Alibaba Cloud

Hybrid Backup

FAQ

Document Version: 20220614

C-D Alibaba Cloud

Legal disclaimer

Alibaba Cloud reminds you to carefully read and fully understand the terms and conditions of this legal disclaimer before you read or use this document. If you have read or used this document, it shall be deemed as your total acceptance of this legal disclaimer.

1. You shall download and obtain this document from the Alibaba Cloud website or other Alibaba Cloud-authorized channels, and use this document for your own legal business activities only. The content of this document is considered confidential information of Alibaba Cloud. You shall strictly abide by the confidentiality obligations. No part of this document shall be disclosed or provided to any third party for use without the prior written consent of Alibaba Cloud.

2. No part of this document shall be excerpted, translated, reproduced, transmitted, or disseminated by any organization, company or individual in any form or by any means without the prior written consent of Alibaba Cloud.

3. The content of this document may be changed because of product version upgrade, adjustment, or other reasons. Alibaba Cloud reserves the right to modify the content of this document without notice and an updated version of this document will be released through Alibaba Cloud-authorized channels from time to time. You should pay attention to the version changes of this document as they occur and download and obtain the most up-to-date version of this document from Alibaba Cloud-authorized channels.

4. This document serves only as a reference guide for your use of Alibaba Cloud products and services. Alibaba Cloud provides this document based on the "status quo", "being defective", and "existing functions" of its products and services. Alibaba Cloud makes every effort to provide relevant operational guidance based on existing technologies. However, Alibaba Cloud hereby makes a clear statement that it in no way guarantees the accuracy, integrity, applicability, and reliability of the content of this document, either explicitly or implicitly. Alibaba Cloud shall not take legal responsibility for any errors or lost profits incurred by any organization, company, or individual arising from download, use, or trust in this document. Alibaba Cloud shall not, under any circumstances, take responsibility for any indirect, consequential, punitive, contingent, special, or punitive damages, including lost profits arising from the use or trust in this document (even if Alibaba Cloud has been notified of the possibility of such a loss).

5. By law, all the contents in Alibaba Cloud documents, including but not limited to pictures, architecture design, page layout, and text description, are intellectual property of Alibaba Cloud and/or its affiliates. This intellectual property includes, but is not limited to, trademark rights, patent rights, copyrights, and trade secrets. No part of this document shall be used, modified, reproduced, publicly transmitted, changed, disseminated, distributed, or published without the prior written consent of Alibaba Cloud and/or its affiliates. The names owned by Alibaba Cloud shall not be used, published, or reproduced for marketing, advertising, promotion, or other purposes without the prior written consent of Alibaba Cloud. The names owned by Alibaba Cloud include, but are not limited to, "Alibaba Cloud", "Aliyun", "HiChina", and other brands of Alibaba Cloud and/or its affiliates, which appear separately or in combination, as well as the auxiliary signs and patterns of the preceding brands, or anything similar to the company names, trade names, trademarks, product or service names, domain names, patterns, logos, marks, signs, or special descriptions that third parties identify as Alibaba Cloud and/or its affiliates.

6. Please directly contact Alibaba Cloud for any errors of this document.

Document conventions

Style	Description	Example
⚠ Danger	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	⚠ **Danger:** Resetting will result in the loss of user configuration data.
🔔 Warning	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	🔔 **Warning:** Restarting will cause business interruption. About 10 minutes are required to restart an instance.
🔊 Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	🔊 **Notice:** If the weight is set to 0, the server no longer receives new requests.
? Note	A note indicates supplemental instructions, best practices, tips, and other content.	? **Note:** You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click **Settings> Network> Set network type**.
Bold	Bold formatting is used for buttons , menus, page names, and other UI elements.	Click **OK**.
Courier font	Courier font is used for commands	Run the `cd /d C:/window` command to enter the Windows system folder.
Italic	Italic formatting is used for parameters and variables.	`bae log list --instanceid` *Instance_ID*
[] or [a|b]	This format is used for an optional value, where only one item can be selected.	`ipconfig [-all|-t]`
{} or {a|b}	This format is used for a required value, where only one item can be selected.	`switch {active|stand}`

Table of Contents

1.Backup speed and recovery speed

This topic describes the speed at which you can back up and recover data by using Hybrid Backup Recovery (HBR).

> 🔊 **Notice**
>
> - In this topic, the backup speed and recovery speed are obtained in a test environment. The values are provided for reference only. The actual backup speed and recovery speed may vary based on factors such as network and bandwidth.
> - The following table shows the backup speed during the first full backup. The backup speed is higher if an incremental backup is performed.

File backup

Type	Large files (5 MB)		Small files (500 KB)		Small files (10 KB)	
	Backup speed (MB/s)	Restoration speed (MB/s)	Backup speed (MB/s)	Restoration speed (MB/s)	Backup Speed (MB/s)	Restoration speed (MB/s)
NAS	120	50	40	40	1	1
OSS	150	65	60	50	2	1
ECS files	110	60	45	40	1.5	1.2

Application backup

Type	Backup speed (MB/s)	Restoration speed (MB/s)
SAP HANA	380	220

Database backup

Type	Backup speed (MB/s)	Restoration speed (MB/s)
• Databases on ECS instances: MySQL, Oracle, and SQL Server • On-premises databases: MySQL, Oracle, and SQL Server	150	100

2.Common issues
2.1. FAQ

How much data can I back up by using Hybrid Backup Recovery (HBR)?

You can back up an unlimited amount of data by using HBR. HBR provides backup vaults with unlimited storage space. You can expand backup vaults to store an unlimited amount of backup data.

How long does it take to back up data by using HBR?

The amount of time required to back up data by using HBR varies based on multiple factors such as the total size of data, the total number of files, and the network bandwidth. If the network bandwidth is fixed, the time required to complete a backup job is determined based on the total size of data and the total number of files.

What types of data can I back up by using HBR?

You can use HBR to back up data from your data centers, Elastic Compute Service (ECS) instances including the files, databases, and CSG gateways that are deployed on ECS instances, Apsara File Storage NAS file systems, and Object Storage Service (OSS) buckets. For more information, see What is Hybrid Backup Recovery.

Does HBR encrypt backup data that is stored in the cloud?

Yes, HBR encrypts backup data that is stored in the cloud. The AES-256 encryption method is used to encrypt and protect all backup data in HBR.

Does HBR support data compression and data deduplication?

Yes, HBR supports data compression and data deduplication. The compression ratio and deduplication ratio vary based on the type of source data. The maximum ratio is 30:1.

Does HBR support incremental backup?

Yes, HBR supports incremental backup. During an incremental backup, only the data that is generated after the previous backup is uploaded to HBR. This way, you can back up your data faster and reduce network bandwidth.

What do I do if I forget my logon password for a backup client?

If you forget your logon password for a backup client of an earlier version whose process is hybridbackup, you need to re-download a client from the HBR console and register the client.

How can I create a backup plan?

If you want to use a backup client of an earlier version whose process is hybridbackup, you must create backup policies. When you create a backup plan, you must select the backup source and the required backup policy. After you change a backup policy, the change is synchronized to the associated backup plan. If you delete a backup policy, the related backup job is also deleted. However, the data that is backed up is retained.

Is actual data backed up when I back up symbolic links?

No, actual data is not backed up when you back up symbolic links. Symbolic links of Linux are similar to Windows shortcuts. When you back up symbolic links, the linked data is not backed up.

How can I view the cause of failure of a backup job or a restore job?

If you want to view the cause of a failure, you can move the pointer over the Failed status.

2.2. How do I prevent RAM users from deleting backup data?

This topic describes how to use a Resource Access Management (RAM) policy to prevent RAM users from unexpectedly deleting data from backup vaults. You can use RAM policies to protect your data in an effective manner.

