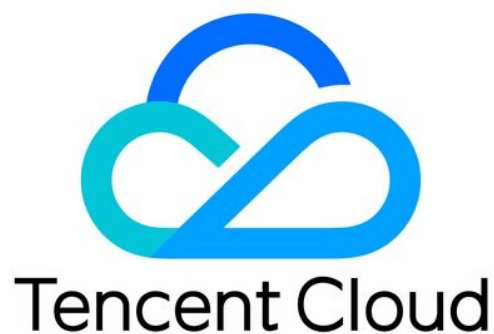


TencentDB for MySQL

Release Notes and Announcements

Product Documentation



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Release Notes and Announcements

Release Notes

Last updated : 2023-01-31 16:44:24

November 2022

Update	Description	Release Date	Document
Launched a new version of database proxy	TencentDB for MySQL has released a new version of database proxy. It provides powerful features such as automatic read/write separation, transaction split, connection pool, and disconnection prevention. It also supports mounting read-only instances across AZs and enabling multiple database proxy access addresses to meet the requirements in different business scenarios.	2022-11-02	Overview

October 2022

Update	Description	Release Date	Document
Supported backup encryption	TencentDB for MySQL supports the backup encryption feature to help improve the data security. Combined with KMS to encrypt backup files, it helps prevent accidental backup leakage from causing security incidents.	2022-10-31	Backup Encryption
Supported the single-node architecture	TencentDB for MySQL supports single-node instance of cloud disk edition, which offers a storage space of up to 30 TB and is extremely cost-effective and suitable for diversified scenarios such as testing, development, and learning.	2022-10-08	Single-Node Architecture (Formerly Basic Edition and Single-Node High IO Edition)

September 2022

Update	Description	Release Date	Document
Supported parameter modification for read-only instances	TencentDB for MySQL supports modifying read-only instance parameters to meet the parameter configuration needs in different business scenarios.	2022-09-19	Setting Instance Parameters
Supported cross-region backup	TencentDB for MySQL supports cross-region backup to ensure the high availability, security, and recoverability of data and implement various features, such as remote backup and restoration, remote disaster recovery, long-term data archive, and regulatory compliance.	2022-09-09	Cross-Region Backup

July 2022

Update	Description	Release Date	Document
Supported password complexity	TencentDB for MySQL allows you to set the password complexity to improve the strength of database access passwords and ensure the database security.	2022-07-20	Setting Password Complexity

June 2022

Update	Description	Release Date	Document
TencentDB for MySQL supported infrequent access storage	Tencent Cloud provides the infrequent access storage option for TencentDB for MySQL. You can select a suitable storage type based on your actual storage frequency to reduce audit costs.	2022-06-30	Database Audit Billing

Update	Description	Release Date	Document
Supported SSL encryption	TencentDB for MySQL supports SSL encryption to create encrypted data transfer channels and thus improve the security and integrity of communication data.	2022-06-27	Setting SSL Encryption

April 2022

Update	Description	Release Date	Document
Supported intelligent parameter tuning	TencentDB for MySQL supports the intelligent parameter tuning feature to help you improve the database performance.	2022-04-25	Intelligent Parameter Tuning
Supported the TXRocks engine	TencentDB for MySQL supports the TXRocks transactional storage engine, which has a performance comparable to that of InnoDB but requires a much smaller storage space. It is suitable for businesses with a large data volume and high requirements for the transactional read/write performance.	2022-04-18	Overview
Supported archive backup	You can use the archive backup feature to back up data by scheduling two cycles, which reduces the costs compared with a single-cycle backup policy.	2022-04-02	Backing up Databases

February 2022

Update	Description	Release Date	Document
Supported connection pool for the database proxy	TencentDB for MySQL's database proxy supports the session-level connection pool feature. It can effectively solve the problem of excessively high database instance loads caused by frequent establishments of new non-persistent connections.	2022-02	Connection Pool Overview

Update	Description	Release Date	Document
Optimized and updated the database proxy feature	TencentDB for MySQL's database proxy feature is optimized and updated. It can now support the upgrade of proxy kernel minor version, network switch, and reconfigurations, which delivers a higher convenience and performance.	2022-02	<ul style="list-style-type: none"> • Upgrading Database Proxy Kernel Minor Version • Switching Database Proxy Network • Adjusting Database Proxy Configuration

December 2021

Update	Description	Release Date	Document
Optimized RO group delay settings	RO delay configuration in TencentDB for MySQL is moved from instance configuration to RO group configuration, so that delay and removal policies configured in the same RO group will not conflict with each other. Moreover, read-only instance delay management is simplified. When an RO group is used to unify IP access, no inconsistency between the accessed and expected data will occur due to a delayed read-only instance.	2021-12	Managing Delayed Replication of Read-Only Instance
Supported AZ migration	The AZ migration feature is launched for TencentDB for MySQL. It can implement nearby access and resource expansion for your business and better utilize resources in different AZs in the same region.	2021-12	AZ Migration

Update	Description	Release Date	Document
Optimized parameter template and instance purchase process	TencentDB for MySQL optimizes parameter-related features and instance delivery process, including creating and applying parameter templates, comparing parameters, modifying modifiable parameters, and purchasing instances.	2021-12	Parameter Template and Instance Purchase Process Optimization

August 2021

Update	Description	Documentation
Displayed project group information in bills in MySQL audit	Exported bills display the project group information of database instances for you to categorize bills and collect statistics by project group.	Bills
Displayed the instance name in MySQL audit	The original Instance ID column in the instance list is changed to Instance ID/Name to add the instance name for locating instances more quickly.	-
Supported seven days as the log retention period in MySQL audit	When audit is newly enabled, you can set the log retention period to seven days. This is suitable for scenarios where you want to observe execution conditions and analyze discovered database problems for a short time. For instances with audit already enabled, you can also change the log retention period to seven days.	Modifying Log Retention Period
Optimized search in MySQL audit	Fuzzy search is supported, multiple SQL types can be used together for filtering, and the 24-hour limit on the search time period is removed.	Viewing Audit Log

