Data Replication Service

Backup Migration

Issue 16

Date 2023-08-30

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Huawei Cloud Computing Technologies Co., Ltd.

Address: Huawei Cloud Data Center Jiaoxinggong Road
Qianzhong Avenue
Gui'an New District
Gui Zhou 550029
People's Republic of China

Website: https://www.huaweicloud.com/intl/en-us/

Contents

1 Migration Overview

It often becomes necessary to hide the real IP address of your database for the sake of security. Migrating data through direct connections is an option, but costly. DRS supports backup migration, which allows you to export data from your source database for backup and upload the backup files to OBS. Then, you can restore the backup files to the destination database to complete the migration. Using this method, data migration can be realized without exposing your source databases.

You can use backup migration when you want to migrate on-premises databases to the cloud.

Without connecting to your sources, DRS can help you complete data migration.

Figure 1-1 Backup migration process

Supported Database Types

Table 1-1 lists the source database and destination database types supported by DRS in backup migration.

Table 1-1 Migration schemes

Backup File	Destination DB	Documentation
Full backup file of RDS for SQL Server	RDS for SQL Server	Creating an RDS Backup Migration Task
Backup files o f on-premises and other cloud Microsoft SQL Server		Creating a Backup Using OBS Buckets

2 Creating an RDS Backup Migration Task

Supported Source and Destination Databases

Table 2-1 Supported databases

Backup File	Destination DB
RDS for SQL Server full backup file versions: • Microsoft SQL Server 2008 • Microsoft SQL Server 2012 • Microsoft SQL Server 2014 • Microsoft SQL Server 2016 • Microsoft SQL Server 2017 • Microsoft SQL Server 2019	RDS for SQL Server • Microsoft SQL Server 2008 (Existing version) • Microsoft SQL Server 2012 • Microsoft SQL Server 2014 • Microsoft SQL Server 2016 • Microsoft SQL Server 2017 • Microsoft SQL Server 2019 **NOTE** • The major version of the destination database must be the same as or later than that of the source database. • The edition of the destination database must be the same as or later than that of the source database, for example, from Web Edition to Standard Edition, from Standard Edition to Enterprise Edition, or from Enterprise Edition to Enterprise Edition.

Prerequisites

- **You have logged in to the DRS console.**
- Your account balance is greater than or equal to $0 USD.
- For details about the supported DB types and versions, see **Supported Databases**.
- If a subaccount is used to create a DRS task, ensure that an agency has been added. For details about how to create an agency, see **Agency Management**.

Before Backing Up File

Learn the backup migration constraints before starting a migration task.

Table 2-2 Before Backing Up File

Scenario	Preparations
RDS full backup files	The source Microsoft SQL Server DB instance has full backups. If there are no full backups, create a full backup for the DB instance. For details, see **Creating a Manual Backup** in *Relational Database Service User Guide*.

Precautions

This section describes constraints on backup migrations of Microsoft SQL Server databases.

Table 2-3 Precautions

Type	Restrictions
Database permissions	Before creating a backup migration task, ensure that the account has the permission to operate the RDS service. For details about RDS permissions and operations, see **RDS Service Overview**.
Backup database names	• Backup database names are case-insensitive, must be unique, and cannot be any of the following: – msdb – master – model – tempdb – rdsadmin – resource

Type	Restrictions
New database name	• The new database name must be unique and cannot be any of the following (case-insensitive): – msdb – master – model – tempdb – rdsadmin – resource • The new database name contains 1 to 64 characters, including letters, digits, underscores (_), hyphens (-), and periods (.).
Backup file sources	• RDS full backups: Backup files are manually or automatically created for RDS DB instances.
Precautions	• The available disk space of the destination database is at least 1.5 times the total data size of the backup database. • Backup database name is case-sensitive and must be the same as the database name in the backup file. • The database backup file from a database of later version cannot be restored on the instance database of an earlier version (for example, restored from version 2017 to 2016). • The restoration from Enterprise Edition to Standard Edition to Web Edition may fail. That depends on whether the features of the later version are enabled. • During a migration, if **Overwrite Data** is set to **Yes**, high availability of the destination database is disabled by default. After the migration is complete, high availability is restored automatically. • During a migration, stop writing transactions to the destination database. • If a primary/standby switchover of the destination database is performed, the backup migration fails. In this case, the migration task cannot be restored.

Procedure

This section describes how to create an RDS full backup migration task. You can use the full backups of Microsoft SQL Server DB instances in the cloud to migrate data.

Step 1 On the **Backup Migration Management** page, click **Create Migration Task**.

Step 2 On the **Select Backup** page, specify information about the task and backup files. Then, click **Next**.

