MySQL Enterprise Monitor 3.3 Release Notes

Abstract

This document lists the changes to the MySQL Enterprise Monitor 3.3 product, beginning with the most recent release. Each release section covers added or changed functionality, bug fixes, and known issues, if applicable. For information about changes in a different MySQL Enterprise Monitor series, see the release notes for that series.

For additional MySQL Enterprise Monitor 3.3 documentation, see the MySQL Enterprise Monitor 3.3.9 Manual.

For legal information, see the Legal Notices.

For help with using MySQL, please visit either the MySQL Forums or MySQL Mailing Lists, where you can discuss your issues with other MySQL users.

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Preface and Legal Notices

This document lists the changes to the MySQL Enterprise Monitor 3.3 product, beginning with the most recent release.

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Changes in MySQL Enterprise Monitor 3.3.9 (2018-04-26)

Important

It is not possible to monitor MySQL 8 with this version of MySQL Enterprise Monitor, nor is it possible to configure this version of MySQL Enterprise Monitor to use.
MySQL 8 as its repository. To monitor MySQL 8, you must use MySQL Enterprise Monitor 8.0.

- **Functionality Added or Changed**
- **Bugs Fixed**

### Functionality Added or Changed

- The MySQL server, bundled with the MySQL Enterprise Service Manager, has been upgraded to MySQL 5.7.22.
- The bundled JRE was updated to 1.8.0_172 for both the Agent and Service Manager.

### Bugs Fixed

- The MySQL Enterprise Service Manager always used the default data purge values, regardless of what values were specified. (Bug #27869486)
- MySQL Enterprise Monitor Agent parsed all `name=value` pairs, even if they were inside comments, or outside legal config sections in a Cluster `config.ini`.
  
  As of this release, only configuration values in legally defined sections are parsed. (Bug #27844552)
- The Query Analyzer's **Configure Query Analyzer** link did not link to the Query Analyzer advisors. (Bug #27844552)
- The documentation did not clearly state that the GUI-based advisors could not be copied as the basis for custom advisors. Only expression-based advisors can be copied in this manner. (Bug #27731494)
- The **Last Seen** column of the **Unreachable Agents** did not sort by date.
- On Windows platforms, the agent service description contained an incorrect version number.
- The emailed links were incorrect for events generated by the **SQL Statement Generates Warnings or Errors** and **Average Statement Execution Time Advisor** advisors.

### Changes in MySQL Enterprise Monitor 3.3.8 (2018-01-29)

- **Functionality Added or Changed**
- **Bugs Fixed**

### Functionality Added or Changed

- As of this release, to improve the performance of the metric, **Database File I/O**, only the top 100 consumers are returned in the report. (Bug #27300501)
- It is now possible to specify the notification level for queries with warnings, or errors, on the **SQL Statement Generates Warnings or Errors** advisor. For more information, see **SQL Statement Generates Warnings or Errors**. (Bug #27280965)
- The OpenSSL libraries used by the MySQL Enterprise Monitor installers and MySQL Enterprise Monitor Aggregator have been upgraded to 1.0.2n.
- The MySQL server, bundled with the MySQL Enterprise Service Manager, has been upgraded to MySQL 5.7.21.
• The bundled JRE was updated to 1.8.0_162 for both the Agent and Service Manager.

• As of this release, and as announced on the EoL announcement page, OS X 10.11 is no longer a supported platform for MySQL products.

**Bugs Fixed**

• The Server Has Anonymous Accounts advisor raised false-positive events for users with proxy rights, such as those provided by authentication plugins. For more information on proxy users, see Proxy Users.

  As of this release, the advisor is renamed Server Has Anonymous Accounts Not Being Used As Proxies and can now differentiate between anonymous accounts and proxy users. (Bug #27179986)

• Several elements of the drop-down menus on the Query Analyzer were not displayed correctly.