July 2021

Update	Description	Release Date	Document
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Update	Description	Release Date	Document
QuickChange is supported	TencentDB for MySQL now supports QuickChange. If the physical machine where the instance is deployed has sufficient resources (aka local resources), you can adjust instance configuration in the QuickChange mode without migrating data. As it takes less time for preparation, the overall adjustment process becomes faster.	2021-07	Adjusting Database Instance Specification

April 2021

Update	Description	Release Date	Document
Database proxy is supported	The database proxy provides a network proxy service between TencentDB and the application. It proxies all requests from the application to TencentDB. The database proxy access address is independent of the original database access address. Requests proxied at the proxy address are all relayed through the proxy cluster to access the source and replica nodes of the database. Read/Write requests are separated, so that read requests are forwarded to read-only instances, which lowers the load of the source database.	2021-04	Overview
Binlogs take up the disk space	As the speed of writing to binlog affects database performance, TencentDB for MySQL now migrates the binlog files to high-performance SSDs (i.e., instance disk space) in order to improve database performance and stability.	2021-04	Binlog Will Take up Disk Space
Local binlog retention period can be customized	You can now customize the retention period of local binlog files in the TencentDB for MySQL console.	2021-04	Configuring Local Binlog Retention Policy

March 2021

Update	Description	Release Date	Document
Instance architectures have been renamed	TencentDB for MySQL now supports three types of architectures including single-node (formerly Basic Edition), two-node (formerly High-Availability Edition), and three-node (formerly Finance Edition), and three resource isolation policies including basic, general, and dedicated policies. Renaming won't change any features of these architectures.	2021-03	<ul style="list-style-type: none"> Overview Resource Isolation Policy
Read-only instances support exclusive private network addresses	You can now configure a custom and exclusive private network address (IP and port) for a read-only instance.	2021-03	Creating Read-Only Instance

December 2020

Update	Description	Release Date	Document
Supported delayed replication for read-only instances	TencentDB for MySQL allows you to set delayed replication for read-only instances and enable/disable replication. You can set delayed replication (i.e., delay between a read-only instance and its source instance) and select to replay by flashbacked position or global transaction identifier (GTID) during the delay to efficiently roll back data and fix failures.	2020-12	Managing Delayed Replication of Read-Only Instance

November 2020

Update	Description	Release Date	Document
Instances can be cloned	You can now restore a TencentDB for MySQL instance to any point in time within the log backup retention period or from a specific physical backup set by cloning.	2020-11	Cloning Instances

October 2020

Update	Description	Release Date	Document
The purchase page is optimized	You can now specify alarm policies, parameter templates, and bind an instance with security groups of other projects on the purchase page.	2020-10	Creating MySQL Instance
TDE is supported for MySQL v8.0	TencentDB for MySQL v8.0 now supports Transparent Data Encryption (TDE).	2020-10	Enabling Transparent Data Encryption

August 2020

Update	Description	Release Date	Document
MySQL v8.0 is now supported	TencentDB for MySQL v8.0 is now supported. Combined with a complete set of management services and the TXSQL kernel, TencentDB for MySQL provides an enterprise-grade database service that is more stable and quicker to deploy. It applies to various use cases and helps you upgrade your business.	2020-08	Database Versions

July 2020

Update	Description	Release Date	Document
Parameter templates can be applied to instances	TencentDB for MySQL supports modifying parameters of multiple instances at the same time through parameter templates. You can perform a parameter modification task during the custom time window, or cancel it.	2020-07	<ul style="list-style-type: none"> Setting Instance Parameters Managing Parameter Template

Update	Description	Release Date	Document
Transparent Data Encryption (TDE) is supported	TencentDB for MySQL comes with the transparent data encryption (TDE) feature. Transparent encryption means that the data encryption and decryption are transparent to users. TDE supports real-time I/O encryption and decryption of data files. It encrypts data before it is written to disk, and decrypts data when it is read into memory from disk, which meets the compliance requirements of static data encryption.	2020-07	Enabling Transparent Data Encryption
Supported MySQL database audit	Tencent Cloud provides database audit capabilities for TencentDB for MySQL, which can record accesses to databases and executions of SQL statements to help you manage risks and improve the database security.	2020-07	Enabling Database Audit

June 2020

Update	Description	Release Date	Document
Manual kernel minor version upgrade is supported	TencentDB for MySQL supports manual kernel minor version upgrade. The upgrade can add new features, improve the performance, and fix issues.	2020-06	Upgrading Kernel Minor Version

April 2020

Update	Description	Release Date	Document
One-source-two-replica High-Availability Edition is renamed as Finance Edition	The Finance Edition adopts a one-source-two-replica architecture (three nodes in total) and supports strong sync replication. It guarantees strong data consistency through real-time hot backup to provide finance-grade reliability and high availability.	2020-04	Overview

Update	Description	Release Date	Document
Repossession time for the old IP address can be customized	The repossession time of the old IP address can be customized between 0 and 168 hours when the network is switched. If the repossession time is set to 0 hours, the old IP address will be repossessed immediately after the network switch.	2020-04	Network Switch

January 2020

Update	Description	Release Date	Document
TencentDB for DBbrain is supported	TencentDB for DBbrain (DBbrain) is an intelligent database diagnosis and optimization product. It provides real-time database protection, locates causes of and offers solutions to database exceptions, and helps with exception prevention at the source.	2020-01	Overview
Slow log and error log details can now be queried	TencentDB for MySQL instances (excluding the Basic Edition) now provide an operation log management feature. You can view the slow log details, error log details, rollback logs of an instance and download slow logs on the operation logs page in the console.	2020-01	Operation Logs

