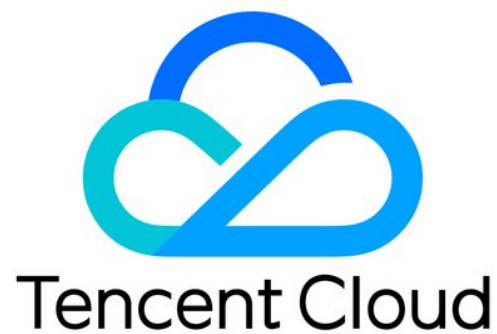


TencentDB for MongoDB

FAQ

Product Documentation



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Cost

Last updated : 2019-08-12 12:01:40

How do I purchase a TencentDB for MongoDB instance?

You can purchase MongoDB instances on [TencentDB for MongoDB Console](#). For more information, see [Purchase Guide](#).

Functional Feature

Last updated : 2019-08-12 12:01:52

How do I obtain the slow operation log of an instance?

You can get the information here [Slow Operation Log]
(<https://intl.cloud.tencent.com/document/product/240/31454>).

Does MongoDB support access via a public network?

No. However, when you are using a public network, you can access MongoDB with proxy and CVM, which provides a private network for you to connect.

Does MongoDB require a password to access?

For security reasons, MongoDB does require a password to access

How do I create a dump of replica set slave?

In mongodump parameters, set readPreference=secondaryPreferred.

Can I add secondary nodes to TencentDB for MongoDB?

No.

What is the difference between TencentDB for MongoDB and self-hosted MongoDB?

For more information, see [Benefits](#).

What is the size of oplog? Can I adjust it?

By default, oplog capacity is 10% of the instance capacity. You can adjust the number to a value between 10% (min) and 90% (max) on the console.

Is oplog included in the purchased capacity?

Because oplog is built inside MongoDB, it takes up instance purchased capacity. By default it is 10%.

What role permissions are currently available?

Only [RoleDBAdminAny](#) and [RoleReadWriteAny](#) are available, and root is unavailable at the moment. More roles may become available in the future. We will offer more user-friendly consoles for permission management.

What happens if disk memory usage is 100 %?

The instance will be blocked, meaning that you can only read the instance, and any attempts to write operation will be disconnected. Pay attention to the instance usage, and expand the capacity as needed.

Why MongoDB uses too much memory?

MongoDB aggressively allocates available cache memory to improve performance. For more information, see the [official documentation](#).

What engines are supported by MongoDB?

WiredTiger engine and Rocks engine.

Does MongoDB support maintenance window?

No.

Why can't I reclaim disk space after the data was removed in MongoDB?

Unless you delete or remove databases or tables directly, you do not reclaim disk space for MongoDB to reuse freed space. To reclaim the space of the WiredTiger engine, see the [official documentation](#).

Sharding Cluster

Last updated : 2019-08-12 12:02:12

Does TencentDB for MongoDB support sharding?

Yes. For more information, see [Creating a Sharding Cluster](#).

What is a MongoDB sharded cluster?

Sharded clusters are available on TencentDB for MongoDB.

- Sharded clusters distributively store data in multiple physical machines according to the shard key. Their great scalability, therefore, makes them very suitable for storing TB or PB level data.
- Sharded clusters support instance-level backup and rollback to ensure data reliability; The multi-node automatic disaster recovery is enabled for each shard to ensure high service availability.
- Using TencentDB for MongoDB sharding, you can easily and efficiently build a large-scale distributed storage system.

How do I create a MongoDB sharded cluster?

Log in to [MongoDB Purchase Page](#), click **Sharded Cluster** in **Instance Type**, and select the number of shards, the number of nodes in each shard, and node specification based on your needs.

Since each shard is a replica set with multiple nodes, the multi-node auto disaster recovery is enabled to ensure service availability.

How do I query the information of a MongoDB sharded cluster?

In the [console](#), you can view detailed information of the sharded cluster instance, such as the shard composition, shard node specifications and used capacity, as well as perform operations including instance [capacity expansion](#).

How do I expand the capacity of a MongoDB sharded cluster?

You can expand the capacity only by expanding all nodes at the same time. Adding nodes is not supported.

On the [console](#), click the **Expand** on the instance list page, select the desired capacity, and click **Upgrade**.

How do I monitor data in a MongoDB sharded cluster instance?

You can monitor the data of the TencentDB for MongoDB sharded cluster in three dimensions:

- Instance
- Shard
- Node

You can view the monitoring report in the **System Monitoring** page of an instance, from which you will see various indicators, including operation requests, capacity usage, and load.