Figure 2-1 Task information

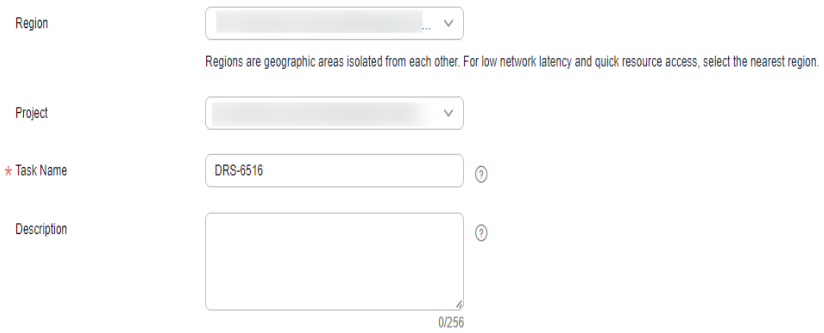


Table 2-4 Task information

Parameter	Description
Region	The region where your service is running. You can change the region. To reduce latency and improve access speed, select the region closest to your services.
Project	The project corresponds to the current region and can be changed.
Task Name	The task name must start with a letter and consist of 4 to 50 characters. It can contain only letters, digits, hyphens (-), and underscores (_).
Description	The description can contain up to 256 characters and cannot contain special characters !=<>&'\"

Figure 2-2 Backup file information

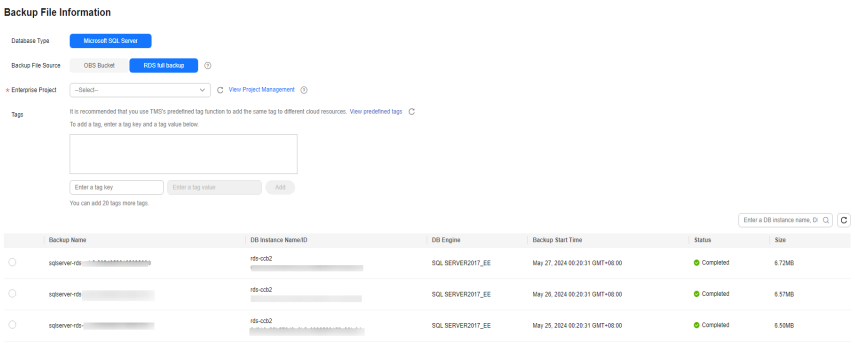


Table 2-5 Backup file information

Parameter	Description
Database Type	Select **Microsoft SQL Server**.

Parameter	Description
Backup File Source	Select **RDS full backup**. **NOTE** Select a backup file whose status is **Completed**.
Enterprise Project	An enterprise project you would like to use to centrally manage your cloud resources and members. Select an enterprise project from the drop-down list. The default project is **default**. For more information about enterprise projects, see ***Enterprise Management User Guide***. To customize an enterprise project, click **Enterprise** in the upper right corner of the console. The **Enterprise Project Management Service** page is displayed. For details, see **Creating an Enterprise Project** in *Enterprise Management User Guide*.
Tags	• Tags a task. This configuration is optional. Adding tags helps you better identify and manage your tasks. Each task can have up to 20 tags. • If your organization has configured tag policies for DRS, add tags to tasks based on the policies. If a tag does not comply with the policies, task creation may fail. Contact your organization administrator to learn more about tag policies. • After a task is created, you can view its tag details on the **Tags** tab. For details, see **Tag Management**.

Step 3 On the **Select Destination** page, specify database information and click **Next**.

Figure 2-3 Database information

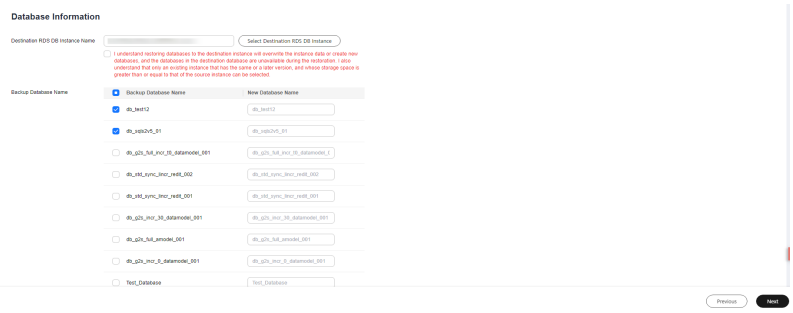


Table 2-6 Database information

Parameter	Description
Destination RDS DB Instance Name	Select a destination RDS DB instance.

Parameter	Description
Backup Database Name	After you select the destination RDS DB instance, all databases to be restored are automatically displayed. You can select databases to be restored as required and rename them. • **Backup Database Name**: Name of the database to be restored. • **New Database Name**: The backup database name must consist of 1 to 64 characters. It can contain only uppercase letters, lowercase letters, digits, hyphens (-), underscores (_), and periods (.). If the name is not specified, the original database name is used. **NOTE** • The backup database can be renamed. A maximum of 100 backup databases can be created. • The new database name cannot be the same as the name of any other database in the source.

Step 4 On the **Confirm Task** page, check configuration details, read and agree to the agreement, and click **Next**.

NOTE

If the SQL Server source contains non-clustered index tables, the index information of non-clustered index tables will become invalid after the SQL Server backups are restored to a new database. For the best performance, rebuild the indexes after the backup migration. In addition, the backup files store only database-level information. If the SQL Server source contains some instance-level configurations, such as login, permission, DBlink, and job, migrate these configurations by referring to **Best Practices**.