December 2019

Update	Description	Release Date	Document
MySQL backup is now a paid service	TencentDB for MySQL will start charging for the usage of instance backup space exceeding the free tier. Improvements will be made for data compression, backup stability and availability. You can shorten retention periods and lower backup frequencies to reduce your backup capacity costs.	2019-12	Backup Space Billing

November 2019

Update	Description	Release Date	Document
Event alarming is now supported	By subscribing to events such as OOM, source-replica switch, read-only instance removal, and instance migration caused by server failure, you can now stay on top of your instance statuses.	2019-11	Alarm Policies (Cloud Monitor)

September 2019

Update	Description	Release Date	Document
Database backup page is available	We have released the TencentDB for MySQL database backup page. It is divided into two sections: overview and backup list. Backup trends and statistics can be viewed in the overview tab. Backup data details and log backups can be found in the backup list.	2019-09	Viewing Backup Capacity

May 2019

Update	Description	Release Date	Document
Automatic backups are fully upgraded to physical backup	TencentDB for MySQL now only supports physical automatic backups. Existing logical automatic backups will be switched to the physical type automatically. If you need logical backups, you can use the manual backup feature in the TencentDB for MySQL console or call APIs.	2019-05	Backing up Databases
Nanjing Zone 1 is now available	TencentDB for MySQL is now available in Nanjing Zone 1. With this new AZ, TencentDB for MySQL is now available in two regions in East China: Shanghai and Nanjing.	2019-05	Regions and AZs

March 2019

Update	Description	Release Date	Document
Switching between VPCs is now supported	Switching between VPCs is now supported. A single TencentDB instance can now be switched from VPC A to VPC B.	2019-03	Network Switch

February 2019

Update	Description	Release Date	Document
One-click connectivity check is now supported	A one-click connectivity check is now provided in the console to help you quickly locate internal and external connectivity problems and offer corresponding solutions.	2019-02	One-Click Connectivity Checker

June 2018

Update	Description	Release Date	Document
Database audit is supported	Database audit can record the actions of TencentDB in real time. It carries out fine-grained audit on database operations, records and alerts such risky database behaviors as SQL injection and abnormal operation.	2018-06	Database Audit
Basic Edition instances are now purchasable	TencentDB for MySQL Basic Edition adopts a single-node deployment method with computation-storage separation. If a computing node fails, the system can switch to a healthy one for quick recovery. Premium cloud disks are used as the underlying storage media of the Basic Edition, which feature high quality, cost-effectiveness, stability, and performance, making them suitable for 90% of I/O scenarios.	2018-06	Overview

Update	Description	Release Date	Document
Network switching is now supported	Switching between the classic network and VPC and between subnets in the same VPC is now supported.	2018-06	Network Switch
Self-service connectivity check is now supported	You can now quickly check the connectivity status of your databases.	2018-06	One-Click Connectivity Checker
Supported 5-day self-service return and refund	TencentDB for MySQL allows you to return one monthly subscribed instance unconditionally within five (inclusive) days after purchase under each account.	2018-06	Refund
Downgrading and refunding are now supported	You can now downgrade your database configuration and be refunded accordingly.	2018-06	Instance Adjustment Fee
MySQL 5.7 data migration is now supported	DTS now supports migrating MySQL 5.7.	2018-06	Online Import of MySQL Data
Product is renamed	CDB for MySQL is renamed TencentDB for MySQL.	2018-06	TencentDB for MySQL

August 2017

Update	Description	Release Date	Document
Read-only instances support elastic specifications	A read-only instance can now adopt a different specification from that of its source instance.	2017-08	Creating Read-Only Instance
Monitoring at a 1-minute granularity is now supported	Monitoring can now be performed at a 1-minute granularity.	2017-08	Monitoring
Physical backup is now supported	Data can now be stored through physical backups.	2017-08	Backing up Databases

Update	Description	Release Date	Document
Manual backup is now supported	You can now customize the backup time and retention period (up to 732 days)	2017-08	Backing up Databases
Supports security groups	A security group is a stateful virtual firewall capable of filtering. As an important means for network security isolation provided by Tencent Cloud, it can be used to set network access controls for one or more TencentDB instances.	2017-08	TencentDB Security Group Management
Data subscription is now supported	DTS can now help you get incrementally updated data in TencentDB in real time, so that you can consume incremental data based on your business needs.	2017-08	Data Subscription
Data migration between TencentDB instances is now supported	DTS is now compatible with more types of network environments.	2017-08	Online Import of MySQL Data
Data Management Center (DMC) is available	DMC supports real-time monitoring and management of instance sessions.	2017-08	DMC

June 2017

Update	Description	Release Date	Document
MySQL 5.7 is now supported	MySQL 5.7 (Percona server) is now supported as well as MySQL 5.6 kernel. Native capabilities such as horizontal scaling and read/write separation are also supported.	2017-06	Database Versions

March 2016

Update	Description	Release Date	Document
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Update	Description	Release Date	Document
Read-only instance feature is available	TencentDB for MySQL allows you to create one or more read-only instances, which are suitable for read/write separation and one-source-multiple-replica application scenarios and capable of greatly enhancing the read load capacity of your database.	2016-03	Creating Read-Only Instance
Pay-as-You-Go instances are now supported	Database services can now be billed by hour.	2016-03	Billing Overview

Announcements

TencentDB for MySQL API 2.0 Discontinuation

Last updated : 2023-01-13 14:52:05

TencentDB for MySQL API 3.0 is easier to use with a lower access latency. Technical support has been discontinued for API 2.0, which will be deactivated on March 31, 2023, Beijing time (UTC+8).

We recommend you upgrade to TencentDB for MySQL API 3.0 as soon as possible to avoid affecting your business.

Change time

Friday, March 31, 2023.

Notes on the new version

- The new API documentation is more standardized and comprehensive. The unified parameter style, common error codes, and SDK/CLI version are strictly consistent with the API documentation. For more information, see [Introduction](#).
- For more information on how to switch from TencentDB for MySQL API 2.0 to 3.0.

Thank you for your support!

