Volume Backup Service

User Guide

Issue 20

Date 2019-06-05



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1 Permissions Management

1.1 Creating a User and Granting VBS Permissions

This chapter describes how to use IAM to implement fine-grained permissions control for your VBS resources. With IAM, you can:

- Create IAM users for employees based on your enterprise's organizational structure. Each IAM user will have their own security credentials for accessing VBS resources.
- Grant only the permissions required for users to perform a specific task.
- Entrust a HUAWEI CLOUD account or cloud service to perform efficient O&M on your VBS resources.

If your HUAWEI CLOUD account does not require individual IAM users, skip this section.

This section describes the procedure for granting permissions (see **Figure 1-1**).

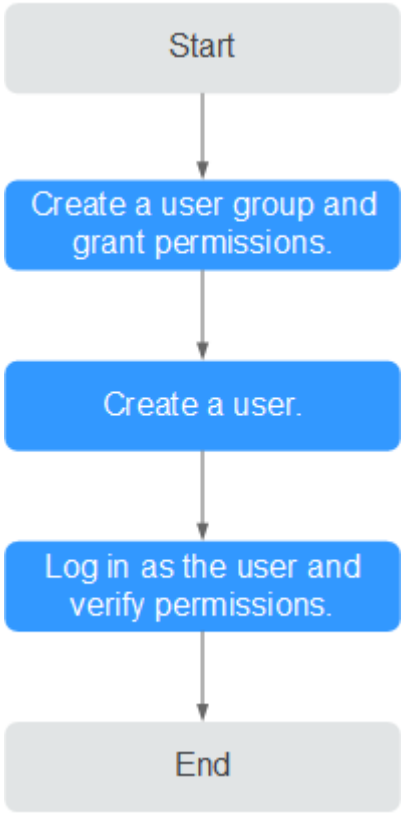
Prerequisites

Learn about the permissions (see **System policy summary**) supported by VBS and choose policies or roles according to your requirements. For the permissions of other services, see **Permission Policies**.

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Process Flow

Figure 1-1 Process for granting VBS permissions



1. **Create a user group and assign permissions to it.**

   Create a user group on the IAM console, and attach the **VBS Administrator** policy to the group.

2. **Create an IAM User.**

   Create a user on the IAM console and add the user to the group created in **1**.

3. **Log in** and verify permissions.

   Log in to VBS Console as the created user, and verify that the user only has read permissions for VBS.

   - Choose **Service List** > **Volume Backup Service**. Then click **Create VBS Backup** on the VBS console. If a VBS backup is successfully created, the **VBS Administrator** policy has already taken effect.
   - Choose any other service in the **Service List**. If a message appears indicating that you have insufficient permissions to access the service, the **VBS Administrator** policy has already taken effect.

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2 VBS Backup Management

You can set filtering criteria to query wanted backups, add tags to backups for grouped management, and share your backups with other projects.

CSBS backups of ECSs are also displayed on the VBS backup page and can be distinguished from VBS backups by **Source** in the backup details.

Searching for a VBS Backup

Step 1 Log in to the management console.

Step 2 Click Service List. Under **Storage**, click **Volume Backup Service**.

Step 3 Search for backups.

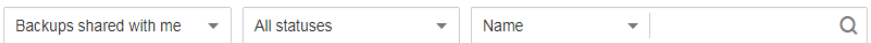
- On the top of the list, select **My backups** and **Backups shared with me** in the drop-down list.
  - On the **My backups** page, search for backups by backup name, backup ID, or disk ID, and then click to search. See **Figure 2-1**.

    Figure 2-1 Searching for my backups

  - On the **Backups shared with me** page, you can see the time when the backup is shared in the **Shared** column. You can search for backups by backup name, backup ID, disk ID, or owner project ID, as shown in **Figure 2-2**. Click to search.

    Figure 2-2 Searching for backups shared with me

- Above the page, select a state to search for backups.
- In the upper right corner of the page, you can click the **Search by Tag** tab to search for backups.

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- On the **Search by Tag** tab page that is displayed, enter a tag key and a tag value (must be among existing keys and values), click +, and then click **Search**.
- You can use more than one tag for a combination search. Each time after a key and a value are entered, click +. The added tag search criteria are displayed under the text boxes. When more than one tag is added, they will be applied together for a combination search. A maximum of 10 tags can be added at the same time.
- You can click **Reset** under the search criteria to reset the search criteria.

Step 4 Click ⌄ in the row of a VBS backup to view its details.

NOTE

The **Created** column in the backup list indicates the time when the backup was created.

----End

View the Status of a Backup Job

After creating backup jobs, you can view backup job status in **Job Status** above the backup list.

The backup job status can be:

- **Processing**: a backup job or restoration job is being executed
- **Failed**: a backup job or restoration job failed to be executed

NOTE

- You can click the number next to **Job Status** to view details about the backup job creation. The **Created** column indicates the time when the backup job was started.
- If no backup jobs in either of the two states are displayed, **Job Status** is left blank.

Delete a VBS Backup

To delete unwanted VBS backups, ensure the backups' statuses are **Available** or **Error** and **Source** is **VBS**.

Backups whose **Source** is **CSBS** can be deleted only on the CSBS management console.

Step 1 Log in to the management console.

Step 2 Click Service List ▾. Under **Storage**, click **Volume Backup Service**.

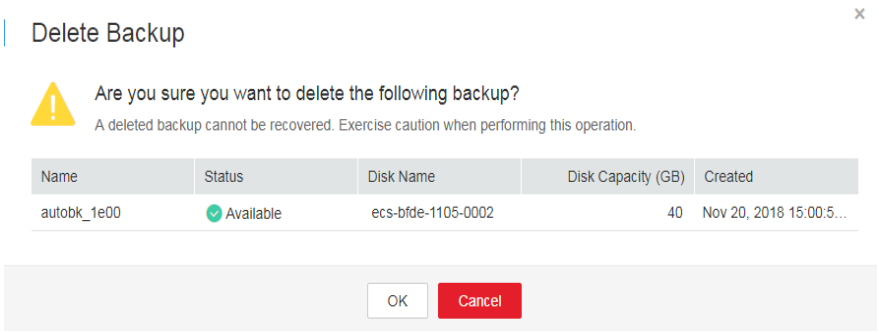
Step 3 Locate the row that contains the target VBS backup in the backup list.