Step 5 In the task list on the **Backup Migration Management** page, check whether the task is in the **Restoring** status. If the migration is successful, the task status becomes **Successful**.

----End

3 Creating a Backup Using OBS Buckets

Supported Source and Destination Databases

Table 3-1 Supported databases

Backup File	Destination DB
On-premises and other cloud's Microsoft SQL Server backup file versions: • Microsoft SQL Server 2000 • Microsoft SQL Server 2005 • Microsoft SQL Server 2008 • Microsoft SQL Server 2012 • Microsoft SQL Server 2014 • Microsoft SQL Server 2016 • Microsoft SQL Server 2017 • Microsoft SQL Server 2019	RDS for SQL Server • Microsoft SQL Server 2008 (Existing version) • Microsoft SQL Server 2012 • Microsoft SQL Server 2014 • Microsoft SQL Server 2016 • Microsoft SQL Server 2017 • Microsoft SQL Server 2019 **NOTE** • The major version of the destination database must be the same as or later than that of the source database. • The edition of the destination database must be the same as or later than that of the source database, for example, from Web Edition to Standard Edition, from Standard Edition to Enterprise Edition, or from Enterprise Edition to Enterprise Edition.

Prerequisites

- **You have logged in to the DRS console.**
- Your account balance is greater than or equal to $0 USD.
- For details about the supported DB types and versions, see **Supported Databases**.
- If a subaccount is used to create a DRS task, ensure that an agency has been added. For details about how to create an agency, see **Agency Management**.

Before Backing Up File

Learn the backup migration constraints before starting a migration task.

Table 3-2 Before Backing Up File

Scenario	Preparations
OBS bucket	• An OBS bucket is available. If there is no OBS bucket, create one. For detailed operations, see **Adding a Bucket** in the *Object Storage Service Console Operation Guide*. • Database backup files have been uploaded to the OBS bucket. If there are no backup files in the OBS bucket, upload local backup files to it and ensure that the backup file name format is correct. For details about how to upload backup files, see **Uploading a File or Folder** in *Object Storage Service Console Operation Guide*. • If you want to upload multiple files in batches (up to 100 files can be uploaded at a time and the total size of the files cannot exceed 5 GB) or upload files greater than 5 GB at a time, download the OBS Browser+ client and install and log in to it. For details, see **Object Storage Service Tools Guide**. **NOTE** • Currently, KMS encryption is not available when you upload backup files to an OBS bucket. • When you upload backup files to an OBS bucket, select **Standard** for **Storage Class**. Otherwise, the migration will fail. • If the number of data records in a bucket exceeds 500, data overflow may occur. As a result, some data cannot be displayed. You can use an independent standard bucket with the public-read permission. • You are advised to store backup files in independent OBS buckets in the same region as the destination DB instance.

Precautions

This section describes constraints on backup migrations of Microsoft SQL Server databases.

Table 3-3 Precautions

Type	Restrictions
Database permissions	Before creating a backup migration task, ensure that the current account has the OBS and bucket permissions. For details about OBS permissions, see **OBS Permissions Management**.
Backup database names	• Backup database names are case-insensitive, must be unique, and cannot be any of the following: – msdb – master – model – tempdb – rdsadmin – resource • The name of the OBS bucket contains 1 to 256 characters, including letters, digits, underscores (_), and hyphens (-).
New database name	• The new database name must be unique and cannot be any of the following (case-insensitive): – msdb – master – model – tempdb – rdsadmin – resource • The new database name contains 1 to 64 characters, including letters, digits, underscores (_), hyphens (-), and periods (.).
Local backup files	• The suffix of the backup file to be uploaded to an OBS bucket must be .bak. Only .bak files can be selected in the OBS backup file list. • The backup file name contains 1 to 100 characters. • The backup file name consists of uppercase letters, lowercase letters, digits, underscores (_), plus signs (+), and periods (.). • Backup files are classified into full backup files and log backup files.
Backup file sources	• OBS buckets: store local backup files in its root directory.

Type	Restrictions
Precautions	• The OBS bucket and DB instance must be in the same region. • The available disk space of the destination database is at least 1.5 times the total data size of the backup database. • Backup database name is case-sensitive and must be the same as the database name in the backup file. • The database backup file from a database of later version cannot be restored on the instance database of an earlier version (for example, restored from version 2017 to 2016). • The restoration from Enterprise Edition to Standard Edition to Web Edition may fail. That depends on whether the features of the later version are enabled. • During a migration, if **Overwrite Data** is set to **Yes**, high availability of the destination database is disabled by default. After the migration is complete, high availability is restored automatically. • During a migration, stop writing transactions to the destination database. • If a primary/standby switchover of the destination database is performed, the backup migration fails. In this case, the migration task cannot be restored.

Procedure

This section describes how to create a backup migration task using the backup stored in the OBS bucket on the DRS console.

Step 1 On the **Backup Migration Management** page, click **Create Migration Task**.

Step 2 On the **Select Backup** page, specify information about the task and backup files. Then, click **Next**.

