Data Express Service

FAQs

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1 About the Service

1.1 What Is DES?

Data Express Service (DES) is a TB-scale data transmission service. It provides physical storage devices (such as Teleport, external USB hard disks, SATA disks, and SAS disks) to make it easier for you to transmit terabytes of data to HUAWEI CLOUD. DES offers up to 1,000 Mbit/s transmission speed, almost 10 times faster than would be possible over Internet, at only one fifth of the Internet cost. DES does not occupy the public network bandwidth or the bandwidth of main businesses.

DES allows you to transmit data by Teleport or by disk. Select the transmission mode based on the data volume to be transmitted.

- Data volume < 30 TB: Use disks.
- 30 TB < data volume < 500 TB: Use Teleport.
- Data volume > 500 TB: Use the Direct Connect service.

For Teleport-based DES, you will receive a Teleport sent by a Huawei data center. For disk-based DES, you need to prepare disks by yourself. See **Table 1-1** for more information.

Table 1-1 Comparison of two DES transmission modes

Transmissi on Mode	Application Scenario	Migration Medium	How to Obtain the Migration Medium
By Teleport	 Migration of 30 to 500 TB of data. If the data volume is larger than 500 TB, you are advised to use the Direct Connect service. Users having no large-capacity storage media Urgent data migration that requires fast speed and short time 	Teleport. The capacity of a single Teleport is 60 TB.	Huawei data centers mail Teleports to you.
By Disk	Migration of less than 30 TB of data	External USB hard disks, SATA disks, and SAS disks For details about the specifications, interfaces, and file systems supported by each type of disks, see What Are the Requirements for Disks by Disk-based DES?.	You need to prepare disks for transmission.

DES saves your effort and money in writing code or buying any hardware for data transmission. You only need to create service orders on DES Console and use Teleports or disks as the storage medium to transmit data to HUAWEI CLOUD securely, quickly, and efficiently.

1.2 What Are the Advantages of DES Over the Internet in Data Transmission?

Compared with the data transmission using the Internet, DES has the following advantages:

 More efficient data transmission
 After you send your Teleports or disks to a Huawei data center, the administrator connects them to servers in the data center. Data is then transmitted over the internal network, where the transmission speed can reach 10 times of that over the Internet, reducing the time spent in data transmission.

- Large capacity: As a single Teleport provides 60 TB available capacity, it is perfect for migrating massive data to the cloud.
- High bandwidth: Teleport supports two 10GE high-speed ports.
- Safer data transmission
 - Teleport is dust- and water-proof and resistant to vibration and compression. With a safety lock, Teleport secures your data during delivery.
 - After receiving your storage medium, an administrator of Huawei data center mounts it to a physical server. Then, you can upload the access keys (AK/SK) to start data transmission. In this manner, Huawei personnel have no access to your keys or data, ensuring data security during the transmission.
 - Your data is stored on Object Storage Service (OBS) which has powerful security mechanism. It supports Secure Sockets Layer (SSL) encryption, access control lists (ACL), bucket policy and slice-based data storage.
- Cost-effectiveness
 - With pay-per-use billing mode, data transmission costs are slashed to one fifth of the high-speed Internet.
 - No maintenance costs and no maintenance personnel are required.

1.3 What Are the Scenarios to Which DES Is Applicable?

DES is applicable to the following scenarios:

- Migration of raw big data: Migrate raw data of genetics engineering, oil exploration, meteorological research, and Internet of Things (IoT) to Object Storage Service (OBS) of HUAWEI CLOUD.
- Reception of interchangeable data: If users often transmit data services through physical storage media, data can be transferred to the object storage service to exchange data on the cloud.
- Website content migration: Migrate static resources, such as static website content, images, scripts, and videos to OBS.
- Offline data backup: Send full or incremental backups to HUAWEI CLOUD
 OBS to implement reliable and redundant off-site storage. This can be used
 along with the hybrid cloud backup solution.
- Disaster recovery: If a large amount of data needs to be prepared for disaster recovery, the cost-effective offline service, DES, can be used for initial synchronization.