Step 4 Click **Delete** in the **Operation** column.

Step 5 In the dialog box displayed, confirm the information and click **OK**. See **Figure 2-3**.

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Figure 2-3 Deleting a backup



Step 6 Optional: To delete multiple backups in a batch, click to select them, and then click the **Delete** button above the list. In the dialog box that is displayed, confirm the deletion information and click **OK**.

----End

Manage Tags of a VBS Backup

You can add tags to a backup as well as edit and delete these tags. Tags are used to filter and manage backup resources only.

Step 1 Log in to the management console.

Step 2 Click Service List. Under **Storage**, click **Volume Backup Service**.

Step 3 Click in the row of a VBS backup to view its details.

Step 4 Click **Tags** in the details area to expand the tag management panel.

The panel displays all tags of the VBS backup.

- Adding tags
  a. Click **Add Tag** in the upper left corner.
  b. In the dialog box that is displayed, set the key and value of the new tag. For details, see **Figure 2-4**.

     A tag is represented in the form of a key-value pair. Tags are used to identify, classify, and search for cloud resources. A backup can have a maximum of 10 tags.

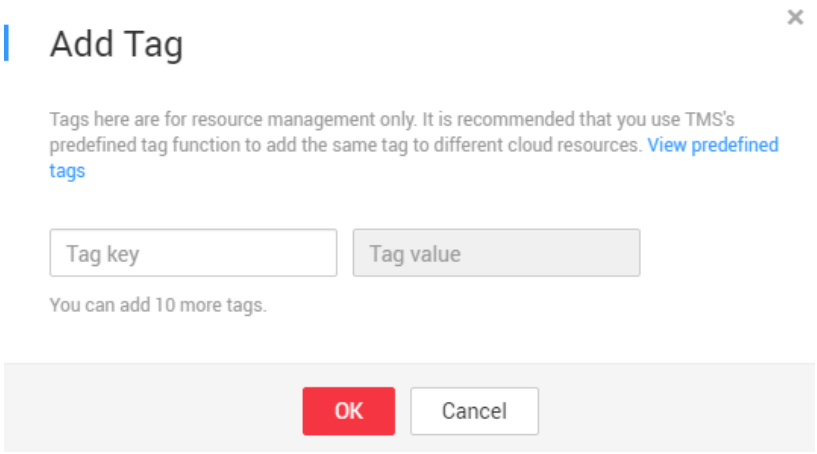
     Table 2-1 describes parameters of a tag.

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Table 2-1 Parameter description

Parameter	Description	Example Value
Key	Each tag of a backup has a unique key. The key of a tag is user-definable or is selected from those of existing tags in TMS. The naming rules for a tag key are as follows: ■ It ranges from 1 to 36 Unicode characters. ■ It cannot be empty, cannot start or end with spaces, or contain ASCII (0-31) characters or the following special characters: =*<>\,|/	Key_0001
Value	The values of tags can be repetitive and can be blank. The naming rules for a tag value are as follows: ■ It ranges from 0 to 43 Unicode characters. ■ It can be an empty string. It cannot start or end with spaces, or contain non-printable ASCII (0-31) characters or the following special characters: =*<>\,|/	Value_0001

Figure 2-4 Adding a backup tag



c. Click **OK**.

- Editing a tag

a. In the **Operation** column of the tag that you want to edit, click **Edit**.

b. In the **Edit Tag** dialog box that is displayed, modify the tag value. **Table 2-1** describes the parameters.

If the updated tag is identical to an existing one, only one is retained.

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c. Click **OK**.

- Deleting a tag
  a. In the **Operation** column of the tag that you want to delete, click **Delete**.
  b. In the dialog box that is displayed, confirm the deletion information.
  c. Click **OK**.
- Searching for backups by tag
  For details, see **Searching for a VBS Backup**.

----End

Manage Shared VBS Backups

A tenant can share a backup with other tenants.

Encrypted backups cannot be shared. Backups of common I/O (performance optimized I) and ultra-high I/O (latency optimized) disks cannot be shared.

Backups cannot be shared across regions. This indicates that projects sharing a backup must be in the same region as the backup.

Step 1 Log in to the management console.

Step 2 Click Service List. Under **Storage**, click **Volume Backup Service**.

Step 3 Click ⌄ in the row of a backup.

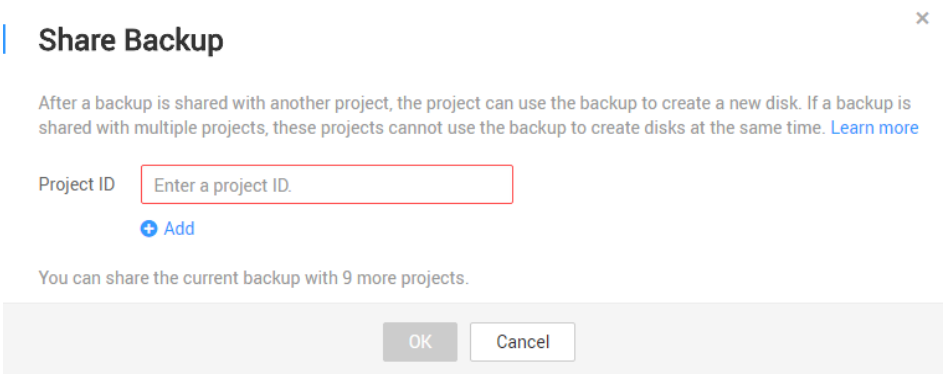
Step 4 Click **Shares** in the backup details area to expand the share management panel.

The panel displays the ID list of projects with which the backup is shared.

- Adding a share

1. In the upper left corner, click **Share Backup**, and then the **Share Backup** dialog box is displayed. For details, see **Figure 2-5**.

   Figure 2-5 Adding a share



2. Enter the project ID of the target tenant.

   NOTE

   A project ID is a string of 32 characters that can contain letters and digits but cannot be digits only.

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3. Click **Add** in the dialog box to add another project ID. A tenant can share a backup with another 10 tenants.
4. Click **OK**.

- Deleting a share

1. Select a share that you want to delete, and click **Unshare** in the **Operation** column.
2. In the dialog box that is displayed, confirm the deletion information.
3. Click **OK**.

----End

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3 Data Backup Using a Backup Policy

3.1 Creating a Backup Policy

To implement periodic automatic backup on EVS disks, you need to create a backup policy first. Then the system will periodically perform backups according to the execution time specified in the backup policy. You can choose to use the default backup policy provided by the system or create one as needed.