What is the MongoDB sharding policy?

- A sharding mechanism that supports hash key.
- The shard key is indexed compound fields.
- Sharding is required for all data sets in a sharding instance. It is recommended to place non-sharded data in a separate replica set instance.

What is the authentication mechanism for MongoDB?

MongoDB fully supports SCRAM-SHA-1 and MongoDB-CR.

What sharded cluster commands are supported by MongoDB?

For more information, see [Supported Sharded Cluster Commands](#).

Instance

Last updated : 2019-08-12 12:03:34

How do I view instance details in MongoDB?

On the instance list page, click the name of an instance to go to its details page.

How do I access a MongoDB instance?

TencentDB for MongoDB can be connected using a variety of languages, such as Shell, PHP, Node.js, Java, and Python.

For more information, see [Connection Example](#).

What is the range of the specification for MongoDB instances? Can I increase the connection number?

See [Limitation](#). The number of connections depends on the instance specification. You can increase the number by upgrading your instance.

Is the time required for upgrading a MongoDB instance related to the its used capacity?

The time required for upgrading an instance depends on its used capacity. Switching between primary and secondary nodes will happen once during the upgrade, and the instance will be temporarily inaccessible for about ten seconds.

How do I create an instance in MongoDB?

On the [purchase page](#), you can specify the specification and usage period, and click **Buy Now** to create an instance.

How do I find an instance with assigned projects in MongoDB?

To find an instance with assigned projects, see the API [DescribeMongoDBInstances](#) to query the list of replica set instances.

What is the number of connections in MongoDB? Can I upgrade the number? Can I increase the number?

See [Limitation](#). The number of connections depends on the instance specification. You can increase the number by upgrading your instance.

How do I get the slow operation log of a MongoDB instance?

You can find the detailed information at Slow Operation Log on the official website.

How do I query the instance specifications supported by MongoDB?

Use the API [DescribeMongoDBProduct](#) for query.

Rollback and Backup

Last updated : 2019-08-12 12:03:51

How do I implement daily auto backup and manual backup in MongoDB?

TencentDB for MongoDB supports two backup methods: daily auto backup and manual backup. Backed-up data is stored in the system for 7 days by default.

- **Auto backup**

An instance can be automatically backed up once a day. You can view details in **Backup and Rollback** of the instance details page on the [Console of TencentDB for MongoDB Console](#).

- **Manual backup**

In **Backup and Rollback** on the instance details page, click **Manual Backup** in the upper right corner, enter remark information in the pop-up box, and click **Submit** to complete manual backup.

Can I download backup files?

No.

Can I restore the file once again if the instance is replaced?

No. The original backup file is no longer available to the replaced instance, so you cannot roll the file back to the previous version anymore. You must double check to make sure that you want to replace the instance.

How long does it take to restore a MongoDB instance?

The rollback is based on the latest full backup image and oplog. So the time needed for restoring the instance is determined by the size of oplog to playback.

If the time difference between the start time of the rollback and the time when the full backup is completed is too large, it would take longer for oplog to playback.

After restoring a MongoDB instance, what is the difference between a converting and a replacing an instance?

- Converting an instance means converting the restored temporary instance to a formal instance, and this new instance has no mapping relationship with the original one. By default, the temporary instance is valid for 2 days to convert. Please credit your account in time.
- Replacing an instance means overwriting current instance data with the temporary instance data. After the replacement, the backup file of the instance will be deleted and the instance cannot be restored. Please make sure you want to replace the instance.

Will the backup file be deleted if the MongoDB instance is replaced after being restored?

The original backed-up file is no longer available to the replaced instance. So the backed-up file will be deleted during the rollback.

How do I back up and roll back a replica set instance in MongoDB?

Sharded cluster instances only support instance-level backup and rollback.

- **Backup**

On the [console](#), click **Manual Backup** in the instance details page, enter remark information, and click **Submit** for instance backup.

- **Rollback**

You can restore the instance to any point in time within the past 5 days, but you only can specify a time between two backups when the file is successful backed-up and size of oplog is not fully taken up). If none of these conditions is satisfied, please perform [manual backup](#).

How do I back up and restore a sharded cluster instance in MongoDB?

Backing up and restoring sharded cluster instances and replica set instances are the same. You can only back up and restore data at the instance level.

- **Backup**

On the [console](#), click **Manual Backup** on the instance details page, enter remark information, and click **Submit** for instance backup.