1.4 In What Conditions Is DES Recommended?

You can estimate the transmission time by using the following formula. If data transmission cannot be complete by the Internet within the time you expect, try DES. The data transmission time is calculated as follows:

Transmission time (days) = [Total capacity (KB)]/[Bandwidth (Mbit/s) x 125 x Network utilization rate x 60 (seconds) x 60 (minutes) x 24 (hours)]

1.5 Is the Data Volume Limited for DES?

Data transmitted by DES is stored on OBS. OBS can be scaled without limit. Worries about no place to store your data become a past. Now, just enjoy limitless space of cloud storage.

1.6 Where Is Data Uploaded by DES Stored?

Data transmitted by DES is stored on Object Storage Service (OBS), which is an object-based massive storage service. Data storage on OBS is secure, reliable, and cost-effective. For details about how to use OBS, see **Object Storage Service Overview**.

Currently, DES does not support data upload to other cloud services. The transmitted data is stored on OBS. OBS can serve as the storage pool of other cloud services and can be used as the data source for data analysis and learning of other cloud services. If you want to use DES to transmit data to other cloud services, you can upload the data to OBS and use other cloud services with OBS as the data source.

1.7 What Information Is Contained in the DES Transmission Report?

Whether your data is transmitted using disks or Teleports, a transmission report is generated when the data is uploaded. This report is for you to confirm the data transmission. The following table lists related parameters.

Parameter	Description
capacity_size	Total bytes to be transmitted
success_size	Bytes that have been successfully transmitted
fail_size	Bytes that failed to be transmitted
written_files	Number of files that have been successfully transmitted
total_files	Total number of files to be transmitted

1.8 What Are the Requirements for Disks by Disk-based DES?

- A service order supports a maximum of 12 disks, and each disk has only one partition.
- Supported disks: 2.5-inch and 3.5-inch SATA disks, as well as 3.5-inch SAS disks.
- Supported interface types: USB 2.0, USB 3.0, SATA, and SAS.
- Supported file system types: EXT2, EXT3, EXT4, FAT32, EXFAT, and NTFS.

1.9 What Is Teleport?

Teleport is a customized high-performance storage device used for massive data transmission. It is the migration medium for Teleport-based DES. Huawei data center sends Teleports to users. Users copy their data to the Teleport storage system and send the Teleport back to Huawei to migrate data to Huawei Cloud OBS. Through Teleport, 60-TB data can be uploaded to Huawei Cloud within four days. Teleport has the following features:

- It is dust- and water-proof and resistant to vibration and compression. With a safety lock, data is secured during delivery.
- It can import the NFS/CIFS/FTP data source to OBS.
- It supports automatic merge of small files to improve read and write efficiency.
- With the military class enclosure, it is applicable to all-weather logistics scenarios to ensure secure transmission.
- The available capacity is 60 TB.
- It provides two 10GE high-speed ports.

Table 1-2 Specifications of Teleport

Dimensions (H x W x D)	Weight	Power	Rack Space
95.5 cm (H) 55.9 cm (W) 24.4 cm (D)	40 kg	220 V/366 W	Not required

1.10 In What Conditions Is Teleport Recommended?

- If the data volume you need to migrate is about 30 to 500 TB, Teleport-based DES is recommended.
- You can use Teleport to quickly transfer data if urgent data migration is required.

1.11 What Are the Advantages of Teleport-based Transmission?

- Dust- and water-proof, and resistant to vibration and compression
- Security protection, such as safety lock
- Simple configuration and strong adaptability
- 2 x 10GE high-speed ports
- TB-scale data migration, with each Teleport providing 60 TB storage capacity.

1.12 What Is the Storage Capacity of a Teleport?

The capacity of a single Teleport is 60 TB. If the amount of data to be transmitted exceeds 60 TB, you can apply for more than one Teleports.

1.13 What Is the Difference Between the Source Data Parameter and teleportshare?

The **Source Data** parameter is optional. It suits customers who what to import data to different destination buckets or directories. In other words, it is used to specify directories for the data to be transferred. The **Source Data** parameter is not associated with the Teleport device. It is used only to guide Huawei data center background to import data to target buckets as required.