**Changes in MySQL Enterprise Monitor 3.3.7 (2017-12-06)**

• Functionality Added or Changed

• Bugs Fixed

**Functionality Added or Changed**

• The Tomcat server, bundled with the MySQL Enterprise Service Manager, has been upgraded to 8.5.23.

• The bundled JRE was updated to 1.8.0_151 for both the Agent and Service Manager.

• As of this release, on Solaris platforms, the installer and upgrade installer check for the presence of the Oracle Developer Studio 12.5 Runtime libraries. If these libraries are not installed, the installation stops and displays an error.

  **Note**
  
  The installer also checks for auto-mounted installations in `/opt/developerstudio12.5`.

Oracle Developer Studio 12.5 Runtime libraries must be installed before running the MySQL Enterprise Monitor installers on Solaris.

• The MySQL server, bundled with the MySQL Enterprise Service Manager, has been upgraded to MySQL 5.7.20.

• The OpenSSL libraries used by the MySQL Enterprise Monitor installers and MySQL Enterprise Monitor Aggregator have been upgraded to 1.0.2m.

**Bugs Fixed**

• The service_manager privilege descriptions lacked examples. For more information, see MySQL Enterprise Monitor Repository. (Bug #27130180)

• The documentation incorrectly stated that a Service Manager user required privileges on the mysql.inventory table. The mysql.inventory table is no longer created. (Bug #27130103)

• Some selections were not properly displayed in the Column drop-down menus on the Query Analyzer's Advanced filter. (Bug #27110602)
• The bundled MySQL server did not include all the MySQL Enterprise Edition plugins, such as Audit and TDE, for Microsoft Windows platforms. The plugins were correctly delivered for Linux, Mac OS, and Solaris. (Bug #27110538)

• The advice page for the Prepared Statements Not Being Used Effectively advisor incorrectly referred to the variables Com_stmt_prepare and Com_stmt_execute. The correct variables are Com_prepare_sql and Com_execute_sql. (Bug #26949933)

• Under certain circumstances, if you were upgrading to the previous version, it was necessary to edit server.xml and add maxHttpHeaderSize="65536" to each of the default connectors.

As of this release, it is no longer necessary to manually edit server.xml, the upgrade installer checks and corrects the values automatically if they are set to a value less than 64K. If maxHttpHeaderSize is set to 64K or higher, the upgrader installer makes no changes. (Bug #26828438)

References: See also: Bug #26391094.

• It was not possible to select the last graph in the drop-down menu on the Overview dashboard. (Bug #26679583)

• It was not possible to delete or edit a notification group if the subject contained braces, { or }. An error was displayed.

As of this release, it is possible to edit, and correct, notification group subjects which contain unsupported characters. Also, an error is displayed on saving if the notification group's subject contains an unsupported character. (Bug #25535520)

• Expanding the Filter, on any page which includes the Asset Selector, disabled the Asset Selector's Show All Assets checkbox, unless it was already enabled.

If Show All Assets was not enabled, expanding the Filter forced the Asset Selector to reload and display only MySQL instances.

• A rate limit exception caused a null pointer exception which stopped the MySQL Enterprise Service Manager from retrieving the sys schema version.

• OS X 10.13 was not reported as Mac OS X (High Sierra), but as Unknown.

Changes in MySQL Enterprise Monitor 3.3.6 (2017-10-10)

Bugs Fixed

• Timeseries graphs displayed old data, such as filesystems and network interfaces which were removed or no longer exist.

As of this release, only recently reported, active assets are displayed in the timeseries graphs. (Bug #26942873)

• A fatal error occurred when upgrading a MySQL Enterprise Service Manager installation which used an external repository instead of the bundled repository.

Note

The existing installation was unchanged.

(Bug #26870405)
• MySQL Enterprise Monitor Proxy closed unexpectedly while executing queries. A segmentation fault occurred. (Bug #26798914)

Changes in MySQL Enterprise Monitor 3.3.5 (2017-09-22)

• Functionality Added or Changed

• Bugs Fixed

Functionality Added or Changed

• The OpenSSL libraries used by the MySQL Enterprise Monitor installers and MySQL Enterprise Monitor Aggregator have been upgraded to 1.0.2f.

