Dedicated Enterprise Storage Service

Purchase Guide

Issue	01
Date	2020-03-18

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Contents

1 Billing Overview

Dedicated Enterprise Storage Service (DESS) provides users with exclusively used storage resources. DESS is charged at a flat monthly or yearly rate, according to the storage capacity you apply for.

Billing Standards

DESS can be charged by year or month. You can determine the validity period of DESS based on your service requirements and purchase a suitable package. **Table 1-1** describes the billing model.

Table 1-1 Charging package

Category	Billing Item	Description
Package	Validity period	The validity period is in units of years or months.

2 Registering a Cloud Service Account

If you have a cloud service account, you can directly log in to management console and access cloud services. If you do not have, register one by following introductions in this section. You can access all cloud services with a cloud service account.

Procedure

Step 1 Log in to the HUAWEI CLOUD website at **https://www.huaweicloud.com/intl/en-us/**.

Step 2 Click **Register** in the upper right corner of the displayed page.

Complete the registration as instructed.

After the registration is completed, your personal settings page is displayed.

----End

3 Logging In to the Management Console

This section describes how to log in to the management console, on which you can access and use cloud services.

Prerequisites

DeC has been provisioned. For details, see the **Dedicated Computing Cluster User Guide**.

Procedure

Step 1 Log in to the HUAWEI CLOUD website at **https://www.huaweicloud.com/intl/en-us/**.

Step 2 Click **Console** in the upper left corner of the displayed page.

Step 3 Log in using your account.

If you do not have a cloud account, click **Register** and register one as prompted.

----End

4 Applying for DESS Devices

You can apply for DESS devices for some months or years based on service requirements.

Prerequisites

You have registered a HUAWEI CLOUD account. For details, see **2 Registering a Cloud Service Account**.

Context

- Only users provisioned with DeC can apply for DESS devices. DESS adopts Huawei OceanStor enterprise storage devices to provide block storage resources for enterprise users on HUAWEI CLOUD.

- If you select **HyperMetro** when you apply for DESS devices, a HyperMetro resource will be created, containing two associated DESS devices, one as the preferred DESS device and the other non-preferred.
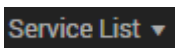
Precautions

To apply for DESS, you must be provisioned with DeC first. For details about how to subscribe to DeC, see the **Dedicated Computing Cluster User Guide**.

DESS charges on a yearly/monthly basis. You can decide your required durations, which can be 1 month to 3 years based on your own demand.

Procedure

Step 1 **Log in to the management console**.

Step 2 Click and select the wanted region.

Step 3 Click and choose **Dedicated Cloud** > **Dedicated Enterprise Storage** to go to the DeC management console.

Step 4 On the displayed page, click **Apply for DESS**.

The **Apply for DESS** page is displayed.

Step 5 Set the following parameters.

Table 4-1 Parameter description

Parameter	Description
Current Region	Region where the tenant resides. Select the region from the drop-down list in the upper left corner of the page.
	The system will automatically obtain the region based on the DeC you are provisioned with. You can change the region in the upper left corner of the page.
AZ	An AZ is a physical region where power supply and network are isolated from those of other regions. AZs are physically isolated but interconnected through the intranet.
	NOTE The current AZ must be the AZ where the resources of the dedicated computing cluster are located. The AZ cannot be changed after the application is complete.