Teleportshare is the path name of a shared file system. It is created by Huawei data center in a Teleport device before delivery. You do not need to create it. You can copy data to be transferred to this path. A customer must copy data in the teleportshare path of the Teleport device and the name of the file or file folder is the **Source Data**.

1.14 Can DES Provide Data Export Service?

DES is used to provide users with massive data transmission to the cloud. Data Export is currently not supported.

If you need to migrate data that has been uploaded to OBS to other Huawei Cloud services or regions in batches, you are advised to use Cloud Data Migration (CDM).

1.15 How Long Does It Take to Ship a Teleport?

After the service order is created, we will immediately send a Teleport from the HUAWEI CLOUD data center to the delivery address specified in your service order.

The shipping time is mainly affected by the distance. **Table 1-3** lists the shipping days required for different distances. The shipping time may vary depending on external factors.

Table 1-3 Shipping days for different transportation distances

Distance (km)	Reference Shipping Time (Days)
0-400	1
401–800	2
801–1200	3
1201–1600	4
1601–2200	5
2201–2800	6
2801–4200	7
4201–5000	8

HUAWEI CLOUD data centers are distributed in different regions. The data center which ships the Teleport to you is the data center in the region selected when you create the service order. You can obtain the address from the service order details on DES Console.

1.16 How Long Does It Take for My Data to Migrate to Huawei Cloud After I Have Created a DES Order?

There is not a standard time period for data migration. The time is subject to change by many factors, including the data volume, file type, copy speed, network bandwidth, and logistics.

The following provides an example for your reference. In this example, a customer uses DES to migrate data to the CN-Hong Kong region on Huawei Cloud.

NOTICE

Data listed in the following table is for reference only and does not represent any commitment made by Huawei Cloud.

Table 1-4 Time required in each transmission phase

Transmis sion Mode	Mailing Teleport to Custome r's DC (Day)	Copying Data to Teleport /Disk (Day)	Mailing Teleport /Disk to Huawei DC (Day)	Uploadin g Data to Huawei Cloud (Day)	Mailing Back Disk (Day)	Total Time Required (Day)
By Teleport (60 TB)	5	6	5	6	N/A	22
By Disk (1 TB)	N/A	3	4	3	4	14

2 Operations

2.1 How Do I Subscribe to DES?

First, you need to register a Huawei ID, top up your account, and create buckets on Object Storage Service (OBS). Then, you can start using DES.

- Register a Huawei ID.
 - Log in to Huawei Cloud.
 - In the upper right corner of the page, click **Register**. On the registration page, fill in information as prompted.
- Top up your account.
 - After the registration, click **Console** to go to the console page.
 - Click Billing in the upper right corner of the page to go to the Billing Center.
 - In the navigation pane, choose Funds Management > Top Up. The Top Up page is displayed.
 - Top up the account as prompted.
- Create a bucket.
 - After the top-up is complete, close the dialog box and go back to the management console homepage.
 - Choose Service List > Storage > Object Storage Service.
 - Click Create Bucket in the upper right corner. Complete the configurations and then click Create Now.

For details, see Creating a Bucket.

- Subscribe to DES.
 - After creating the bucket, return to the Console homepage.
 - Choose Service List > Storage > Data Express Service.
 - Click Buy DES. Complete the configurations and click Buy Now. Confirm your information and submit your DES order. For details, see Creating a Teleport-based DES Order and Creating a Disk-based DES Order.

If your account is in arrears, you can still apply for a DES service order, but data will fail to be uploaded to Huawei Cloud. Therefore, you are advised to use DES when your balance is sufficient.

2.2 Why Do I Need to Create OBS Destination Buckets When Using DES?

Object Storage Service (OBS) is a stable, secure, efficient, and easy-to-use cloud storage service. It provides highly reliable storage capabilities at low costs. With OBS, you can easily create, modify, and delete buckets, as well as upload, download, and delete objects. An object is the basic unit of data storage on OBS. It consists of object data and object metadata that describes object attributes. A bucket is a virtual container used to store objects on OBS.

Data transmitted through DES is stored as objects in buckets. Therefore, you need to subscribe to OBS, create buckets, and use DES to transmit data to OBS buckets. For details about how to create a bucket, see **Creating a Bucket**.

