



Masters of the art — and the science — of remote database administration

MySQL Management Plug-in 1.1 for Oracle 10g Enterprise Manager

MySQL Plug-in?

The need to manage heterogeneous environments is a fact for many production engineers, making a complete monitoring solution a critical component of today's enterprise IT operations. Oracle Enterprise Manager is oriented towards providing end-to-end management for business applications, with plug-ins extending its management capabilities to an expanding variety of products.

Over the last years, MySQL databases have gained tremendous popularity. The Pythian Group, provider of remote database and system administration services, has witnessed the widespread adoption of MySQL databases by Oracle customers, and vice versa.

The MySQL monitoring plug-in for Oracle 10g Enterprise Manager, together with plug-ins for DB2, SQL Server, Sybase and TimesTen databases, extends its monitoring capabilities so that database administrators and managers can now use a single monitoring solution to monitor all databases throughout the enterprise.

General


 Status **Up** Black Out
 Availability (%) **100**
(Last 24 Hours)
 Host gc.oracleoid.com

Alerts

Metric	Severity	Alert Triggered	Last Value	Last Checked
InnoDB buffer pool read hit ratio %	✘	Apr 13, 2008 11:10:34 PM	0	Apr 14, 2008 1:20:34 AM
Threads cache miss ratio %	✘	Apr 13, 2008 11:09:54 PM	100	Apr 14, 2008 1:24:54 AM
Response time (ms)	⚠	Apr 14, 2008 12:42:15 AM	233	Apr 14, 2008 1:28:15 AM

MySQL Availability and Alerts

The plug-in implements standard target availability status monitoring, alerts notifications and history.

MySQL Metrics Collection

The plug-in collects more than 100 metrics covering various MySQL components.

Critical and warning thresholds can be set for every collected metric. Most significant metrics have sensible predefined thresholds, which provide the DBA with an initial setup that can be further tailored to a particular environment.

All Metrics

Expand All | Collapse All

Metrics	Thresholds	Collection Schedule
Test MySQL Server 2		
Binlog Cache	None	Every 10 Minutes
Binlog cache transactions per second	Not Set	
Binlog cache transactions spilled to disk per second	Not Set	
Binlog disk transactions %	Not Set	
Commands Executions	None	Every 15 Minutes
Connections & Threads	Some	Every 5 Minutes
Current Processes by Action	None	Every 1 Minute
Handlers Statistics	None	Every 15 Minutes
InnoDB Buffer Pool	Some	Every 10 Minutes
InnoDB IO	None	Every 10 Minutes
InnoDB Row Locks	Some	Every 10 Minutes
InnoDB Row Operations	None	Every 10 Minutes
Joins	Some	Every 15 Minutes
MyISAM Key Cache	Some	Every 5 Minutes
Network Statistics	None	Every 15 Minutes
Other Statistics	Some	Every 15 Minutes
Query Cache	None	Every 5 Minutes
Response	All	Every 1 Minute
Slave Statistics	None	Every 15 Minutes
Sort Statistics	Some	Every 15 Minutes
Table Locks	Some	Every 5 Minutes
Temporary Tables & Files	Some	Every 15 Minutes

MySQL Configuration Management

Key Features

- Availability monitoring**
 Standard availability monitoring for MySQL targets.
- 100+ metrics collected**
 InnoDB, MyISAM, connections, caches efficiency, and many others.
- Enterprise Configuration Management**
 Current and historical configuration collection and comparison.
- Out of the box reports**
 Visualize MySQL database performance over time.
- Remote monitoring**
 No need to install a Management Agent on every MySQL Server.

Download

The latest version of the MySQL plug-in is available for download from its home page, located at the [pythian.com](http://www.pythian.com) web site - [MySQL Plug-in for Oracle Grid Control](http://www.pythian.com/blogs/mysql-plugin-for-oracle-grid-control) (<http://www.pythian.com/blogs/mysql-plugin-for-oracle-grid-control>).