The system automatically creates EVS disk data backups and deletes expired data backups only when a backup policy is created and enabled.

You can create a backup policy to associate all those EVS disks whose data needs to be periodically backed up.

NOTE

- The system provides a default backup policy for associating EVS disks. This default backup policy can be enabled, disabled, edited, and executed. For details about how to execute the default backup policy, see **Executing a backup policy**. For details about how to edit the default backup policy, see **Editing a backup policy**.
- In addition to the default backup policy, you can create another 31 backup policies. Once there are 32 backup policies in total, the **Create Policy** button becomes unavailable and no more policies can be created.
- Deleting expired automatic data backups does not delete manual data backups.

Step 1 Log in to the management console.

Step 2 Click 

. Under **Storage**, click **Volume Backup Service**.

Step 3 On the **Volume Backup Service** page, click **Policies** to go to the **Policies** tab page.

The **Policies** tab page displays existing backup policies. Expand the desired backup policy to view EVS disks associated with it.

Step 4 Click **Create Backup Policy** to expand the setting items. **Figure 3-1** displays the page. **Table 3-1** describes the backup policy parameters.

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Figure 3-1 Creating a backup policy

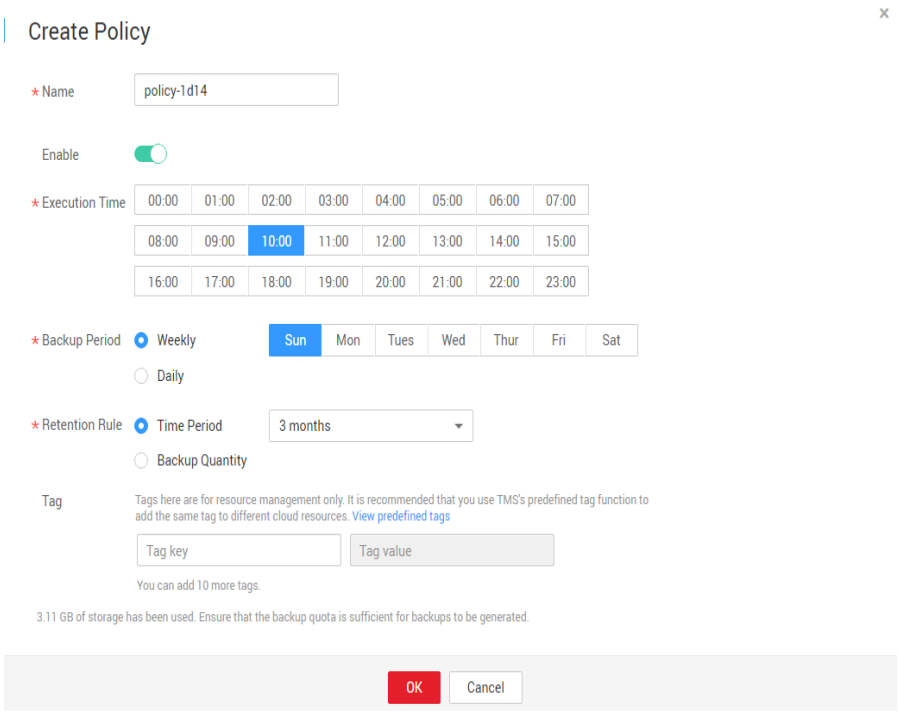


Table 3-1 Parameter description

Parameter	Description	Remarks
Name	The name is a string of 1 to 64 characters consisting of letters, digits, underscores (_), and hyphens (-), and cannot start with **default**.	Example value: **autobk_78ba**
Execution Time	Detailed time for backing up data of the EVS disks associated with the backup policy. Backup can be scheduled on integral hours and multiple selections are supported.	Example value: **02:00**

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Parameter	Description	Remarks
Backup Period	**Weekly**: specifies on which days of each week the backup job will be executed. You can select all. **Daily**: specifies the interval (every 1 to 14 days) for executing the backup job (on the hour).	Example value: **Every 3 days** If you select **Daily**, the first backup time is irrelevant to the time when the backup policy is created. A backup policy takes effect from the month when it is created. Policies with the same **Backup Period** execute backup jobs at the same times. For example, if a backup policy with "Every 3 days" is created on the second date of a month, the first backup will be created on the fourth date of the month. "Every 3 days" indicates that backups will be created on the first date, fourth date, seventh date, and so on. To ensure stable service running, back up EVS disks during off-peak hours.

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Parameter	Description	Remarks
Retention Rule	**Time Period**: You can choose to retain backups for one month, three months, six months, or one year, or for any desired number (2 to 99999) of days. **Backup Quantity**: specifies the maximum allowed number of backups for a single EVS disk. **NOTE** Set this parameter based on the applied quota. For example, if 10 EVS disks are associated with the backup policy and this parameter is set to 10, then at least a quota of 100 backups is required. If the applied quota is smaller than 100, the backup job will fail due to the insufficient quota. To view the quota, read the related tip above the VBS backup list.	Example value: **6** A more frequent backup of EVS disks creates more backups and delivers a higher level of data protection but occupies more storage space. Determine the backup frequency based on the data importance and service volume. Perform relatively frequent backup operations for important data. When the number of backups to be retained has exceeded the value of **Backup Quantity**, the system automatically deletes the earliest backups. After a backup is deleted, the other backups can still be used for restoration.
Retain the first backup in this month	If you select this option, the initial data backup in the current month will be retained.	The first backup in the current month will not be deleted. For example, if the current month is February, the first backup generated in February will not be deleted during February. The first backup generated in January, together with other backups generated in January, will be deleted in sequence.
Enable	You can turn on the switch () to enable the backup policy or turn off the switch () to disable the backup policy.	If you have disabled the backup policy or have turned off the switch (), you can select the backup policy in the backup policy list and turn on the switch () to enable it.

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Step 5 Add tags to the backup.

A tag is represented in the form of a key-value pair. Tags are used to identify, classify, and search for cloud resources.

Tags added in a backup policy apply to all backups generated using the backup policy. Tags are used to filter and manage backup resources only. A backup policy can have a maximum of 10 tags.

Table 3-2 describes parameters of a tag.