- **Restore**

The oplog space of an instance is a capped collection. When the collection space is used up, newly inserted elements will overwrite the initial head elements. To avoid backup and recovery failures caused by overwritten oplog space, set a reasonable oplog space size according to business requirements. When you frequently write, delete or update data to an instance, you can schedule multiple backups per day to prevent the oplog between two backup points in time from being overwritten, thus ensuring that the data can be restored in time.

Connection

Last updated : 2019-10-18 11:32:05

What should I do if MongoDB gets disconnected?

See [Connection Example](#) to eliminate authentication issues.

What should I do if I see "remote server has closed the connection"?

First, see [Connection Example](#) to eliminate authentication issues. If you can connect to MongoDB but still experience the same problem, you may need a [Reconnection Mechanism](#).

WiredTiger 3.2 has the problem of table lock. Is TencentDB for MongoDB affected by the same issue?

It depends on the specific situation. For example, a global lock is required to create indexes by default, and a lock is also needed when you execute the fsynclock command.

Lock is a feature of databases, and is used to deal with the problems of concurrent access. Generally, a lock is required, as long as it does not affect the operation of your business.

Which version of the driver should be used in MongoDB?

It is recommended to use the latest version, for example, using mongo-1.6 or above for PHP.

What languages can be used to connect to MongoDB?

TencentDB for MongoDB can be connected through a variety of languages, such as Shell, PHP, Node.js, Java and Python. For more information, see [Connection Example](#).

What language clients are supported by TencentDB for MongoDB?

TencentDB for MongoDB provides the same compatibility as MongoDB. TencentDB for MongoDB supports any client that is supported by the official MongoDB. For example: C, C++, c#, java, node.js, python, php, and perl. For more information, see [MongoDB official documentation](#).

How do I connect to TencentDB for MongoDB in shell?

For more information, see [Shell Connection Example](#).

What URIs in service applications can be used to connect to MongoDB?

For more information, see [Connection Example](#).

What do I do if I cannot connect to TencentDB for MongoDB using meteor and other types of frameworks and class libraries?

This is usually caused by incorrect connection method or URI combinations. Please check and verify the cause first.

How do I set the maximum number of connections to MongoDB in PHP?

MongoDB driver ([Official PHP documentation](#)) can control the number of connections by configuring the `maxPoolSize` parameter in the URL connection.

MongoDB driver ([Official PHP documentation](#)) can set the number of connections through `Mongo::setPoolSize()` method. For more information, see [MongoPool::setSize](#).

What is the limit on the number of connections to MongoDB?

The upper limit on number of connections is applicable to instances rather than nodes. For more information, see [Use Limits](#).

How do I reconnect to MongoDB manually?

Instead of simply allowing you to access `mongod`, TencentDB for MongoDB database service provides a load balancer IP for access. You can use this IP to connect to a range of route access layers similar to `mongos`.

The client driver establishes a persistent connection with an access server using a load balancer IP. If the connection is active for a long period of time, Tencent Cloud will not impose an intervention on this status. However, if the persistent connection is inactive for more than one day (this period will be adjusted with optimized version), the route access layer will terminate the connection.

Generally, the client driver will implement an automatic reconnection. However, this process cannot be implemented by some language drivers. For the language drivers that cannot implement automatic reconnection, if you attempt to communicate with the TencentDB for MongoDB service using a terminated connection, an error message such as "Remote server has closed the connection" will be returned. So manual reconnection is required. Here is a demo for PHP reconnection.

Reconnection Based on PHP Mongo Driver

```
<?php

function getConnection() {
    $connection = false;
    $uri = 'mongodb://rwuser:1234567a@10.66.148.142:27017/admin?authMechanism=MONGODB-CR';
    $maxRetries = 5;
    for( $counts = 1; $counts <= $maxRetries; $counts++ ) {
        try {
            $connection = new MongoClient($uri);
        } catch( Exception $e ) {
            //
            // } catch( \Exception $e ) {
                continue;
            }
        }
        break;
    }
    return $connection;
}

$connection = getConnection();

if($connection) {
    $db = $connection->testdb;
    $collection = $db->testcollection;

    $one = $collection->findOne();

    var_dump($one);
}
```

How do I use mongoose to connect to TencentDB for MongoDB?