Support

The MySQL Management Plug-in is developed by Alex Gorbachev of The Pythian Group. Free support is available at the [Pythian Group Blog](http://www.pythian.com), and commercial support is available to customers as part of Pythian's standard service offerings.

The MySQL plug-in implements Enterprise Configuration Management (ECM) features.

Oracle Enterprise Manager collects MySQL configuration and tracks changes over time so that a DBA can easily track down configuration changes.

Configuration of MySQL targets can be easily compared to verify that MySQL deployment follows the same standard throughout the enterprise.

Configuration comparison allows the DBA to detect differences between MySQL master and slave servers.

View Configuration: Configuration Data

Collected From Target **Apr 13, 2008 11:14:08 PM** [Save](#) [Compare](#) [Compare to Multiple](#) [History](#) [Refresh](#)
 Description **Latest Configuration**

MySQL Variables

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Variable Name	Variable Value
back_log	50
basedir	/usr/local/mysql-5.1.24/
big_tables	OFF
binlog_cache_size	32768
binlog_format	STATEMENT
bulk_insert_buffer_size	8388608
character_set_client	utf8
character_set_connection	utf8
character_set_database	utf8
character_set_filesystem	binary

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MySQL Storage Engines

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Engine	Support	Description	Transational	XA support	Savepoints support
InnoDB	DEFAULT	Supports transactions, row-level locking, and foreign keys	YES	YES	YES
MRG_MYISAM	YES	Collection of identical MyISAM tables	NO	NO	NO
BLACKHOLE	YES	/dev/null storage engine (anything you write to it disappears)	NO	NO	NO
CSV	YES	CSV storage engine	NO	NO	NO
MEMORY	YES	Hash based, stored in memory, useful for temporary tables	NO	NO	NO
FEDERATED	YES	Federated MySQL storage engine	NO	NO	NO
ARCHIVE	YES	Archive storage engine	NO	NO	NO
MyISAM	YES	Default engine as of MySQL 3.23 with great performance	NO	NO	NO

Compare: Configuration Data

First Host **Test MySQL Server** Second Host **Test MySQL Server 2**
 Host **gc.oraclecloud.com** Host **gc.oraclecloud.com**
 Collected **Apr 13, 2008 11:23:05 PM** Collected **Apr 13, 2008 11:22:24 PM**

Summary

- MySQL Variables
- MySQL Storage Engines

MySQL Variables

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Result	Variable Name	Test MySQL Server	Test MySQL Server 2
	datadir		
	event_scheduler	ON	OFF
	hostname		
	innodb_data_home_dir		
	innodb_log_group_home_dir		
	log_error		
	log_output	TABLE	FILE
	log_slave_updates	OFF	ON
	read_buffer_size	2097152	1048576
	read_md_buffer_size	262144	2097152

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MySQL Storage Engines

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Result	Engine	Test MySQL Server	Test MySQL Server 2
No differences found			



Requirements

Oracle Management Server

The MySQL Management Plug-in requires Oracle Enterprise Manager 10g Grid Control Release 3 (10.2.0.3) or higher. The preferred version is 10.2.0.4.

Oracle Management Agent

The MySQL Management Plug-in requires Oracle Enterprise Manager 10g Grid Control Management Agent 10.2.0.3 or higher. Prior releases are not guaranteed to work.

MySQL

The MySQL Management Plug-in can monitor MySQL version 4.1, 4.0 and 5.1. It supports both master and slave servers. It doesn't support MySQL Cluster-specific monitoring. Support for MySQL 6.0 and MySQL clusters is planned.

Platforms

The MySQL Management Plug-in works on Linux, Windows and on UNIX platforms that are supported by the Oracle Management Agent.