Table 3-2 Parameter description

Parameter	Description	Example Value
Key	Each tag of a backup has a unique key. The key of a tag is user-definable or is selected from those of existing tags in TMS. The naming rules for a tag key are as follows: • It ranges from 1 to 36 Unicode characters. • It cannot be empty, cannot start or end with spaces, or contain ASCII (0-31) characters or the following special characters: =*<>\,|/	Key_0001
Value	The values of tags can be repetitive and can be blank. The naming rules for a tag value are as follows: • It ranges from 0 to 43 Unicode characters. • It can be an empty string. It cannot start or end with spaces, or contain non-printable ASCII (0-31) characters or the following special characters: =*<>\,|/	Value_0001

Step 6 Click **OK**.

----End

3.2 Associating EVS Disks with a Backup Policy or Disassociating Them from a Backup Policy

After creating a backup policy, you can associate EVS disks to the backup policy. Later, the system will back up the EVS disks automatically according to the execution times specified in the backup policy. If an EVS disk no longer needs automatic backup, you can disassociate it from the backup policy.

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Procedure

Step 1 Log in to the management console.

Step 2 Click Service List. Under **Storage**, click **Volume Backup Service**.

Step 3 On the **Volume Backup Service** page, click **Policies** to go to the **Policies** tab page.

Step 4 Select an existing backup policy and click . The list of associated EVS disks is displayed.

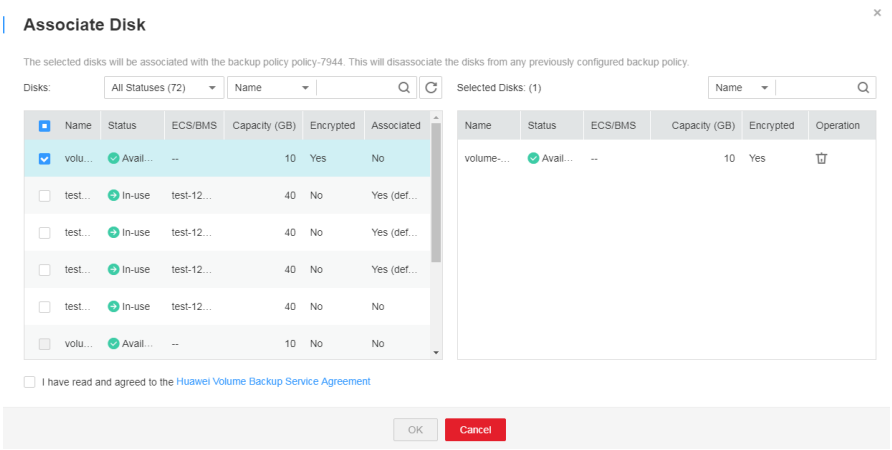
- Associating disks
  a. Click **Associate**. Alternatively, click **Associate Disk** in the **Operation** column.

     The **Associate Disk** dialog box is displayed listing the EVS disks.
  b. Select the EVS disks that need to be associated with the backup policy (EVS disks in **Awaiting transfer**, **Expansion failed**, **Restoration failed**, **Rollback failed**, **Error**, or **Deletion failed** state cannot be associated).

     NOTE

     You can select EVS disks that have been associated with other backup policies. However, the system will disassociate them from the relevant backup policies and then associate them with the new backup policy.
  c. Optional: In the search box above the list, select a state and specify whether to search for an EVS disk by EVS disk name, EVS disk ID, or ECS ID and enter the corresponding value to search.
  d. Confirm the selected EVS disks to add them to the **Selected Disks** list on the right.
  e. Optional: In the search box above the **Selected Disks** list, specify whether to search for an EVS disk by its name or ID and enter the corresponding value to search. If the EVS disk is displayed, it has been selected.
  f. Confirm the settings and click **OK** to complete the association, as shown in **Figure 3-2**.

Figure 3-2 Associating a disk



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NOTE

If you select a large number (greater than 40) of EVS disks, the association operation may take a long time and a dialog box is displayed asking you whether to continue the association operation. Click **OK** to continue.

g. Ensure that the backup policy is enabled. When the point in time specified by the backup policy arrives, select the backup policy. Then on the **Backup Jobs** panel, ensure that a backup job is generated.

h. On the VBS backup list, locate the needed backup according to **Name** (the **Backup Name** specified in the backup job). When the **Status** is **Available**, the backup job of the associated EVS disks is complete.

- Disassociating EVS disks

  a. In the list of associated EVS disks, locate the EVS disk to be disassociated from the backup policy and click **Disassociate** in the **Operation** column.

     The **Disassociate Disk** dialog box is displayed.

  b. Optional: In the list of associated EVS disks, select one or more EVS disks to be disassociated from the backup policy and click **Disassociate** above the list.

     The **Disassociate Disk** dialog box is displayed.

  c. Confirm the EVS disk information and click **OK**.

     The **Associated Disks** panel does not display the EVS disks that are disassociated from this backup policy.

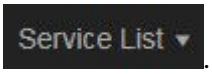
----End

3.3 Searching for Associated EVS Disks

To query an EVS disk from a backup policy with a large number of EVS disks associated, you can set filtering criteria to search it.

Procedure

Step 1 Log in to the management console.

Step 2 Click 

. Under **Storage**, click **Volume Backup Service**.

Step 3 On the **Volume Backup Service** page, click **Policies** to go to the **Policies** tab page.

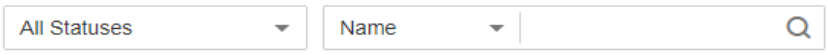
Step 4 Click  in the row of the desired policy. The list of associated EVS disks is displayed in the **Associated Disks** panel.

Step 5 In the upper right corner of the list, select a state to search for EVS disks in the state.

Step 6 (Optional) Specify whether to search for an EVS disk by its name or ID and enter the corresponding value, and click  to search. **Figure 3-3** displays these options.

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Figure 3-3 Searching for associated EVS disks



----End

3.4 Viewing Backup Jobs

On the **Backup Jobs** panel of the backup policy, you can view all backup jobs of the selected backup policy. If a backup job is in the **Failed** or **Timed out** state, you can click **Back Up Again** in the **Operation** column to manually back up the EVS disk again.

In the upper right corner of the list, you can select a state from the **All statuses** drop-down list to search for backup jobs.

The **Backup Jobs** list can show policy-driven backup jobs that have been executed in the past 30 days.

