

Data Transmission Service

Purchase Guide

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Specification Description

This performance report serves as a data reference for testing and should not be regarded as the criteria of product SLA.

Introduction

This performance test report helps users to learn the performance of different specifications of migration instances in our test model. It provides reference for capacity model selection.

Glossary

1. Specifications: Depending on the data replication performance, DTS offers a variety of instances specifications with different performance levels.
2. Table count: The total number of tables in the test model.
3. Record size: The size of each record.
4. RPS: The number of records synchronized by the dts during the data replication per second, including insert, delete and commit.

Test model

Test process: Create an migration job with data replication between two RDS instances, and then perform stress tests on the source RDS instance to check the performance of data replication to the target RDS instance.

Test environment configurations:

Instance	RDS Configuration	Reference Performance Ceiling
Source instance	Specification: rds.mys2.8xlarge;; Memory (M): 48000; Max connections: 2000	Max QPS: 18000; Max IOPS: 14000
Target instance	Specification: rds.mys2.8xlarge; Memory	Max QPS: 18000; Max IOPS: 14000

	(M): 48000; Max connections: 2000	
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Test model:

1. Number of test tables: 20
2. All test tables have primary keys
3. The record size is: 1KB
4. Every transaction contains two DML operations on average, one commit, and the proportion of insert:delete:update is: 3:1:2

Test results

Source instance region -> Target instance region	Network latency between the source instance and the target instance (Unit: millisecond)	Specification	TPS	QPS
East China 1 (Hangzhou) > East China 1 (Hangzhou)	0.26	small	2566	8981
East China 1 (Hangzhou) > East China 1 (Hangzhou)	0.26	medium	4726	16541
East China 1 (Hangzhou) > East China 1 (Hangzhou)	0.26	large	6378	23204
East China 1 (Hangzhou) > North China 1 (Qingdao)	26	small	2469	8641
East China 1 (Hangzhou) > North China 1 (Qingdao)	26	medium	4856	16996
East China 1 (Hangzhou) > North China 1 (Qingdao)	26	large	5439	20400
East China 1 (Hangzhou) > North China 2 (Beijing)	26	small	2533	8866

East China 1 (Hangzhou) > North China 2 (Beijing)	26	medium	5038	17633
East China 1 (Hangzhou) > North China 2 (Beijing)	26	large	6829	26100
East China 1 (Hangzhou) > West US (Silicon Valley)	175	small	1753	6135
East China 1 (Hangzhou) > West US (Silicon Valley)	175	medium	2837	9929
East China 1 (Hangzhou) > West US (Silicon Valley)	175	large	3884	15500
Asia-Pacific (Singapore) > West US (Silicon Valley)	198	small	1104	4000
Asia-Pacific (Singapore) > West US (Silicon Valley)	198	medium	1724	6334
Asia-Pacific (Singapore) > West US (Silicon Valley)	198	large	2256	8300

The data of the above test model indicates the ultimate performance of various specifications. If the synchronization table of the synchronization instance has no primary key, or has update hotspot, or the source and target instances have performance bottlenecks, the above-specified ultimate performance may not be reached.

This performance report serves as a data reference for testing and should not be regarded as the criteria of product SLA.

Glossary

1. Specifications: Depending on the amount of synchronized records, DTS offers a variety of instances with different performance.
2. RPS: Records synchronizations per second, including begin, commit, insert, delete,update

and DDL.

Data synchronization specifications

Four specifications are defined based on performance ceilings of synchronization instances, namely micro, small, medium and large.

The table below illustrates the performance ceilings of each specification.

Only when the following conditions are met can the synchronization performance ceilings of various specifications be reached:

1. The stress of the source instance is larger than or equal to the performance ceilings of various specifications.
2. The write performance of the target instance is not a bottleneck and is able to support the performance stresses of various specifications.
3. The network latency between the source instance and the target instance and DTS is less than or equal to 2 ms.
4. No batch updates, such as a SQL update on millions of rows.