□ NOTE

The number of required buckets depends on the number of data directories to be transmitted. A service order allows up to 10 buckets to be created.

2.3 Can I Post Several Disks with One Service Order?

Yes. Currently, each DES order supports a maximum of 12 disks. If you post more than 12 disks, you need to create more than one service order.

For Teleport-based DES, if the amount of data to be transmitted exceeds 60 TB, you can create multiple service orders, applying for more than one Teleports.

2.4 Can I Cancel a Submitted DES Order?

- For disk-based DES, when you have created your order, but have not sent your disk to a Huawei data center, namely, the service order status is **Disk to be** sent, you can cancel your order.
- For Teleport-based DES, when you have created your order, but the Teleport has not been sent, namely, before the service order status turns into **Device to be sent**, you can cancel the service order.

2.5 How Do I Use a Teleport?

After receiving a Teleport from a Huawei data center, ensure that the equipment container is intact and clearly marked. The following table describes the procedure of using a Teleport.

Table 2-1 Using a Teleport

Procedure	Description
Unpacking a Teleport	Unpack the Teleport that you have signed for.
Configurin g the network connectio n	Configure the service network connection and management network connection between the local server and the Teleport.
Powering on the Teleport	Power on the Teleport and prepare to copy data to the Teleport root directory.
Copying data	The Teleport storage system uses shared files to copy data. Copying data to the mounted share path is to copy it to the storage system in the Teleport. A CIFS shared file system is mounted to a Windows OS. An NFS shared file system is mounted to a Linux or Unix OS.
Powering off and packing the Teleport	After all the data to be transmitted and the signature file are uploaded to the Teleport, power off the device, pack it in the equipment container, and send it back.

2.6 In What Conditions Will I Be Notified by SMS Text Messages?

For users to timely track and manage progresses of their service orders, DES sends SMS messages to notify users about the key progresses of the orders. The key progresses which will be notified are as follows:

- Successful application of a service order
- Successful data transmission
- Preparing Teleport
- Access key (AK/SK) to be entered
- Sending an SMS verification code

2.7 How Can I Start Uploading Data After My Disk or Teleport Has Been Mounted?

After receiving an SMS message notifying you of the successful mounting of the disk or Teleport, log in to DES Console, locate the service order whose state is **Access key (AK/SK) to be entered**, and click **Enter access key (AK/SK)** in the **More** drop-down list of the **Operation** column. In the displayed dialog box, enter the AS/SK. You only need to upload AK/SK once for a service order.

- If you have no AK/SK, create one on the My Credentials page.
- If you have already submitted the access keys (AK/SK) when creating the service order, you only need to follow up the uploading progress.

2.8 Does the Data Directory Structure Change After Data Is Uploaded to OBS Using DES?

No. Although the prefix of xxx/deshare/DES service order/data source directory is generated as a transmission key when the data is uploaded to OBS, OBS retains the directory structure of the data stored in Teleports or disks after the user data is successfully uploaded to OBS.

OBS does not support hyperlinks in the file system. Therefore, any file that needs to be obtained via the hyperlink in the file directory transmitted using DES will be skipped and not uploaded to OBS, because hyperlinks become invalid during the transmission.

2.9 What Can I Do if the Device Is Damaged During DES Delivery?

Device faults may occur during the delivery. Huawei DCs and users are responsible for different mail scenarios.

- If the Teleport is damaged during its mail-back, you are liable for the compensation.
- You are liable for the disk damage caused by the disk delivery.
- The Huawei DC is responsible to provide intact Teleports to the user and liable for damages that may occur before the user receiving the Teleport.
- If damages occur after the Huawei DC receives the Teleport returned by the user, the fees generated during the secondary transmission are fully exempted. In addition, Huawei guarantees the data integration during the transmission to OBS.
- If damages occur after the Huawei DC receives the disks sent by the user, the fees generated during the secondary transmission are fully exempted. In addition, Huawei compensates new disks to the user and guarantees the data integration during the transmission to OBS.