• As of this release, if you are using a MySQL Server repository other than the installation bundled with the MySQL Enterprise Service Manager installation, the installer checks the MySQL Server for the following, minimum requirements:

  • MySQL Server version: versions older then MySQL 5.7.9 are not supported.
  • SSL: SSL must be enabled on the MySQL Server.
  • `innodb_file_format`: `innodb_file_format` must be `barracuda`.
  • `innodb_file_per_table`: `innodb_file_per_table` must be enabled.

  If any of those checks fail, the installer displays an error and cannot proceed until the configuration is corrected.

  The upgrade process performs the same checks.

  To check your repository is correctly configured, the MySQL Enterprise Service Manager's configuration utility is extended with the parameter `--mysql-check-requirements`.

  For more information, see Service Manager Configuration Utilities.

• The MySQL server, bundled with the MySQL Enterprise Service Manager, has been upgraded to MySQL 5.7.19.

  ! Important

  Changes have been made to the prerequisites of MySQL 5.7.19.

  • `libnuma.so.1` must be present on Linux platforms. The MySQL Enterprise Service Manager full and upgrade installers check for the existence of this library.

  • During a MySQL Enterprise Service Manager upgrade, the upgrade installer runs the `mysql_upgrade` utility.

• The Tomcat server, bundled with the MySQL Enterprise Service Manager, has been upgraded to 8.5.16.

• The bundled JRE was updated to 1.8.0_141 for both the Agent and Service Manager.

Bugs Fixed

• On the Advisors page, filtering for specific advisors did not return all the advisors filtered for. (Bug #26668301)
• On Linux, Unix, and Mac OS X platforms, the agent installer did not check the installation directory to ensure it had the required permissions to install MySQL Enterprise Monitor Agent in that location.

As of this release, the installer checks the directory for the appropriate permissions. If it does not have the rights to install to that location, it returns the following error message:

```
There has been an error.
The current installation directory could not be accessed by non-root users.
Please select a different installation directory or change the permissions to 755 for this directory.
```

(Bug #26551166)

• Under certain circumstances, such as filtering on many graphs on the All Timeseries page, the resulting graphs were not correctly populated with data. This was caused by the default value for the `maxHttpHeaderSize` in the Tomcat configuration file, `server.xml`, which is set too low for large quantities of data. The value is set to 32K by default.

As of this release, the value of `maxHttpHeaderSize` is doubled, to 64K, and applied to both the SSL and non-SSL connector configurations in `server.xml`.

If you are upgrading to this version from a previous version, you must edit `server.xml` and add `maxHttpHeaderSize="65536"` to each of the default connectors.

If you are performing a clean installation of MySQL Enterprise Service Manager, you do not need to edit any files, the new values are included by default. (Bug #26391094)

• It was not possible to install the MySQL Enterprise Service Manager on Solaris due to a missing file, `libstlport.so.1`. (Bug #26336679)

• Validation messages were not displayed on the Settings page after a successful change was made.

• Sparkline graphs did not refresh dynamically.

• It was not possible to edit multiple advisors using the Edit Selected button.

• Agent host names were not displayed in the list of agents on the Advisors page, only the alphanumeric agent ID was displayed in truncated form. This made it difficult to identify the agent.

As of this release, the agent is listed with the name of the host on which it is installed, instead of the alphanumeric ID.

• Clicking on the Database Availability graph, on the Overview dashboard, opened a blank page instead of the Events page.

• On Mac OS X platforms, the `java_home_dir` variable was not set properly by the installer. As a result, the configuration report contained the following error: ***unknown variable java_home_dir.

• On Linux, Unix, and Mac OS X platforms, the MySQL Enterprise Service Manager upgrade installer could not upgrade the installation if the installation directory contained files or directories created by a different user, or a user with permissions which differed from those of the user running the upgrade.

