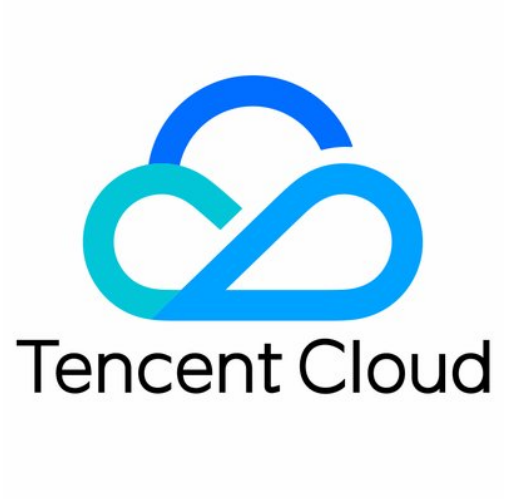
TencentDB for MySQL

Release Notes and Announcements

Product Documentation



Contents

Release Notes and Announcements

Release Notes

Last updated：2022-03-23 09:52:35

February 2022

Update	Description	Release Date	Documentation
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
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	• Upgrading Database Proxy Kernel Minor Version • Switching Database Proxy Network • Reconfiguring Database Proxy

December 2021

Update	Description	Release Date	Documentation
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 the 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
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

July 2021

Update	Description	Release Date	Documentation
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 less time is spent in the preparation stage, the overall adjustment process is 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 uses an access address independent from the original access address of a TencentDB instance. Requests using the proxy access address are relayed to source and replica database nodes by the proxy cluster. If read/write separation is enabled, read requests are relayed to read-only instances to reduce the load pressure of the source instance.	2021-04	Database Proxy

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	Notice on Binlog Taking up the 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	• Database Architecture 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 Instances

November 2020

Update	Description	Release Date	Documentation
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	Documentation
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 Instances
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	Documentation
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-level database service that is more stable and quicker to deploy. It is applicable to a variety of use cases and helps you upgrade your business.	2020-08	Database Versions

July 2020

Update	Description	Release Date	Documentation
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	• Setting Instance Parameters • Managing Parameter Templates
Transparent Data Encryption (TDE) is supported	TencentDB for MySQL supports the transparent data encryption (TDE) feature. Transparent encryption means that the data encryption and decryption are	2020-07	Enabling Transparent Data Encryption

	imperceptible to users. TDE supports real-time I/O encryption and decryption of data files. It encrypts data before the data is written to disk, and decrypts data when the data is read into memory from disk, which meets the compliance requirements of static data encryption.		

June 2020

Update	Description	Release Date	Documentation
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	Documentation
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	Database Architecture
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	Documentation

Update	Description	Release Date	Documentation
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	TencentDB for DBbrain
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 Log

December 2019

Update	Description	Release Date	Documentation
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	Documentation
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	Alarming Feature

September 2019

Update	Description	Release Date	Documentation
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	Documentation
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	Backup Mode
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	Documentation
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	Documentation
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	Documentation
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	Database Architecture
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
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 as TencentDB for MySQL.	2018-06	TencentDB for MySQL

August 2017

Update	Description	Release Date	Documentation
Read-only instances support elastic specifications	A read-only instance can now adopt a different specification from that of its source instance.	2017-08	Read-Only Instances
Monitoring at a 1-minute granularity is now supported	Monitoring can now be performed at a 1-minute granularity.	2017-08	Monitoring Feature
Physical backup is now supported	Data can now be stored through physical backups.	2017-08	Backup Mode
Manual backup is now supported	You can now customize the backup time and retention period (up to 732 days)	2017-08	Backup Mode
Security group is now supported	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
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

June 2017

Update	Description	Release Date	Documentation

Update	Description	Release Date	Documentation
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 Version

March 2016

Update	Description	Release Date	Documentation
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	Read-Only Instances
Pay-as-You-Go instances are now supported	Database services can now be billed by the hour.	2016-03	Billing Overview

Announcements

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：2021-12-10 15:27:54

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

Note：
If you want to try out the optimized parameter capabilities and delivery process in advance, you can submit a ticket to apply for beta test eligibility after September 27, 2021.
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

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 TencentDB for 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:

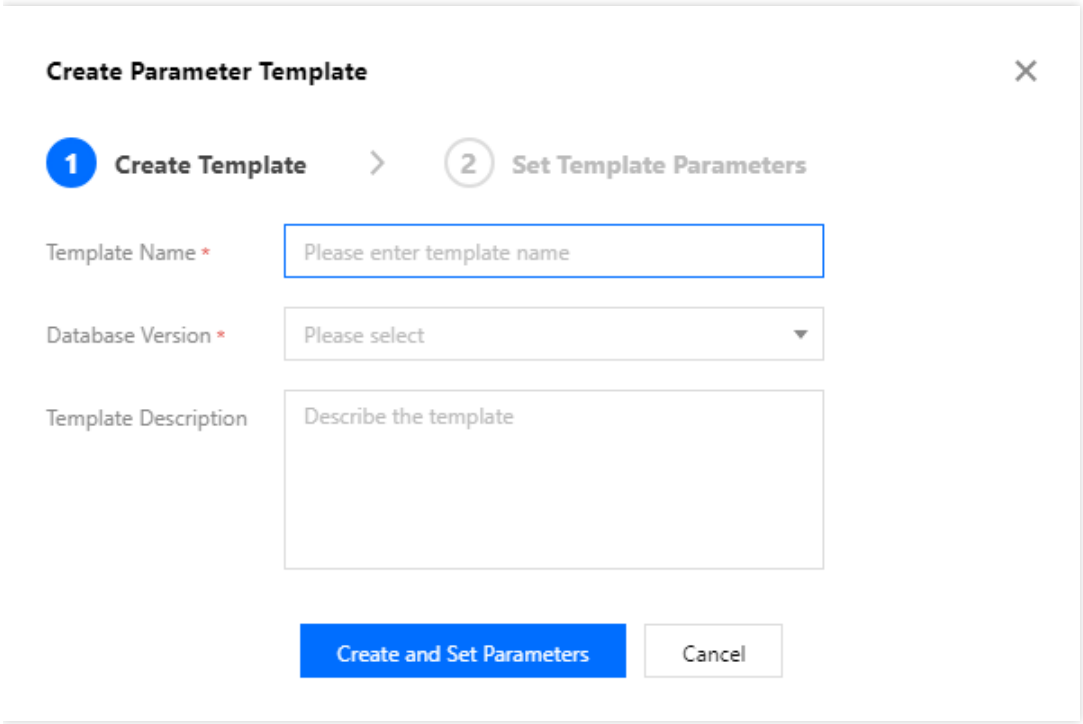
Supported Type	Description	Sample

Supported Type	Description	Sample
Variable	• 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 `DBinitMemory` will be 4000. • DBInitCpu: number of CPU cores of instance specification, which is an integer. Note: the value of the `innodb_buffer_pool_size` 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}
Operator	Formula syntax: it should be enclosed in braces ({}). • 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, `{MIN(DBInitMemory/4+500,1000000)}` instead of `{MIN(DBInitMemory\*0.25+500,1000000)}` 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	• 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 parameter template and high-stability template), and the default template type option is added.



Comparison of parameters between template types:

Changed Parameter	Default Template	High-Performance Parameter Template	High-St
innodb_read_io_threads	12	{MAX(DBInitCpu/2,4)}	{MAX(D
innodb_write_io_threads	12	{MAX(DBInitCpu/2,4)}	{MAX(D
max_connections	800	{MIN(DBInitMemory/4+500,100000)}	{MIN(D
table_definition_cache	768	{MAX(DBInitMemory*512/1000,2048)}	{MAX(D
table_open_cache	2000	{MAX(DBInitMemory*512/1000,2048)}	{MAX(D
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 Parameter 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.