2.10 For Disk-based DES, How Do I Send a Disk?

After the signature file and the data to be transferred are copied to the disk, you need to ensure that the disk is well-packed to protect it from damage during transit. Contact the nearby logistics provider to send the disk to the selected Huawei data center. Log in to DES Console and view the order details to obtain the data center address, contact person, and phone number. DES does not provide the encapsulation service during transit. You are responsible for any packaging and disk damage in transit. DES provides only the encapsulation of the returned disk and ensures that the disk is sent back to you intactly.

In addition, due to Huawei data center management requirements, do not bring disks to Huawei data centers by yourself. DES only allows for disk transportation by post.

2.11 In Which Statuses Can a Service Order Be Modified?

You can modify your order if it is in any of the following statuses:

- For a Teleport-based DES order, if its status is **Order under review**, you can modify the service order information.
- For a disk-based DES order, if its status is **Disk to be sent**, you can modify the service order information.
- For a disk-based DES order, after the AK/SK are input for data upload, the status of the order turns into Transmission failed and a message stating The disk directory cannot be found is displayed. In this case, data transmission fails because the file name in the directory of your disk is inconsistent with the information of Disk File in the service order. You can modify the information of Disk File and input the AK/SK again to start data transmission.

3 Service Order Status

3.1 How Can I Obtain the Status of a DES Service Order?

You can log in to DES Console, and unfold your service order to view the service status.

In addition, you will receive SMS messages that notify you of the key progress of the DES order when: the service order is successfully created, data transmission succeeds, Teleport is to be sent, and access keys (AK/SK) are to be entered.

3.2 What Are the Possible Statuses of a Disk-based Service Order?

A disk-based service order may be in the following statuses:

- Disk to be sent
- Access keys (AK/SK) to be entered
- Data transmitting
- Disk to be sent back
- Transmission failed
- Service order completed
- Service order canceled
- Service order expired

Figure 3-1 illustrates the status conversion:

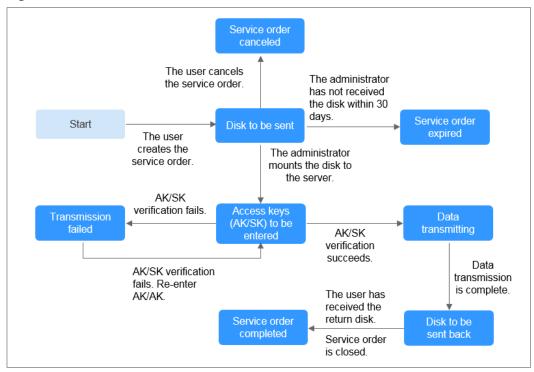


Figure 3-1 Status conversion of disk-based DES

3.3 What Are the Possible Statuses of a Teleport-based Service Order?

A Teleport-based service order may be in the following statuses:

- Order under review
- Preparing device
- Device to be sent
- Sending to user
- Received by user
- Sending to DC
- Received by DC
- Access keys (AK/SK) to be entered
- Data transmitting
- Service order completed
- Service order canceled

Figure 3-2 illustrates the status conversion:

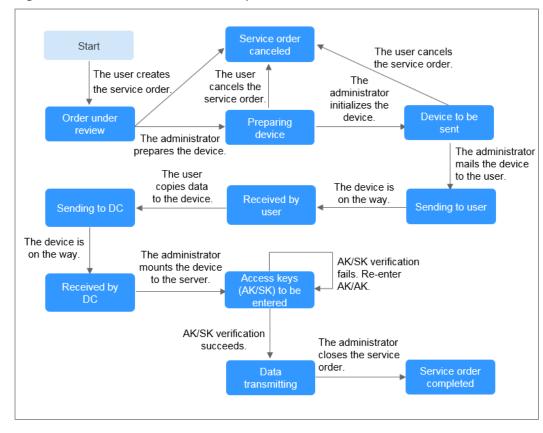


Figure 3-2 Status conversion of Teleport-based DES

3.4 What Does Disk to be sent Mean?

Create a disk-based service order. After the service order is created, the status of the service order changes to **Disk to be sent**. You need to store data in a disk and post the disk to a Huawei data center.

After the Huawei data center receives the disk, the administrator mounts the disk to the server, and then the order status will change.

3.5 What Does *Expired* Mean?

If the DC administrator does not receive your disk within 30 days after you have created a Disk-based service order, the order status becomes **Expired**.