Figure 3-1 Task information

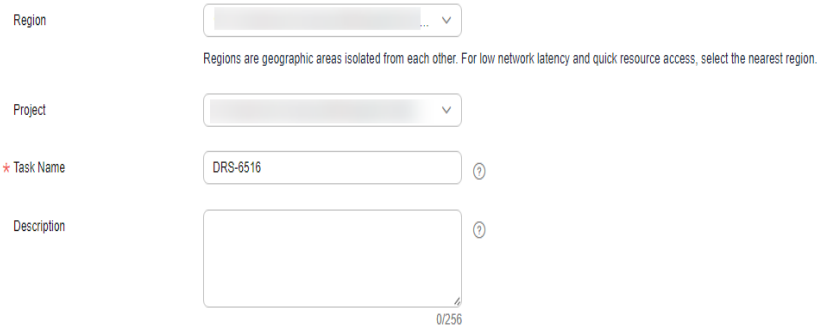


Table 3-4 Task information

Parameter	Description
Region	The region where your service is running. You can change the region. To reduce latency and improve access speed, select the region closest to your services.
Project	The project corresponds to the current region and can be changed.
Task Name	The task name must start with a letter and consist of 4 to 50 characters. It can contain only letters, digits, hyphens (-), and underscores (_).
Description	The description can contain up to 256 characters and cannot contain special characters !=<>&'\"

Figure 3-2 Backup file information

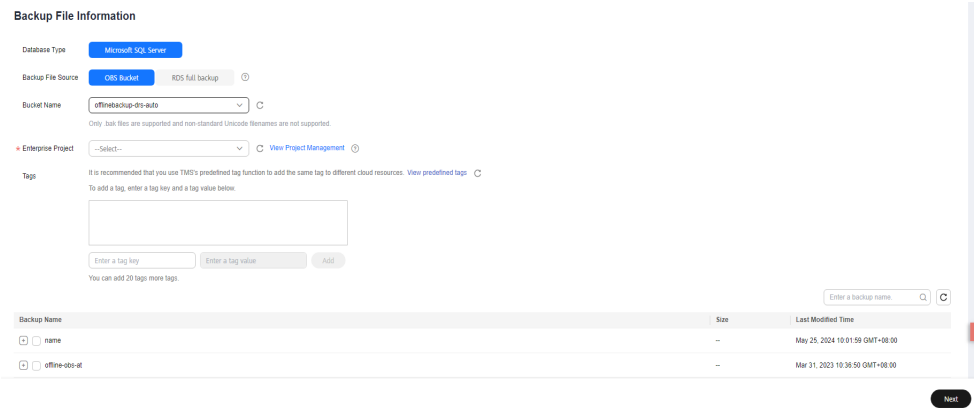


Table 3-5 Backup file information

Parameter	Description
Database Type	Database type of the backup file. Select Microsoft SQL Server.
Backup File Source	Select **OBS Bucket**.
Bucket Name	Select a bucket and a backup file stored in the directory of the bucket. **NOTE** • The backup file of the Microsoft SQL Server must be named in the .bak format in the OBS bucket directory. Multiple backup files can be selected at the same time. • A database cannot be split into different files for upload. • The bucket name, backup file name, or path cannot contain Chinese characters or spaces.

Parameter	Description
Enterprise Project	An enterprise project you would like to use to centrally manage your cloud resources and members. Select an enterprise project from the drop-down list. The default project is **default**. For more information about enterprise projects, see ***Enterprise Management User Guide***. To customize an enterprise project, click **Enterprise** in the upper right corner of the console. The **Enterprise Project Management Service** page is displayed. For details, see **Creating an Enterprise Project** in *Enterprise Management User Guide*.
Tags	• Tags a task. This configuration is optional. Adding tags helps you better identify and manage your tasks. Each task can have up to 20 tags. • If your organization has configured tag policies for DRS, add tags to tasks based on the policies. If a tag does not comply with the policies, task creation may fail. Contact your organization administrator to learn more about tag policies. • After a task is created, you can view its tag details on the **Tags** tab. For details, see **Tag Management**.

Step 3 On the **Select Destination** page, specify database information and click **Next**.

