Metrics

Report: MySQL Table Stats

Chart: Table Flush

Metric Name	Metric Description

Metric Name	Metric Description
flush commands	Flush_commands: The number of times the server flushes tables, whether because a user executed a FLUSH TABLES statement or due to internal server operation

Metric Name	Metric Description

Chart: Table Stats

Metric Name	Metric Description
created_tmp_disk_tables	Created_tmp_disk_tables: The number of internal on-disk temporary tables created by the server while executing statements. If an internal temporary table is created initially as an in-memory table but becomes

Metric Name	Metric Description
created_tmp_tables	Created_tmp_tables: The number of internal temporary tables created by the server while executing statements
open_table_definitions	Open_table_definitions: The number of cached .frm files

Metric Name	Metric Description
open_tables	Open_tables: The number of tables that are open
opened_table_definitions	Opened_table_definitions: The number of .frm files that have been cached

Metric Name	Metric Description
opened_tables	Opened_tables: The number of tables that have been opened. If Opened_tables is big, your table_open_cache value is probably too small

Metric Name	Metric Description
table definition cache	table_definition_cache: The number of table definitions (from .frm files) that can be stored in the definition cache. If you use a large number of tables, you can create a large table definition cache to speed up opening

Metric Name	Metric Description
table open cache	table_open_cache: The number of open tables for all threads. Increasing this value increases the number of file descriptors that mysqld requires. You can check whether you need to increase the table cache by checking the Opened_tables status
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Metric Name	Description

Chart: Table Locks

Metric Name	Description
table locks immediate	Table_locks_immediate: The number of times that a request for a table lock could be granted immediately

Metric Name	Metric Description
table locks waited	Table_locks_waited: The number of times that a request for a table lock could not be granted immediately and a wait was needed. If this is high and you have performance problems, you should first optimize your queries, and then

Metric Name	Metric Description

Report: MySQL InnoDB Buffer Pool

Chart: Read/Write

Metric Name	Metric Description
innodb buffer pool read ahead rnd	Innodb_buffer_pool_read_ahead_rnd: The number of "random" read-aheads initiated by InnoDB. This happens when a query scans a large portion of a table but in random order

Metric Name	Metric Description
innodb_buffer_pool_read_ahead_seq	Innodb_buffer_pool_read_ahead_seq: The number of sequential read-aheads initiated by InnoDB. This happens when InnoDB does a sequential full table scan

Metric Name	Metric Description
innodb_buffer_pool_read_ahead	Innodb_buffer_pool_read_ahead: The number of pages read into the InnoDB buffer pool by the read-ahead background thread. This variable was added in MySQL 5.1.41

Metric Name	Metric Description
innodb_buffer_pool_read_ahead_evicted	Innodb_buffer_pool_read_ahead_evicted: The number of pages read into the InnoDB buffer pool by the read-ahead background thread that were subsequently evicted without having been accessed by queries. This variable was added in MySQL 5.1.41

Metric Name	Metric Description
innodb buffer pool read requests	Innodb_buffer_pool_read_requests: The number of logical read requests
innodb buffer pool reads	Innodb_buffer_pool_reads: The number of logical reads that InnoDB could not satisfy from the buffer pool, and had to read directly from the disk

Metric Name	Metric Description
innodb_buffer_pool_wait_free	Innodb_buffer_pool_wait_free: Normally, writes to the InnoDB buffer pool happen in the background. However, if it is necessary to read or create a page and no clean pages are available, it is also necessary to wait for pages to be flushed first.

Metric Name	Metric Description
innodb_buffer_pool_write_requests	Innodb_buffer_pool_write_requests: The number writes done to the InnoDB buffer pool

Metric Name	Metric Description
innodb_read_ahead_threshold	innodb_read_ahead_threshold: Controls the sensitivity of linear read-ahead that InnoDB uses to prefetch pages into the buffer pool. The permissible range of values is 0 to 64. The default is 56: InnoDB must read at least 56 pages se-

Metric Name	Metric Description

Chart: Pages/Bytes

Metric Name	Metric Description
innodb buffer pool pages data	Innodb_buffer_pool_pages_data: The number of pages in the InnoDB buffer pool containing data. The number includes both dirty and clean pages