3.6 What Does Service order canceled Mean?

- When you have created your Disk service order, but have not sent your disk to Huawei DC, that is, the order status is **Disk to be sent**, you can cancel your order. and the order status will become **Service order canceled**.
- A service order in Teleport mode can be canceled when the status is Order under review. After canceled, the service order changes to Service order canceled.

3.7 What Does Access key (AK/SK) to be entered Mean?

After the Huawei data center receives your disk or Teleport and the administrator completes the configurations for the disk or Teleport, the service order status becomes **Access key (AK/SK) to be entered**.

- If you have entered the AK/SK when creating the service order, data uploading starts automatically.
- If you have not entered the AK/SK, you must log in to DES Console and enter such information. Data uploading will then be triggered.

3.8 What Does Data transmitting Mean?

If the AK/SK that you enter pass the verification, data transmission will start, and the order status will remain **Data transmitting** until the transmission is finished.

3.9 What Does Disk to be sent back Mean?

For data transmission in Disk mode, after data transfer is complete, the disk order status becomes **Disk to be sent back**. The DC administrator will post your disk back to you.

3.10 What Does Transmission failed Mean?

For a disk-based service order, you need to enter the AK/SK to start uploading data. If the verification fails, the service order status will become **Transmission failed**.

If **Transmission failed** appears, rectify the fault based on actual conditions and reupload the AK/SK. Possible situations resulting in **Transmission failed** are listed as follows:

- Wrong AK/SK
 - Solution: Re-enter the correct AK/SK.
- Inconsistency of disk directory information between the service order and the disk
 - Solution: Modify disk directory information in the service order to be consistent with that of the disk.
- Signature file of the disk not saved in the root directory

 Solution: Huawei data center administrator will contact you and post your disk back. You need to save the signature file under the root directory as required before you post the disk again.

3.11 What Does *Order under review* Mean?

After a Teleport-based service order is created, the service list shows that the service order is in the **Order under review** status. If the service order is not approved, a Huawei data center administrator will contact you to check the service order and handle it. If the service order is approved, the administrator will initialize the Teleport as required and prepare for the delivery of Teleport.

3.12 What Does *Preparing device* Mean?

After the service order in Teleport mode is approved, the Huawei DC administrator initializes the Teleport and updates the service order status to **Preparing device**.

3.13 What Does Disk to be sent Mean?

After the service order in Teleport mode is initialized, the Huawei DC administrator updates the service order status to **Disk to be sent**.

3.14 What Does Sending to user Mean?

After Huawei packages Teleport and sends it by express, the Huawei data center administrator updates the service order status to **Sending to user**. You only need to wait with patience.

3.15 What Does Sending to Huawei Mean?

For a Teleport-based service order, after you copy the data and signature file to the Teleport root directory, you need to pack the Teleport and send it to the Huawei data center. Then you can contact the Huawei data center administrator to change the service order status to **Sending to Huawei**.

3.16 What Does Staff signed Mean?

For a service order in Teleport mode, you need to mail the Teleport back to Huawei DC after you finish copying data to Teleport. After receiving the Teleport from you, the Huawei DC administrator updates the status of the service order to **Staff signed**.

4 Security

4.1 How Does DES Prevent Data from Being Stolen?

- Teleport is dust- and water-proof and resistant to vibration and compression. With a safety lock, Teleport secures your data during delivery.
- Data upload is automatically triggered by the input of AK/SK. Your keys and data are for your eyes only.
- Your data uploaded to OBS is stored in segments and then randomly distributed onto different disks. In this manner, your data cannot be completely reconstructed even if the disk is stolen.

4.2 How Does DES Ensure Data Security?

- Teleport is dust- and water-proof and resistant to vibration and compression. With a safety lock, Teleport secures your data during delivery.
- After the Huawei data center administrator receives your disk or Teleport and connects it to the data center, you need to enter the access keys (AK/SK) to trigger the automatic upload (you can also enter such information when creating the service order). In this manner, Huawei personnel have no access to your keys or data, ensuring data security during the transmission.
- After being uploaded, your data is stored on Object Storage Service (OBS)
 which has powerful security assurance mechanism. It supports Secure Sockets
 Layer (SSL) encryption, access control lists (ACL), bucket policy and slicebased data storage.