Network Architecture Upgrade

Last updated : 2023-01-31 16:44:24

In order to provide better service, higher performance, and lower network latency, the TencentDB for MySQL team has fully upgraded the private network access linkage.

- ****Starting from November 9, 2022, the new network architecture has been applied to newly purchased instances to deliver lower latency and higher performance.**
- **On December 31, 2022, all existing database instances will be switched to the new network architecture.** A momentary disconnection from the database may occur during the switch. Make sure that your business has a reconnection mechanism.

Note :

- The new architecture will deliver higher performance and network stability and lower network latency. For more information, see [Network Architecture Performance Comparison](#).
- A momentary disconnection from the database may occur during the architecture upgrade. Make sure that your business has a reconnection mechanism.
- Single-node instances of cloud disk edition are already in the optimal network architecture, so their details page does not indicate whether the network architecture is new. This upgrade will not involve such instances.
- The new network architecture cannot be used in the classic network, so the new architecture flag will not be displayed for it. To use it, switch to VPC as instructed in [Network Switch](#).

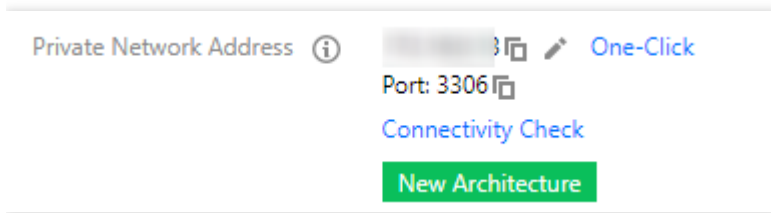
Change time

- Starting from Wednesday, November 9, 2022, the new network architecture is applied to newly purchased instances.
- By Saturday, December 31, 2022, the network architecture of all existing instances will be switched to the new version.

New network architecture flag

You can view the network architecture upgrade progress of the current instance through the flag after **Basic Info** > **Private Network Address** on the instance details page in the [console](#).

Not upgraded



If the flag is **Not upgraded**, the current instance has not been scheduled for the network architecture upgrade. We recommend you wait patiently.

To be upgraded

If the flag is **To be upgraded**, the current instance will undergo the network architecture upgrade during the maintenance time. You can adjust the maintenance time to change the upgrade time. If the instance has other tasks to be performed during the maintenance time, the upgrade will be postponed to the next maintenance time. We will send you an upgrade notification in the Message Center about one week before the upgrade.

New architecture

If the flag is **New architecture**, the current instance has already been upgraded to the new architecture.

Thank you for your support!

Replacement of Certain Old Database Proxy APIs

Last updated : 2022-12-19 11:58:58

TencentDB for MySQL has released a new database proxy version. In order to support all the capabilities of the new version, new APIs are provided for replacing, upgrading, and configuring the database proxy as detailed below.

Change time

Starting from Thursday, November 17, 2022.

Replaced APIs

Old API	New API	Description
UpgradeCDBProxy	AdjustCdbProxy	Upgrades the configuration of the database proxy
ModifyCDBProxy	AdjustCdbProxyAddress	Configures the read/write separation of the database proxy

Change of Calculation Formula for Memory Utilization

Last updated : 2022-09-14 15:29:51

To provide you with more stable and higher-quality TencentDB for MySQL service, we will **change the calculation formula** of the database monitoring metric **memory utilization**.

Change time

01:00–01:30 AM on Tuesday, May 31, 2022.

Change description

- Calculation formula before change: Memory utilization = memory usage / purchased memory specification
- Calculation formula after change: Memory utilization = memory usage / (purchased memory specification + overused idle memory)

Note :

The overused idle memory refers to the additional memory allocated to each instance in a specific proportion when the memory resources of the physical machine are idle. It is automatically allocated by Tencent Cloud and does not involve fees. It reduces the probability of OOM during instance use.

Impact of change

The change will not affect instance operations. The memory utilization may fluctuate after the change.

Suggestions for alarm policy adjustment

Adjust the related thresholds of memory utilization in the alarm policy promptly. For detailed directions, see [Alarm Policies \(Cloud Monitor\)](#).

We recommend you set the alarm threshold of memory utilization to 90% after the change. When the memory utilization reaches 95%, there will be a great risk of OOM.

We apologize for any inconvenience caused.

Monitoring Module Upgrade and Optimization in Guangzhou and Shanghai Regions

Last updated : 2022-09-14 10:56:23

To provide you with more stable and high-quality TencentDB for MySQL service, we will upgrade and optimize its monitoring module in Guangzhou and Shanghai regions.

Change Time

- From 2022-05-11 (Wednesday) to 2022-05-12 (Thursday): Guangzhou
- From 2022-05-16 (Monday) to 2022-05-17 (Tuesday): Shanghai

Impact of Change

There will be one or two breakpoints in certain monitoring metrics, but they will have no effect on the operation of your database instances. Key metrics such as CPU, memory utilization, and read/write rate will not be affected, nor will alarm events such as HA switch and running failures.

We apologize for any inconvenience caused.

Monitoring Module Upgrade

Last updated : 2022-04-13 11:10:35

To provide you with more stable and high-quality TencentDB for MySQL service and reduce the delay in monitoring data collection, we will upgrade and optimize its monitoring feature.

Change Time

01:00–06:00 AM Beijing time (GMT+8) from 2022-03-25 (Friday) to 2022-04-15 (Friday).