Metric Name	Metric Description
innodb buffer pool bytes data	Innodb_buffer_pool_bytes_data: The total number of bytes in the InnoDB buffer pool containing data. The number includes both dirty and clean pages

Metric Name	Metric Description
innodb buffer pool pages dirty	Innodb_buffer_pool_pages_dirty: The current number of dirty pages in the InnoDB buffer pool
innodb buffer pool bytes dirty	Innodb_buffer_pool_bytes_dirty: The total current number of bytes held in dirty pages in the InnoDB buffer pool

Metric Name	Metric Description
innodb_buffer_pool_pages_flushed	Innodb_buffer_pool_pages_flushed: The number of requests to flush pages from the InnoDB buffer pool
innodb_buffer_pool_pages_free	Innodb_buffer_pool_pages_free: The number of free pages in the InnoDB buffer pool

Metric Name	Metric Description
innodb_buffer_pool_pages_misc	Innodb_buffer_pool_pages_misc: The number of pages in the InnoDB buffer pool that are busy because they have been allocated for administrative overhead, such as row locks or the adaptive hash index

Metric Name	Metric Description
innodb buffer pool pages total	Innodb_buffer_pool_pages_total: The total size of the InnoDB buffer pool, in pages
innodb buffer pool size	innodb_buffer_pool_size: The size in bytes of the buffer pool, the memory area where InnoDB caches table and index data

Report: MySQL InnoDB

Chart: Logs

Metric Name	Metric Description
innodb log waits	Innodb_log_waits: The number of times that the log buffer was too small and a wait was required for it to be flushed before continuing

Metric Name	Metric Description
innodb_log_write_requests	Innodb_log_write_requests: The number of log write requests
innodb_log_writes	Innodb_log_writes: The number of physical writes to the log file
innodb_os_log_fsyncs	Innodb_os_log_fsyncs: The number of fsync() writes done to the log file

Metric Name	Metric Description
innodb_os_log_pending_fsyncs	Innodb_os_log_pending_fsyncs: The number of pending log file fsync() operations
innodb_os_log_pending_writes	Innodb_os_log_pending_writes: The number of pending log file writes
innodb_os_log_written	Innodb_os_log_written: The number of bytes written to the log file

Metric Name	Metric Description
innodb log buffer size	innodb_log_buffer_size: The size in bytes of the buffer that InnoDB uses to write to the log files on disk. The default value is 8MB. A large log buffer enables large transactions to run without a need to write the log to disk before

Metric Name	Metric Description
innodb log file size	innodb_log_file_size: The size in bytes of each log file in a log group

Chart: Row Locks

Metric Name	Metric Description
innodb row lock current waits	Innodb_row_lock_current_waits: The number of row locks currently being waited for

Metric Name	Metric Description
innodb_row_lock_time	Innodb_row_lock_time: The total time spent in acquiring row locks
innodb_row_lock_time_avg	Innodb_row_lock_time_avg: The average time to acquire a row lock
innodb_row_lock_time_max	Innodb_row_lock_time_max: The maximum time to acquire a row lock

Metric Name	Metric Description
innodb_row_lock_waits	Innodb_row_lock_waits: The number of times a row lock had to be waited for

Chart: Pages

Metric Name	Metric Description
innodb_dblwr_pages_written	Innodb_dblwr_pages_written: The number of pages that have been written for doublewrite operations
innodb_dblwr_writes	Innodb_dblwr_writes: The number of doublewrite operations that have been performed

Metric Name	Metric Description
innodb_page_size	Innodb_page_size: The compiled-in InnoDB page size (default 16KB)
innodb_pages_created	Innodb_pages_created: The number of pages created
innodb_pages_read	Innodb_pages_read: The number of pages read
innodb_pages_written	Innodb_pages_written: The number of pages written

Chart: Row Ops

Metric Name	Metric Description
innodb rows deleted	Innodb_rows_deleted: The number of rows deleted from InnoDB tables
innodb rows inserted	Innodb_rows_inserted: The number of rows inserted into InnoDB tables