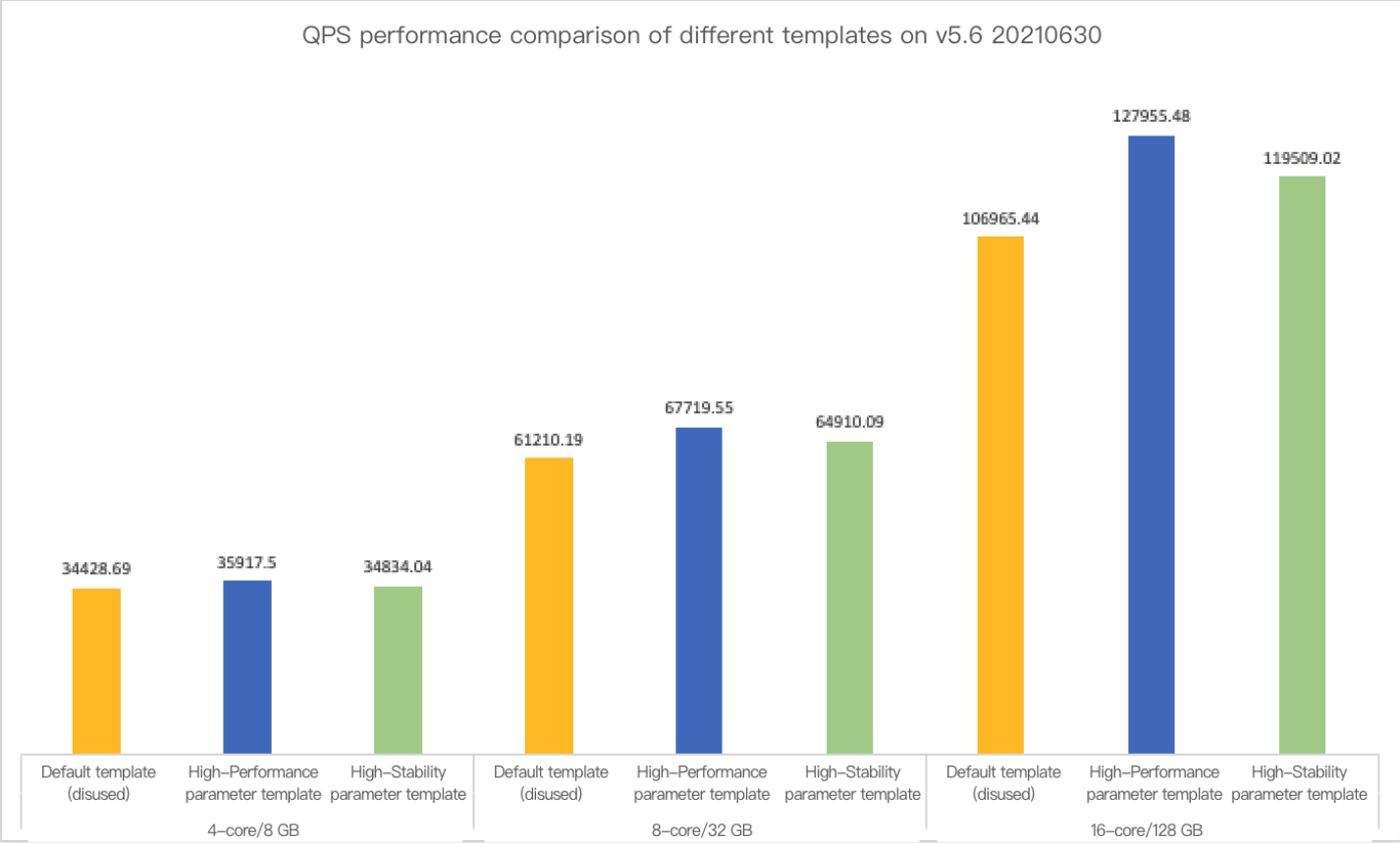
New modifiable parameters

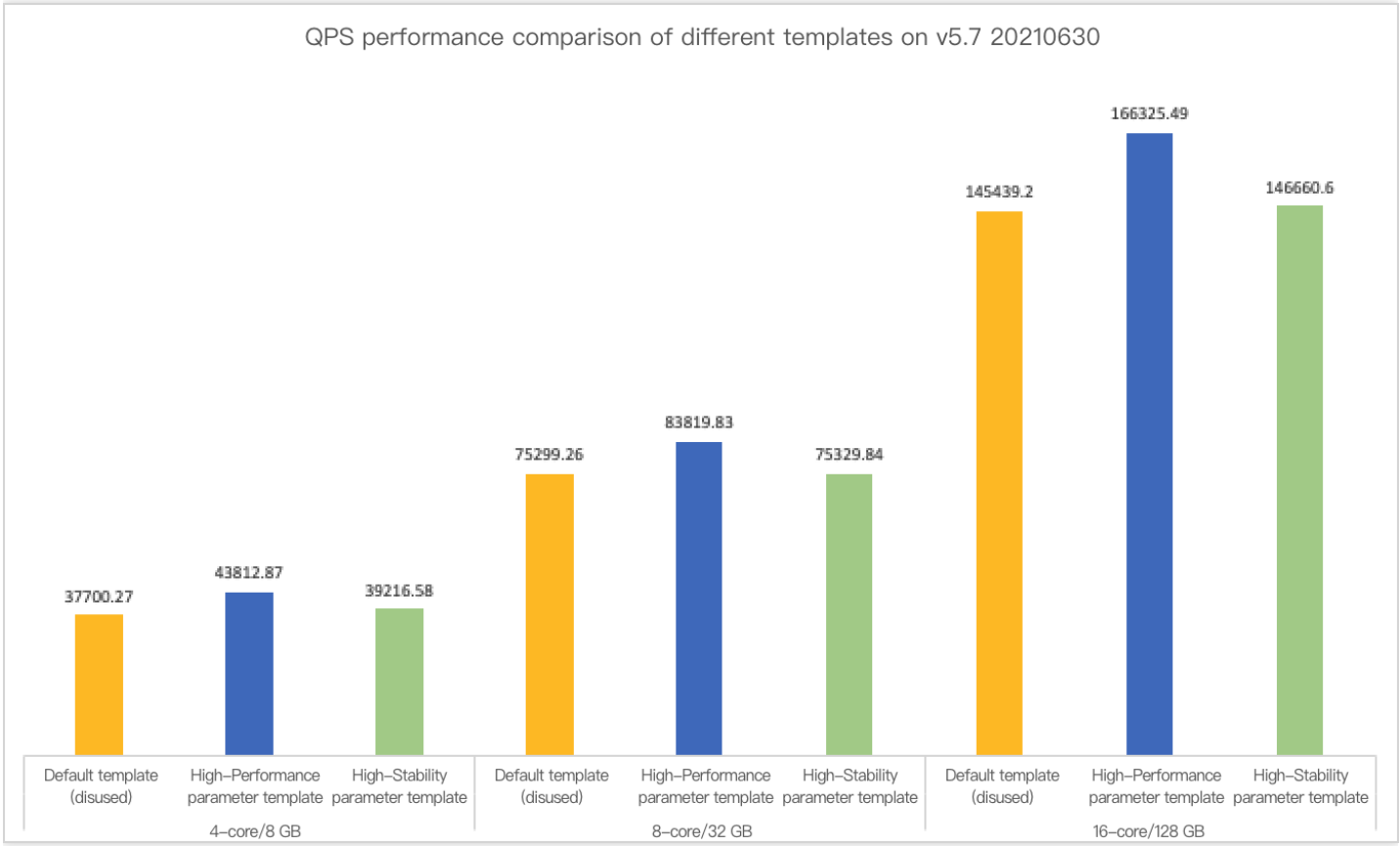
Parameter	TencentDB for MySQL 5.6	TencentDB for MySQL 5.7	TencentDB for MySQL 8.0
character_set_client	-	✓	-
default_password_lifetime	-	✓	✓
innodb_alter_table_default_algorithm	-	✓	-
innodb_async_truncate_size	-	✓	✓
innodb_async_truncate_work_enabled	-	✓	-
innodb_buffer_pool_instances	✓	✓	✓
innodb_buffer_pool_size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