Parameter	Description
Type	DESS device type. Set the parameter based on your own demands. ● Common I/O Huawei OceanStor enterprise storage, using iSCSI SAS disks. ● Common I/O (low latency) Huawei OceanStor enterprise storage, using FC SAS disks. ● High I/O Huawei OceanStor enterprise storage, using iSCSI SAS disks and SSDs. ● High I/O (low latency) Huawei OceanStor enterprise storage, using FC SAS disks and SSDs. ● Ultra-high I/O Huawei OceanStor enterprise storage, using iSCSI SSDs. Ultra-high I/O DESS devices do not support disk creation using snapshots. ● Ultra-high I/O (low latency) Huawei OceanStor enterprise storage, using FC SSDs. Ultra-high I/O (low latency) DESS devices do not support disk creation using snapshots. **NOTE** DESS devices with low latency can be connected to BMSs only through Fibre Channel (FC) switches. When we apply for a DESS device with low latency, the system configures the FC switches based on the value of Max. number of BMS connections.
Capacity (TB)	Capacity of the DESS device Options available are: 10, 20, 40, 60, 80 and 100 **NOTE** ● The 10 TB specification is available only when a DESS device is of the common I/O, common I/O (low latency), ultra-high I/O, or ultra-high I/O (low latency) type. ● If you want to modify this configuration, contact Huawei technical support engineers to change the value of **capacity_nosupport_extend**.
HyperMetro	HyperMetro enables real-time data synchronization between and concurrent access to two DESS device systems, improving resource utilization. When data access fails in one DESS device system, seamless service switchover is implemented, ensuring data security and service continuity. With HyperMetro enabled, you will purchase two DESS devices for active-active deployment. **NOTE** ● If you select **Cloud DR Replication**, this parameter will not be displayed. ● After this option is enabled, two associated DESS devices are generated, that is, preferred DESS device and non-preferred one.

Parameter	Description
Cloud DR Replication	Cloud DR replication provides remote data backup, disaster recovery, and continuous support for service data. Remote replication is a data mirroring technology. It copies data from a local storage device to a remote storage device and maintains several data copies at two or more sites to avoid data loss when a disaster occurs. When the remote device is a DESS device, this parameter is called cloud DR replication. **NOTE** If you select **HyperMetro**, this parameter will not be displayed.
Maximum number of connections allowed by the BMSs	Maximum number of BMSs that can be connected to the DESS device. After applying for DESS device with low latency, you can create a disk to attach it with the BMS. For this reason, you need to configure the maximum number of BMSs that can be connected to the DESS device. This parameter is displayed only when **Type** is set to **Common I/O (low latency)**, **High I/O (low latency)**, or **Ultra-high I/O (low latency)**. Specifications of connections: ● If **HyperMetro** is not selected, available options are **6**, **14**, and **22**. ● If **HyperMetro** is selected, available options are **4**, **12**, and **20**.
DESS Device Name	DESS device name. This parameter is displayed when **HyperMetro** is not selected. Enter a maximum of 64 halfwidth characters, chosen from letters, digits, underscores (_), and hyphens (-). The value must start with a letter. **NOTE** The default name is **DESS-***disk type_protocol-capacity size*. You can change the name according to the actual situation.
HyperMetro Name	HyperMetro resource name. The names of the two associated DESS devices will be automatically suffixed with **-DESS-01** and **-DESS-02** respectively. This parameter is displayed when **HyperMetro** is selected. Enter a maximum of 56 halfwidth characters, chosen from letters, digits, underscores (_), and hyphens (-). The value must start with a letter. **NOTE** The default name is **HyperMetro***disk type_protocol-capacity size*. You can change the name according to the actual situation.
Required Duration	The validity period ranges from 1 month to 3 years.
Auto-renewal	After you select this option, the system will renew your DESS order for the originally specified required duration upon expiration.

Step 6 Click **Apply Now**.

Step 7 On the page for confirming the order, you can view the order details and price.

Step 8 Confirm the configuration and click **Submit**.

----End

Follow-Up Procedure

After submitting an order, in the upper right corner on the DESS home page, choose **Fees** > **My Orders** and click **Details** to view the order details.

Table 4-2 describes the DESS order statuses.

Table 4-2 Order status description

State	Description
Pending Approval	Your order is in the **Pending Approval** state as soon as you submit the order.
Pending	The system administrator approves the order within three days. After the approval, the order status changes to **Pending**.
Processing	You can click **Pay** to pay for the order. After the payment, the order status changes to **Processing**. Then, you can view the DESS device that you purchase in the list, but cannot use it yet.