Here are the parameters for mongoose to connect to TencentDB for MongoDB:

```
var dbUri = " mongodb:// " + user + " : " + password + " @ " + host + " : " + port + " / " + dbName;

var opts = {
    auth: {
        authMechanism : ' MONGODB-CR'
    }
};

var connection = mongoose.createConnection(dbUri, opts);
```

Can I connect to MongoDB from a public network?

MongoDB can only be connected via a private network. For more information, see [Connection Example](#). Connection through a public network is not supported. To connect to MongoDB locally, you can

implement port forwarding using the server within the same private network under the same MongoDB account.

Data Migration

Last updated : 2019-08-12 12:04:38

How do I set parameters to export data from MongoDB?

In mongodump parameters, set `--readPreference=secondaryPreferred`.

What of data migration types are supported by MongoDB?

Client's CVM instance migration and public network instance migration are supported. For more information, see [MongoDB Data Migration](#).

How do I export MongoDB data to my local device using mongodump (for the entire database) or mongoexport (for a single collection)?

In CVM, you can use the MongoDB [shell client](#) to connect with TencentDB for MongoDB for data export.

Please use the latest MongoDB client suite.

MongoDB provides two sets of official tools for data export. Generally, mongodump is used to export the entire database. The data format, BSON, is used to facilitate massive data dump. While mongoexport is used to export a single collection. The data format, JSON, is used for higher readability.

1. Use mongodump to export the entire database for backup

The export command is as follows:

```
mongodump --host 10.66.187.127:27017 -u mongouser -p thepasswordA1 --authenticationDatabase=admin --db=testdb -o /data/dump_testdb
```

```
#: ./mongodump --host 10.66.187.127:27017 -u mongouser -p thepasswordA1 --authenticationDatabase=admin --db=testdb -o /data/dump_testdb
2016-11-16T12:12:06.114+0800 writing testdb.system.indexes to
2016-11-16T12:12:06.116+0800 done dumping testdb.system.indexes (1 document)
2016-11-16T12:12:06.116+0800 writing testdb.testcollection to
2016-11-16T12:12:06.118+0800 done dumping testdb.testcollection (3 documents)
```

2. Use mongoexport to export a single collection for backup

The export command is as follows:

```
mongoexport --host 10.66.187.127:27017 -u mongouser -p thepasswordA1 --authenticationDatabase=admin --db=testdb --collection=testcollection -o /data/export_testdb_testcollection.json
```

In addition, you can include the `-f` parameter to specify a desired field, and `-q` to specify a query condition so as to restrict the data to be exported.

3. Parameters for export commands written by the users `rwuser` and `mongouser`

As described in the [Connection Example](#), TencentDB for MongoDB provides two user names `rwuser` and `mongouser` by default to support the MONGODB-CR and SCRAM-SHA-1 authentication respectively.

- For `mongouser` and all new users created in the console, simply follow the above examples to use the export tools.
- For `rwuser`, the parameter "`--authenticationMechanism=MONGODB-CR`" should be included in each command.

Example of `mongodump`:

```
mongodump --host 10.66.187.127:27017 -u rwuser -p thepasswordA1 --authenticationDatabase=adm
in --authenticationMechanism=MONGODB-CR --db=testdb -o /data/dump_testdb
```

How to import local data to MongoDB using `mongorestore` (for the entire database) or `mongoimport` (for a single collection)?

In CVM, you can use the MongoDB [shell client](#) to connect with TencentDB for MongoDB for data import.

Please use the latest MongoDB client suite.

MongoDB provides two sets of official tools for data import. Generally, `mongorestore` works when exporting the entire data in BSON; `mongoimport` works when exporting a single collection in JSON for higher readability.

1. Use `mongorestore` to import the entire database for backup

The import command is as follows:

```
mongorestore --host 10.66.187.127:27017 -u mongouser -p thepasswordA1 --authenticationDatabase
=admin --dir=/data/dump_testdb
```

```
#: ./mongorestore --host 10.66.187.127:27017 -u mongouser -p thepasswordA1 --authenticationDatabase=ad
min --dir=/data/dump_testdb
2016-11-16T12:13:23.654+0800    building a list of dbs and collections to restore from /data/dump_test
db dir
2016-11-16T12:13:23.678+0800    reading metadata for testdb.testcollection from /data/dump_testdb/test
db/testcollection.metadata.json
2016-11-16T12:13:23.678+0800    restoring testdb.testcollection from /data/dump_testdb/testdb/testcoll
ection.bson
2016-11-16T12:13:23.740+0800    restoring indexes for collection testdb.testcollection from metadata
2016-11-16T12:13:23.740+0800    finished restoring testdb.testcollection (3 documents)
2016-11-16T12:13:23.741+0800    done
#:
```

2. Use `mongoimport` to import a single collection for backup

The import command is as follows:

```
mongoimport --host 10.66.187.127:27017 -u mongouser -p thepasswordA1 --authenticationDatabase=admin --db=testdb --collection=testcollection2 --file=/data/export_testdb_testcollection.json
```

3. Parameters of import commands written by the users rwuser and mongouser

As described in the [Connection Example](#), TencentDB for MongoDB provides two user names rwuser and mongouser by default to support the MONGODB-CR and SCRAM-SHA-1 authentication respectively.

