

# Alibaba Cloud

## Data Transmission Service Quick Start








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# Document conventions

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

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# 1. Create a data integration task

You can follow the general procedure in this topic to create and manage a task in data integration mode.

## Background information

- Use cases

The data integration mode of DTS allows you to schedule data migration tasks to run on a regular basis. This mode is typically used for recurring migrations in a large data warehouse system.

- Supported targets and sources

The supported targets and sources are the same as for data migration mode. For more information about supported data sources and targets, see [Supported sources and targets](#)

## Data integration procedure

You can complete the following higher level steps to create and manage a data integration task.

Step	Description
1. Set up a networking environment	Before you use DTS for data integration, you must make your source or target database reachable by DTS servers over the network. For more information, see <a href="#">Set up a network environment for replication</a> .
2. Create a data integration task	Create a data integration task in the DTS console. For detailed steps, see <a href="#">Create a data integration task</a> .
3. View the progress of the data migration	You can view the status of a scheduled data migration in the DTS console. You can check the progress in the same way as for a task in data migration mode. For detailed steps, see <a href="#">View the progress of a data migration task..</a>
4. View historical tasks	You can view details of data migration tasks that were previously scheduled by the data integration task. For more information, see <a href="#">View the occurrences of a data integration task</a> .
5. Stop the data integration task or change the schedule	If you no longer require scheduled data migrations, stop the data integration task in the DTS console. You can also change the schedule of a data integration task instead. For more information, see <a href="#">Change the schedule of a data integration task</a> .

## 2. Create a data migration task

You can follow the general procedure in this topic to create and manage a task in data migration mode.

### Background information

- Use cases

Typical scenarios include data migration to Alibaba Cloud from an on-premises system, migration between any two cloud providers, and data migration between instances within Alibaba Cloud. For more information, see [Use cases](#).

- Migration paths

For more information about supported data sources and targets, see [Data migration](#).

- Data type conversion

Different database engines use different sets of data types. You can check the data type conversion that DTS applies between the source and target databases during schema migration. For more information, see [Data type conversion](#).

- Advanced features

For more information about the features of a data migration task, see [Data migration mode](#).

### Data migration procedure

You can complete the following higher level steps to create and manage a data migration task.

Step	Description
1. Set up a network environment	<p>Before you use DTS for data migration, you must make your source or target database reachable by DTS servers over the network.</p> <p>For more information, <a href="#">Set up a network environment for replication</a></p>
2. Create a data migration task	<p>Create a data migration task in the DTS console. For detailed, step-by-step procedures about specific migration scenarios, see <a href="#">Data migration procedure list</a>.</p>
3. View the progress of a data migration task	<p>View the progress of schema migration, full data migration, or incremental data migration in the DTS console.</p> <p>For more information, see <a href="#">View the progress of a data migration task</a>.</p>

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Step	Description
4. Switch applications to the target database	<p>Switch your applications to the target database. In this step you can also prepare a rollback solution to minimize the disruption caused by any error to your business operations.</p> <p>For more information, see <a href="#">Switch workloads to the target database</a>.</p>
5. Stop the data migration task	<p>After data migration and switchover is complete, stop the data migration task if you no longer need the task.</p> <p>For more information, see <a href="#">Stop a data migration task</a>.</p>

## 3. Create a data synchronization task

You can follow the general procedure in this topic to create and manage a task in data synchronization mode.

### Background information

- Use cases

The data synchronization mode of DTS replicates ongoing changes between two data stores. This mode is typically used for OLTP-to-OLAP replications and disaster recovery-related replications.

- Supported sources and targets

For more information about supported data sources and targets, see [Data synchronization](#).

- Data type conversion

Different database engines use different sets of data types. You can check the data type conversion that DTS applies between the source and target databases during initial schema synchronization. You can review the data conversions listed in this topic and evaluate the impact of data type conversion on your applications.

- Advanced features

For information about the features of a data synchronization task, see [Data synchronization mode](#).