For policy-driven backup jobs executed more than 30 days ago, you can check whether they are successful on the VBS backup list:

1. If a backup was generated at the specified point in time more than 30 days ago and it is in the **Available** state, the backup job is successful.
2. If the expected backup is not displayed, the existing number of backups has not reached the maximum allowed value and you have not deleted it, or the backup is displayed but it is in the **Error** state, the backup job has failed.

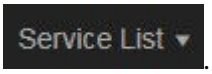
   NOTE

   For **Failed** backup jobs that were completed in the last date, the management console can report alarms to tenants through email and text message (if tenants have registered their email addresses and mobile phone numbers).

3.5 Managing Backup Policy Tags

You can add tags to a backup policy as well as edit and delete these tags. Tags are used to filter and manage backup resources only.

Step 1 Log in to the management console.

Step 2 Click 

. Under **Storage**, click **Volume Backup Service**.

Step 3 On the **Volume Backup Service** page, click **Policies** to go to the **Policies** tab page.

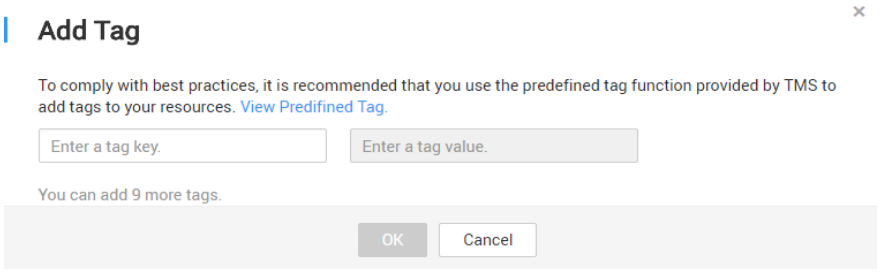
Step 4 In the row of the desired policy, click . The **Tags** panel displays existing tags of the backup policy.

- Adding tags
  a. In the upper left corner of the **Tags** panel, click **Add Tag**.
  b. In the dialog box that is displayed, set the key and value of the new tag. **Table 3-2** describes the parameters.

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A backup policy can have a maximum of 10 tags. For details, see **Figure 3-4**.

Figure 3-4 Adding a backup policy tag



c. Click **OK**.

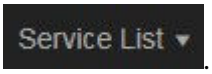
- Editing a tag
  a. In the **Operation** column of the tag that you want to edit, click **Edit**.
  b. In the **Edit Tag** dialog box that is displayed, modify the tag value. **Table 3-2** describes the parameters.
  c. Click **OK**.
- Deleting a tag
  a. In the **Operation** column of the tag that you want to delete, click **Delete**.
  b. In the dialog box that is displayed, confirm the deletion information.
  c. Click **OK**.

----End

3.6 (Optional) Other Operations with Backup Policies

You can edit, enable, execute, and delete backup policies.

Step 1 Log in to the management console.

Step 2 Click 

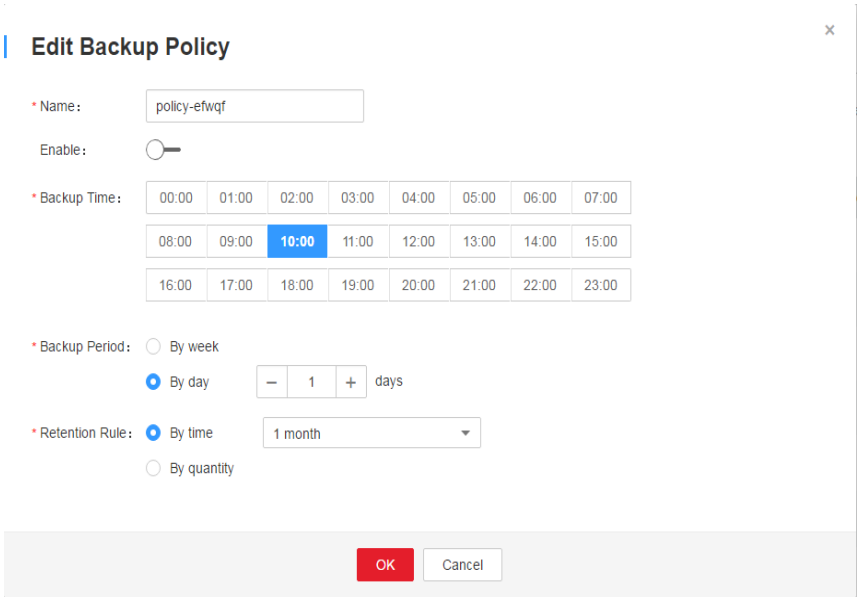
. Under **Storage**, click **Volume Backup Service**.

Step 3 On the **Volume Backup Service** page, click **Policies** to go to the **Policies** tab page.

- Editing a backup policy
  a. In the **Operation** column of the backup policy that you want to modify, click **Edit**. The **Edit Backup Policy** dialog box is displayed. See **Figure 3-5**.

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Figure 3-5 Editing backup policies



b. Modify the backup policy parameters. **Table 3-1** describes the parameters.

c. Click **OK**.

- Enabling a backup policy

  In the **Operation** column of the backup policy you want to enable, click **Edit**.

  On the displayed page, click  to turn on this option.

  Alternatively, you can choose **More** > **Enable** in the **Operation** column for the backup policy.

  After the backup policy is successfully enabled, and the system will automatically execute periodic backup jobs based on policy settings.

- Executing a backup policy

  NOTE

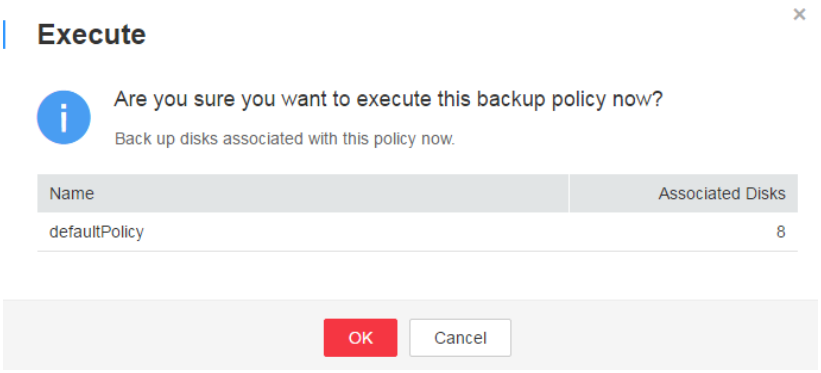
  Before performing this operation, check whether EVS disks are associated with the backup policy. If not, associate EVS disks with the backup policy first.

  a. When the backup policy is associated with EVS disks, select the backup policy, and choose **More > Execute** in the **Operation** column.

