Volume Backup Service

Service Overview

Issue   01
Date   2018-11-19

HUAWEI TECHNOLOGIES CO., LTD.

Contents

1 VBS

This service is available for existing users only. If you are new to HUAWEI CLOUD, go to the console of the next-generation service, Cloud Backup and Recovery (CBR), which integrates Volume Backup Service (VBS).

Volume Backup Service (VBS) provides snapshot-based data protection for Elastic Volume Service (EVS) disks.

VBS secures your data, even if an EVS disk is faulty or encounters a logical error (for example, mis-deletion, hacker attacks, and virus infection). It allows you to effortlessly back up your data, and these data backups can be used to restore data quickly.

VBS supports both full and incremental backup modes. By default, the system performs a full backup initially, and then performs incremental backups. You can use a data backup generated in either backup mode to restore the source EVS disk to the state the EVS disk was in when the backup was created.

VBS allows one-click backup and restoration for the EVS disks on servers all through its easy-to-use platform. These servers are Elastic Cloud Servers (ECSs) or Bare Metal Servers (BMSs).

2 VBS Functions

You can use VBS to back up and restore EVS disks. VBS provides the following functions:

- EVS disk-specific backup
- Policy-driven data backup
- Backup data management
- EVS disk restoration using data backups
- EVS disk creation using data backups

📖 NOTE

VBS provides services in multiple regions and the function rollout time in each region may be different.

3 VBS Billing Standards

For details about the charging, see the description about VBS in **Product Pricing Details**.

Pay per Use

By default, you are charged based on the service duration, which is calculated at the top of every hour, and does not include a minimum fee.

After registering a cloud service account, top up your account and then you can use VBS.

Yearly/Monthly Subscription

VBS can also be billed in yearly/monthly subscription mode. You can purchase a yearly or monthly package based on your resource usage and duration plan.

How Do I Renew the Service?

You can view your account information. You need to top up your account to pay arrears if any.

If the pay-per-use mode is used, top up your account as soon as possible after arrears. If you do not top up your account in time, you will not be able to use VBS and your VBS resources will be cleared.

For the renewal operation, see **Manually Renewing a Resource**.

4 Related Services

Table 4-1 Related services

Interactive Function	Related Service	Reference
The VBS service provides the data backup function for EVS disks. Data backups can be used to create EVS disks.	Elastic Volume Service (EVS)	**Creating a VBS Backup** **Data Restoration Using a VBS Backup**
Both CSBS and VBS are backup services and provide backup protection for tenant data. The backup generated by CSBS is also displayed on the VBS page. **Table 4-2** describes the differences between CSBS and VBS.	Cloud Server Backup Service (CSBS)	**VBS Backup Management**
The encryption feature relies on KMS. If an EVS disk is encrypted, its backup data will be stored in encrypted mode.	Key Management Service (KMS)	**Creating a VBS Backup**
Working with TMS, VBS supports tag presetting and backup filtering and management.	Tag Management Service (TMS)	**VBS Backup Management** **Managing Backup Policy Tags**
VBS adopts SMN to notify users of VBS backup information.	Simple Message Notification (SMN)	**Viewing Backup Jobs**

Interactive Function	Related Service	Reference
CTS records operations of VBS resources, facilitating query, audit, and backtracking.	Cloud Trace Service (CTS)	**Viewing VBS Traces**

Table 4-2 CSBS and VBS

Item	CSBS	VBS
Backup and restoration objects	All EVS disks (including system and data disks) on a single ECS	One or more specified EVS disks (system or data disks)
Recommended scenario	An entire ECS needs to be protected.	Only data disks need to be backed up, because the system disk does not contain personal data.
Advantages	All EVS disks on an ECS have consistent data. They are backed up at the same time, eliminating the problem of data inconsistency caused by backups generated at different points in time.	Data is secure while the service is cost-competitive.

5 Permissions Management

If you need to assign different permissions to employees in your enterprise to access your VBS resources, IAM is a good choice for fine-grained permissions management. IAM provides identity authentication, permissions management, and access control, helping you secure access to your HUAWEI CLOUD resources.

With IAM, you can use your HUAWEI CLOUD account to create IAM users for your employees, and assign permissions to the users to control their access to specific resource types. For example, some software developers in your enterprise need to use VBS resources but should not be allowed to delete the resources or perform any other high-risk operations. In this scenario, you can create IAM users for the software developers and grant them only the permissions required for using VBS resources.

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

IAM can be used free of charge. You pay only for the resources in your account. For more information about IAM, see **IAM Service Overview**.

VBS Permissions

By default, new IAM users do not have permissions assigned. You need to add a user to one or more groups, and attach permissions policies or roles to these groups. Users inherit permissions from the groups to which they are added and can perform specified operations on cloud services based on the permissions.