As of this release, the installers check the installation directory to ensure all files and directories have the correct permissions. If they do not, it exits with an informative error message.

• Under certain circumstances, it was not possible to monitor an instance which had previously been monitored and then deleted by MySQL Enterprise Service Manager.
Changes in MySQL Enterprise Monitor 3.3.4 (2017-06-13)

• Functionality Added or Changed
  • Bugs Fixed

Functionality Added or Changed

• The Replication Configuration advisor now generates an event if `slave_pending_jobs_size_max` or `slave_max_allowed_packet` are less than the source’s `max_allowed_packet`. (Bug #25996472)

• The MySQL server, bundled with the MySQL Enterprise Service Manager, has been upgraded to MySQL 5.7.18.

• The `super_read_only` variable is now represented in the Replication dashboard’s instance drilldowns. The configured value is displayed in the Replication Configuration section.

• The backup bar charts, Backup Run Time History and Backup Lock Time History, are replaced by Full Backup Run Time History and Incremental Backup Run Time History timeseries graphs. The run and lock time information is now displayed in the full and incremental backup graphs.

• The Tomcat server, bundled with the MySQL Enterprise Service Manager, has been upgraded to 8.5.14.

• The bundled JRE was updated to 1.8.0_131 for both the Agent and Service Manager.

• An agent installer is now available for FreeBSD 11.

Bugs Fixed

• The Statement Type drop-down list on the Query Analyzer page contained incorrectly named entries, formatted as `form.label.statementType.option.NAME`. (Bug #26132066)

• A Null Pointer Exception was logged if the Average Statement Execution Time advisor was enabled but all its notice thresholds were disabled. (Bug #25872561)

• The documentation erroneously stated that SSL certificates which existed in the previous installation must be manually imported after an upgrade. The upgrade creates a backup of any existing SSL certificates and imports them into the upgraded version as part of the upgrade process. (Bug #25833748)

• MySQL Enterprise Service Manager stopped responding if a custom graph was imported, and the graph’s definition included a hyphen (-) in the name.

  If a service restart was attempted, an Unexpected token error was logged and Tomcat would not start. (Bug #25761280)

• MySQL Enterprise Monitor Agent and MySQL Enterprise Service Manager configuration utilities did not clearly state that they must be run while MySQL Enterprise Monitor Agent and MySQL Enterprise Service Manager are stopped.

  The documentation was also updated with this information. (Bug #25697013)

• Network speeds were incorrectly reported on the Network Interfaces table of the MySQL Instances dashboard. (Bug #25636784)
• The Query Analyzer’s **Explain Query** tab did not display long queries correctly. As of this release, long keys are wrapped on multiple lines. (Bug #25517867)

• OS X 10.12 Sierra was not recognized and was listed as Unknown. (Bug #25511036)

• It MySQL Enterprise Monitor Agent encountered an error, it failed to restart due to a permissions issue. The `mysql-monitor-agent.pid` ran as root and could not be stopped by the `agentrestart.sh` which runs under the same user as MySQL Enterprise Monitor Agent.

As of this release, the `mysql-monitor-agent.pid` is created with the permissions 644 (-rw-r--r--). (Bug #24667408)

• On Windows platforms, it was not possible to install to a path which contained spaces on any drive other than the C:\ drive.

  For example, trying to install to `D:\Program Files\MySQL\Enterprise\Monitor` failed, while `C:\Program Files\MySQL\Enterprise\Monitor` succeeded. (Bug #24482872)

• The MySQL Enterprise Monitor Agent was not properly displayed as running and monitoring an instance. This occurred if it was stopped and it's monitored instance removed from the MySQL Instances dashboard, and then the MySQL Enterprise Monitor Agent was restarted.

• Empty groups were not displayed on the **Advisors** page.

• It was not possible to edit a replication group’s description. The change was not saved.