  A confirmation dialog box is displayed. See **Figure 3-6**.

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Figure 3-6 Executing a backup policy



b. Confirm the backup policy parameter information and click **OK**.

On the **Backup Jobs** panel, view all the backup jobs executed based on this backup policy.

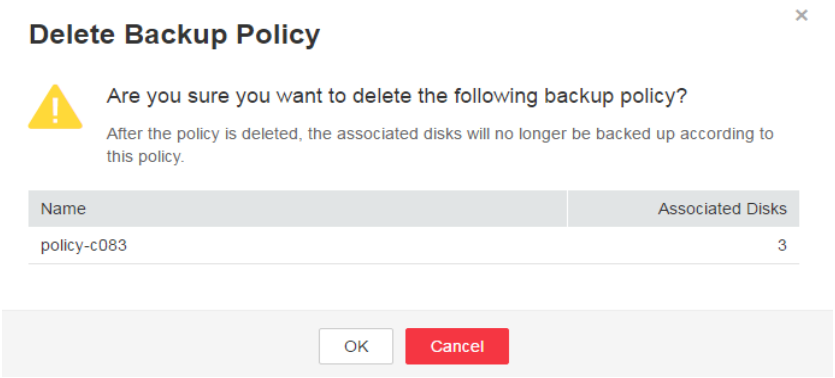
- Deleting a backup policy

  NOTE

  After a backup policy is deleted, the backup data that has already been generated by the backup policy is still available.

  a. Select the backup policy that you want to delete, and choose **More** > **Delete** in the **Operation** column. The **Delete Backup Policy** dialog box is displayed. See **Figure 3-7**.

  Figure 3-7 Deleting a backup policy



  b. Confirm the deletion information and click **OK**.

----End

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4 Data Restoration Using a VBS Backup

You can use VBS backups to restore EVS disks to a given point in time or create EVS disks. Data on the EVS disks is equivalent to the backup data.

Restore an EVS Disk Using a VBS Backup

You can use a VBS backup to restore an EVS disk to the time when the backup was created.

Before restoring the disk data, stop the server to which the EVS disk is attached and detach the EVS disk from the server. After the EVS disk data is restored, attach the EVS disk to the server and start the server.

NOTICE

- If a server disk has been backed up and the operating system was changed after the backup, the backup may not be able to restore the disk because of the disk ID change. In this case, you can use the backup to create a new disk and mount the new disk as a data disk to the server.
- Servers or disks at the disaster recovery (DR) site can be restored only when DR protection is disabled for servers deployed with Storage Disaster Recovery Service.

Step 1 Log in to the management console.

Step 2 Click 

. Under **Storage**, click **Volume Backup Service**.

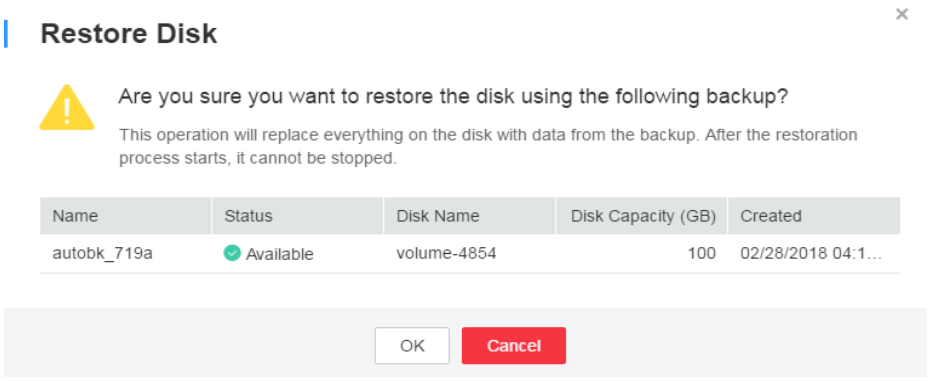
Step 3 On the **Volume Backup Service** page, if the **Status** of the VBS backup is **Available**, click **Restore Disk** in the **Operation** column.

Step 4 Click **OK** as prompted. See **Figure 4-1**. Then, check whether the data is restored successfully.

You can refresh the page after 10 seconds to view the data restoration status. When the **Status** of the backup changes back to **Available**, the restoration has been successfully completed.

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Figure 4-1 Disk restoration



----End

Creating an EVS Disk Using a VBS Backup

You can use a VBS backup to create an EVS disk. After the EVS disk is created, the data on the new disk is the same as that in the VBS backup.

Step 1 Log in to the management console.

Step 2 Click 

. Under **Storage**, click **Volume Backup Service**.

Step 3 In the **My Backups** or **Backups shared with me** list, confirm that the **Status** of the VBS backup is **Available** and click **Create Disk** in the **Operation** column.

Step 4 Set the disk parameters.

NOTE

For details about these parameters, see the parameter description table in section Purchasing an EVS Disk in the *Elastic Volume Service User Guide*.

Note the following items when setting disk parameters:

- You can choose the same AZ to which the owning EVS disk of the backup data belongs, or you can choose a different AZ.
- The capacity of the newly created EVS disk cannot be smaller than that of the source EVS disk of the backup data.

  If it is larger than the backup capacity, initialize the incremental disk space. For details, see section Initializing an EVS Disk (Linux) in the *Elastic Volume Service User Guide*.
- You can create a disk of any type regardless of the backup's disk type.
- Batch creation is not supported when using backup data to create EVS disks. You can create only one EVS disk at a time.

Step 5 Click **Buy Now**.

NOTE

You can choose **Pay-per-use** or **Yearly/Monthly** as your **Billing Mode**. Fees you should pay vary depending on the billing mode you choose. The following steps use billing mode **Yearly/Monthly** as an example.

Step 6 Confirm the VBS backup information and click **Submit**.

Step 7 Pay the fees as prompted and click **OK**.

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Step 8 Switch back to the **Elastic Volume Service** page. Check whether the EVS disk is successfully created.

It takes more than 10 minutes to create an EVS disk using a VBS backup.