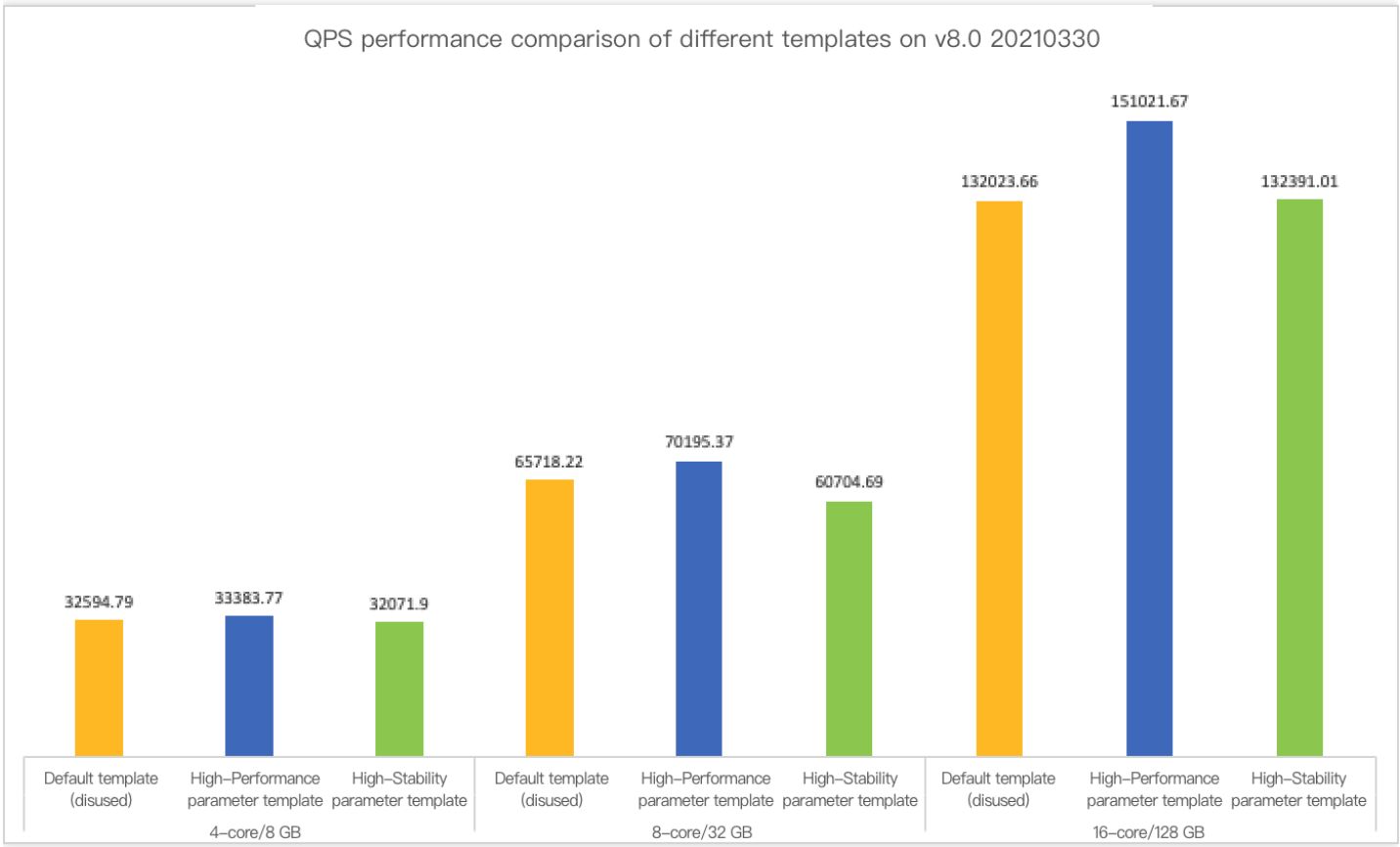
Parameter	TencentDB for MySQL 5.6	TencentDB for MySQL 5.7	TencentDB for MySQL 8.0
innodb_temp_tablespace_fast_cleanup	-	-	✓
internal_tmp_mem_storage_engine	-	-	✓
slave_net_timeout	✓	✓	-
slave_parallel_type	✓	-	-
slave_parallel_workers	✓	✓	✓
sort_buffer_size	✓	-	-
temptable_use_mmap	-	-	✓
thread_handling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

Performance test on template types

The test results are as shown below:





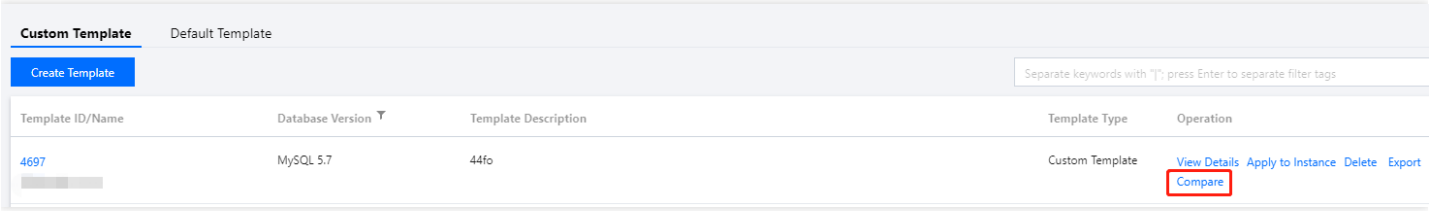


How to retain the default parameter template

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.