State	Description
Completed	After receiving the notification, O&M personnel access the storage device, FC switch (storage with low latency), and quorum server. The order status changes to **Completed**. Now, you can view DESS information on DESS management console. 1. Click and choose **Dedicated Cloud** > **Dedicated Enterprise Storage**. 2. In the navigation tree on the left, choose **Dedicated Enterprise Storage** > **Storage** > **Dedicated Enterprise Storage** >**FC Switch**. Alternatively, choose **Dedicated Enterprise Storage** > **HyperMetro** in the navigation tree on the left. 3. Check the information and status of DESS FC switches or HyperMetro resources.

5 Expanding a DESS Device

If the capacity of your DESS device is insufficient, you can expand it.

Context

For details about the capacity expansion of DESS device, see the following table.

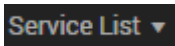**Table 5-1** Description of capacity expansion of DESS device

Type	Description
Common I/O and common I/O (low latency)	● The capacity of a DESS device can be expanded only when the device is in the **Available** state and the device capacity you have applied for does not reach the maximum capacity 100 TB. ● The initial capacity of a DESS device is as follows: – 10 TB: Capacity expansion can be performed once after capacity expansion to 20 TB. The capacity expansion specification is 20 TB. – Other capacity: Only one capacity expansion is supported, and the capacity expansion specification is 20 TB.
High I/O, high I/O (low latency)	● The capacity of a DESS device can be expanded only when the device is in the **Available** state and the device capacity you have applied for does not reach the maximum capacity 100 TB. ● Only one capacity expansion is supported, and the capacity expansion specification is 20 TB.

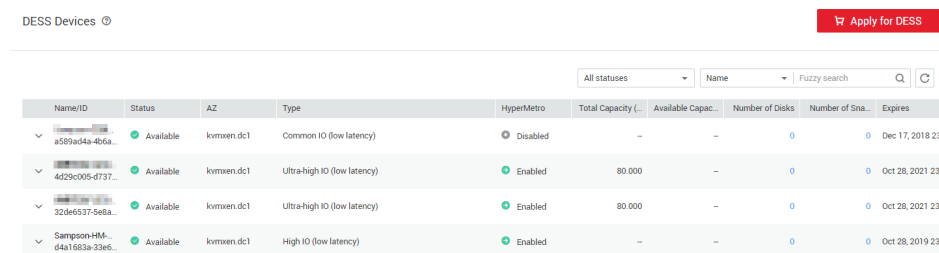| Type	Description
Ultra-high I/O, ultra-high I/O (low latency)	• The capacity of a DESS device can be expanded only when the device is in the **Available** state and the device capacity you have applied for does not reach the maximum capacity 100 TB. • The initial capacity of a DESS device is as follows: – 10 TB: Capacity expansion can be performed multiple times after capacity expansion to 20 TB. The subsequent capacity expansion specifications are 20 TB, 40 TB, 60 TB, and 80 TB. – Other capacity: Capacity expansion can be performed for multiple times. The capacity expansion specifications are 20 TB, 40 TB, 60 TB, and 80 TB.

Procedure

Step 1 **Logging in to the Management Console**.

Step 2 Click [Beijing1(dess_▮▮▮)] and select the wanted region.

Step 3 Click [Service List ▾] and choose **Dedicated Cloud** > **Dedicated Enterprise Storage** to go to the DeC management console.

Step 4 On the navigation pane on the left, choose **Dedicated Enterprise Storage** > **DESS Devices** to go to the DESS device list page.

Step 5 Click **Expand** in the row of the wanted resource instance. The **Expand** dialog box is displayed.

Step 6 Select the capacity to be added.

📖 **NOTE**

The total capacity must be 100 TB or less after expansion.

Step 7 Click **Apply Now**.

Step 8 Confirm the order and click **Submit**.