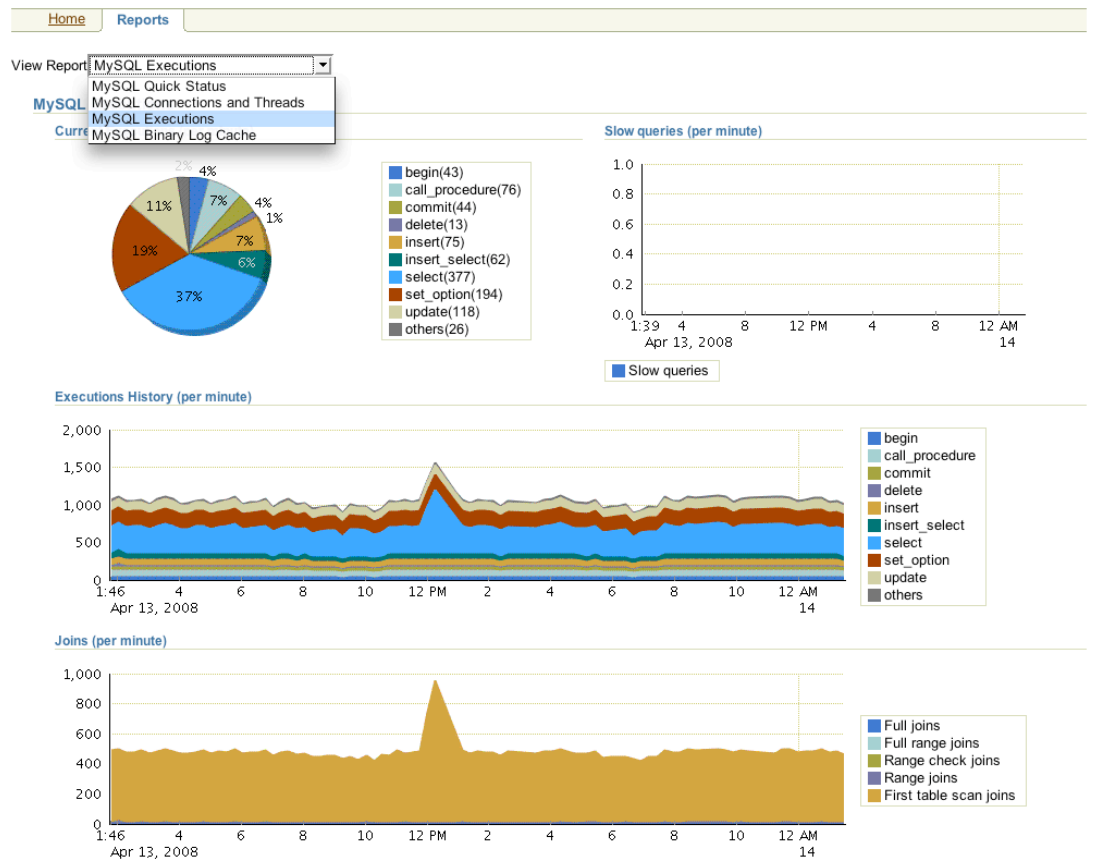
Remote monitoring

Monitoring remote MySQL servers works without MySQL client on the host where Oracle Management Agent is running. The plug-in uses native Perl interface to MySQL. No need to install and compile any Perl packages.

MySQL Reports

The plug-in comes with predefined reports:

- MySQL Quick Status
- MySQL Connections and Threads
- MySQL Executions
- MySQL Binary Log Cache



Remote Monitoring

The MySQL Management Plug-in supports monitoring of remote MySQL servers so that Oracle Management Agent doesn't have to be installed on every server running MySQL databases.

This simplifies deployment process. The host running the Management Agent, however, doesn't even need MySQL client installed.

The MySQL target configuration includes

the `Hostname` property, which should be set to the IP address or alias of the remote server running the monitored MySQL database.

Monitoring Configuration

Monitoring Configuration dialog box with 'Properties' tab selected. Fields include:

- Hostname: 192.168.33.31
- Port: (empty)
- Database User: monitor
- Database User Password: *****

Contact Us

Go to www.pythian.com or contact us directly at one of our worldwide offices nearest you. To provide our clients with the highest quality support on a 24x7x365 basis, the Pythian Group has staff and offices in five locations around the globe.

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