Detailed Schedule

- 2022-03-25 (Friday): Singapore, Frankfurt, and Virginia
- 2022-03-28 (Monday): Silicon Valley, Toronto, Sao Paulo, and Jakarta
- 2022-03-29 (Tuesday): Mumbai, Bangkok, Seoul, Tokyo, Hong Kong (China), and Taipei (China)
- 2022-03-30 (Wednesday): Chengdu and Chongqing
- 2022-04-01 (Friday): Shenzhen, Hangzhou, Nanjing, and Tianjin
- 2022-04-04 (Monday): Beijing (Zones 5, 6, and 7)
- 2022-04-05 (Tuesday): Beijing (Zones 3 and 4)
- 2022-04-06 (Wednesday): Beijing (Zones 1 and 2)
- 2022-04-07 (Thursday): Guangzhou (Zones 6 and 7)
- 2022-04-08 (Friday): Guangzhou (Zones 4 and 5)
- 2022-04-11 (Monday): Guangzhou (Zones 2 and 3)
- 2022-04-12 (Tuesday): Guangzhou (Zone 1)
- 2022-04-13 (Wednesday): Shanghai (Zones 4 and 5)
- 2022-04-14 (Thursday) Shanghai (Zone 2)
- 2022-04-15 (Friday): Shanghai (Zones 1 and 3)

Impact of Change

There will be one or two breakpoints in certain monitoring metrics, but they will have no effect on the operation of your database instances. Key metrics such as CPU, memory utilization, and read/write rate will not be affected, nor will alarm events such as HA switch and running failures.

We apologize for any inconvenience caused.

Parameter Template and Instance Purchase Process Optimization

Last updated : 2022-11-07 17:53:31

Starting from December 8, 2021, TencentDB for MySQL has optimized parameter-related features and instance delivery process, including creating and applying parameter templates, comparing parameters, modifying modifiable parameters, and purchasing instances.

Note :

Parameter capabilities are applicable only to two-node and three-node TencentDB for MySQL 5.6, 5.7, and 8.0.

Instance Purchase Process Optimization

As compared with the original instance purchase process, the initialization step is canceled, and you can select the character set, configure the table name case sensitivity, and enter the databases access port and root password on the instance purchase page.

For more information, see [Creating MySQL Instance](#).

Parameter Optimization

Parameter application

Certain parameters can be defined in a formula to change along with the specification, ensuring that the database always runs with the optimal configuration.

Expression syntax is supported as follows:

Supported Type	Description	Sample
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Supported Type	Description	Sample
Variable	<ul style="list-style-type: none"> DBInitMemory: Memory size of instance specification, which is an integer. For example, if the memory size of the instance specification is 4,000 MB, the value of <code>DBInitMemory</code> will be 4000. DBInitCpu: Number of CPU cores of instance specification, which is an integer. Note that the value of the <code>innodb_buffer_pool_size</code> parameter in TencentDB for MySQL must be between 50% and 90% of the memory size. If the configured value is above 90% or below 50%, it will be automatically configured to 90% or 50% respectively. 	$\{DBInitMemory * 786432\};$ $DBInitMemory * \text{percentage (75\% by default)} * 1024 * 1024$ (unit conversion).
Operator	<p>Formula syntax: It should be enclosed in braces ({}).</p> <ul style="list-style-type: none"> Division operator (/): It divides the dividend by the divisor and returns an integer quotient. If the calculation result is a decimal number, only the integer part will be retained. Decimal numbers are not supported; for example, <code>{MIN(DBInitMemory/4+500,1000000)}</code> instead of <code>{MIN(DBInitMemory*0.25+500,1000000)}</code> is supported. Multiplication operator (*): It multiplies two numbers and returns an integer product. If the calculation result is a decimal number, only the integer part will be retained. Decimal number calculation is not supported. 	-
Function	<ul style="list-style-type: none"> MAX(): It returns the greatest value in an integer or parameter formula list. MIN(): It returns the smallest value in an integer or parameter formula list. 	$\{MAX(DBInitCpu/2,4)\}$

For detailed parameter settings, see [Setting Instance Parameters](#).

Parameter template creation

For parameter template creation, the original one parameter template type is changed to two types (high-performance template and high-stability template), and the referenced template type option is added.

Create Parameter Template ✕

1 **Create Template** > 2 **Set Template Parameters**

Template Name *

Database Version *

Template Description

Create and Set Parameters
Cancel

Comparison of parameters between template types:

Changed Parameter	Default Template	High-Performance Template	High-St
innodb_read_io_threads	12	{MAX(DBInitCpu/2,4)}	{MAX(L
innodb_write_io_threads	12	{MAX(DBInitCpu/2,4)}	{MAX(L
max_connections	800	{MIN(DBInitMemory/4+500,100000)}	{MIN(D
table_definition_cache	768	{MAX(DBInitMemory*512/1000,2048)}	{MAX(L
table_open_cache	2000	{MAX(DBInitMemory*512/1000,2048)}	{MAX(L
table_open_cache_instances	16	{MIN(DBInitMemory/1000,16)}	{MIN(D
innodb_disable_sort_file_cache	OFF	OFF	ON
innodb_log_compressed_pages	ON	OFF	ON
innodb_print_all_deadlocks	OFF	OFF	ON
sync_binlog	0	1000	1

Changed Parameter	Default Template	High-Performance Template	High-St
thread_handling	one-thread-per-connection	pool-of-threads	one-thre
innodb_flush_redo_using_fdatasync	FALSE	TRUE	FALSE
innodb_fast_ahi_cleanup_for_drop_table	FALSE	TRUE	FALSE
innodb_adaptive_hash_index	FALSE	TRUE	FALSE
innodb_table_drop_mode	SYNC_DROP	ASYNC_DROP	SYNC_
innodb_flush_log_at_trx_commit	2	2	1

For more information on template parameters, see [Managing Parameter Template](#).