• A number of minor UI issues were corrected in this release. Issues such as double colons (::) in the system uptime frame, duplicated icons on buttons, and so on.

• If an instance was renamed on the **MySQL Instances** dashboard, the instance name was not updated immediately elsewhere in the user interface.

• The backup bar charts, **Backup Run Time History** and **Backup Lock Time History**, displayed extra zeroes after an upgrade from MySQL Enterprise Service Manager 3.2 to 3.3 or 3.4.

• Custom filters which were not edited were displayed as edited on the Query Analyzer and graphs pages.

• Under certain circumstances, graphs would not load on the **Backup** dashboard’s **History** tab.

• After an upgrade from MySQL Enterprise Service Manager 3.1, or 3.2, to 3.3 or higher, the **Backup** dashboard’s **Backup Run Time History** and **Backup Lock Time History** displayed zeroes for instances monitored since before the upgrade.

• Under certain circumstances, if a overrides were defined on MySQL instances in an advisor, both the parent and child schedules were evaluated for the overridden instance, instead of child schedule only. As a result, duplicate collections were performed and incorrect events displayed.

• The upgrade process prompted you to re-import SSL certificates from the backup of the previous version. This is not necessary unless you are using LDAP and had imported your own SSL certificates into the keystore of the JRE bundled with MySQL Enterprise Monitor.

  The prompt has been updated.

• Under certain circumstances, a monitored MySQL instance could be reported as having two, different `server_uuid` values. This could happen if the monitored instance was part of a replication topology, or installed in a docker container, and used **Host Plus Data Directory** from the **MySQL Instance Identity Source** menu.
• Microsoft Windows 2016 Server systems were reported as Unknown.

Changes in MySQL Enterprise Monitor 3.3.3 (2017-03-13)

Important

As of this release, MySQL Enterprise Monitor documentation is now included in the MySQL Enterprise Service Manager, MySQL Enterprise Monitor Agent, and MySQL Enterprise Monitor Proxy and Aggregator packages available from My Oracle Support or Oracle Software Delivery Cloud.

• Security Notes
• Functionality Added or Changed
• Bugs Fixed

Security Notes

• MySQL Enterprise Service Manager has been updated to use Apache Struts 2.3.32, which has been publicly reported as not vulnerable to CVE-2017-5638. (Bug #25698531)

Functionality Added or Changed

• As of this release, MySQL Enterprise Monitor Agent no longer creates the mysql.inventory table on MySQL Server 5.6, or higher. The value of server_uuid is used to uniquely identify the server.

For MySQL Server 5.5, the functionality is unchanged and the agent creates the mysql.inventory table. (Bug #24699549)

• It is now possible to change the number of rows displayed in the Backups section on the History tab of the Enterprise Backup dashboard.

• The OpenSSL libraries used by the MySQL Enterprise Monitor installers and MySQL Enterprise Monitor Aggregator have been upgraded to 1.0.2k.

• The Tomcat server, bundled with the MySQL Enterprise Service Manager, has been upgraded to 8.5.9.

Bugs Fixed

• MySQL Enterprise Service Manager failed to start if the operating system's locale was set to FR_FR. (Bug #25615156)

• MySQL Enterprise Monitor Agent installer stopped unexpectedly on Solaris platforms. This occurred for both unattended and text installation modes during the agent user credential step. (Bug #25427615)

• No message was displayed on the Roles and Users pages if an attempt was made to save an incorrectly defined user or role. Such as a role without a name, or mismatched passwords. The role was not saved, but no reason was given for the failure to save. (Bug #25268334)

• Input fields were available on the Roles and Users pages before a role or user was selected. (Bug #25268248)

• No error was generated if the General and Limited user passwords violated a server-side password validation rule. This error occurred if the MySQL server used the password validation plug-in.
As of this release, if a monitoring connection request fails because the General or Limited user’s passwords do not meet the requirements on the server, an error is displayed with the server error message and the username which caused the error. (Bug #25153652)

- Query detail graphs were not displayed on the **Graphs** tab of the query details dialog on the Query Analyzer page if the locale was set to Japanese. (Bug #24830763)

- The **Group Settings** tab on the Edit Instance dialog was too small to properly display its contents. (Bug #24481474)

- If `agent.sh` was run as `root`, incorrect permissions were applied to some log and keystore files, making them inaccessible to the agent, which runs as `mysql`.