Metric Name	Metric Description
innodb rows read	Innodb_rows_read: The number of rows read from InnoDB tables
innodb rows updated	Innodb_rows_updated: The number of rows updated in InnoDB tables

Chart: Data

Metric Name	Metric Description
innodb_data_fsyncs	Innodb_data_fsyncs: The number of fsync() operations
innodb_data_pending_fsyncs	Innodb_data_pending_fsyncs: The current number of pending fsync() operations
innodb_data_pending_reads	Innodb_data_pending_reads: The current number of pending reads

Metric Name	Metric Description
innodb_data_pending_writes	Innodb_data_pending_writes: The current number of pending writes
innodb_data_read	Innodb_data_read: The amount of data read
innodb_data_reads	Innodb_data_reads: The number of data reads
innodb_data_writes	Innodb_data_writes: The number of data writes

Metric Name	Metric Description
innodb_data_written	Innodb_data_written: The amount of data written in bytes

Report: MySQL Queries Stats

Chart: Prepared Stmts

Metric Name	Metric Description
prepared_stmt_count	Prepared_stmt_count: The current number of prepared statements. (The maximum number of statements is given by the max_prepared_stmt_count system variable)

Metric Name	Metric Description
max prepared stmt count	max_prepared_stmt_count: This variable limits the total number of prepared statements in the server. (The sum of the number of prepared statements across all sessions)

Chart: Selects Rate

Metric Name	Metric Description
select_full_join	Select_full_join: The number of joins that perform table scans because they do not use indexes. If this value is not 0, you should carefully check the indexes of your tables

Metric Name	Metric Description
select_full_range_join	Select_full_range_join: The number of joins that used a range search on a reference table

Metric Name	Metric Description
select_range	Select_range: The number of joins that used ranges on the first table. This is normally not a critical issue even if the value is quite large

Metric Name	Metric Description
select_range_check	Select_range_check: The number of joins without keys that check for key usage after each row. If this is not 0, you should carefully check the indexes of your tables

Metric Name	Metric Description
select_scan	Select_scan: The number of joins that did a full scan of the first table

Chart: Sorts Rate

Metric Name	Metric Description
sort_merge_passes	Sort_merge_passes: The number of merge passes that the sort algorithm has had to do. If this value is large, you should consider increasing the value of the sort_buffer_size system variable

Metric Name	Metric Description
sort_range	Sort_range: The number of sorts that were done using ranges
sort_rows	Sort_rows: The number of sorted rows
sort_scan	Sort_scan: The number of sorts that were done by scanning the table

Metric Name	Metric Description
max length for sort data	max_length_for_sort_data: The cutoff on the size of index values that determines which filesort algorithm to use

Metric Name	Metric Description
max sort length	max_sort_length: The number of bytes to use when sorting data values. Only the first max_sort_length bytes of each value are used; the rest are ignored

Metric Name	Metric Description
sort buffer size	sort_buffer_size: Each session that needs to do a sort allocates a buffer of this size. sort_buffer_size is not specific to any storage engine and applies in a general manner for optimization. If you see many Sort_merge_passes per second, you

Metric Name	Metric Description

Chart: Queries/Questions Rate

Metric Name	Description
queries	Queries: The number of statements executed by the server. This variable includes statements executed within stored programs, unlike the Questions variable. It does not count COM_PING or COM_STATISTICS commands. This variable was added in MySQL 5.0.76

Metric Name	Description
questions	Questions: The number of statements executed by the server. As of MySQL 5.0.72, this includes only statements sent to the server by clients and no longer includes statements executed within stored programs, unlike the Queries variable. This variable

Metric Name	Metric Description
slow queries	Slow_queries: The number of queries that have taken more than long_query_time seconds. This counter increments regardless of whether the slow query log is enabled

Metric Name	Metric Description
long query time	long_query_time: If a query takes longer than this many seconds, the server increments the Slow_queries status variable. If you are using the log-slow-queries option, the query is logged to the slow query log file. This value is measured in real

Metric Name	Metric Description

Chart: Insert Delayed

Metric Name	Metric Description
delayed_errors	Delayed_errors: The number of rows written with INSERT DELAYED for which some error occurred (probably duplicate key)