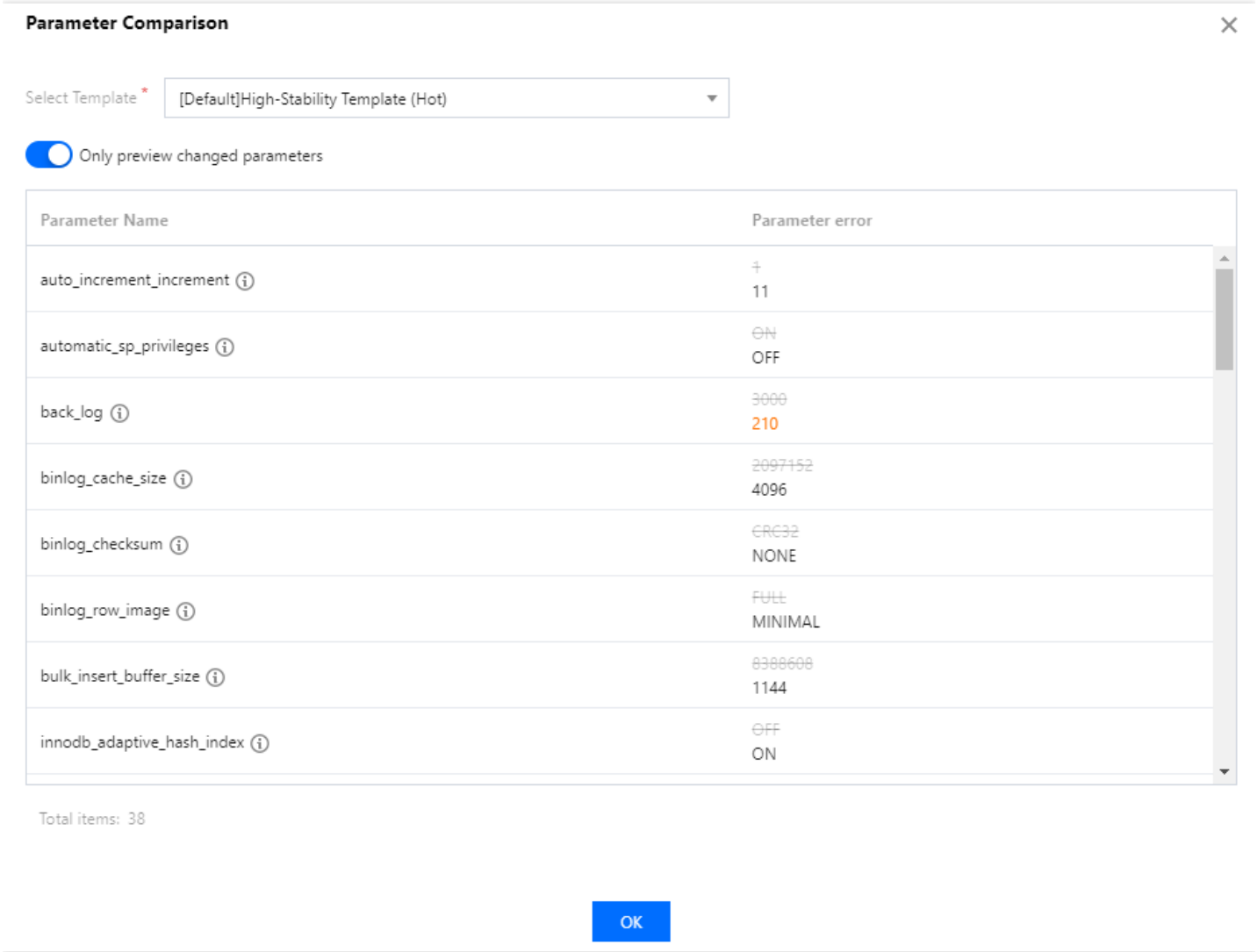
Parameter comparison

Parameter comparison between different templates are provided for you to view the parameter difference between different templates.



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. The result is as shown below:



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".