  As of this release, it is not possible to run `agent.sh` from the command line as `root`, but only as `mysql`. (Bug #24338452)

- The agent failed to start on Solaris platforms due to incorrectly defined permissions. (Bug #24327644)

- MySQL Enterprise Monitor Agent upgrades overwrote custom, log4j configuration files with a new, default configuration file. As of this release, the custom log4j configuration files are preserved, and the new, default configuration is written to the same directory with the filename `log4j.properties.default`. (Bug #18501221)

- MySQL Enterprise Service Manager upgrade, installed as root, reported errors on OS X. Services did not start after the upgrade completed, but could be started manually.

### Changes in MySQL Enterprise Monitor 3.3.2 (2017-01-09)

**Important**

As of this release, MySQL Enterprise Monitor documentation is available from the MySQL Enterprise Products page, only.

MySQL Enterprise Monitor documentation is no longer available as a separate, downloadable package from My Oracle Support or Oracle Software Delivery Cloud.

Online help is still installed with MySQL Enterprise Service Manager.

- **Functionality Added or Changed**

- **Bugs Fixed**

**Functionality Added or Changed**

- The value defined in **Show entries** on the **Event Handlers** page is saved as default. (Bug #24347638)

- The configuration menu item **Event Handling** was renamed **Event Handlers**.

- The bundled JRE was updated to 1.8.0_112 for both the Agent and Service Manager.

- The OpenSSL libraries used by the MySQL Enterprise Monitor installers and MySQL Enterprise Monitor Aggregator have been upgraded to 1.0.2).

- The **Slave Master Info/Relay Log Info Not Crash Safe** is removed in this version. Its functionality is rolled into the **Replication Configuration** advisor.

- The specific operating system version is now displayed in the **Host Details** section of the **MySQL Instances** dashboard.
• The MySQL database, bundled with the MySQL Enterprise Service Manager, has been upgraded to MySQL 5.7.17.

• The Enterprise Backup dashboard was reorganized for usability.

Bugs Fixed

• Out-dated references were removed from advisor advice text. (Bug #25124333)

• Under certain circumstances, the asset selector list would not load on the Assets tab of the Groups page. (Bug #25051693)

• Under certain circumstances, if a notification group contained one or more invalid email addresses, the notification failed.

As of this release, the invalid address exception generated by the email server is handled correctly, the invalid email address is removed, and the notification is resent. If the notification group contains multiple invalid addresses, they are removed and the message resent until either the notification is sent or no email addresses remain.

Errors are logged to the Action Log. (Bug #25037204)

• If the backup directory was set to the same directory as the installation directory, the upgrade installer removed the installation, and the upgrade process failed.

As of this release, the installers check if the backup directory is set to the same directory as the installation directory.

This issue affected the upgrade installers for the MySQL Enterprise Service Manager, MySQL Enterprise Monitor Agent, and the MySQL Enterprise Monitor Proxy and Aggregator. (Bug #25027413, Bug #25078184, Bug #25078204)

• The Show n entries drop-down menu on the Query Analyzer page was too small. This affected the Google Chrome browser, only. (Bug #24948388)

• Comma-separated external role definitions were not correctly parsed on the Roles page. (Bug #24918199)

• The External Role field on the Roles and Settings pages, was too small. (Bug #24917944)

• The fields on the Encryption Settings tab of the Add MySQL Instance or Edit Instances dialogs did not reflect the actual configuration. (Bug #24833411)

• If a non-bundled repository was used, the MySQL Enterprise Service Manager command-line utilities did not detect it. As of this release, non-bundled repositories are recognized by the command-line utilities. (Bug #24764129)

• Hiding and showing the filter panel changed the selected filter criteria. It was necessary to refresh the page to display the originally selected criteria. (Bug #24743686)

• The Events page Time Range filter was set to All Time if the page was opened by clicking on the events count on the Enterprise Backup page.