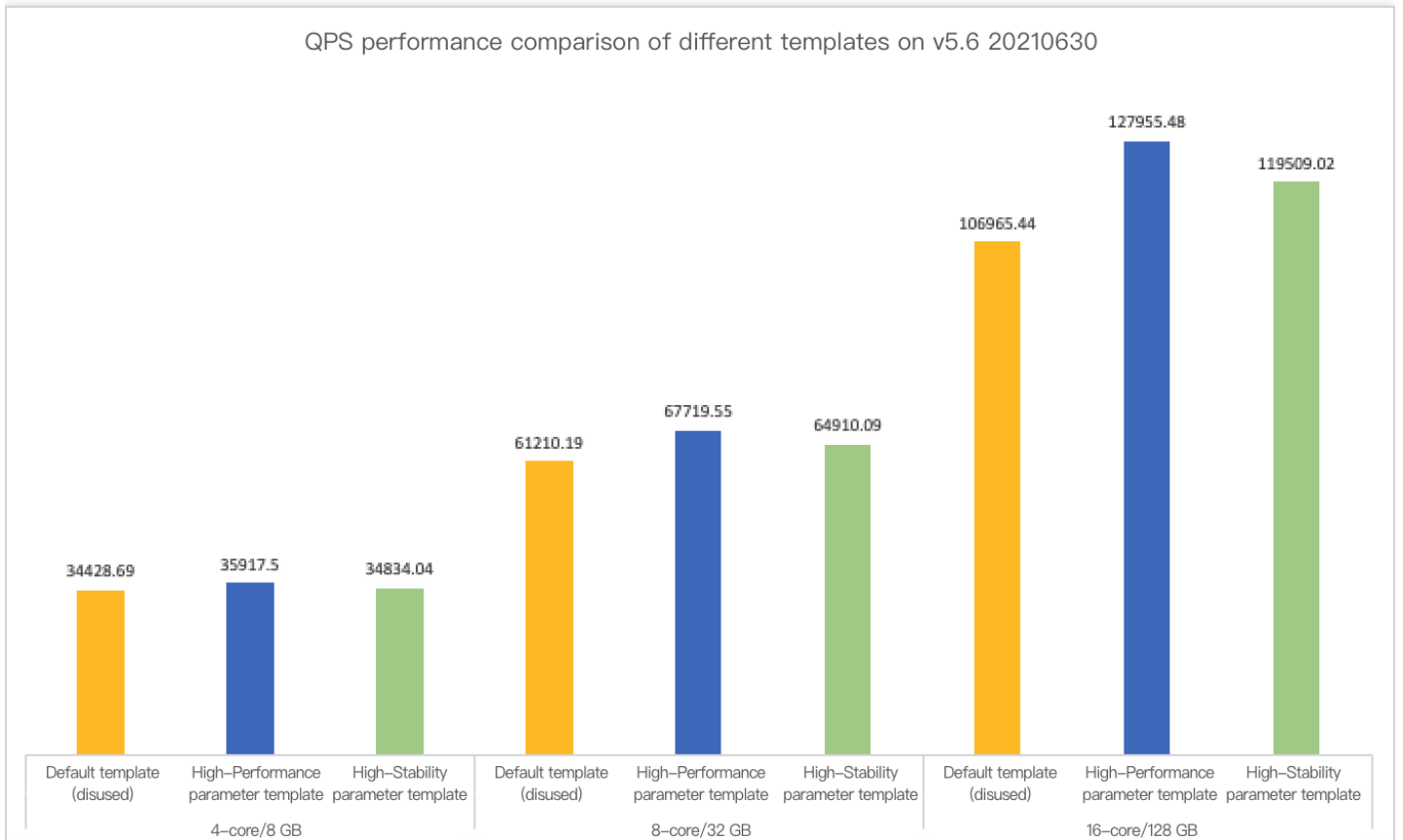
New modifiable parameters

Parameter	TencentDB for MySQL 5.6	TencentDB for MySQL 5.7	TencentDB for MySQL 8.0
character_set_client	-	✓	-
default_password_lifetime	-	✓	✓
innodb_alter_table_default_algorithm	-	✓	-
innodb_async_truncate_size	-	✓	✓
innodb_async_truncate_work_enabled	-	✓	-
innodb_buffer_pool_instances	✓	✓	✓
innodb_buffer_pool_size	✓	✓	✓
innodb_default_row_format	-	✓	✓
innodb_fast_ahi_cleanup_for_drop_table	-	-	✓
innodb_flush_redo_using_fdatasync	-	✓	✓
innodb_page_cleaners	-	✓	✓
innodb_table_drop_mode	-	-	✓