Figure 3-3 Microsoft SQL Server database information

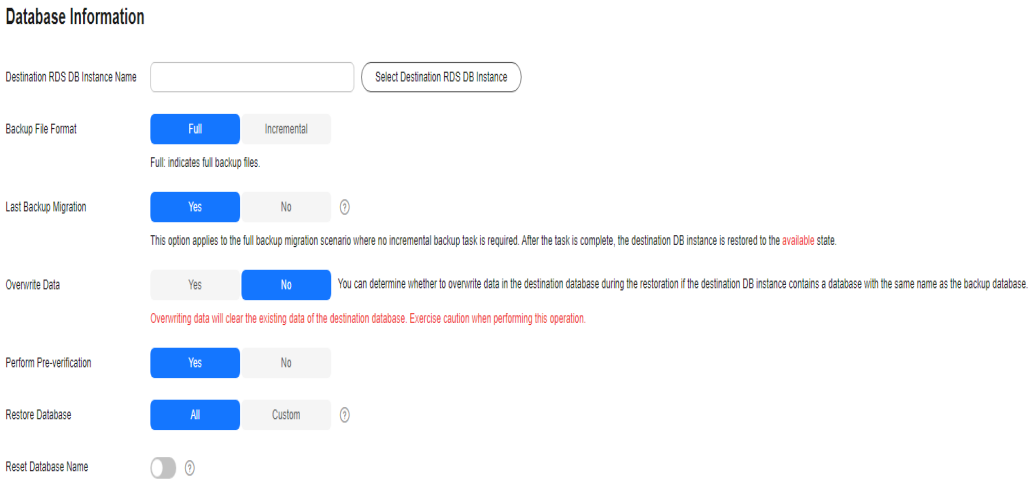


Table 3-6 Microsoft SQL Server database information

Parameter	Description
Destination RDS DB Instance Name	Select a destination RDS DB instance.
Backup File Format	Select **Full** or **Incremental**. • **Full**: indicates full backup files. • **Incremental**: indicates log backup files. **NOTE** – Before performing an incremental restoration, you need to perform a full restoration. – To migrate databases at a time, you need to stop services first and upload full backups for restoration. – To ensure service continuity during a migration, perform a full backup and multiple incremental backups, and then upload the backup data to OBS for restoration.
Last Backup	A complete restoration involves restoring several incremental backup files. The destination DB instance cannot be modified while it is being restored. It will not be available until the last backup file is restored. If you select Yes and restore the instance, any incremental restoration will not be performed. You can select the last backup in the following scenarios: • Perform a one-time full migration. • The selected backup file is the last one to be restored. • Select **No** for the full+incremental backup migration scenario where you continue to restore databases using incremental backup files after a full backup restoration is performed. During this period, the destination DB instance is being restored and in the unavailable state.
Overwrite Data	You can determine whether to overwrite data in the destination database during the restoration if the destination DB instance contains a database with the same name as the backup database. Exercise caution when performing this operation. **NOTE** If you select this option, the destination databases with the same names as the backup databases will be overwritten. Exercise caution when performing this operation.

Parameter	Description
Perform Pre-verification	Specifies whether to perform pre-verification on the backup migration task. The default value is **Yes**. ● **Yes**: To ensure successful migration and identify potential problems in advance, verify the validity, integrity, continuity, and version compatibility of backup files before restoration. ● **No**: If pre-verification is not performed, the migration speed is faster, but you need to check the validity, integrity, continuity, and version compatibility of backup files on your own.
Restore Database	You can restore all or part of databases. All of databases are restored by default. ● **All**: Restore all databases from the backup file. You do not need to enter the name of the database to be restored. ● **Custom**: Restore specified databases from the backup file. You need to enter the names of the databases to be restored. The databases to be restored must be consistent with those for which the full or incremental backups are created.
Reset Database Name	If **Restore Database** is set to **All**, you can reset database names. If you enable **Reset Database Name**, the original database names in the backup file will be reset to new database names. Constraint: ● The backup file contains only one database. ● The backup file is a full backup file and is the last backup file. Select **Full** for **Backup File** and **Yes** for **Last Backup Type**. **NOTE** The database name can be reset only when **Backup Type** is set to **Full** and **Restore Database** is set to **All**.

Parameter	Description
Backup Database Name	If **Restore Database** is set to **Custom**, you need to specify **Backup Database Name**. The backup database name must be the same as that in the backup file and consist of 1 to 64 characters. It can contain only letters (case-sensitive), digits, hyphens (-), underscores (_), and periods (.). DRS also allows you to create an alias for the database to be restored. • If you choose to restore databases in full backup mode, you can set the alias of the database based on the site requirements. The alias is also stored in the destination database. • If databases are restored in incremental backup mode, alias is not supported. **NOTE** The backup database can be renamed. Up to 100 backup databases can be created.

Step 4 On the **Confirm Task** page, check configuration details, read and agree to the agreement, and click **Next**.

NOTE

If the SQL Server source contains non-clustered index tables, the index information of non-clustered index tables will become invalid after the SQL Server backups are restored to a new database. For the best performance, rebuild the indexes after the backup migration. In addition, the backup files store only database-level information. If the SQL Server source contains some instance-level configurations, such as login, permission, DBlink, and job, migrate these configurations by referring to **Best Practices**.

Step 5 In the task list on the **Backup Migration Management** page, check whether the task is in the **Restoring** status. If the migration is successful, the task status becomes **Successful**.

----End

4 Task Management

4.1 Viewing Task Details

The **Basic Information** page of a backup migration task displays information about the task, backup files, and databases. This section describes how to view details about current migration task.

Prerequisites

You have logged in to the DRS console.

Procedure

NOTE

In the task list, only tasks created by the current login user are displayed. Tasks created by different users of the same tenant are not displayed.

Step 1 On the **Backup Migration Management** page, click the target migration task name in the **Task Name/ID** column.

Step 2 On the displayed **Basic Information** tab, view details about the migration task.

You can view information about the task, backup files, and databases.

----End

4.2 Modifying Task Information

After a backup migration task is created, you can modify basic information about the task to identify different tasks.