Prerequisites

A RAM user is created. For more information, see Step 1: Create a RAM user.

Context

RAM is a resource access control service provided by Alibaba Cloud. RAM policies are user-based policies. You can configure RAM policies to manage users such as employees, systems, or applications. For example, you can control access from RAM users to your resources to prevent RAM users from unexpectedly deleting backup data.

> ⑦ **Note**   If you want to use RAM policies, we recommend that you use RAM Policy Editor to generate required RAM policies. For more information, see RAM Policy Editor.

Procedure

1. Log on to the RAM console by using an Alibaba Cloud account.

2. Create a RAM policy to prevent RAM users from unexpectedly deleting backup data. For more information about how to create a RAM policy, see Create a custom policy.

   The following example shows a RAM policy that can prevent RAM users from unexpectedly deleting backup data:

```
{
    "Version": "1",
    "Statement": [{
        "Effect": "Deny",
        "Action": [
            "hbr:DeleteBackupClient",
            "hbr:DeleteContact",
            "hbr:DeleteContactGroup",
            "hbr:DeleteVault",
            "hbr:DeleteJob",
            "hbr:DeleteClient",
            "hbr:DeleteHanaBackupPlan",
            "hbr:DeleteClients",
            "hbr:DeleteBackupSourceGroup",
            "hbr:DeleteBackupPlan",
            "hbr:DeleteHanaInstance",
            "hbr:DeleteSqlServerInstance",
            "hbr:DeleteSnapshot",
            "hbr:DeleteSqlServerSnapshot",
            "hbr:DeleteSqlServerLog",
            "hbr:DeleteVcenter",
            "hbr:DeleteUdmEcsInstance",
            "hbr:DeleteAppliance",
            "hbr:DeleteUniBackupClient",
            "hbr:DeleteUniBackupPlan",
            "hbr:DeleteUniBackupCluster",
            "hbr:DeleteUniRestorePlan"
        ],
        "Resource": [
            "acs:hbr:*:{uid}:vault/{vaultId}",
            "acs:hbr:*:{uid}:vault/{vaultId}/*"
        ]
    }]
}
```

> ⑦ Note
>   ○ In the preceding RAM policy, vaultId specifies the ID of the backup vault that you want to protect. If you want to protect all backup vaults, enter an asterisk (*).
>   ○ For more information about how to use the elements in the preceding RAM policy, such as Effect, Action, and Resource, see Policy elements.

3. Attach the RAM policy to the RAM user.

    i. In the left-side navigation pane, choose Identities > Users.

    ii. On the Users page, find the RAM user to which you want to attach the policy and click Add Permissions in the Actions column.

    iii. Click Custom Policy in the Select Policy section, and then select the policy that you created in Step .

    iv. Click OK.

Result

- After you configure the preceding RAM policy, an error message appears when a RAM user attempts to delete a protected backup vault. The following shows the error message.

```
API_NAME: hbr:DeleteVault
ERROR_CODE: NoPermission
```

- After you configure the preceding RAM policy, an error message appears when a RAM user attempts to delete a backup, for example, an Elastic Compute Service (ECS) file backup. The following shows the error message.

```
API_NAME: hbr:DeleteClient
ERROR_CODE: NoPermission
```

2.3. What can I do if a client connection exception occurs?

If you receive an email or SMS message that notifies you of a connection exception of a Hybrid Backup Recovery (HBR) backup client, we recommend that you check the running status of the client and the network connectivity to ensure smooth data backup and recovery.

Check the running status of the HBR backup client

Check the status of the HBR backup client if it fails to be upgraded or connected. If the client is not running as expected, we recommend that you uninstall and then reinstall the client. For more information about how to check the running status of an HBR backup client in Windows or Linux, see How can I check the running status of a backup client?.

Check the network connectivity

The following table lists the public and internal endpoints of HBR in different regions.

Region	Public endpoint	Internal endpoint
China (Hangzhou)	https://hbr.cn-hangzhou.aliyuncs.com	https://hbr-vpc.cn-hangzhou.aliyuncs.com
China (Shanghai)	https://hbr.cn-shanghai.aliyuncs.com	https://hbr-vpc.cn-shanghai.aliyuncs.com
China (Qingdao)	https://hbr.cn-qingdao.aliyuncs.com	https://hbr-vpc.cn-qingdao.aliyuncs.com
China (Beijing)	https://hbr.cn-beijing.aliyuncs.com	https://hbr-vpc.cn-beijing.aliyuncs.com
China (Zhangjiakou)	https://hbr.cn-zhangjiakou.aliyuncs.com	https://hbr-vpc.cn-zhangjiakou.aliyuncs.com
China (Hohhot)	https://hbr.cn-huhehaote.aliyuncs.com	https://hbr-vpc.cn-huhehaote.aliyuncs.com

Region	Public endpoint	Internal endpoint
China (Shenzhen)	https://hbr.cn-shenzhen.aliyuncs.com	https://hbr-vpc.cn-shenzhen.aliyuncs.com
China (Chengdu)	https://hbr.cn-chengdu.aliyuncs.com	https://hbr-vpc.cn-chengdu.aliyuncs.com
China (Hong Kong)	https://hbr.cn-hongkong.aliyuncs.com	https://hbr-vpc.cn-hongkong.aliyuncs.com
Singapore	https://hbr.ap-southeast-1.aliyuncs.com	https://hbr-internal.ap-southeast-1.aliyuncs.com
Australia (Sydney)	https://hbr.ap-southeast-2.aliyuncs.com	https://hbr-vpc.ap-southeast-2.aliyuncs.com
Malaysia (Kuala Lumpur)	https://hbr.ap-southeast-3.aliyuncs.com	https://hbr.ap-southeast-3.aliyuncs.com
Indonesia (Jakarta)	https://hbr.ap-southeast-5.aliyuncs.com	https://hbr-vpc.ap-southeast-5.aliyuncs.com
Japan (Tokyo)	https://hbr.ap-northeast-1.aliyuncs.com	https://hbr.ap-northeast-1.aliyuncs.com
Germany (Frankfurt)	https://hbr.eu-central-1.aliyuncs.com	https://hbr.eu-central-1.aliyuncs.com
US (Silicon Valley)	https://hbr.us-west-1.aliyuncs.com	https://hbr.us-west-1.aliyuncs.com
China East 2 Finance	https://hbr.cn-shanghai-finance-1.aliyuncs.com	https://hbr-vpc.cn-shanghai-finance-1.aliyuncs.com

2.4. How can I check the running status of a backup client?

If a backup job fails or a backup client fails to be updated, you can check the status of the backup client. This topic describes how to check the status of a backup client.

In Windows

Both the latest and earlier versions of backup clients are supported by Windows. The latest and earlier versions have different service names in Windows.

- The service name of a backup client of an earlier version is Aliyun Hybrid Backup Service.

- The service name of a backup client of the latest version is Alibaba Cloud Hybrid Backup Service.

You can use the following methods to view the status of the backup client:

- View the running status of a service.

    i. Run the **cmd.exe** file to open the Command Prompt.

    ii. Run the *services.msc* command.

View the status of the local backup service. If the backup service is in the **Started** state, the backup client is running as expected.

- View system logs.

  i. Run the **cmd.exe** file to open the Command Prompt.

  ii. Run the *eventvwr* command.

  Check the event log. If you can find error events about the backup service, the backup service is not running as expected. Otherwise, the backup client is healthy.

- Check whether port 8011 is open.

  i. Run the **cmd.exe** file to open the Command Prompt.

  ii. Run the *netstat -ano | findstr "8011"* command.

