No
sort_key	String	Indicates the sorting field. Parameter type: enum Value range: <b>initiator_count</b> (number of initiators)	No
name	String	Indicates the host name. Fuzzy match is supported. Parameter length: 1 to 255	No
host_group_name	String	Indicates the host group name. Fuzzy match is supported. Parameter length: 1 to 255	No
ip	String	Indicates the host IP address. Fuzzy match is supported. Parameter length: 1 to 255	No
display_status	String	Indicates the display status. The value can be <b>OFFLINE</b> (disconnected), <b>NOT_RESPONDING</b> (no heartbeat response from the ESXi host), <b>GRAY</b> (the ESXi alarm status is unknown), <b>NORMAL</b> (the ESXi alarm status is normal or the non-ESXi connection status is connected), <b>RED</b> (the ESXi alarm status is faulty), <b>YELLOW</b> (the ESXi alarm status may be faulty), <b>REBOOTING</b> (the FusionSphere host is being restarted), <b>INITIAL</b> (the FusionSphere host is being initialized), <b>BOOTING</b> (the FusionSphere host is restarted), or <b>SHUTDOWNING</b> (the FusionSphere host is powered off).	No

Parameter	Type	Description	Mandatory or Not
managed_status	String	Indicates the host takeover status.  The value can be <b>UNKNOWN</b> (reserved), <b>NORMAL</b> (takeover successful), <b>TAKE_OVERING</b> (taking over), <b>TAKE_ERROR</b> (takeover error), or <b>TAKE_OVER_ALARM</b> (alarm generated).	No
os_type	String	Indicates the host operating system.  The value can be <b>UNKNOWN</b> , <b>LINUX</b> , <b>WINDOWS</b> , <b>SUSE</b> , <b>EULER</b> , <b>REDHAT</b> , <b>CENTOS</b> , <b>WINDOWSSERVER2012</b> , <b>SOLARIS</b> , <b>HPUX</b> , <b>AIX</b> , <b>XENSERVER</b> , <b>MACOS</b> , <b>VMWAREESX</b> , <b>ORACLE</b> , or <b>OPENVMS</b> .	No
access_mode	String	Indicates the host addition mode.  Parameter type: enum The value can be <b>ACCOUNT</b> , <b>NONE</b> , <b>VCENTER</b> , or <b>FUSIONSPPHERE</b> .	No
az_ids	String	Indicates the AZ ID list. Parameter length: 1 to 64 Constraint: A maximum of 40 IDs are supported.	No
project_id	String	Indicates the project ID. Parameter length: 1 to 64	No

## 5.3.7 Deleting a Host

### Module

host\_remove



## Parameter Description

Parameter	Type	Description	Mandatory or Not
dme_ip	String	Indicates the floating IP address of DME Storage.	Yes
dme_port	String	Indicates the port number of the DME Storage northbound interface. The default value is <b>26335</b> .	No
dme_user	String	Indicates the user name for DME Storage northbound interface authentication.	Yes
dme_password	String	Indicates the password for DME Storage northbound interface authentication.	Yes
dme_certificate_path	String	Indicates the path of the DME Storage northbound interface certificate.	No
host_id	String	Indicates the host ID. Parameter length: 1 to 64	Yes
sync_to_storage	String	Indicates whether to automatically delete the corresponding host from the storage system when the host is deleted. If this parameter is not specified, the default value <b>false</b> is used.	Yes