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|  | **eSDK Storage Plugins 1.0.0 OpenStack Driver**  Release Notes | | 附件1-16K |
|  | |
| **Issue** | **01** |
| **Date** | **2017-07-04** |
|  | |
| HUAWEI TECHNOLOGIES CO., LTD. | |
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# Version Requirements

1. About This Chapter

This chapter describes the relationship between OpenStack and storage plug-ins.

[1.1 Product Version](#_Product_Version)

[1.2 Storage Product Versions](#_Version_Requirements_on)

## Product Version

Product version

|  |  |
| --- | --- |
| Product Name | eSDK Storage Plugins OpenStack Driver |
| Product Version | 1.0.0 |

## Storage Product Versions

Storage product versions supported by Cinder Driver (√: supported; x: not supported)

| OpenStack | Huawei storage system |
| --- | --- |
| Juno  Kilo  Liberty  Mitaka  Newton  Ocata | T series V100R005C02/C30  T series V200R002C00/C20/C30  OceanStor V3 V300R001C10/C20  OceanStor V3 V300R002C10  OceanStor V3 V300R003C00/C10/C20  OceanStor 2200 V3 V300R005C00  OceanStor 2600 V3 V300R005C00  OceanStor V3 V300R006C00  OceanStor 2200 V3 V300R006C00  OceanStor 2600 V3 V300R006C00  OceanStor 18500/18800 V100R001C00/C20/C30  OceanStor 18500/18800 V300R003C00  OceanStor 18500/18800 V300R006C00  OceanStor Dorado V3 V300R001C00 |

Features supported by Cinder Driver (√: supported; x: not supported)

| Feature | Juno | Kilo | Liberty | Mitaka | Newton | Ocata |
| --- | --- | --- | --- | --- | --- | --- |
| Create Volume | √ | √ | √ | √ | √ | √ |
| Delete Volume | √ | √ | √ | √ | √ | √ |
| Attach Volume | √ | √ | √ | √ | √ | √ |
| Detach Volume | √ | √ | √ | √ | √ | √ |
| Extend Volume | √ | √ | √ | √ | √ | √ |
| Create Snapshot | √ | √ | √ | √ | √ | √ |
| Delete Snapshot | √ | √ | √ | √ | √ | √ |
| List Snapshots | √ | √ | √ | √ | √ | √ |
| Create Volume from  Snapshot | √ | √ | √ | √ | √ | √ |
| Create Volume from  Image | √ | √ | √ | √ | √ | √ |
| Create Volume from Volume | √ | √ | √ | √ | √ | √ |
| Create Image from  Volume | √ | √ | √ | √ | √ | √ |
| Volume Migration | √ | √ | √ | √ | √ | √ |
| QoS | √ | √ | √ | √ | √ | √ |
| Auto zoning | √ | √ | √ | √ | √ | √ |
| SmartTier | √ | √ | √ | √ | √ | √ |
| SmartCache | √ | √ | √ | √ | √ | √ |
| SmartThin/Thick | √ | √ | √ | √ | √ | √ |
| SmartPartition | √ | √ | √ | √ | √ | √ |
| HyperMetro | √ | √ | √ | √ | √ | √ |
| Retype | √ | √ | √ | √ | √ | √ |
| Manage/Unmanage Volume | √ | √ | √ | √ | √ | √ |
| Manage/Unmanage Snapshot | x | x | x | √ | √ | √ |
| Replication V2.1 | x | x | x | √ | √ | √ |
| HyperMetro Consistency Group | x | x | √ | √ | √ | √ |
| Assign StoragePool | √ | √ | √ | √ | √ | √ |
| Assign DiskType | √ | √ | √ | √ | √ | √ |
| Backup Snapshot | x | x | x | √ | √ | √ |
| Snapshot Consistency Group | x | x | x | √ | √ | √ |
| Multipath | √ | √ | √ | √ | √ | √ |
| Consistency Group | x | x | √ | √ | √ | √ |