  Check the running status of the port. If the port is in the **LISTENING** state, the port is open as expected.

```
C:\Windows\system32>netstat -ano | findstr "8011"
  TCP    0.0.0.0:8011         0.0.0.0:0              LISTENING       4048
  TCP    [::]:8011            [::]:0                 LISTENING       4048
```

- View backup client logs.

  For more information, see Where do I view the default installation path and logs of an HBR client?.

If the backup client is not running as expected, you can uninstall the client and reinstall the client. If the running exception is not resolved, you can submit a ticket .

In Linux

Both the latest and earlier versions of backup clients are supported by Linux. The latest and earlier versions of backup clients have different process names in Linux.

- The process name of a backup client of an earlier version is hybrid.

- The process name of a backup client of the latest version is hbrclient.

You can use the following methods to view the running status of the backup client:

- View the running status of a process.

  Run the *ps axu|grep hybrid* or *ps axu|grep hbrclient* command. If a result is returned, the backup client is activated and is running as expected.

- Check whether port 8011 is open for a local backup client

  Run the *lsof -i:8011* command and check the running status of the port. If the port is open, the port is in the **LISTEN** state.

```
COMMAND      PID USER    FD    TYPE    DEVICE SIZE/OFF NODE NAME
hybridbac 11477 root     5u   IPv6 10625414      0t0   TCP *:8011 (LISTEN)
```

- View backup client logs.

  For more information, see Where do I view the default installation path and logs of an HBR client?.

If the backup client is not running as expected, you can uninstall the client and reinstall the client. If the running exception is not resolved, you can submit a ticket .

2.5. How can I create an AccessKey pair for a RAM user?

Each AccessKey pair consists of an AccessKey ID and an AccessKey secret, which are required when you install the file backup client and the virtual machine backup client. An AccessKey pair is a long-term credential for a RAM user. This topic describes how to create an AccessKey pair for a RAM user.

Context

To ensure account security, we recommend that you create AccessKey pairs for RAM users instead of your Alibaba Cloud account.

Procedure

To create an AccessKey pair for a RAM user, perform the following steps:

1. Log on to the RAM console by using your Alibaba Cloud account.

2. In the left-side navigation pane, choose **Identities > Users**.

3. On the **Users** page, click the username of a specific RAM user.

4. In the **User AccessKeys** section, click **Create AccessKey Pair**.

5. In the **Create AccessKey Pair** dialog box, view the AccessKey ID and AccessKey secret.

   You can click **Download CSV File** to download the AccessKey pair or click **Copy** to copy the AccessKey pair.

6. Click **Close**.

   > ⑦ Note
   >
   >   ○ The AccessKey secret is displayed only when you create an AccessKey pair, and is unavailable for subsequent queries. We recommend that you save the AccessKey secret for subsequent use.
   >
   >   ○ If the AccessKey pair is disclosed or lost, you must create another AccessKey pair. You can create a maximum of two AccessKey pairs.

2.6. Where do I view the default installation path and logs of an HBR client?

This topic describes the default path in which a Hybrid Backup Recovery (HBR) client is installed in Linux or Windows and in which the logs of the HBR client are stored.

- HBR client of the latest version

- For an HBR client that is installed for the first time by using the HBR console
    - In Linux, you can view the logs in the */opt/alibabacloud/hbrclient/logs* path.
    - In Windows, you can view the logs in the *C:\Program Files\Aliyun Hybrid Backup Service Client\logs* path.

  > ⑦ **Note** By default, the logs of an HBR client for a database are stored in one of the following paths:
  >
  >   - SQL Server
  >
  >   Windows: *C:\ProgramData\scutech\dbackup3\agent\log\dbackup3-agent.log*
  >
  >   - MySQL
  >
  >   */var/log/dbackup3/agent.log*
  >
  >   - Oracle
  >   - Linux: */var/log/dbackup3/agent.log*
  >   - Windows: *C:\ProgramData\scutech\dbackup3\agent\log\dbackup3-agent.log*

- For an HBR client that is installed by using the **Anti-ransomware** feature in the **Security Center** console
    - In Linux, you can view the logs in the */usr/local/aegis/hbrclient/logs* path.
    - In Windows, you can view the logs in the *C:\Program Files (x86)\Alibaba\Aegis\hbrclient\logs* path.

- For HBR clients of an earlier version
    - Linux

      You can view the logs in the */opt/alibabacloud/hbr/logs* path.

    - Windows

      You can view the logs in the *C:\Program Files\Aliyun Hybrid Backup Service\logs* path.

2.7. Can I back up symbolic links by using Hybrid Backup Recovery (HBR)?

When you use HBR to back up symbolic links, only links are backed up rather than linked folders. We recommend that you back up actual folders.

2.8. How do I uninstall a backup client?

This topic describes how to uninstall a Hybrid Backup Recovery (HBR) backup client in Windows or Linux.

In Linux

1. Log on to the Linux server.
2. Go to the installation path of the backup client.

- The default installation path for a backup client of the latest version is */opt/alibabacloud/hbrcli ent*.

- The default installation path for a backup client of an earlier version is */opt/alibabacloud/hbr/*.

3. Run the `./uninstall` command to uninstall the client.

The following example shows how to uninstall a backup client:

```
Last login: Thu Nov 15 09:45:55 2018 from 42        l11
root@Ubuntu:~# cd /opt/alibabacloud/hbr/
root@Ubuntu:/opt/alibabacloud/hbr# ll
total 36
drwxr-xr-x 7  501 staff 4096 Nov 13 14:36 ./
drwx------ 3 root root  4096 Nov 14 15:42 ../
drwxr-xr-x 5  501 staff 4096 Nov 15 10:05 client/
drwxr-xr-x 2  501 staff 4096 Nov 13 14:36 download/
drwxr-xr-x 4  501 staff 4096 Nov 15 00:43 logs/
-rwxr-xr-x 1  501 staff  508 Nov 13 14:36 setup*
-rwxr-xr-x 1  501 staff  233 Nov 13 14:36 uninstall*
drwxr-xr-x 2  501 staff 4096 Nov 14 15:42 update/
drwxr-xr-x 2  501 staff 4096 Nov 13 14:36 versions/
root@Ubuntu:/opt/alibabacloud/hbr# ./uninstall
Uninstalling Hybrid backup client ...
Complete
root@Ubuntu:/opt/alibabacloud/hbr# cd ..
root@Ubuntu:/opt/alibabacloud# rm -rf hbr/
root@Ubuntu:/opt/alibabacloud# ll
total 8
drwx------ 2 root root 4096 Nov 15 11:33 ./
drwxr-xr-x 3 root root 4096 Oct 24 11:06 ../
root@Ubuntu:/opt/alibabacloud#
```

In Windows

1. Log on to Windows.

2. Go to the installation path of the backup client.

- The default installation path for a backup client of the latest version is *C:\Program Files\Aliyun H ybrid Backup Service Client*.

- The default installation path for a backup client of an earlier version is *C:\Program Files\Aliyun Hy brid Backup Service*.

3. Double-click *unins000.exe*.

4. In the dialog box that appears, click **Yes**.

2.9. What are resource requirements for backup?

The following table lists resource requirements for backing up data of different volumes.

Backup type	Data volume	CPU	Memory
Back up files	100,000 files	Dual-core	4 GB
	1 million files (8 TB in total)	Dual-core	8 GB
	10 million files	Quad-core	16 GB

Backup type	Data volume	CPU	Memory
Back up virtual machines	N/A	Quad-core	16 GB

2.10. How can I limit the memory size of an HBR client?

This topic describes how to limit the memory size of a Hybrid Backup Recovery (HBR) client by modifying the number of cache files.

Context

HBR consumes a large amount of memory resources when it backs up data such as files and applications. If you do not limit the number of cache files during a backup, the "Out of Memory" error may occur on the host from which the files are backed up and the backup may fail. To resolve this issue, you can limit the number of cache files by modifying the configuration file of the HBR client. This way, you can reduce the consumption of memory resources.