Definition of Specification	Performance Ceiling (RPS)
micro	Less than 200
small	200-2000
medium	2000-5000
large	5000-10000

The RPS includes: begin, commit, DML statements (insert, delete and update) and DDL operations.

Data synchronization instances and data subscription instances have two payment modes: pay-as-you-go and subscription.

DTA can help you to switch your pay-as-you-go instances to subscription instances. It only changes the payment mode without any impact on the underlying instances.

1. Log in to DTS subscription page, and then select the features you want and purchase a subscription instance.
2. Log in to **DTS Console**, click **Switch to Subscription** next to the pay-as-you-go instance you want to switch.
3. Select the purchased subscription instance.

So far, DTS has successfully switched the pay-as-you-go instance to a subscription instance, and release the pay-as-you-go instance at the same time.

How to purchase features

DTS is now only available on the official website. This section introduces how to purchase features.

Purchase data migration jobs

1. Log in to DTS Console on Alibaba Cloud website.
2. Enter the data migration page. Click **Create Migration Task** on the top right corner to configure the migration task.
3. Select the migration instance specification after the task configuration.
4. Click **Purchase and Start Now** to complete migration instance purchase.

Purchase data subscription instance

1. Log in to DTS Console on Alibaba Cloud website.
2. Enter the data subscription page. Click **Create data subscription** on the top right corner to purchase the data subscription instance.
3. Select the source instance region and the number of instances you want to purchase, where the source instance region is the region of the RDS instance subscribed to. Once the payment is made, you cannot change the region.
4. Click **Buy Now** and **Pay Order Online** to complete the payment.

Purchase data synchronization instance

1. Log in to DTS Console on Alibaba Cloud website.
2. Enter the data subscription page. Click **Create data synchronization** on the top right corner to purchase the data synchronization instance.
3. Select a payment method (subscription or pay-as-you-go).
4. Select the source region, target region, instance specification and the number of instances you want to purchase, where the source region is the region of the source RDS instance to be synchronized from. The target region is the region of the target RDS instance to be synchronized. For definition of the instance specification, see [Data Synchronization Specification Definition](#).
5. Click **Buy Now** and **Pay Order Online** to complete the payment.

Note that the cross-country synchronization instance is not available by default. If you want to purchase cross-country synchronization instances, submit a ticket or contact your customer manager directly. The purchase entry will be available after it passes the back-end review.

The yearly-pay subscription instances and monthly-pay subscription instances will be released and unrecoverable after they expire for seven days. It is recommended to renew instances in a timely manner before they expire. This section introduces how to renew a subscription instance.

Operation procedure

1. Log in to DTS Console.
2. Click **Renew** next to the instance you want to renew.
3. Select your preferred duration.
4. Click **Pay** to complete the payment.

Subscription instances

Data traffic fee and public traffic fee are charged on a subscription instance. When your account is overdue before the subscription instance expires, the following situation occurs:

1. The service remains available during the first 24 hours of arrearage.
2. If the instance is not successfully renewed within 24 hours after expiration, the subscription instance is suspended.
3. If the instance is not successfully renewed within 7 days after the instance is suspended, the instance will be released and unrecoverable, and all data will be deleted.

When a subscription instance expires, the following situation occurs:

1. The subscription instance is stopped and all operations are suspended on the DTS Console.
2. If the instance is not successfully renewed within 7 days after the instance is suspended, the instance will be released and unrecoverable, and all data will be deleted.

Pay-As-You-Go instances

When your account is overdue before the Pay-As-You-Go instance expires, the following situation occurs:

1. The service remains available during the first 24 hours of arrearage.
2. If the instance is not successfully renewed within 24 hours after expiration, the subscription instance is suspended.
3. If the instance is not successfully renewed within 7 days after the instance is suspended, the instance will be released and unrecoverable, and all data will be deleted.