- For mongouser and all new users created in the console, simply follow the above examples to use the import tools.
- For rwuser, the parameter "--authenticationMechanism=MONGODB-CR" should be included in each command.

Example of mongorestore:

```
mongorestore --host 10.66.187.127:27017 -u rwuser -p thepasswordA1 --authenticationDatabase=admin --authenticationMechanism=MONGODB-CR --db=testdb -o /data/dump_testdb
```

Why does the data imported into TencentDB for MongoDB occupy less space than in client's MongoDB?

Here are the possible reasons:

- There are a large number of addition, deletion and modification operations accumulated after the database has been running for a long time.
- MongoDB allocates a larger space than the actual data size during write operations in order to improve performance.
- The original space is not reused after the data is deleted.

All these result in an overall higher void rate in the entire database space. Meanwhile, importing data can be considered as an operation similar to disk defragging, which makes imported data more compact and appear smaller in size.

What can I do if mongodump is unable to export data in MongoDB?

For information about how to use mongodump, see [Import and Export](#). It is recommended to use mongodump 3.2.10 or above.

Other

Last updated : 2019-08-14 21:40:11

What is the latest version of MongoDB?

Version 3.2.10 and 3.6.3 are available on TencentDB for MongoDB.

How do I delete a MongoDB database? Will it be deleted automatically if I do not renew it after it expires?

An expired TencentDB for MongoDB instance will be automatically deleted if it is not renewed after the 14-day grace period. So please back up your data. You can go to **Operation** -> **More** -> **Return and Refund** in the instance list to terminate the instance manually through the console.

How do I apply for security credentials for MongoDB?

Before using Tencent Cloud's APIs for the first time, you need to apply for security credentials on **Tencent Cloud Console** -> [API Key Management](#).

Security credentials consist of a SecretId and a SecretKey, where:

- **SecretId** : Identify of the requester.
- **SecretKey**: a key that can be used to encrypt the strings to create a signature so that Tencent Cloud server can validate the identity of the requester.

SecretKeys are very important through which you can access and work with the resources in your Tencent Cloud account via API. For security reasons, please keep your keys safe and rotate them regularly, and make sure you delete the old key after a new one is created. For more information, see [Signature Method](#).

What are the restrictions on creating MongoDB user names?

Tencent Cloud has two default user types: rwuser and mongouser. The role for the built-in users is [readWriteAnyDatabase+dbAdmin](#). So you can read and write as built-in users, but not perform critical operations in any databases.

For certain versions of MongoDB, some instances support only rwuser (Tencent Cloud will upgrade these instances and we will contact you before the upgrade.).

You can manage your accounts and permissions on TencentDB for MongoDB Console to meet your business needs. For more information, see [Use Limits](#).

What Nodes are supported for MongoDB?

Tencent Cloud managed data centers are distributed in different locations across the globe, covering South China, East China, and North China, Southeast Asia (covered by IDC in Hong Kong) and North America (covered by IDC in Toronto)

Tencent Cloud is deploying more Nodes globally to cover more Regions. A Node consists of Regions and Availability Zones.

- **Region**

Available Regions:

Mainland China: South China (Guangzhou), East China (Shanghai), North China (Beijing).

Outside Mainland China: China (Hong Kong) and North America (Toronto).

- **Node**

In a Region, Availability Zones refer to Tencent Cloud physical IDCs with independent power facilities and networks.

Availability Zones are designed to prevent single point failures (except for large-scale natural disasters or major power failures) from affecting other Availability Zones in the same region to ensure your business availability.

[South China] Guangzhou Zone 1 (out of stock), Guangzhou Zone 2, and Guangzhou Zone 3

[East China] Shanghai Zone 1

[North China] Beijing Zone 1

[South China] Hong Kong Zone 1

[North America] Toronto Zone 1

For more information, see [Regions and Availability Zones](#).