----End

Follow-Up Procedure

After submitting the order, in the upper right corner on the DESS home page, choose **Fees** > **My Orders**. You can click **Details** to view the order details.

For details about the DESS device capacity expansion order status, see Table 5-2.

Table 5-2 Order status description

Status	Description
Pending Approval	Your order is in the **Pending Approval** state as soon as you submit the order.
Pending	The system administrator approves the order within three days. After the approval, the order status changes to **Pending**.
Processing	You can click **Pay** to pay for the order. After the payment, the order status changes to **Processing**.

Status	Description
Completed	The O&M personnel, after being notified, expands the capacity of the DESS device. When the order status changes to **Completed**, the capacity is successfully expanded.

6 Renew a DESS Device

If your DESS device has expired and you still need it, you can renew it. If the HyperMetro feature is enabled for the DESS device, the associated DESS devices and FC switches will be automatically renewed. (Low-latency DESS devices have FC switches.)

Prerequisites

The DESS device is in the **Available**, **Expired** or **Frozen** state.

Procedure

Step 1   **Logging in to the Management Console**.

Step 2   Click and select the wanted region.

Step 3   Click and choose **Dedicated Cloud** > **Dedicated Enterprise Storage** to go to the DeC management console.

Step 4   On the navigation pane on the left, choose **Dedicated Enterprise Storage** > **DESS Devices** to go to the DESS device list page.

Step 5   In the row of the resource instance, click **Renew**.

The **Renewals** page is displayed.

Step 6   In the row of the resource instance, click **Renew**.

Step 7   Confirm the renewal information and click **Pay**.

The **Pay** page is displayed.

Step 8 Select a payment method and click **Confirm**.

----End

7 Unsubscribing from a DESS Device

If you do not need your DESS device, you can unsubscribe from it.

Precautions

After the unsubscription succeeds, all data on the DESS device will be cleared. Confirm that the data is no longer needed before performing this operation.

Procedure

Step 1 **Logging in to the Management Console**.

Step 2 In the upper right corner of the management console, click **Fees**.

The **Billing Center** page is displayed.

Step 3 In the navigation pane on the left, choose **Unsubscriptions and Changes** > **Unsubscriptions**.

The **Unsubscriptions** page is displayed.

Step 4 Set the filtering criteria and click 🔍 .

Step 5 In the row of the unwanted resource instance, click **Unsubscribe**.

The **Unsubscribe** page is displayed.

Step 6 View the unsubscribe details and select the reason for the unsubscription.

Step 7 Select   ＊ ☑   I have confirmed that a handling fee will be charged for this unsubscription. .

Step 8 Click **Unsubscribe**.

----End

A Change History

Release Date	Change History
2019-05-31	This issue is the seventh official release. This release incorporates the following change: ● Updated **5 Expanding a DESS Device**.
2019-01-31	This issue is the sixth official release. This release incorporates the following change: ● Updated **4 Applying for DESS Devices**. ● Updated **5 Expanding a DESS Device**.
2018-12-20	This issue is the fifth official release. This release incorporates the following change: ● Updated **4 Applying for DESS Devices**. ● Updated **5 Expanding a DESS Device**. ● Updated **6 Renew a DESS Device**. ● Updated **7 Unsubscribing from a DESS Device**.
2018-07-30	This issue is the fourth official release. This release incorporates the following change: ● Updated **4 Applying for DESS Devices**. ● Updated **5 Expanding a DESS Device**. ● Updated **6 Renew a DESS Device**. ● Updated **7 Unsubscribing from a DESS Device**.
2018-05-30	This issue is the third official release. This release incorporates the following change: ● Updated **4 Applying for DESS Devices**. ● Updated **5 Expanding a DESS Device**.

Release Date	Change History
2018-03-30	This issue is the second official release. This release incorporates the following change: ● Updated **4 Applying for DESS Devices**. ● Updated **5 Expanding a DESS Device**.
2018-01-30	This issue is the first official release.