Storage product versions and features supported by Cinder Driver (√: supported; x: not supported)

| Feature | Huawei storage system |
| --- | --- |
| Create, delete, expand, attach, and detach volume  Copy an image to a volume  Copy a volume to an image  Auto Zoning  SmartThin  Create and delete snapshot | T V100R005 C02/C30  T V200R002 C00/C20/C30  OceanStor V3 V300R001C10/C20  OceanStor V3 V300R002C10  OceanStor V3 V300R003C00/C10/C20  OceanStor 2200 V3 V300R005C00  OceanStor 2600 V3 V300R005C00  OceanStor V3 V300R006C00  OceanStor 2200 V3 V300R006C00  OceanStor 2600 V3 V300R006C00  OceanStor 18500/18800 V100R001C00/C20/C30  OceanStor 18500/18800 V300R003C00  OceanStor 18500/18800 V300R006C00  OceanStor Dorado V3 V300R001C00 |
| Create volumes with assigned storage pools  Create volumes with assigned disk types  Create, delete and update a consistency group  Manage and unmanage volume  Volume migration  Create and delete a cgsnapshot  Manage, unmanage, and backup snapshot  Replication V2.1 | T V200R002 C00/C20/C30  OceanStor V3 V300R001C10/C20  OceanStor V3 V300R002C10  OceanStor V3 V300R003C00/C10/C20  OceanStor 2200 V3 V300R005C00  OceanStor 2600 V3 V300R005C00  OceanStor V3 V300R006C00  OceanStor 2200 V3 V300R006C00  OceanStor 2600 V3 V300R006C00  OceanStor 18500/18800 V100R001C00/C20/C30  OceanStor 18500/18800 V300R003C00  OceanStor 18500/18800 V300R006C00  OceanStor Dorado V3 V300R001C00 |
| Clone a volume  Create volume from snapshot  SmartThick | T V100R005 C02/C30  T V200R002 C00/C20/C30  OceanStor V3 V300R001C10/C20  OceanStor V3 V300R002C10  OceanStor V3 V300R003C00/C10/C20  OceanStor 2200 V3 V300R005C00  OceanStor 2600 V3 V300R005C00  OceanStor V3 V300R006C00  OceanStor 2200 V3 V300R006C00  OceanStor 2600 V3 V300R006C00  OceanStor 18500/18800 V100R001C00/C20/C30  OceanStor 18500/18800 V300R003C00  OceanStor 18500/18800 V300R006C00 |
| QoS  Retype  SmartTier  SmartCache | T V200R002 C00/C20/C30  OceanStor V3 V300R001C10/C20  OceanStor V3 V300R002C10  OceanStor V3 V300R003C00/C10/C20  OceanStor 2200 V3 V300R005C00  OceanStor 2600 V3 V300R005C00  OceanStor V3 V300R006C00  OceanStor 2200 V3 V300R006C00  OceanStor 2600 V3 V300R006C00  OceanStor 18500/18800 V100R001C00/C20/C30  OceanStor 18500/18800 V300R003C00  OceanStor 18500/18800 V300R006C00 |
| SmartPartition | T V200R002 C00/C20/C30  OceanStor V3 V300R001C10/C20  OceanStor V3 V300R002C10  OceanStor V3 V300R003C00/C10/C20  OceanStor 2600 V3 V300R005C00  OceanStor V3 V300R006C00  OceanStor 2600 V3 V300R006C00  OceanStor 18500/18800 V100R001C00/C20/C30  OceanStor 18500/18800 V300R003C00  OceanStor 18500/18800 V300R006C00 |
| Hypermetro  Hypermetro consistency group | OceanStor V3 V300R003C00/C10/C20  OceanStor 2600 V3 V300R005C00  OceanStor V3 V300R006C00  OceanStor 2600 V3 V300R006C00  OceanStor 18500/18800 V300R003C00  OceanStor 18500/18800 V300R006C00 |

Storage product versions supported by Manila Driver (√: supported; x: not supported)

| OpenStack | Huawei storage system |
| --- | --- |
| Kilo  Liberty  Mitaka  Newton  Ocata | OceanStor V3 V300R002C10  OceanStor V3 V300R003C00/C10/C20  OceanStor 2600 V3 V300R005C00  OceanStor V3 V300R006C00  OceanStor 2600 V3 V300R006C00  OceanStor 18500/18800 V300R003C00  OceanStor 18500/18800 V300R006C00 |