Procedure

1. Log on to the host from which files are backed up.

2. Go to the installation path of the HBR client.

   - In Linux
     - The default installation path for a backup client of the latest version is */opt/alibabacloud/hbr client*.
     - The default installation path for a backup client of an earlier version is */opt/alibabacloud/hbr /*.
   - In Windows
     - The default installation path for a backup client of the latest version is *C:\Program Files\Aliyu n Hybrid Backup Service Client*.
     - The default installation path for a backup client of an earlier version is *C:\Program Files\Aliyun Hybrid Backup Service*.

3. Create a file named *hbr.config* in the *client* folder. Set the parameters in the following table.

   > ⑦ Note
   > - If the *hbr.config* file already exists, you only need to edit the file.
   > - The *hbr.config* file must be at the same directory level as the *ids* file.

   The following example shows the configurations of the *hbr.config* file:

   ```
   max_tree_nodes=16384
   max_read_dir_names=100000
   ```

Parameter	Description
max_tree_nodes	The maximum number of metadata files that you can cache in memory. Valid values: 1 to 16384. We recommend that you set the parameter to 16384.
max_read_dir_names	The maximum number of files that can you can read from each directory. Valid values: 1 to 100000. We recommend that you set the parameter to 100000.

4. Restart the HBR client.

   ○ In Linux

     The following example shows how to restart the HBR client in Linux:

     ■ Restart the HBR client of the latest version

     ```
     systemctl restart hbrclient
     restart hbrclient
     /etc/init.d/hbrclient restart
     ```

     ■ Restart the HBR client of an earlier version

     ```
     systemctl restart hybridbackup
     restart hybridbackup
     /etc/init.d/hybridbackup restart
     ```

   ○ In Windows

     The following example shows how to restart the HBR client in Windows:

     a. Press `Win+R` . In the **Run** dialog box, enter `services.msc` and click **OK**.

     b. Find Alibaba Hybrid Backup Service in the service list. Right-click Alibaba Hybrid Backup Service and select **Restart**.

        ■ The service name of a backup client of the latest version is `Alibaba Cloud Hybrid Backup Service` .

        ■ The service name of a backup client of an earlier version is `Aliyun Hybrid Backup Service` .

2.11. What are the endpoints and ports that can be accessed by HBR clients?

Hybrid Backup Recovery (HBR) clients implement backup and restore by accessing the required Alibaba Cloud services. To make sure that HBR provides backup and restore services as expected, you must add the supported domain names of endpoints and ports to the whitelist of your firewall. This topic describes the endpoints and ports that can be accessed by HBR clients.

Domain names of endpoints and ports that can be accessed by HBR clients of the latest version

If your HBR client runs as the *hbrclient* process, your HBR client is of the latest version.

The following table describes the domain names of endpoints and ports that can be accessed by HBR clients of the latest version.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
China (Hangzhou)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-mp90rcien05.mqtt.aliyuncs.com	post-cn-mp90rcien05-internal.mqtt.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-hangzhou.aliyuncs.com	*.oss-cn-hangzhou-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
China (Shanghai	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-4590rcihm02.mqtt.aliyuncs.com	post-cn-4590rcihm02-internal.mqtt.aliyuncs.com	443

) Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-shanghai.aliyuncs.com	*.oss-cn-shanghai-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
China (Qingdao)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-n6w1oj5j506.mqtt.aliyuncs.com	post-cn-n6w1oj5j506-internal-vpc.mqtt.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-qingdao.aliyuncs.com	*.oss-cn-qingdao-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
China (Beijing)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-mp90rcibd04.mqtt.aliyuncs.com	post-cn-mp90rcibd04-internal.mqtt.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-beijing.aliyuncs.com	*.oss-cn-beijing-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
China (Zhangjiakou)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-45917akja09.mqtt.aliyuncs.com	post-cn-45917akja09-internal.mqtt.aliyuncs.com	443

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-zhangjiakou.aliyuncs.com	*.oss-cn-zhangjiakou-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
China (Hohhot)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-0pp1epkb50h.mqtt.aliyuncs.com	post-cn-0pp1epkb50h-internal.mqtt.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-huhehaote.aliyuncs.com	*.oss-cn-huhehaote-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
China (Shenzhe n)	For managem ent. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-v0h0rcijv04.mqtt.aliyunc s.com	post-cn-v0h0rcijv04-internal.mqtt.aliyuncs.c om	443
	For data transmissi on. The endpoints and ports are used to transmit backup data.	*.oss-cn-shenzhen.aliyuncs.com	*.oss-cn-shenzhen-internal.aliyuncs.com	- If data is transmitted over HTTPS, set the port number to 443. - If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
China (Chengdu)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-st21piid30e.mqtt.aliyuncs.com	post-cn-st21piid30e-internal-vpc.mqtt.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-chengdu.aliyuncs.com	*.oss-cn-chengdu-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
China (Hong Kong)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	mqtt-cn-v0h1cmss401.mqtt.aliyuncs.com	mqtt-cn-v0h1cmss401-internal.mqtt.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-hongkong.aliyuncs.com	*.oss-cn-hongkong-internal.aliyuncs.com	- If data is transmitted over HTTPS, set the port number to 443. - If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
Singapore (Singapore)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-4590unarx01.mqtt.aliyuncs.com	post-cn-4590unarx01-internal.mqtt.aliyuncs.com	443

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-ap-southeast-1.aliyuncs.com	*.oss-ap-southeast-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	mqtt-cn-v641asd4403.mqtt.aliyuncs.com	mqtt-cn-v641asd4403-internal.mqtt.aliyuncs.com	443
Australia (Sydney)	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-ap-southeast-2.aliyuncs.com	*.oss-ap-southeast-2-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
Malaysia (Kuala Lumpur)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	mqtt-cn-v0h1k5d7707.mqtt.aliyuncs.com	mqtt-cn-v0h1k5d7707-internal.mqtt.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-ap-southeast-3.aliyuncs.com	*.oss-ap-southeast-3-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
Indonesia (Jakarta)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-4591ee94i03.mqtt.aliyuncs.com	post-cn-4591ee94i03-internal.mqtt.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-ap-southeast-5.aliyuncs.com	*.oss-ap-southeast-5-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
Japan (Tokyo)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-mp91kij0p01.mqtt.aliyuncs.com	post-cn-mp91kij0p01-internal-vpc.mqtt.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-ap-northeast-1.aliyuncs.com	*.oss-ap-northeast-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
Germany (Frankfurt)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-mp91ki6sl0k.mqtt.aliyuncs.com	post-cn-mp91ki6sl0k-internal.mqtt.aliyuncs.com	443

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-eu-central-1.aliyuncs.com	*.oss-eu-central-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	mqtt-cn-mp91j6gou03.mqtt.aliyuncs.com	mqtt-cn-mp91j6gou03-internal.mqtt.aliyuncs.com	443
US (Silicon Valley)	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-us-west-1.aliyuncs.com	*.oss-us-west-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
US (Virginia)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-oew1qqlw309.mqtt.aliyuncs.com	post-cn-oew1qqlw309-internal-vpc.mqtt.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-us-east-1.aliyuncs.com	*.oss-us-east-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
India (Mumbai)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-6ja1qqm1a0e.mqtt.aliyuncs.com	post-cn-6ja1qqm1a0e-internal-vpc.mqtt.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-ap-south-1.aliyuncs.com	*.oss-ap-south-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
UAE (Dubai)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-oew1tb52204.mqtt.aliyuncs.com	post-cn-oew1tb52204-internal-vpc.mqtt.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-me-east-1.aliyuncs.com	*.oss-me-east-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
China East 2 Finance	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-nif1osdrt09.mqtt.aliyuncs.com	post-cn-nif1osdrt09-internal.mqtt.aliyuncs.com	443

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
	For data transmission. The endpoints and ports are used to transmit backup data.	None	*.oss-cn-shanghai-finance-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-n6w1pij7y0b.mqtt.aliyuncs.com	post-cn-n6w1pij7y0b-internal.mqtt.aliyuncs.com	443
China South 1 Finance	For data transmission. The endpoints and ports are used to transmit backup data.	None	*.oss-cn-shenzhen-finance-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
China North 2 Ali Gov	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-v0h1cmsrj01.mqtt.aliyuncs.com	post-cn-v0h1cmsrj01-internal.mqtt.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-north-2-gov-1.aliyuncs.com	*.oss-cn-north-2-gov-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Domain names of endpoints and port numbers that can be accessed by HBR clients of an earlier version

If your HBR client runs as the *hybridbackup* process, your HBR client is of an earlier version.