The following task information can be edited:

- Task name
- Description

Prerequisites

You have logged in to the DRS console.

Procedure

Step 1 On the **Backup Migration Management** page, click the target migration task name in the **Task Name/ID** column.

Step 2 On the **Basic Information** page, click next to the information to modify.

- To submit the change, click .
- To cancel the change, click .

Table 4-1 Task information description

Task Information	Description
Task name	The task name must start with a letter and consist of 4 to 50 characters. It can contain only letters, digits, hyphens (-), and underscores (_).
Description	The description consists of a maximum of 256 characters and cannot contain the following special characters: !=<>'&"

Step 3 View the change result on the **Basic Information** tab.

----End

4.3 Viewing Migration Logs

Migration logs refer to the warning-, error-, and info-level logs generated during the migration process. This section describes how to view migration logs to locate and analyze database problems, if any.

Prerequisites

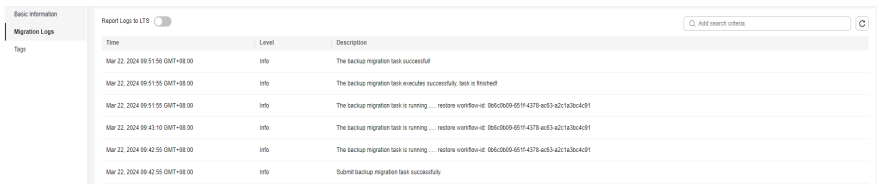
You have logged in to the DRS console.

Procedure

Step 1 On the **Backup Migration Management** page, click the target migration task name in the **Task Name/ID** column.

Step 2 On the displayed page, click **Migration Logs** to view the logs generated during the migration.

Figure 4-1 Viewing migration logs



You can view time, levels, and descriptions of the logs.

In addition, DRS can interconnect with Log Tank Service (LTS). After you enable log reporting to LTS, all logs generated by DRS instances will be uploaded to LTS for management. For details, see **Log Reporting**.

----End

4.4 Deleting a Migration Task

This section describes how to delete a migration task. Deleted tasks will no longer be displayed in the task list. Exercise caution when performing this operation.

Prerequisites

You have logged in to the DRS console.

Deleting a Task

Step 1 In the task list on the **Backup Migration Management** page, locate the target task and click **Delete** in the **Operation** column.

Step 2 Click **Yes** to submit the deletion task.

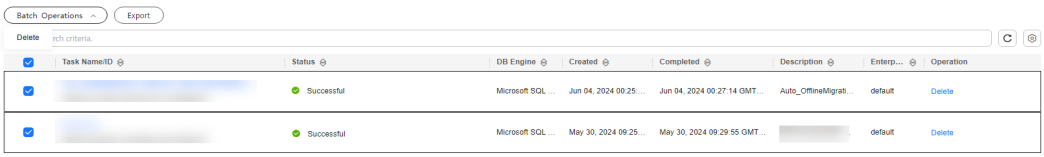
----End

Deleting Tasks

Step 1 On the **Backup Migration Management** page, select the task to be deleted.

Step 2 Click **Batch Operations** in the upper left corner and choose **Delete**.

Figure 4-2 Batch Operations



Step 3 In the displayed dialog box, confirm the task information and click **Yes**.

----End

4.5 Task Statuses

Migration statuses indicate different migration phases.

Table 4-2 lists statuses and descriptions of backup migration tasks.

Table 4-2 Backup migration task statuses

Status	Description
Restoring	A backup file is being restored to the destination database.
Successful	A backup file has been restored to the destination database.
Failed	A backup file fails to be restored to the destination database.
Check failed	A backup file is unavailable.

NOTE

Deleted migration tasks are not displayed in the status list.

5 Interconnecting with LTS

5.1 Log Reporting

Scenarios

If you enable log reporting, all logs generated by DRS instances (including real-time migration, backup migration, real-time synchronization, real-time disaster recovery, and workload replay instances) are uploaded to Log Tank Service (LTS) for management.

Precautions

- After this function is enabled, all logs of the task are reported by default.
- This request does not take effect immediately. There is a delay of about 10 minutes.
- You will be billed for this function. For details, see **LTS Pricing Details**.
- Ensure that there are available LTS log groups and log streams in the same region as your instance.

  For more information about log groups and log streams, see **Log Management**.
- After this function is disabled, you will not be billed anymore.

Enabling or Disabling Log Reporting

Step 1 Log in to the management console.

Step 2 Click  in the upper left corner and select a region and project.

Step 3 Choose **Database** > **Data Replication Service**. The **Data Replication Service** page is displayed.

Step 4 Take real-time migration as an example. On the **Online Migration Management** page, click the target migration task name in the **Task Name/ID** column. The operations for real-time synchronization, real-time disaster recovery, and workload replay are similar to those for real-time migration.

Step 5 On the **Basic Information** page, click **Migration Logs** on the left.