### Data synchronization procedure

You can complete the following higher level steps to create and manage a data synchronization task.

Step	Description
1. Set up the networking environment	<p>Before you use DTS for data synchronization, prepare the environments that are required for the source and target databases.</p> <p>For more information, see <a href="#">Set up a network environment for replication</a>.</p>
2. Create a data synchronization instance and task	<p>Create a data synchronization task in the DTS console. For detailed, step-by-step procedures about specific synchronization scenarios, see <a href="#">Data synchronization procedure list</a>.</p>



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Step	Description
3. Monitor the performance of the synchronization task and manage objects	<p>View the performance metrics of the task. For more information, see <a href="#">Check the synchronization performance</a>.</p> <p>You can also add objects to or remove objects from the task. For more information, see <a href="#">Add an object to a data synchronization task</a> and <a href="#">Remove an object from a data synchronization task</a>.</p>
4. Stop the data synchronization task	<p>Stop the data synchronization task if you no longer need the task. For more information, see <a href="#">Stop a data synchronization task</a></p>

## 4. Create a change tracking task

You can follow the general procedure in this topic to create and manage a task in change tracking mode.

### Background information

- Use cases

The change tracking mode allows you to build a distributed application with decoupled data systems, so you can implement your asynchronous replications between these data systems.

- Supported databases and data changes

For more information about databases and update types that are supported by the change tracking mode, see [Supported sources and targets](#).

- Advanced features


For information about the features of a change tracking task, see [Change tracking mode](#).

### Change tracking procedure

You can complete the following higher level steps to create and manage a change tracking task.

Step	Description
1. Set up the networking environment	Before you use DTS for change tracking, prepare the environments that are required for the source and target databases.  For more information, see <a href="#">Set up a network environment for replication</a> .
2. Create a change tracking instance	Create a change tracking instance in the DTS console. The instance can be either pay-as-you-go or subscription.
3. Create a change tracking task	Create a change tracking task for the instance that you created. When creating a task, you will set up the connection to the data source and select the objects that are to be tracked.

Step	Description
4. Configure consumer settings	<ul style="list-style-type: none"><li data-bbox="815 315 1382 613">• <b>Create consumer groups</b> After you create a change tracking task, create one or more consumer groups that will consume the tracked data. You can create multiple consumer groups for a change tracking task. Consumers in different consumer groups can track data changes from the same data source. For more information, see <a href="#">Create consumer groups</a>.</li><li data-bbox="815 636 1382 837">• <b>Manage consumer groups</b> Manage the consumer groups of the change tracking task. For example, you can modify passwords for consumer groups or delete consumer groups. For more information, see <a href="#">Manage consumer groups</a>.</li><li data-bbox="815 860 1382 1039">• <b>Reselect objects for change tracking</b> When the change tracking task is running, you can reselect the objects to be tracked. For more information, see <a href="#">Reselect objects for change tracking</a>.</li><li data-bbox="815 1061 1382 1218">• <b>View tracked data changes</b> You can use the DTS console to view the data changes that DTS has captured from the data source. For more information, see <a href="#">View tracked data changes</a>.</li></ul>
4. Consume tracked data	Use a Kafka client to consume tracked data. For more information, see <a href="#">Use a Kafka client to consume tracked data</a> .

Step	Description
5. Stop the change tracking task	<p>If you want to stop the change tracking task, delete the instance.</p> <ul style="list-style-type: none"><li>• <b>Pay-as-you-go:</b> You can delete the change tracking instance that is no longer needed.</li><li>• <b>Subscription:</b> A subscription change tracking instance cannot be manually deleted. It will be automatically deleted seven days after the expiration date.</li></ul> <div data-bbox="817 584 1385 763" style="background-color: #e6f2ff; padding: 10px;"><p> <b>Note</b> You can also reset a change tracking instance to stop the associated task. For more information, see <a href="#">Reset a change tracking task</a>.</p></div>