The following table describes the domain names of endpoints and ports that can be accessed by HBR clients of an earlier version.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
China (Hangzhou)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-mp90rcien05.mqtt.aliyuncs.com	post-cn-mp90rcien05-internal.mqtt.aliyuncs.com	443
		hbr.cn-hangzhou.aliyuncs.com	hbr-vpc.cn-hangzhou.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-hangzhou.aliyuncs.com	*.oss-cn-hangzhou-internal.aliyuncs.com	- If data is transmitted over HTTPS, set the port number to 443. - If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
China (Shanghai)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-4590rcihm02.mqtt.aliyuncs.com	post-cn-4590rcihm02-internal.mqtt.aliyuncs.com	443
		hbr.cn-shanghai.aliyuncs.com	hbr-vpc.cn-shanghai.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-shanghai.aliyuncs.com	*.oss-cn-shanghai-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
China (Qingdao)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-n6w1oj5j506.mqtt.aliyuncs.com	post-cn-n6w1oj5j506-internal-vpc.mqtt.aliyuncs.com	443
		hbr.cn-qingdao.aliyuncs.com	hbr-vpc.cn-qingdao.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-qingdao.aliyuncs.com	*.oss-cn-qingdao-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
China (Beijing)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-mp90rcibd04.mqtt.aliyuncs.com	post-cn-mp90rcibd04-internal.mqtt.aliyuncs.com	443
		hbr.cn-beijing.aliyuncs.com	hbr-vpc.cn-beijing.aliyuncs.com	443

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-beijing.aliyuncs.com	*.oss-cn-beijing-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
China (Zhangjiakou)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-45917akja09.mqtt.aliyuncs.com	post-cn-45917akja09-internal.mqtt.aliyuncs.com	443
		hbr.cn-zhangjiakou.aliyuncs.com	hbr-vpc.cn-zhangjiakou.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-zhangjiakou.aliyuncs.com	*.oss-cn-zhangjiakou-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
China (Hohhot)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-0pp1epkb50h.mqtt.aliyuncs.com	post-cn-0pp1epkb50h-internal.mqtt.aliyuncs.com	443
		hbr.cn-huhehaote.aliyuncs.com	hbr-vpc.cn-huhehaote.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-huhehaote.aliyuncs.com	*.oss-cn-huhehaote-internal.aliyuncs.com	- If data is transmitted over HTTPS, set the port number to 443. - If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
China (Shenzhen)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-v0h0rcijv04.mqtt.aliyuncs.com	post-cn-v0h0rcijv04-internal.mqtt.aliyuncs.com	443
		hbr.cn-shenzhen.aliyuncs.com	hbr-vpc.cn-shenzhen.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-shenzhen.aliyuncs.com	*.oss-cn-shenzhen-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
China (Chengdu)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-st21piid30e.mqtt.aliyuncs.com	post-cn-st21piid30e-internal-vpc.mqtt.aliyuncs.com	443
		hbr.cn-chengdu.aliyuncs.com	hbr-vpc.cn-chengdu.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-chengdu.aliyuncs.com	*.oss-cn-chengdu-internal.aliyuncs.com	- If data is transmitted over HTTPS, set the port number to 443. - If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
China (Hong Kong)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	mqtt-cn-v0h1cmss401.mqtt.aliyuncs.com	mqtt-cn-v0h1cmss401-internal.mqtt.aliyuncs.com	443
		hbr.cn-hongkong.aliyuncs.com	hbr-vpc.cn-hongkong.aliyuncs.com	443

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-hongkong.aliyuncs.com	*.oss-cn-hongkong-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
Singapore (Singapore)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-4590unarx01.mqtt.aliyuncs.com	post-cn-4590unarx01-internal.mqtt.aliyuncs.com	443
		hbr.ap-southeast-1.aliyuncs.com	hbr-internal.ap-southeast-1.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-ap-southeast-1.aliyuncs.com	*.oss-ap-southeast-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
Australia (Sydney)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	mqtt-cn-v641asd4403.mqtt.aliyuncs.com	mqtt-cn-v641asd4403-internal.mqtt.aliyuncs.com	443
		hbr.ap-southeast-2.aliyuncs.com	hbr-vpc.ap-southeast-2.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-ap-southeast-2.aliyuncs.com	*.oss-ap-southeast-2-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
Malaysia (Kuala Lumpur)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	mqtt-cn-v0h1k5d7707.mqtt.aliyuncs.com	mqtt-cn-v0h1k5d7707-internal.mqtt.aliyuncs.com	443
		hbr.ap-southeast-3.aliyuncs.com	hbr.ap-southeast-3.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-ap-southeast-3.aliyuncs.com	*.oss-ap-southeast-3-internal.aliyuncs.com	- If data is transmitted over HTTPS, set the port number to 443. - If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
Indonesia (Jakarta)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-4591ee94i03.mqtt.aliyuncs.com	post-cn-4591ee94i03-internal.mqtt.aliyuncs.com	443
		hbr.ap-southeast-5.aliyuncs.com	hbr-vpc.ap-southeast-5.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-ap-southeast-5.aliyuncs.com	*.oss-ap-southeast-5-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
Japan (Tokyo)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-mp91kij0p01.mqtt.aliyuncs.com	post-cn-mp91kij0p01-internal-vpc.mqtt.aliyuncs.com	443
		hbr.ap-northeast-1.aliyuncs.com	hbr.ap-northeast-1.aliyuncs.com	443

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-ap-northeast-1.aliyuncs.com	*.oss-ap-northeast-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-mp91ki6sl0k.mqtt.aliyuncs.com	post-cn-mp91ki6sl0k-internal.mqtt.aliyuncs.com	443
		hbr.eu-central-1.aliyuncs.com	hbr.eu-central-1.aliyuncs.com	443
Germany (Frankfurt)	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-eu-central-1.aliyuncs.com	*.oss-eu-central-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
US (Silicon Valley)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	mqtt-cn-mp91j6gou03.mqtt.aliyuncs.com	mqtt-cn-mp91j6gou03-internal.mqtt.aliyuncs.com	443
		hbr.us-west-1.aliyuncs.com	hbr.us-west-1.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-us-west-1.aliyuncs.com	*.oss-us-west-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
US (Virginia)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-oew1qqlw309.mqtt.aliyuncs.com	post-cn-oew1qqlw309-internal-vpc.mqtt.aliyuncs.com	443
		hbr.us-east-1.aliyuncs.com	hbr.us-east-1.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-us-east-1.aliyuncs.com	*.oss-us-east-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
India (Mumbai)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-6ja1qqm1a0e.mqtt.aliyuncs.com	post-cn-6ja1qqm1a0e-internal-vpc.mqtt.aliyuncs.com	443
		hbr.ap-south-1.aliyuncs.com	hbr.ap-south-1.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-ap-south-1.aliyuncs.com	*.oss-ap-south-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
UAE (Dubai)	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-oew1tb52204.mqtt.aliyuncs.com	post-cn-oew1tb52204-internal-vpc.mqtt.aliyuncs.com	443
		hbr.me-east-1.aliyuncs.com	hbr-vpc.me-east-1.aliyuncs.com	443