Metric Name	Metric Description
delayed_insert_threads	Delayed_insert_threads: The number of INSERT DELAYED handler threads in use
delayed_writes	Delayed_writes: The number of INSERT DELAYED rows written

Metric Name	Metric Description
not flushed delayed rows	Not_flushed_delayed_rows: The number of rows waiting to be written in INSERT DELAYED queues

Report: MySQL Replication And Binlog

Chart: Binlog

Metric Name	Metric Description
binlog_cache_disk_use	Binlog_cache_disk_use: The number of transactions that used the temporary binary log cache but that exceeded the value of binlog_cache_size and used a temporary file to store statements from the transaction

Metric Name	Metric Description
binlog_cache_use	Binlog_cache_use: The number of transactions that used the temporary binary log cache

Metric Name	Metric Description
binlog_stmt_cache_disk_use	Binlog_stmt_cache_disk_use: The number of non-transaction statements that used the binary log statement cache but that exceeded the value of binlog_stmt_cache_size and used a temporary file to store those statements

Metric Name	Metric Description
binlog_stmt_cache_use	Binlog_stmt_cache_use: The number of nontransactional statements that used the binary log statement cache

Metric Name	Metric Description
binlog cache size	binlog_cache_size: The size of the cache to hold the SQL statements for the binary log during a transaction. A binary log cache is allocated for each client if the server supports any transactional storage engines and if the

Metric Name	Metric Description
binlog_stmt_cache_size	binlog_stmt_cache_size: Beginning with MySQL 5.5.9, this variable determines the size of the cache for the binary log to hold nontransactional statements issued during a transaction. In MySQL 5.5.3 and later, separate binary log

Metric Name	Metric Description

Chart: Replication Status

Metric Name	Metric Description
seconds_behind_master	Seconds_Behind_Master: This field is an indication of how “late” the slave is. In essence, this field measures the time difference in seconds between the slave SQL thread and the slave I/O thread. If the network connection between mas-

Metric Name	Metric Description
slave_io_running	Slave_IO_Running: Whether the I/O thread is started and has connected successfully to the master. Value 1 means YES, value 0 means NO. Decimal value between 0 and 1 means that in monitored time period I/O thread was at some points

Metric Name	Metric Description
slave sql running	Slave_SQL_Running: Whether the SQL thread is started. Value 1 means YES, value 0 means NO. Decimal value between 0 and 1 means that in monitored time period SQL thread was at some points running and at other points not running.

Metric Name	Metric Description

Chart: Replication Runtime

Metric Name	Metric Description
slave_open_temp_tables	Slave_open_temp_tables: The number of temporary tables that the slave SQL thread currently has open. If the value is greater than zero, it is not safe to shut down the slave

Metric Name	Metric Description
slave retried transactions	Slave_retried_transactions: The total number of times since startup that the replication slave SQL thread has retried transactions

Chart: Replication Heartbeat

Metric Name	Metric Description
slave_received_heartbeats	This counter increments with each replication heartbeat received by a replication slave since the last time that the slave was restarted or reset, or a CHANGE MASTER TO statement was issued

Metric Name	Metric Description
slave heartbeat period	Slave_heartbeat_period: Shows the replication heartbeat interval on a replication slave

Report: MySQL Runtime

Chart: Files/Streams

Metric Name	Metric Description
created tmp files	Created_tmp_files: How many temporary files mysqld has created
open files	Open_files: The number of files that are open. This count includes regular files opened by the server

Metric Name	Metric Description
opened_files	Opened_files: The number of files that have been opened with my_open()
open_streams	Open_streams: The number of streams that are open (used mainly for logging)

Chart: Connections

Metric Name	Metric Description
aborted_clients	Aborted_clients: The number of connections that were aborted because the client died without closing the connection properly

Metric Name	Metric Description
aborted_connects	Aborted_connects: The number of failed attempts to connect to the MySQL server

Metric Name	Metric Description
max used connections	Max_used_connections: The maximum number of connections that have been in use simultaneously since the server started

Metric Name	Metric Description
max connections	max_connections: The maximum permitted number of simultaneous client connections