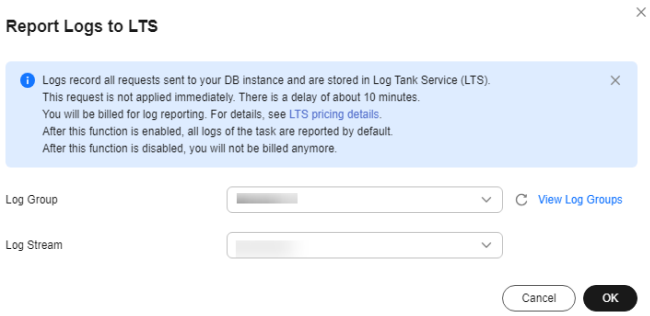
Step 6 Click  next to **Report Logs to LTS** in the upper part of the page.

Step 7 Select an LTS log group and log stream and click **OK**.

NOTE

This request does not take effect immediately. There is a delay of about 10 minutes.

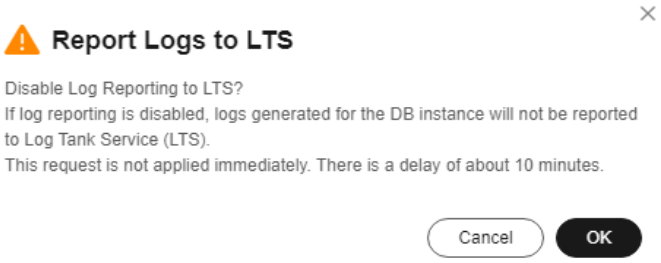
Figure 5-1 Enabling audit log reporting to LTS



Step 8 To disable or modify log reporting, click the toggle switch next to **Report Logs to LTS** or click **Edit** next to the **Report Logs to LTS** toggle switch.

- Modifying log reporting: Click **Edit** next to the **Report Logs to LTS** toggle switch. In the displayed dialog box, select the LTS log group and log stream again and click **OK**.
- Disabling log reporting: Click the toggle switch next to **Report Logs to LTS**. In the displayed dialog box, click **OK**.

Figure 5-2 Disabling log reporting to LTS



----End

5.2 Viewing and Downloading Logs

Scenarios

If you have enabled log reporting to LTS for a DRS task in **Log Reporting**, you can analyze logs, search for logs, visualize logs, download logs, and view real-time logs on the LTS console.

Viewing Logs Reported to LTS

Step 1 Log in to the management console.

Step 2 Click in the upper left corner and select a region and project.

Step 3 Under **Management & Governance**, click **Log Tank Service**.

Step 4 In the **Log Groups** area, locate a target log group and click its name. For details about LTS, see **Log Tank Service User Guide**.

Figure 5-3 Viewing log details

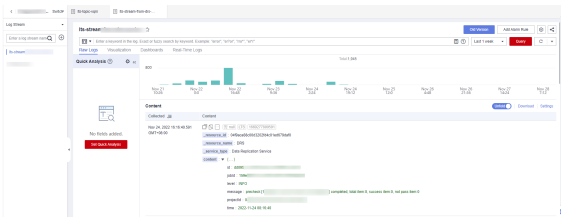


Table 5-1 Log field description

Name	Type	Description
_resource_id	String	Resource ID. The value is fixed to **projectId** for DRS.
_resource_name	String	Resource name. The value is fixed to **DRS**.
_service_type	String	Service type. The value is fixed to **Data Replication Service**.

----End

Downloading Logs Reported to LTS

Step 1 Log in to the management console.

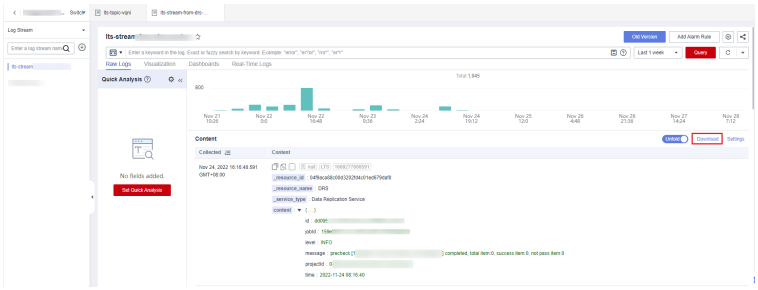
Step 2 Click in the upper left corner and select a region and project.

Step 3 Under **Management & Governance**, click **Log Tank Service**.

Step 4 In the **Log Groups** area, locate a target log group and click its name.

Step 5 Click **Download** on the right to download logs. For details about LTS, see **Log Tank Service User Guide**.

Figure 5-4 Downloading logs



----End

6 Tag Management

Scenarios

Tag Management Service (TMS) enables you to use tags on the management console to manage resources. TMS works with other cloud services to manage tags. TMS manages tags globally, and other cloud services manage their own tags. If you have to manage a large number of tasks, you can use different tags to identify and search for tasks.