During EVS disk creation, the four intermediate states **Creating**, **Available**, **Restoring**, and **Available** will be displayed in sequence. If the state changes from **Creating** to **Available**, the EVS disk is successfully created. After the state has changed from **Restoring** to **Available**, backup data has been successfully restored to the created EVS disk.

----End

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5 Viewing VBS Traces

Scenarios

CTS records operations of VBS resources, facilitating query, audit, and backtracking.

Prerequisites

You have enabled CTS and the tracker is running properly. For details about how to enable CTS, see section "Enabling CTS" in the *Cloud Trace Service User Guide.*

Key Operations Recorded by CTS

Table 5-1 VBS operations that can be recorded by CTS

Operation	Resource Type	Trace
Creating a backup	vbs	bksCreateBackup
Deleting a backup	vbs	bksDeleteBackup
Restoring a backup	vbs	bksRestoreBackup
Associating a backup policy	autobackup	addPolicyResource
Disassociating a backup policy	autobackup	deletePolicyResource
Executing a backup policy	autobackup	actionPolicy
Creating a backup policy	autobackup	createPolicy
Deleting a backup policy	autobackup	deletePolicy
Modifying a backup policy	autobackup	modifyPolicy

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Operation	Resource Type	Trace
Creating a backup scheduled by a backup policy	autobackup	scheduleCreateBackup
Automatically deleting a backup scheduled by a backup policy	autobackup	scheduleDeleteBackup
Batch adding or modifying tags of a backup policy	autobackup	batchAddPolicyTag
Batch deleting tags of a backup policy	autobackup	batchDeletePolicyTag

Viewing CTS Traces

Step 1 Log in to the management console.

Step 2 In the upper left corner of the page, click and select the desired region and project.

Step 3 Click **Service List**. Under **Management & Deployment**, click **Cloud Trace Service**.

Step 4 In the navigation pane on the left, choose **Trace List**.

Step 5 On the trace list page, click **Filter**. In the displayed box, specify **Trace Source**, **Resource Type**, and **Search By**, and click **Query** to query the specified traces.

For details about other operations, see section "Querying Real-Time Traces" in the *Cloud Trace Service User Guide*.

----End

Disabling or Enabling a Tracker

This section describes how to disable an existing tracker on the CTS console. After the tracker is disabled, the system will stop recording operations, but you can still view existing operation records.

Step 1 Log in to the management console.

Step 2 In the upper left corner of the page, click and select the desired region and project.

Step 3 Click **Service List**. Under **Management & Deployment**, click **Cloud Trace Service**.

Step 4 Click **Tracker** in the left pane.

Step 5 Click **Disable** on the right of the tracker information.

Step 6 Click **OK**.

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Step 7 After the tracker is disabled, its status changes from **Disable** to **Enable**. To enable the tracker again, click **Enable** and then click **OK**. The system will start recording operations again.

----End

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6 Quotas

What Is Quota?

Quotas are enforced for service resources on the platform to prevent unforeseen spikes in resource usage. Quotas can limit the number or amount of resources available to users, such as the maximum number of ECSs or EVS disks that can be created.

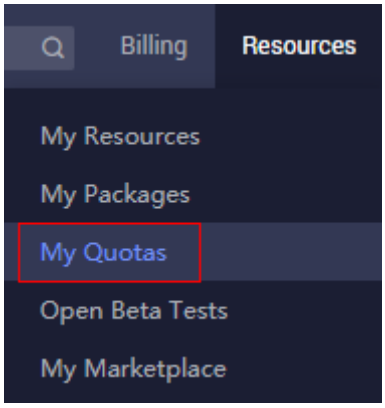
If the existing resource quota cannot meet your service requirements, you can apply for a higher quota.

How Do I View My Quotas?

1. Log in to the management console.
2. Click  in the upper left corner and select the desired region and project.
3. In the upper right corner of the page, choose **Resources** > **My Quotas**.

   The **Service Quota** page is displayed.

   Figure 6-1 My Quotas

4. View the used and total quota of each type of resources on the displayed page.

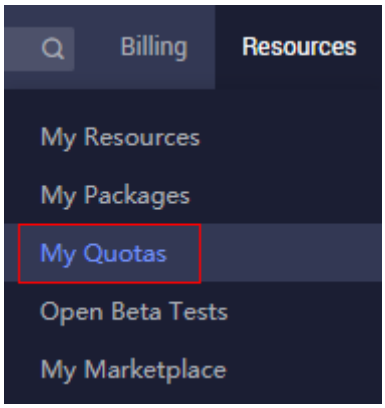
   If a quota cannot meet service requirements, apply for a higher quota.

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How Do I Apply for a Higher Quota?

1. Log in to the management console.
2. In the upper right corner of the page, choose **Resources** > **My Quotas**.
   The **Service Quota** page is displayed.

   Figure 6-2 My Quotas

3. Click **Increase Quota**.
4. On the **Create Service Ticket** page, configure parameters as required.
   In **Problem Description** area, fill in the content and reason for adjustment.
5. After all necessary parameters are configured, select **I have read and agree to the Tenant Authorization Letter and Privacy Statement** and click **Submit**.

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7 VBS Operation Instances

This section explains how to use VBS to ensure data security in different scenarios, its limitations, and its typical operations.

Scenarios

VBS applies to the following scenarios:

- Hardware faults

  Production storage devices on the cloud platform have faults.
- Software faults

  System faults cause data losses (for example, the system malfunctions and the system incorrectly delivers resource deletion commands) and application system faults on a user's guest OSs.
- User misoperations

  User misoperations cause data loss and system bootup failures.

Requirements and Limitations

- EVS disks cannot be restored in a batch.
- If you use data backups to create an EVS disk, the new EVS disk cannot be used as a system disk.

EVS Disk Data Backup

VBS works only on EVS disks. For details, see **Creating a VBS Backup**.

EVS Disk Data Restoration

You can use a VBS backup to restore an EVS disk to the time when the backup was created.

Before restoring the disk data, stop the server to which the EVS disk is attached and detach the EVS disk from the server. After the restoration is complete, re-attach the EVS disk and start the server. For details, see **Data Restoration Using a VBS Backup**.

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Creating an EVS Disk Using a VBS Backup

After an EVS disk is created using a data backup, the initial data of the new EVS disk is the same as the initial backup data. For details, see **Creating an EVS Disk Using a VBS Backup**.