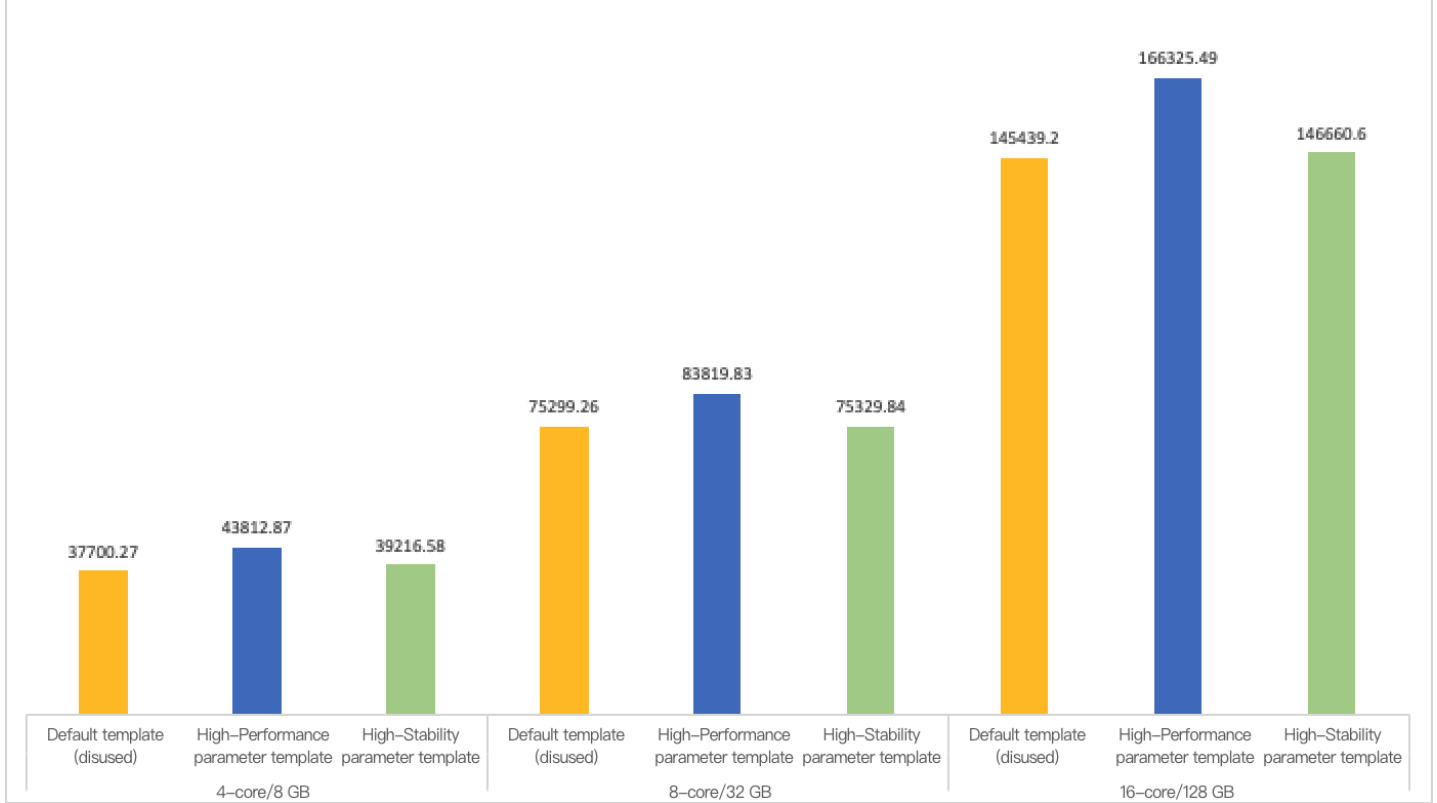
Parameter	TencentDB for MySQL 5.6	TencentDB for MySQL 5.7	TencentDB for MySQL 8.0
innodb_temp_tablespace_fast_cleanup	-	-	✓
internal_tmp_mem_storage_engine	-	-	✓
slave_net_timeout	✓	✓	-
slave_parallel_type	✓	-	-
slave_parallel_workers	✓	✓	✓
sort_buffer_size	✓	-	-
temptable_use_mmap	-	-	✓
thread_handling	✓	✓	✓
thread_handling_switch_mode	-	-	✓
thread_pool_oversubscribe	✓	✓	✓
thread_pool_size	-	✓	✓
tx_isolation	-	✓	✓

Performance test on template types

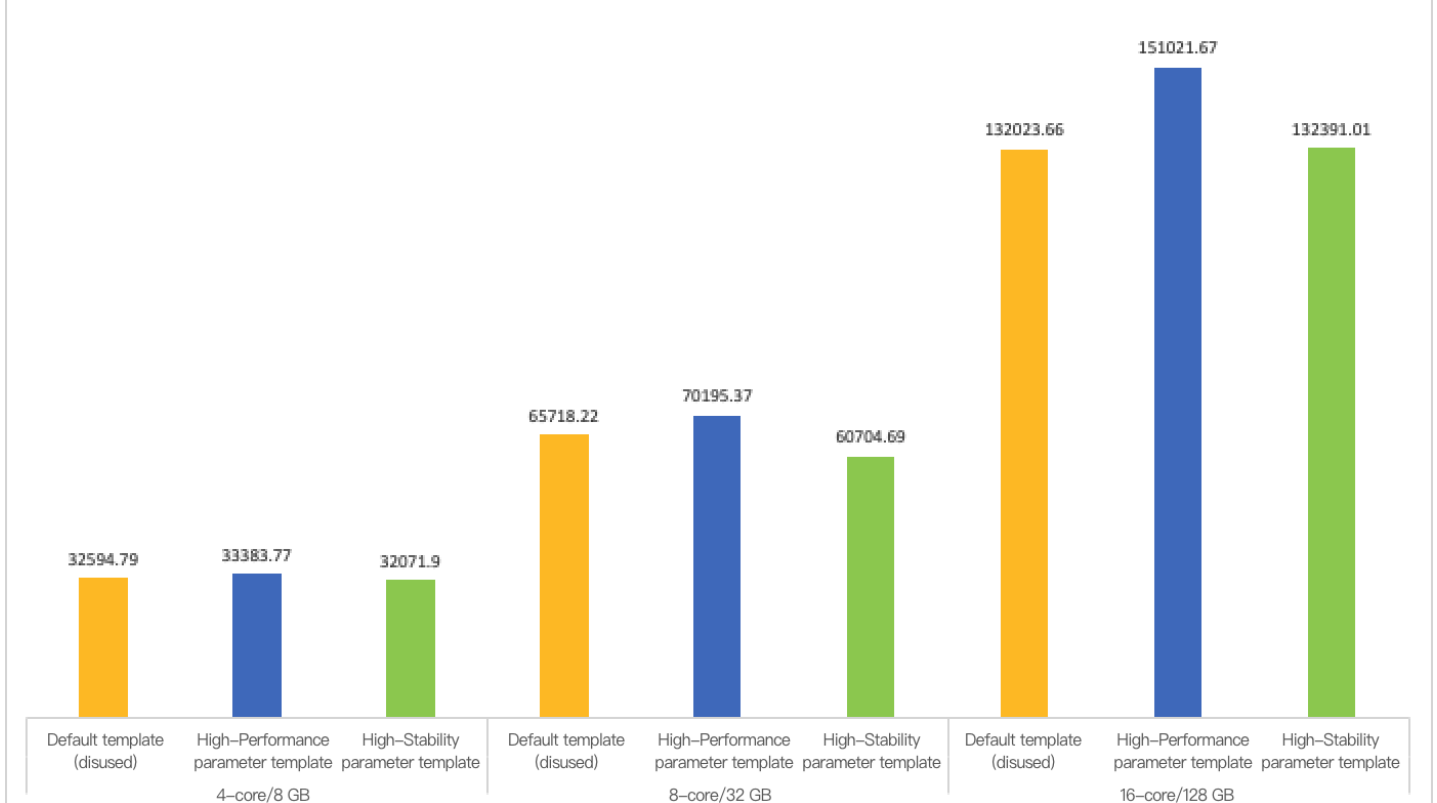
The test results are as shown below:



QPS performance comparison of different templates on v5.7 20210630



QPS performance comparison of different templates on v8.0 20210330



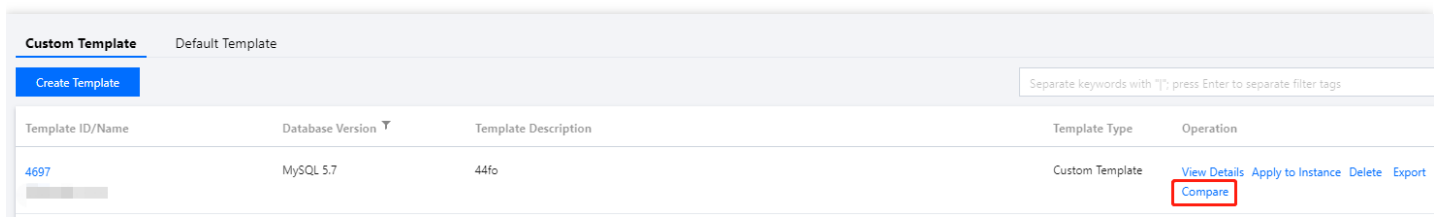
For detailed performance test data, see [Performance Comparison of Parameter Templates](#).

Retaining the default parameter template

After the new parameter system is released, the original default parameter template will be replaced by the high-performance and high-stability parameter templates. Before then, you still can retain the default parameter template settings by creating a parameter template. For more information, see [Managing Parameter Template](#).

Parameter comparison

The parameter comparison feature allows you to compare the parameters of different templates.



Template ID/Name	Database Version	Template Description	Template Type	Operation
4697	MySQL 5.7	44fo	Custom Template	View Details Apply to Instance Delete Export Compare

Click **Compare** on the parameter template page and select the templates to be compared in the pop-up window. Only

templates for databases on the same version can be compared.

Parameter Comparison ✕

Select Template * [Default]High-Stability Template (Hot)

Only preview changed parameters

Parameter Name	Parameter error
auto_increment_increment ⓘ	+ 11
automatic_sp_privileges ⓘ	ON OFF
back_log ⓘ	3000 210
binlog_cache_size ⓘ	2097152 4096
binlog_checksum ⓘ	CRC32 NONE
binlog_row_image ⓘ	FULL MINIMAL
bulk_insert_buffer_size ⓘ	8388608 1144
innodb_adaptive_hash_index ⓘ	OFF ON

Total items: 38

OK

Contact Us

[Contact us](#) if you have any questions. Thank you for your support for Tencent Cloud. We will continue to provide you with more cost-effective products.

Binlog Will Take up Disk Space

Last updated : 2022-04-14 11:02:14

Binlog grows fast when a TencentDB for MySQL instance executes large transactions or lots of DML operations. MySQL's data synchronization is based on binlog which ensures database restorability, stability, and high availability. Before this upgrade, binlog files were stored in a special space provided by Tencent Cloud. As the speed of writing to binlog affects database performance, TencentDB for MySQL migrates the binlog files to high-performance SSDs (i.e., instance disk space), in order to improve database performance and stability.

Upgrade Impact

This upgrade is applicable to two-node and three-node TencentDB for MySQL instances.

Storage space

- After binlog files are migrated to high-performance SSDs, they will take up the [disk space of your instance](#).
- By default, TencentDB for MySQL binlog files are stored locally (that is, in instance disk space) and automatically deleted when the retention period has elapsed. For more information, please see [Configuring Local Binlog Retention Policy](#).

Note :

When a binlog file is generated, it is backed up via the [automatic backup feature](#) and its backup will be uploaded to COS.

Monitored metrics

After the upgrade starts, the space taken up by binlog files will be counted into the total used disk space, which may trigger alarms. We recommend the available disk space be larger than 20%.

Start Time of the Upgrade

- Two-node and three-node TencentDB for MySQL in Hong Kong/Macao/Taiwan (Hong Kong, China) and regions outside the Chinese mainland: 00:00:00, April 1, 2021 (UTC+8).
- Two-node and three-node TencentDB for MySQL in Southwest China (Chengdu and Chongqing): 00:00:00, April 7, 2021 (UTC+8).

- Two-node and three-node TencentDB for MySQL in North China (Beijing): 00:00:00, April 14, 2021 (UTC+8).
- Two-node and three-node TencentDB for MySQL in East China (Shanghai): 00:00:00, April 19, 2021 (UTC+8).
- Two-node and three-node TencentDB for MySQL in South China (Guangzhou): 00:00:00, April 21, 2021 (UTC+8).
- Two-node and three-node TencentDB for MySQL in newly supported regions: 00:00:00, April 22, 2021 (UTC+8).

Suggestions on Reducing Local Binlog Space

You can shorten the local binlog retention period in the console. For more information, please see [Configuring Local Binlog Retention Policy](#).

FAQs

Will the instance expansion and reduction be affected during the upgrade?

No. Before the upgrade, the instance expansion/reduction is based on the space taken up by data files.

After the upgrade, the instance expansion/reduction is based on the total used disk space and will notify you via SMS, Message Center, etc.

Will any features be affected by the upgrade?

Currently, only the disk space utilization alarm is affected. Before the upgrade, the disk space utilization is calculated by "data file size/total disk space"; after the upgrade, it is calculated by "total used disk space/total disk space".