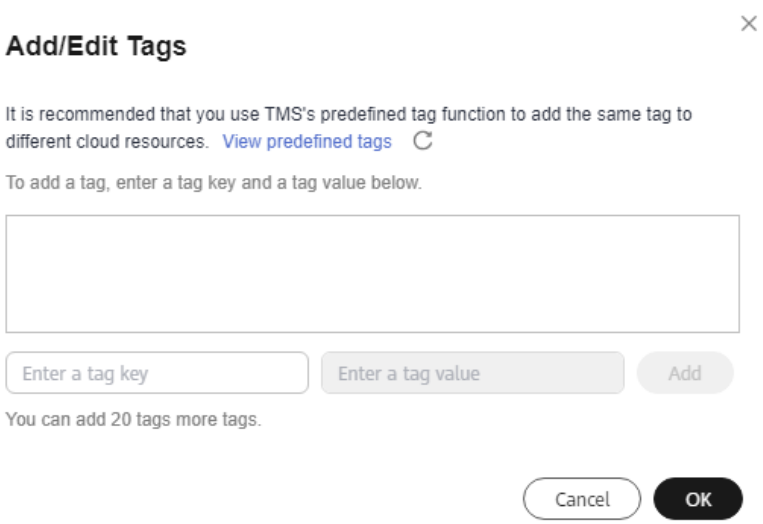
- You are advised to set predefined tags on the TMS console.
- A tag consists of a key and value. You can add only one value for each key.
- Each DB instance can have up to 20 tags.

Adding a Tag

Step 1 On the **Backup Migration Management** page, click the target migration task name in the **Task Name/ID** column.

Step 2 In the navigation pane on the left, choose **Tags**.

Step 3 On the **Tags** tab, click **Add/Edit Tags**. In the displayed dialog box, enter a tag key and value, click **Add**, and click **OK**.



- When you enter a tag key and value, the system automatically displays all tags (including predefined tags and resource tags) associated with all DB instances except the current one.
- The tag key must be unique. It must consist of 1 to 128 characters and can include letters, digits, spaces, and the following characters: _**.:=+-@**. It cannot start or end with a space, or start with _**sys**_.
- The tag value can be empty. It cannot start or end with a space and can contain 0 to 255 characters, including letters, digits, spaces, and special characters _.:/=+-@

Step 4 View and manage the tag on the **Tags** page.

----End

Editing a Tag

Step 1 On the **Backup Migration Management** page, click the target migration task name in the **Task Name/ID** column.

Step 2 In the navigation pane on the left, choose **Tags**.

Step 3 On the **Tags** page, click **Add/Edit Tags**. In the displayed dialog box, modify the tag and click **OK**.

----End

Delete a Tag

Step 1 On the **Backup Migration Management** page, click the target migration task name in the **Task Name/ID** column.

Step 2 In the navigation pane on the left, choose **Tags**.

Step 3 On the **Tags** page, locate the tag to be deleted and click **Delete** in the **Operation** column. In the displayed dialog box, click **Yes**.

Step 4 After the tag is deleted, it will no longer be displayed on the **Tags** page.

----End

A Change History

Released On	Description
2023-08-30	This issue is the sixteenth official release, which incorporates the following change: ● Supported DRS task filtering by DB instance ID or database IP address.
2022-11-30	This issue is the fifteenth official release, which incorporates the following changes: ● After DRS interconnects with LTS and log reporting to LTS is enabled, all logs generated by DRS instances will be uploaded to LTS for management.
2022-07-30	This issue is the fourteenth official release, which incorporates the following changes: ● Optimized the description of **Last Backup Migration** on the **Backup Migration** page. ● If a task fails to be created, DRS retains the task for three days by default. After three days, the task automatically stops.
2022-04-30	This issue is the thirteenth official release, which incorporates the following changes: ● Adjusted the length and character range of tag keys and tag values.
2022-02-28	This issue is the twelfth official release, which incorporates the following change: ● Optimized the GUI elements of the DRS backup migration function.
2022-01-30	This issue is the eleventh official release, which incorporates the following change: ● Supported migrating Microsoft SQL Server 2019 backups to the cloud.

Released On	Description
2021-11-30	This issue is the tenth official release, which incorporates the following changes: ● Adjusted the structure of the help document.
2021-08-30	This issue is the ninth official release, which incorporates the following changes: ● Supported selecting DRS task exception notifications from the SMN topic.
2021-07-05	This issue is the eighth official release, which incorporates the following changes: ● Added permissions, allowing users to perform all operations except deleting DB instances.
2020-07-31	This issue is the seventh official release, which incorporates the following changes: ● Allowed different users under the same tenant to manage their own DRS tasks, and the tasks are invisible to each other.
2019-11-30	This issue is the sixth official release, which incorporates the following changes: ● Supported renaming databases during Microsoft SQL Server backup and restoration.
2019-10-30	This issue is the fifth official release, which incorporates the following changes: ● Supported checking backup files during backup migration. ● Supported tag management.
2019-08-30	This issue is the fourth official release, which incorporates the following changes: ● Supported hyphens (-) in Microsoft SQL Server database names.
2019-01-30	This issue is the third official release, which incorporates the following changes: ● Supported database alias in full backup migration and the restoration of all databases.
2018-11-30	This issue is the second official release, which incorporates the following changes: ● Supported selecting multiple .bak files during backup migration. ● Supported deleting tasks in batches.
2018-10-31	This issue is the first official release.