Features supported by Manila Driver (√: supported; x: not supported)

| Feature | Kilo | Liberty | Mitaka | Newton | Ocata |
| --- | --- | --- | --- | --- | --- |
| Create Share | √ | √ | √ | √ | √ |
| Delete Share | √ | √ | √ | √ | √ |
| Allow access | √ | √ | √ | √ | √ |
| Deny access | √ | √ | √ | √ | √ |
| Create Snapshot | √ | √ | √ | √ | √ |
| Delete Snapshot | √ | √ | √ | √ | √ |
| Manage/Unmanage Share | x | √ | √ | √ | √ |
| Extend Share | x | √ | √ | √ | √ |
| Shrink Share | x | √ | √ | √ | √ |
| SmartCompression | x | √ | √ | √ | √ |
| SmartDedupe | x | √ | √ | √ | √ |
| SmartCache | x | √ | √ | √ | √ |
| SmartThin/Thick | x | √ | √ | √ | √ |
| SmartPartition | x | √ | √ | √ | √ |
| SmartQoS | x | x | √ | √ | √ |
| Multi-tenancy | x | x | √ | √ | √ |
| Ensure Share | x | x | √ | √ | √ |
| Create Share from Snapshot | x | x | √ | √ | √ |
| Manage/Unmanage Snapshot | x | x | x | √ | √ |
| Assign StoragePool | x | x | x | √ | √ |
| Assign DiskType | x | x | x | √ | √ |
| SectorSize | x | x | x | √ | √ |
| Replication | x | x | x | √ | √ |

Storage product versions and features supported by Manila Driver (√: supported; x: not supported)

| Feature | OceanStor V3 | | | | OceanStor 18500/18800 |
| --- | --- | --- | --- | --- | --- |
|  | V3R2 | V3R3/V3R6 | 2200 V3R5/V3R6 | 2600 V3R5/V3R6 | V3R3/V3R6 |
| Create Share | √ | √ | x | √ | √ |
| Delete Share | √ | √ | x | √ | √ |
| Allow access | √ | √ | x | √ | √ |
| Deny access | √ | √ | x | √ | √ |
| Create Snapshot | √ | √ | x | √ | √ |
| Delete Snapshot | √ | √ | x | √ | √ |
| Manage/Unmanage Share | √ | √ | x | √ | √ |
| Extend Share | √ | √ | x | √ | √ |
| Shrink Share | √ | √ | x | √ | √ |
| SmartCompression | √ | √ | x | √ | √ |
| SmartDedupe | √ | √ | x | √ | √ |
| SmartCache | √ | √ | x | √ | √ |
| SmartThin/Thick | √ | √ | x | √ | √ |
| SmartPartition | √ | √ | x | √ | √ |
| SmartQoS | x | √ | x | √ | √ |
| Multi-tenancy | √ | √ | x | √ | √ |
| Ensure Share | √ | √ | x | √ | √ |
| Create Share from Snapshot | √ | √ | x | √ | √ |
| Manage/Unmanage Snapshot | √ | √ | x | √ | √ |
| Assign StoragePool | √ | √ | x | √ | √ |
| Assign DiskType | √ | √ | x | √ | √ |
| SectorSize | √ | √ | x | √ | √ |
| Replication | √ | √ | x | √ | √ |

# Self-Testing Environment Description

Self-testing environment of Cinder Driver

| Operating System | Network Type | Remarks |
| --- | --- | --- |
| Ubuntu 14.04 | iSCSI, Fibre Channel | None |
| Ubuntu 16.04 | iSCSI, Fibre Channel | None |

Self-testing environment of Manila Driver

| Operating System | Protocol | Remarks |
| --- | --- | --- |
| Ubuntu 14.04 | NFS, CIFS | None |
| Ubuntu 16.04 | NFS, CIFS | None |

# Version Compatibility

Following tables describe the compatibility between earlier versions.