Metric Name	Metric Description
max user connections	max_user_connections: The maximum number of simultaneous connections permitted to any given MySQL user account
threads connected	Threads_connected: The number of currently open connections

Chart: Uptime

Metric Name	Metric Description
uptime	Uptime: The number of seconds that the server has been up
uptime_since_flush	Uptime_since_flush_status: The number of seconds since the most recent FLUSH STATUS statement

Chart: Threads

Metric Name	Metric Description
threads_cached	Threads_cached: The number of threads in the thread cache
threads_connected	Threads_connected: The number of currently open connections

Metric Name	Metric Description
threads_created	Threads_created: The number of threads created to handle connections. If Threads_created is big, you may want to increase the thread_cache_size value
threads_running	Threads_running: The number of threads that are not sleeping

Metric Name	Metric Description
thread_cache_size	thread_cache_size: How many threads the server should cache for reuse
thread_stack	thread_stack: The stack size for each thread
slow_launch_threads	Slow_launch_threads: The number of threads that have taken more than slow_launch_time seconds to create

Report: MySQL Commands

Chart: Create/Drop Commands

Metric Name	Metric Description
create DB	Com_create_db: The number of times CREATE DATABASE command has been executed
create table	Com_create_table: The number of times CREATE TABLE command has been executed

Metric Name	Metric Description
create user	Com_create_user: The number of times CREATE USER command has been executed
drop DB	Com_drop_db: The number of times DROP DATABASE command has been executed

Metric Name	Metric Description
drop table	Com_drop_table: The number of times DROP TABLE command has been executed
drop user	Com_drop_user: The number of times DROP USER command has been executed

Chart: Commit/Rollback Commands

Metric Name	Metric Description
commit	Com_commit: The number of times COMMIT command has been executed
rollback	Com_rollback: The number of times ROLLBACK command has been executed

Metric Name	Metric Description
rollback to savepoint	Com_rollback_to_savepoint: The number of times ROLLBACK TO SAVEPOINT command has been executed

Chart: Commands

Metric Name	Metric Description
delete	Com_delete: The number of times DELETE command has been executed
delete multi	Com_delete_multi: The number of times DELETE command with multiple-table syntax has been executed

Metric Name	Metric Description
insert	Com_insert: The number of times INSERT command has been executed
insert_select	Com_insert_select: The number of times INSERT with SELECT command has been executed

Metric Name	Metric Description
select	Com_select: The number of times SELECT command has been executed
update	Com_update: The number of times UPDATE command has been executed

Metric Name	Metric Description
update_multi	Com_update_multi: The number of times UPDATE command with multiple-table syntax has been executed
load	Com_load: The number of times LOAD command has been executed

Metric Name	Metric Description
replace	Com_replace: The number of times REPLACE command has been executed
replace_select	Com_replace_select: The number of times REPLACE with SELECT command has been executed

Report: MySQL Query Cache

Chart: Cache Size

Metric Name	Metric Description
free_blocks	Qcache_free_blocks: The number of free memory blocks in the query cache
total_blocks	Qcache_total_blocks: The total number of blocks in the query cache
free_cache_memory	Qcache_free_memory: The amount of free memory for the query cache

Metric Name	Metric Description
query cache size	query_cache_size: The amount of memory allocated for caching query results. The default value is 0, which disables the query cache

Chart: Cache Usage

Metric Name	Metric Description
queries_in_cache	Qcache_queries_in_cache: The number of queries registered in the query cache
queries_not_cached	Qcache_not_cached: The number of non-cached queries (not cacheable, or not cached due to the query_cache_type setting)

Metric Name	Description
lowmem_prunes	Qcache_lowmem_prunes: The number of queries that were deleted from the query cache because of low memory
hits	Qcache_hits: The number of query cache hits

Metric Name	Metric Description
inserts	Qcache_inserts: The number of queries added to the query cache

Report: MySQL Traffic

Chart: Traffic

Metric Name	Metric Description
bytes sent	Bytes_sent: The number of bytes sent to all clients

Metric Name	Metric Description
bytes received	Bytes_received: The number of bytes received from all clients