VBS is a project-level service deployed and accessed in specific physical regions. To assign VBS permissions to a user group, specify the scope as region-specific projects and select projects (such as **ap-southeast-2**) for the permissions to take effect. If **All projects** is selected, the permissions will take effect for the user group in all region-specific projects. When accessing VBS, the users need to switch to a region where they have been authorized to use this service.

Table 5-1 describes the system-defined role supported by VBS. The role is dependent on other roles and needs to be used together with them to take effect.

Table 5-1 System-defined role supported by VBS

Policy Name	Description	Dependencies
VBS Administrator	Administrator permissions for VBS	This role is dependent on the **Server Administrator** role. ● **Tenant Guest**: A global role, which must be assigned in the global project.

Table 5-2 lists the common operations supported by each system-defined policy or role of VBS. Select the policies or roles as required.

Table 5-2 Common operations supported by each system-defined policy or role of VBS

Operation	Server Administrator
Creating backups	√
Deleting backups	√
Restoring a disk using a VBS backup	√
Creating a disk using a VBS backup	√

Helpful Links

● **IAM Service Overview**
● **Creating a User and Granting VBS Permissions**

6 Basic Concepts

Backup Policies

A backup policy, including the backup period and retention rules, can automate data backup of EVS disks. Backup policies are user specific.
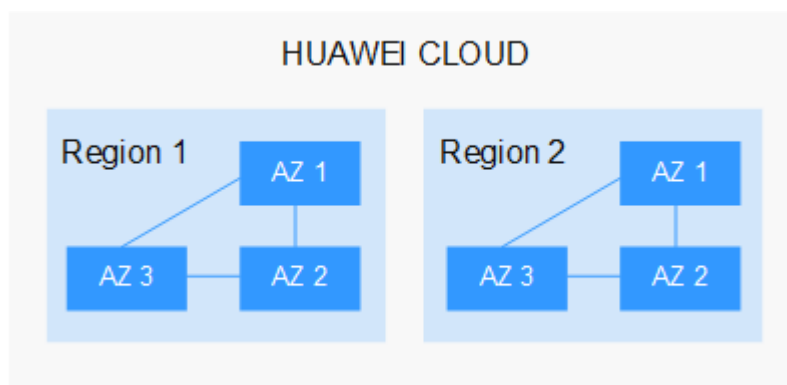
7 Region and AZ

Concept

A region and availability zone (AZ) identify the location of a data center. You can create resources in a specific region and AZ.

- Regions are divided based on geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service (EVS), Object Storage Service (OBS), Virtual Private Cloud (VPC), Elastic IP (EIP), and Image Management Service (IMS), are shared within the same region. Regions are classified into universal regions and dedicated regions. A universal region provides universal cloud services for common tenants. A dedicated region provides specific services for specific tenants.

- An AZ contains one or more physical data centers. Each AZ has independent cooling, fire extinguishing, moisture-proof, and electricity facilities. Within an AZ, computing, network, storage, and other resources are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to support cross-AZ high-availability systems.

Figure 7-1 shows the relationship between regions and AZs.

Figure 7-1 Regions and AZs

HUAWEI CLOUD provides services in many regions around the world. Select a region and AZ based on requirements. For more information, see **HUAWEI CLOUD Global Regions**.

Selecting a Region

When selecting a region, consider the following factors:

- Location

  It is recommended that you select the closest region for lower network latency and quick access. Regions within the Chinese mainland provide the same infrastructure, BGP network quality, as well as resource operations and configurations. Therefore, if your target users are on the Chinese mainland, you do not need to consider the network latency differences when selecting a region.

  - If your target users are in Asia Pacific (excluding the Chinese mainland), select the **CN-Hong Kong**, **AP-Bangkok**, or **AP-Singapore** region.
  - If your target users are in Africa, select the **AF-Johannesburg** region.
  - If your target users are in Europe, select the **EU-Paris** region.
  - If your target users are in Latin America, select the **LA-Santiago** region.

    📖 **NOTE**

    The **LA-Santiago** region is located in Chile.

- Resource price

  Resource prices may vary in different regions. For details, see **Product Pricing Details**.

Selecting an AZ

When deploying resources, consider your applications' requirements on disaster recovery (DR) and network latency.

- For high DR capability, deploy resources in different AZs within the same region.
- For lower network latency, deploy resources in the same AZ.

Regions and Endpoints

Before you use an API to call resources, specify its region and endpoint. For more details, see **Regions and Endpoints**.

8 Change History

Release Date	What's New
2018-11-19	This issue is the first official release.