Version compatibility of Cinder Driver

| Product Version | OpenStack Version | Date | Compatibility |
| --- | --- | --- | --- |
| eSDK Storage Plugins 1.0.RC3 | IceHouse, Juno, Kilo, Liberty, Mitaka, and Newton | 2017-03-10 | None |
| eSDK Storage Plugins 1.0.RC5 | Juno, Kilo, Liberty, Mitaka, Newton and Ocata | 2017-05-05 | None |
| eSDK Storage Plugins 1.0.RC6 | Juno, Kilo, Liberty, Mitaka, Newton and Ocata | 2017-06-02 | None |
| eSDK Storage Plugins 1.0.0 | Juno, Kilo, Liberty, Mitaka, Newton and Ocata | 2017-07-04 | None |

Version compatibility of Manila Driver

| Product Version | OpenStack Version | Date | Compatibility |
| --- | --- | --- | --- |
| eSDK Storage Plugins 1.0.RC3 | Kilo, Liberty, Mitaka, and Newton | 2017-03-10 | None |
| eSDK Storage Plugins 1.0.RC5 | Kilo, Liberty, Mitaka, Newton and Ocata | 2017-05-05 | None |
| eSDK Storage Plugins 1.0.RC6 | Kilo, Liberty, Mitaka, Newton and Ocata | 2017-06-02 | None |
| eSDK Storage Plugins 1.0.0 | Kilo, Liberty, Mitaka, Newton and Ocata | 2017-07-04 | None |

# Important Notes

Important notes

| Precaution | Description | Remarks |
| --- | --- | --- |
| Restrictions of Manila Driver | 1. The multi-tenant feature is not supported.  2. The NFS access permission only supports IP configuration.  3. To grant permission for CIFS shares, you need to add a user on the array first. |  |

# What's New

1. About This Chapter

This chapter describes the updates of different versions of OpenStack Driver.

If this chapter does not describe updates in an official version, the version is the same as the last version.

[5.1 Feature Update](#_Feature_Update)

[5.2 Resolved Issues](#_Resolved_Issues)

[5.3 Known Issues](#_Known_Issues)

## Feature Update

|  |  |
| --- | --- |
| Feature No. | Feature Description |
| 1 | Cinder driver supports Huawei storage replication consistency group. |

## Resolved Issues

None

## Known Issues

None

# Upgrade Impact

1. About This Chapter

This chapter describes the upgrade impacts of OpenStack Driver.

[6.1 Impact on Services](#_Impact_on_Services)

## Impact on Services

Cinder Driver upgrade impacts on services

| Impact | Description | Remarks |
| --- | --- | --- |
| The Cinder Driver services are interrupted. | The **cinder-volume** service needs to be restarted during the upgrade of OpenStack Cinder Driver, interrupting services on the storage management plane. | Management services are interrupted. |
| Reads and writes of storage data are not affected. | Related links on the OpenStack service plane are functioning, ensuring normal reads and writes. | Reads and writes of storage data are not affected. |

Manila Driver upgrade impacts on services

| Impact | Description | Remarks |
| --- | --- | --- |
| The Manila Driver services are interrupted. | The **manila-share** service needs to be restarted during the upgrade of OpenStack Manila Driver, interrupting services on the storage management plane. | Management services are interrupted. |
| Reads and writes of storage data are not affected. | Related links on the OpenStack service plane are functioning, ensuring normal reads and writes. | Reads and writes of storage data are not affected. |

# Related Documentation

1. About This Chapter

This chapter lists the related documentation and explains how to obtain them.

[7.1 Related Documentation](#_Related_Documentation)

[7.2 Updates to Related Documentation](#_Updates_to_Related)

[7.3 Obtaining Documentation](#_Obtaining_Documentation)

## Related Documentation

Table 7-1 lists the eSDK Storage Plugins 1.0.0 OpenStack Driver documentation.

Documentation list

| Document | Description | Delivery Mode |
| --- | --- | --- |
| *OpenStack Cinder Driver Configuration Guide.pdf* | Introduces how to configure Cinder Driver. | Delivered with the software. |
| *OpenStack Manila Driver Configuration Guide.pdf* | Introduces how to configure Manila Driver. | Delivered with the software. |

## Updates to Related Documentation

None

## Obtaining Documentation

1. OpenStack Official Website

You can view or download related documentation from <http://docs.openstack.org/>.

note

You can view the configuration documents of the host plug-ins on the website.

1. Procedure

Access <http://docs.openstack.org> and select **Configuration Reference**.

On the page that is displayed, choose **Block Storage service** > **Volume drivers** >**Huawei volume driver** if you want to view the Cinder Driver configuration guide, or choose **Shared File Systems service** > **Share drivers** > **Huawei driver** if you want to view the Manila Driver configuration guide.

On the page that is displayed, you can view the configuration guide of the storage plug-in.

**----End**