Report: MySQL MyISAM Key

Chart: Key Cache Settings

Metric Name	Metric Description
key cache age threshold	key_cache_age_threshold: This value controls the demotion of buffers from the hot sublist of a key cache to the warm sublist. Lower values cause demotion to happen more quickly

Metric Name	Metric Description
key cache block size	key_cache_block_size: The size in bytes of blocks in the key cache

Chart: Key Blocks

Metric Name	Metric Description
key blocks not flushed	Key_blocks_not_flushed: The number of key blocks in the key cache that have changed but have not yet been flushed to disk

Metric Name	Metric Description
key blocks unused	Key_blocks_unused: The number of unused blocks in the key cache. You can use this value to determine how much of the key cache is in use

Metric Name	Metric Description
key blocks used	Key_blocks_used: The number of used blocks in the key cache. This value is a high-water mark that indicates the maximum number of blocks that have ever been in use at one time

Chart: Key Read/Write

Metric Name	Metric Description
key read requests	Key_read_requests: The number of requests to read a key block from the cache

Metric Name	Metric Description
key reads	Key_reads: The number of physical reads of a key block from disk. If Key_reads is large, then your key_buffer_size value is probably too small

Metric Name	Metric Description
key write requests	Key_write_requests: The number of requests to write a key block to the cache
key writes	Key_writes: The number of physical writes of a key block to disk

Metric Name	Metric Description
key buffer size	key_buffer_size: Index blocks for MyISAM tables are buffered and are shared by all threads. key_buffer_size is the size of the buffer used for index blocks. The key buffer is also known as the key cache. The value of this variable indicates the amount

Metric Name	Metric Description

Report: MySQL Handler

Chart: Handler Other

Metric Name	Metric Description
handler commit	Handler_commit: The number of internal COMMIT statements
handler delete	Handler_delete: The number of times that rows have been deleted from tables

Metric Name	Metric Description
handler_discover	Handler_discover: The MySQL server can ask the NDB CLUSTER storage engine if it knows about a table with a given name. This is called discovery. Handler_discover indicates the number of times that tables have been discovered us-

Metric Name	Metric Description
handler_prepare	A counter for the prepare phase of two-phase commit operations
handler_rollback	The number of requests for a storage engine to perform a rollback operation

Metric Name	Metric Description
handler_savepoint	Handler_savepoint: The number of requests for a storage engine to place a savepoint
handler_savepoint_rollback	Handler_savepoint_rollback: The number of requests for a storage engine to roll back to a savepoint

Metric Name	Metric Description
handler_update	Handler_update: The number of requests to update a row in a table
handler_write	Handler_write: The number of requests to insert a row in a table

Chart: Handler Read

Metric Name	Metric Description
handler_read_first	Handler_read_first: The number of times the first entry in an index was read. If this value is high, it suggests that the server is doing a lot of full index scans; for example, SELECT col1 FROM foo, assuming that

Metric Name	Metric Description
handler read key	Handler_read_key: The number of requests to read a row based on a key. If this value is high, it is a good indication that your tables are properly indexed for your queries

Metric Name	Metric Description
handler_read_last	Handler_read_last: The number of requests to read the last key in an index. With ORDER BY, the server will issue a first-key request followed by several next-key requests, whereas with With ORDER BY DESC, the server will is-

Metric Name	Metric Description
handler_read_next	Handler_read_next: The number of requests to read the next row in key order. This value is incremented if you are querying an index column with a range constraint or if you are doing an index scan

Metric Name	Metric Description
handler_read_prev	Handler_read_prev: The number of requests to read the previous row in key order. This read method is mainly used to optimize ORDER BY ... DESC

Metric Name	Metric Description
handler_read_rnd	Handler_read_rnd: The number of requests to read a row based on a fixed position. This value is high if you are doing a lot of queries that require sorting of the result. You probably have a lot of queries that

Metric Name	Description
handler_read_rnd_next	Handler_read_rnd_next: The number of requests to read the next row in the data file. This value is high if you are doing a lot of table scans. Generally this suggests that your tables are not properly indexed or that your

Metric Name	Metric Description