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-me-east-1.aliyuncs.com	*.oss-me-east-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.
China East 2 Finance	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-nif1osdrt09.mqtt.aliyuncs.com	post-cn-nif1osdrt09-internal.mqtt.aliyuncs.com	443
		hbr.cn-shanghai-finance-1.aliyuncs.com	hbr-vpc.cn-shanghai-finance-1.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	None	*.oss-cn-shanghai-finance-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
China South 1 Finance	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-n6w1pij7y0b.mqtt.aliyuncs.com	post-cn-n6w1pij7y0b-internal.mqtt.aliyuncs.com	443
		hbr.cn-shenzhen-finance-1.aliyuncs.com	hbr-vpc.cn-shenzhen-finance-1.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	None	*.oss-cn-shenzhen-finance-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

Region	Feature	Domain name of a public endpoint	Domain name of a VPC endpoint	Port number
China North 2 Ali Gov	For management. The endpoints and ports are used to transmit control signals between HBR clients and HBR.	post-cn-v0h1cmsrj01.mqtt.aliyuncs.com	post-cn-v0h1cmsrj01-internal.mqtt.aliyuncs.com	443
		hbr.cn-north-2-gov-1.aliyuncs.com	hbr-vpc.cn-north-2-gov-1.aliyuncs.com	443
	For data transmission. The endpoints and ports are used to transmit backup data.	*.oss-cn-north-2-gov-1.aliyuncs.com	*.oss-cn-north-2-gov-1-internal.aliyuncs.com	• If data is transmitted over HTTPS, set the port number to 443. • If data is transmitted over HTTP, set the port number to 80. To specify whether to transmit data over HTTPS, choose **More > Client Settings**.

2.12. What can I do if the "Failed to initialize the backup client" error message appears on a backup client for Windows?

Issue

The "Failed to initialize the backup client" error message appears when you install a backup client on an Elastic Compute Service (ECS) instance or an on-premises server.

Cause

The specified backup components are not applicable to the host on which you want to install the backup client.

Solution

Procedure

1. Confirm whether you want to back up files from an on-premises server or an ECS instance.

2. Make sure that the specified backup components are applicable to the required host when you install a backup client. Then, install the backup client again.

   ○ Back up files from an on-premises server

     Select the **Connect to Alibaba Cloud On-premises Server** backup component.

     If you select the preceding backup component to install a backup client, the *init local called* message appears in the `hbrclient.log` installation log file. For more information about how to view logs, see Where do I view the default installation path and logs of an HBR client?.

   ○ Back up files from an ECS instance

     Select the **Alibaba Cloud ECS** backup component.

     If you select the preceding backup component to install a backup client, the *init ecs called* message appears in the `hbrclient.log` installation log file. For more information about how to view logs, see Where do I view the default installation path and logs of an HBR client?.

2.13. What can I do if I am unable to browse backup files in the HBR console?

Issue

When you browse backup files in the Hybrid Backup Recovery (HBR) console, the following message appears: **Failed to browse backup files**.

Cause

Backup files cannot be queried or displayed because the number of files has reached the upper limit.

Solution

Install the legacy file backup client provided by the and browse files by using the client.

Procedure

1. If the legacy file backup client is not installed, or if the **Add Client** button in the HBR console is dimmed, contact technical support and provide your Alibaba Cloud account ID to apply for whitelist permissions.

2. Install the legacy file backup client.

For more information about how to install a backup client on an on-premises file backup, see Preparations.

> 🔊 **Notice**   When you install a file backup client, port 8011 is the default port that you can use to log on to the client. If port 8011 is occupied by other applications, you can change the logon port of the file backup client when you install the client. For more information, see How can I select a different port as the logon port of a file backup client?

3. Browse the backup files.

   i. Open a browser and enter `http://localhost:8011` in the address bar.

   ii. In the left-side navigation pane, click **Restore**. On the page that appears, click **Restore from Another Client**.

   iii. In the **Restore Data** dialog box, select a new client and backup source to browse the backup files.

3.ECS backups FAQ

3.1. How do I delete ECS backup clients?

If you no longer need Elastic Compute Service (ECS) backup clients in an ECS instance, you can delete the file backup client and SAP HANA client in the HBR console.

Delete the file backup client

To delete the file backup client, perform the following steps:

> 🔊 **Notice**   After you delete the client, the backup data is also deleted and running backup and restoration tasks fail. Before you delete the client, make sure that the backup data in the client is no longer needed and no backup and restoration tasks are running.

1.
2. In the left-side navigation pane, choose **Backup > ECS File Backup**.
3. In the top navigation bar, select a region.
4. On the **ECS File Backup** page, click **Old Version** or **New Version**.
5. Delete the client.
   - If you click **Old Version**, find the ECS instance and choose **More > Delete** in the Actions column.
   - If you click **New Version**, find the ECS instance and choose **More > Delete Backup** in the Actions column.
6. In the dialog box that appears, click **OK**.

Delete the SAP HANA client

To delete the SAP HANA client, perform the following steps:

> 🔊 **Notice**   After you delete the client, the backup data is also deleted and running backup and restoration tasks fail. Before you delete the client, make sure that the backup data in the client is no longer needed and no backup and restoration tasks are running.

1.
2. In the left-side navigation pane, choose **Backup > SAP HANA Backup**.
3. In the top navigation bar, select a region.
4. On the **SAP HANA Instances** tab, find the backup node and choose **More > Delete** in the Actions column.
5. In the dialog box that appears, enter the SID of the SAP HANA database and click **OK**.

3.2. What can I do if a backup client for ECS fails to be started?

If a backup client for Elastic Compute Service (ECS) fails to be started, the probable cause is that antivirus software is installed on an ECS instance. We recommend that you stop running the antivirus software and reinstall the backup client.

Issue

When you install a backup client on an ECS instance, the following message appears: "Initialization Failed".

Cause

An antivirus software is installed on an ECS instance.

Solution

Procedure

1. Stop running the antivirus software.

    i. Log on to the ECS instance.

       For information about how to log on to an ECS instance, see Guidelines on ECS connection.

    ii. Check whether antivirus software is installed on the ECS instance.

    iii. Stop running the antivirus software.

2. Uninstall and reinstall the backup client for ECS.

    i.

    ii. In the left-side navigation pane, choose **Backup > ECS File Backup**.

    iii. In the top navigation bar, select a region.

    iv. On the **ECS File Backup** page, click **Old Version** or **New Version**.

    i. Find the ECS instance for which you want to uninstall and reinstall the backup client, and choose **More > Uninstall Client** in the Actions column.

    ii. In the dialog box that appears, click **OK**.
        The status of the backup client changes to **Uninstalling**.

    iii. After the backup client is uninstalled, find the ECS instance and choose **More > Reinstall Client** in the Actions column.
        The status of the client changes to **Installing**. After the client is installed, the status changes to **Activated**.

    > ⑦ **Note**   If the issue persists, you can submit a ticket.

3.3. What can I do if an "insufficient permissions" error occurs when I use a RAM user to back up data from an ECS instance?

If you are prompted in the ECS console that the RAM user does not have sufficient permissions, you must use your Alibaba Cloud account to authorize the RAM user. After the authorization, you can use the RAM user to access .

Issue

When you use a RAM user to back up an ECS instance, the following message appears: "Insufficient permissions, please contact the cloud account administrator to grant you the corresponding permissions."

Cause

You have not granted the RAM user the permissions to access and manage .