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8 Troubleshooting Cases

Symptom

Failed to attach EVS disks despite following the procedure: Create EVS disks using the same VBS backup (XFS file system backup) and attach them to the same server (to which multiple EVS disks with XFS file system backup have been attached). Running the **mount** command to attach EVS disks fails.

Possible Causes

The superblock of an EVS disk (with XFS file systems) stores a universally unique identifier (UUID) about the file system. If a server has multiple disks (with XFS file systems), multiple UUIDs will exist on the server. Multiple disks may have the same UUID, which can cause the file system mounting to fail.

Fault Diagnosis

When attaching an EVS disk, use parameters without UUID control or reallocate a new UUID to ensure that each UUID is unique.

Procedure

Step 1 Log in to the server to which EVS disks failed to be attached.

Step 2 Resolve the problem in either of the following ways:

- Use a parameter without UUID when attaching an EVS disk: Run **mount -o nouuid /dev/*Device name* /*Mount path***, for example:

  mount -o nouuid /dev/sda6 /mnt/aa

- Reallocate a new UUID: Run **xfs_admin -U generate /dev/***Device name*.

  NOTE

  Because setting a parameter without UUID requires you to execute the command every time, you are advised to reallocate a new UUID.

----End

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A Change History

Release Date	Description
2019-06-05	This issue is the twenty-first official release. Updated the following content: Added the description of permissions.
2019-03-27	This issue is the twentieth official release. Updated the following content: Added the description of restoring a system disk using backups.
2019-03-22	This issue is the nineteenth official release. Updated the following content: Optimized the document structure and content.
2019-02-14	This issue is the eighteenth official release. Updated the following content: Added the "Quotas" section.
2018-07-04	This issue is the seventeenth official release. Updated the following content: Added section "Viewing EVS Traces".
2018-05-15	This issue is the sixteenth official release. Updated the following content: • Added the description of tags and backup sharing in section "VBS Backup Management". • Added the description of tags in section "Data Backup Using a Backup Policy".

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Release Date	Description
2018-04-04	This issue is the fifteenth official release. Updated the following content: ● Split the user guide into two documents. ● Optimized descriptions in the document.
2017-11-16	This issue is the fourteenth official release. Updated the following content: ● Updated the document based on the new console layout. ● Added the description of **Weekly**, **Daily**, and **Retention Rule** in the backup policy.
2017-05-26	This issue is the thirteenth official release. Updated the following content: ● Updated the answer to the question of "Do I Need to Stop the Server Before Backing Up EVS Disks on a Server Using VBS" in chapter 4 FAQs. ● Updated the parameter description for "Create a Backup Policy" in section 3.2 Data Backup Using a Backup Policy. ● Added descriptions of BMSs in section 1.1 Brief Introduction.
2017-04-28	This issue is the twelfth official release. Updated the following content: ● Updated the note for "Create an EVS Disk Using a VBS Backup" in section 3.3 Data Restoration Using a VBS Backup. ● Updated the answer to the question of "Do I Need to Stop the Server Before Backing Up EVS Disks on a Server Using VBS" in chapter 4 FAQs. ● Updated the parameter description for "Create a Backup Policy" in section 3.2 Data Backup Using a Backup Policy.
2017-03-30	This issue is the eleventh official release. Updated the following content: ● Updated the note for "Create a Backup Policy" and "Associate EVS Disks with a Backup Policy or Disassociate Them from a Backup Policy" in section 3.2 Data Backup Using a Backup Policy.

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Release Date	Description
2017-02-28	This issue is the tenth official release. Updated the following content: ● Updated the notes for steps 4 and 5 in section 3.1 VBS Backup Management. ● Updated the note for "View Backup Jobs" in section 3.2 Data Backup Using a Backup Policy. ● Deleted the note for "(Optional) Other Operations with Backup Policies" in section 3.2 Data Backup Using a Backup Policy.
2017-02-08	This issue is the ninth official release. Added the following content: ● Added "View the Status of a Backup Job" in section 3.1 VBS Backup Management. Updated the following content: ● Updated the description of step 4 and the note of step 5 for "Search for a VBS Backup" in section 3.1 VBS Backup Management.
2017-01-20	This issue is the eighth official release. Added the following content: ● Added "Search for Associated EVS Disks" in section 3.2 Data Backup Using a Backup Policy. ● Added the steps of searching for associated EVS disks in section 3.2 Data Backup Using a Data Backup Policy. Updated the following content: ● Updated the description of parameter **Backups** in section 3.2 Data Backup Using a Backup Policy. ● Updated the steps of associating EVS disks in section 3.2 Data Backup Using a Backup Policy. ● Deleted the note for "Create an EVS Disk Using a VBS Backup" in section 3.3 Data Restoration Using a VBS Backup.

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Release Date	Description
2017-01-14	This issue is the seventh official release. Added the following content: ● Added Step 4 to "Delete a VBS Backup" in section 3.1 VBS Backup Management. ● Added section 4.9 What Can I Do Against Exceptions in VBS. Updated the following content: ● Updated the steps of associating EVS disks in section 3.2 Data Backup Using a Backup Policy. ● Updated the description of backup jobs in section 3.2 Data Backup Using a Backup Policy. ● Updated the description of the default backup policy in section 3.2 Data Backup Using a Backup Policy. ● Updated the description of parameters **AZ**, **Disk Type**, and **Quantity** in Table "Parameter description" of section 3.3 Data Restoration Using a VBS Backup. ● Changed the **Back Up** button to **Back Up Again** in section 3.2 Data Backup Using a Backup Policy.
2016-12-30	This issue is the sixth official release. Updated the following content: ● Updated section 3.2 Data Backup Using a Backup Policy.
2016-11-30	This issue is the fifth official release. Added the following content: ● Added section 1.4 Backup Policy Overview. ● Added section 3.2 Data Backup Using a Backup Policy.
2016-11-24	This issue is the fourth official release. Added the following content: ● Added section 2.1 Operation Procedure. ● Added Step 3 description in "Delete a VBS Backup" of section 3.1 VBS Backup Management.
2016-10-19	This issue is the third official release. Added the following content: ● Added VBS troubleshooting cases.
2016-07-15	This issue is the second official release. Added the following content: ● Added section 3.4 VBS Operation Instances.
2016-03-14	This issue is the first official release.

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