4.3 What Is the Anti-Misoperation Mechanism of DES?

After a DES order is submitted, the system generates a signature file which is the unique identifier for your device in the order. Therefore, you need to place the signature file in the root directory of the disk or Teleport, and then send the device to a Huawei data center. After receiving your disk or Teleport, the administrator of Huawei data center connects it to the data center. The system automatically matches the device to the service order. After successful matching, you are notified

to enter the AK/SK to start data transmission. No manual intervention is involved during data transmission to prevent mis-operations.

4.4 What Is the Function of a Signature File?

A signature file is the unique identifier of the disk or Teleport in a service order, which must be saved in the root directory of the disk or Teleport. After receiving your disk or Teleport, the administrator of Huawei data center mounts the device to a server and configures cabling. The system automatically matches the device to the service order based on the signature file to prevent mis-operations caused by manual interventions.

4.5 How Can I Obtain a Signature File?

- For a disk-based DES order, log in to DES Console, choose Disk to be sent > Download Signature File, and download the signature file.
- For a Teleport-based DES order, signature files can be downloaded if the service order is in the Order under review, Preparing device, Device to be sent, Sending to user, or User signed statuses. Log in to DES Console. Click Download Signature File, and download the signature file.

4.6 What Is the Content of a Signature File?

A signature file is the unique identifier for matching a DES order with a Teleport. The following table lists parameters of a signature file.

Parameter	Description
version	Specifies the service version.
OrderURN	Includes the service name, region where the service order is created, service signature, and service order information.

4.7 Do I Need to Post the Signature File Along with the Disk or Teleport?

Yes. After creating a service order, download the signature file to the root directory of the disk or Teleport.

4.8 Can Background Management Personnel Obtain My Data?

After receiving your disk or Teleport, the administrator of Huawei data center configures the cabling to connect the device to the background. The AK/SK

entered by you trigger the automatic data upload. In this manner, the management personnel have no access to your keys or data.

4.9 How Does Teleport Ensure Data Security?

- Teleport is dust- and water-proof and resistant to vibration and compression. With a safety lock, Teleport secures your data during delivery.
- After the administrator of Huawei data center receives and mounts the Teleport to a server, you can enter the AK and SK to initiate automatic data upload. In this manner, Huawei personnel have no access to your data, ensuring data security during the transmission.
- After being uploaded, your data is stored on Object Storage Service (OBS)
 which has powerful security assurance mechanism. It supports Secure Sockets
 Layer (SSL) encryption, access control lists (ACL), bucket policy and slicebased data storage.

4.10 How Does HUAWEI CLOUD Handle the Storage Media Used for Migration After Data Is Uploaded to HUAWEI CLOUD?

Teleport-based DES

After the Teleport-based data transmission is complete, the DES service order ends. The Teleport immediately triggers the formatting operation to erase all data on the Teleport. The erased data cannot be restored.

Disk-based DES

After the disk-based data transmission is complete, the DES service order ends. The HUAWEI CLOUD data center sends the disk with the original data back to the customer.

5 Service Tariff

5.1 How Does DES Charge?

DES is charged by order, and the data import traffic is free of charge. Request fees are charged based on the OBS billing standards. DES has two billing items: the number of physical storage devices and use duration.

For details, see **Product Price Details** at HUAWEI CLOUD official website.

5.2 Who Pays for the Delivery of Disks?

Fees for disk delivery are borne by you. Pay attention to the following points before mailing and after the returned disks are received:

- For disk-based DES, you need to store all the data to be transmitted in disks and then send them to a Huawei data center. After the administrator of Huawei data center receives your disks and mounts them to a server, the AK/SK entered by you trigger the automatic data upload. The freight occurred in this process is borne by you.
- After you confirm that the data has been completely uploaded to OBS, the
 administrator of Huawei data center sends the disks back to you with freight
 charge collect service. After receiving the parcel, ensure that the disks are in
 good condition before you sign and pay the freight.

5.3 Who Pays for the Delivery of a Teleport?

Fees for Teleport delivery are borne by you.