Solution

Grant the RAM user the AliyunHBRReadOnlyAccess permission to read data from or the AliyunHBRFullAccess permission to manage .

- AliyunHBRReadOnlyAccess: the read-only permission on Hybrid Backup Recovery (HBR). You cannot use the permission to create or modify files in HBR. You can use this permission to only read files from HBR.

- AliyunHBRFullAccess: the permission that allows the RAM user to have the same full access to HBR as your Alibaba Cloud account. You can grant this permission to the RAM user. This way, you can assign operations and maintenance tasks to the RAM user.

> ⑦ **Note**   For data security, we recommend that you follow the principle of least privilege (PoLP) when you grant permissions to the RAM user on . You can create custom policies to manage permissions in a fine-grained manner. For more information, see Create a custom policy.

Procedure

1. Log on to the RAM console by using your Alibaba Cloud account.

2. In the left-side navigation pane, choose **Identities > Users**.

3. On the Users page, find the RAM user, and then click **Add Permissions** in the Actions column.

4. In the **Add Permissions** panel, select the **AliyunHBRReadOnlyAccess** or **AliyunHBRFullAccess** permission under **System Policy** and click **OK**.

5. Confirm the authorization result and click **Complete**.

3.4. When I install a backup client, what can I do if an error occurs and indicates that the installation times out or the client fails to be started?

This issue occurs when an antivirus application blocks the installation process. You can stop the antivirus application and reinstall the client.

3.5. Why am I prompted an error message indicating the checksum fails on the client after I update the client on an ECS instance?

The client is uninstalled or the ECS instance is stopped. If the client is uninstalled, reinstall the client in the HBR console. If the instance is stopped, restart the ECS instance.

3.6. What can I do if an HBR backup client fails to be updated?

If a Hybrid Backup Recovery (HBR) backup client fails to be updated, you can log on to the server on which the backup client is installed and restart the update service of the backup client.

Issue

The backup client fails to be updated.

Cause

The update service of the backup client is not in the running state.

Solution

Log on to the server on which the backup client is installed and enable the update service.

Procedure

1. Log on to the server on which the backup client is installed.

2. Go to the path in which the update service resides.

   - In Linux

     - By default, the installation path for a backup client of an earlier version is *opt\alibabacloud\hbr\update*.

     - By default, the installation path for a backup client of the latest version is *\opt\alibabacloud\hbrclient\update*.

   - In Windows

     - By default, the installation path for a backup client of an earlier version is *C:\Program Files\Aliyun Hybrid Backup Service\Update*.

     - By default, the installation path for a backup client of the latest version is *C:\Program Files\Aliyun Hybrid Backup Service Client\Update*.

3. To restart the update service, perform the following operation.

   - In Linux

     ```
     ./updater
     ```

○ In Windows

Run the `updater.exe` file to start the update server.

3.7. What can I do if the error message "The strategy of AliyunECSAccessingHBRRolePolicy is missing on EcsRamRole. Please refer to the FAQ for authorization" appears when I install the HBR backup client on an ECS instance?

You cannot install the Hybrid Backup Recovery (HBR) backup client on an Elastic Compute Service (ECS) instance if the AliyunECSAccessingHBRRolePolicy policy is not attached to the Resource Access Management (RAM) role of the instance. This topic describes how to troubleshoot and resolve this issue.

- Troubleshooting

  Perform the following steps to view authorization policies that are attached to the RAM role of an ECS instance:

  i. Log on to the HBR console.

  ii. In the left-side navigation pane, choose **Backup & Recovery > ECS File Backup**. On the ECS File Backup page, click **ECS Instance**.

  iii. On the **ECS Instance** tab, find the ECS instance that fails to be installed with the backup client and click the link in the **ECS Name/ID** column.

  iv. On the **Instance Details** page, view the **RAM role** of the ECS instance in the Basic Information section.

     The preceding figure shows that the AliyunECSAccessingHBRRolePolicy policy is not attached to the RAM role of the ECS instance.

- Solution

  To attach the AliyunECSAccessingHBRRolePolicy policy to an ECS instance that is assigned a RAM role, perform the following steps:

  i. Log on to the RAM console.

  ii. Click **RAM Roles** in the left-side navigation pane. On the RAM Roles page, find the RAM role that is assigned to the target ECS instance.

  iii. Click **Input and Attach** in the Actions column.

  iv. In the **Add Permissions** pane, select **System Policy** for Type, enter **AliyunECSAccessingHBRRolePolicy** in the Policy Name field, and then click **OK**.

  v. Go to the HBR console and uninstall and reinstall the HBR backup client.

For more information about how to uninstall and reinstall the HBR backup client, see Install an HBR backup client for ECS.

3.8. What can I do if the backup client cannot be installed for an SAP HANA instance because multiple /usr/sap//SYS/global/hdb/opt directories exist?

You can perform the following steps to fix the issue:

1. Log on to the Elastic Compute Service (ECS) instance on which the backup client is installed.

2. Modify the `/usr/sap/<SID>/SYS/global/hdb/opt` directory to `/usr/sap/<SID>/SYS/global/hdb/opt_backup` for the SAP HANA instances. This applies to the SAP HANA instances that you do not need to back up.

3. Log on to the Hybrid Backup Recovery (HBR) console, and reinstall the backup client for the SAP HANA instance.

4.On-premises backup FAQ

4.1. How can I select a different port as the logon port of a file client?

When you install a file client, port 8011 is the default port that you use to log on to the file client. If port 8011 is occupied by other applications, you can change the logon port of the file client when you install the client.

Windows

If you want to back up data from a server or virtual machine that runs on Windows, install a client and specify a logon port. Perform the following steps:

1. Download a client to the target server or virtual machine.

2. Extract the installation package of the client.

3. Open Command Prompt.

4. Go to the directory where the client installation file resides.

5. Enter the name of the client installation file and add the `/p=<a specified port number>` parameter, for example, `hbr-install-1.5.2-windows-amd64.exe /p=8022` . Press Enter and install the client as prompted.

   ```
   C:\Users\wb-cy387076\Downloads\hbr-install-1.5.2-windows-amd64>hbr-install-1.5.2
   -windows-amd64.exe /p=8022
   ```

   After the client is installed, open a browser and enter `http://localhost:<a specified port number>` in the address bar. Press Enter to activate the client.

Linux

If you want to back up data from a server or virtual machine that runs on Linux, install a client and specify a logon port. Perform the following steps:

1. Download a client to the server or virtual machine.

2. Extract the installation package of the client to a specified directory and run the `./setup -p <a specified port number>` command to start the Hybrid Backup Recovery (HBR) service. For example, if you want to set the logon port of the client to port 8022, run the `./setup -p 8022` command.

```
[root@47 software]# tar -zxvf hbr-install-1.3.4-linux-amd64.tar.gz
hbr-install-1.3.4-linux-amd64/
hbr-install-1.3.4-linux-amd64/client/
hbr-install-1.3.4-linux-amd64/download/
hbr-install-1.3.4-linux-amd64/logs/
hbr-install-1.3.4-linux-amd64/setup
hbr-install-1.3.4-linux-amd64/uninstall
hbr-install-1.3.4-linux-amd64/update/
hbr-install-1.3.4-linux-amd64/versions/
hbr-install-1.3.4-linux-amd64/update/updater
hbr-install-1.3.4-linux-amd64/client/hybridbackup
hbr-install-1.3.4-linux-amd64/client/ids
hbr-install-1.3.4-linux-amd64/client/resource/
hbr-install-1.3.4-linux-amd64/client/www/
hbr-install-1.3.4-linux-amd64/client/www/dist/
hbr-install-1.3.4-linux-amd64/client/www/dist/index.html
hbr-install-1.3.4-linux-amd64/client/www/dist/static/
hbr-install-1.3.4-linux-amd64/client/www/dist/static/css/
hbr-install-1.3.4-linux-amd64/client/www/dist/static/fonts/
hbr-install-1.3.4-linux-amd64/client/www/dist/static/img/
hbr-install-1.3.4-linux-amd64/client/www/dist/static/js/
hbr-install-1.3.4-linux-amd64/client/www/dist/static/js/app.7e558a4017f7c8ad58a4.js
hbr-install-1.3.4-linux-amd64/client/www/dist/static/js/manifest.afb9fdc23e85cda133f8.js
hbr-install-1.3.4-linux-amd64/client/www/dist/static/js/vendor.cbd4977a3094b35cf5a3.js
hbr-install-1.3.4-linux-amd64/client/www/dist/static/img/hbr_logo.b8bbcfb.png
hbr-install-1.3.4-linux-amd64/client/www/dist/static/img/logo.1922e1b.png
hbr-install-1.3.4-linux-amd64/client/www/dist/static/img/logotxt.827883a.png
hbr-install-1.3.4-linux-amd64/client/www/dist/static/img/logotxt_en.eefd9c8.png
hbr-install-1.3.4-linux-amd64/client/www/dist/static/fonts/element-icons.6f0a763.ttf
hbr-install-1.3.4-linux-amd64/client/www/dist/static/fonts/iconfont.012cf6a.woff
hbr-install-1.3.4-linux-amd64/client/www/dist/static/fonts/iconfont.a24068e.woff2
hbr-install-1.3.4-linux-amd64/client/www/dist/static/fonts/iconfont.a37b0c0.ttf
hbr-install-1.3.4-linux-amd64/client/www/dist/static/css/app.2af72af1fc9bac8fc91108877b2708bc.css
hbr-install-1.3.4-linux-amd64/client/resource/en-US.json
hbr-install-1.3.4-linux-amd64/client/resource/zh-CN.json
[root@47 software]# cd hbr-install-1.3.4-linux-amd64
[root@47 hbr-install-1.3.4-linux-amd64]# ll
total 28
drwxr-xr-x 4 501 games 4096 Sep 21 16:31 client
drwxr-xr-x 2 501 games 4096 Sep 12 10:36 download
drwxr-xr-x 2 501 games 4096 Sep 12 10:36 logs
-rwxr-xr-x 1 501 games  307 Sep 12 10:36 setup
-rwxr-xr-x 1 501 games  233 Sep 12 10:36 uninstall
drwxr-xr-x 2 501 games 4096 Sep 21 16:31 update
drwxr-xr-x 2 501 games 4096 Sep 12 10:36 versions
[root@47 hbr-install-1.3.4-linux-amd64]# ./setup -p 8022
Setting up Hybrid backup client ...
Complete
[root@47 hbr-install-1.3.4-linux-amd64]#
```

After the client is installed, open a browser and enter `http://localhost:<a specified port number>` in the address bar. Press Enter to activate the client.

4.2. What should I do if backing up Windows local files fails with an error message showing "Access is denied"?

Description

When you use a backup client to back up local Windows files, the backup fails, and the number of errors is displayed.

Click **the number of errors** next to the backup job to download a full report. The report contains error messages that indicate "Access is denied".

Solution

This issue occurs when users in the SYSTEM group are not granted full access to failed files. To resolve this issue, grant the SYSTEM group full access to these failed files.

4.3. How can I install a Hybrid Backup Recovery (HBR) client on Windows 2016?

You can use the Windows 2016 built-in tool to extract a client installation package. Right-click the extracted installation file, select **Properties**, select **Unlock**, and then click **OK** to install the client.

4.4. How do I reactivate a file backup client?

If you want to use the on-premises file backup feature of an earlier version, you must install a file backup client. If a file backup client fails to be activated, the status of the file backup client is displayed as Pending in the Hybrid Backup Recovery (HBR) console. You can reactivate the file backup client by using one of the following methods:

Method 1: Reactivate the file backup client in the HBR console

1.

2. In the left-side navigation pane, choose **Backup > On-Premises File Backup**.

3. In the top navigation bar, select a region.

4. On the **On-Premises File Backup** page, click **File**.

5. On the Clients tab, find the file backup client that you want to activate. Choose **More > Activate Client** in the Actions column.

6. In the Activate Client step of the **Add Client** panel, configure the parameters. The following table describes the parameters.

Parameter	Description
Client IP Address	The IP address of the server or virtual machine (VM) on which the file backup client is installed. ? **Note** Make sure that the IP address can be accessed by using your browser.
AccessKey Id	Specify your AccessKey ID. For more information, see Obtain an AccessKey pair.

Parameter	Description
AccessKey Secret	Specify your AccessKey secret. For more information, see Obtain an AccessKey pair.
Client Password	The password that you use to log on to the web console of the file backup client. The password must be at least six characters in length.
Repeat Password	Re-enter the password.
Advanced Settings	You can configure the control network, message channel network, and their network types in proxy mode. The details of the network proxy include the username, password, IP address, and port number. ○ **Control Network Proxy**: the details of the control network proxy. ○ **Data Network Proxy**: the details of the data network proxy. ○ **Control Network Type**: the type of the control network. Valid values: Automatic, VPC, and Internet. ○ **Message Network Type**: the type of the message channel. Valid values: Automatic, VPC, and Internet.

7. Click **Activate Client**.
   The page of the file backup client appears. You can use the file backup client to back up data.

Method 2: Reactivate the file backup client on a web page

1.

2. In the left-side navigation pane, choose **Backup > On-Premises Backup**.

3.

4. On the **On-Premises Backup** page, click **File**.

5. In the Actions column, click **Download Certificate** and save the certificate.

6. In the client list, find the file backup client that you want to activate. In the Actions column to the right of the client, choose **More > Download Certificate**.

7. Open a browser and enter `http://localhost:8011` in the address bar.

8. On the **Register** page, configure the parameters. The following table describes the parameters.

> ⑦ Note
>
> ○ If you use an intermediate host to back up data, replace `localhost` with the IP address of the server or VM that you want to back up.
>
> ○ Port 8011 is the default port that you can use to log on to a file backup client. If port 8011 on the server or VM is occupied by another application, you can specify another port number. For more information, see How can I select a different port as the logon port of a file client?.

Parameter	Description

Parameter	Description
Certificate File	The token that is downloaded from the console. The token is used as a certificate. The validity period of each certificate is two days. If the certificate in use expires, you must download a new certificate to register a client.
AccessKey Id	Specify your AccessKey ID. For more information, see Obtain an AccessKey pair.
AccessKey Secret	Specify your AccessKey secret. For more information, see Obtain an AccessKey pair.
Data Path Network	○ VPC: Select this option if the server or VM that you want to back up resides in a VPC or the classic network, and resides in the same region as the backup vault. ○ Classic: Select this option if you want to back up data over the classic network.
Advanced Settings	You can configure the control network, message channel network, and the network types in proxy mode. The details of the network proxy include the username, password, IP address, and port number. ○ **Control Network Proxy**: the details of the control network proxy. ○ **Data Network Proxy**: the details of the data network proxy. ○ **Control Network Type**: the type of the control network. Valid values: Automatic, VPC, and Internet. ○ **Message Network Type**: the type of the message channel. Valid values: Automatic, VPC, and Internet.
Password	The password that you use to log on to the web console of the file backup client. The password must be at least six characters in length.
Repeat Password	Re-enter the password.
Encrypt AccessKey	Specifies whether to use the password to encrypt the AccessKey pair. If you use the password to encrypt the AccessKey pair, you must enter the password after each restart.

9. Click **Register** to activate the file backup client.
The page of the file backup client appears. You can use the file backup client to back up data.