As of this release, the Events filter uses the range defined on the Enterprise Backup page. (Bug #24609299)

• Resume Event Handler dialog was too small for its contents. (Bug #24481411)
• Duplicate actions were taken, and notifications sent, if multiple event handlers used the same advisor. As of this release, duplicate actions and notifications are combined into a single action or notification. However, each event handler is logged as handling the event. (Bug #24341371)

• The Line and Stack graph controls were not displayed for graphs with many series. (Bug #22378850)

• The auto-update parameter of the MySQL Enterprise Service Manager configuration utilities, config.sh, did not behave as expected.

• Fields of the Add Instance dialog, for unmonitored instances, did not auto-populate with the correct, agent, hostname, or port number.

Changes in MySQL Enterprise Monitor 3.3.1 (2016-10-10)

• Functionality Added or Changed

• Bugs Fixed

Functionality Added or Changed

• A new Monitoring and Support Services advisor, Duplicate Host Identity, is added. This advisor generates events if duplicate host identities are discovered on the monitored network. This can be caused by duplicated SSH keys or Windows SIDs. (Bug #24620458)

• An Agent Memory Usage Details graph was added in this release. On the All Timeseries Graphs page, select an agent to display this graph.

• The OpenSSL libraries used by the MySQL Enterprise Monitor installers and MySQL Enterprise Monitor Aggregator have been upgraded to 1.0.1u.

• The MySQL database, bundled with the MySQL Enterprise Service Manager, has been upgraded to MySQL 5.7.16.

Bugs Fixed

• The Processes report did not properly report data from MySQL 5.7 instances. (Bug #24642042)

• The Event Handler Asset column did not display any assets for the eleventh handler created. That is, the Asset column correctly displayed assets for the first 10 event handlers, but did not for any other event handler. (Bug #23543149)

• Under certain circumstances, when monitoring MySQL 5.7, warnings were generated in Query Analyzer due to a conflict between the default mysql_mode and the mysql_mode set by MySQL Enterprise Monitor. (Bug #23033046)

• The Group Settings tab was displayed on the Add MySQL Instance dialog, but was inaccessible. This issue occurred in Chrome, only.

• Under certain circumstances, if a system filter was selected, it was displayed with a –clone* suffix.

• Export as PNG button on graphs did not work as expected.

Changes in MySQL Enterprise Monitor 3.3.0 (2016-09-15)

• Functionality Added or Changed
• **Bugs Fixed**

**Functionality Added or Changed**

- **Important Change:** As of this release, it is not possible to use MySQL Server 5.1 or 5.5 as the MySQL Enterprise Monitor repository. The installer displays an error and the installation process stops.

- **Important Change:** The **Enterprise Backup** dashboard is introduced in this release. This dashboard enables monitoring of Full, Incremental, TTS, and Partial backups performed by MySQL Enterprise Backup on the monitored instances.

  For more information, see **Enterprise Backup Dashboard**

- The event status is now included in the body of the notification mail. (Bug #24311586)

- The **Warnings Not Being Logged** advisor text was updated.

- The Tomcat server, bundled with the MySQL Enterprise Service Manager, has been upgraded to 8.0.33.

- Named filters are introduced in this release. Named filters make it possible to create and save filters on the following pages:
  - **MySQL Instances**
  - **Events**
  - **Query Analyzer**
  - **All Timeseries Graphs**
  - **Advisors**

  A number of default named filters have been added in this release. See **System and User-defined Filters** for more information.

  - **Important**

  Existing default filters are migrated by the upgrade process and are renamed to **User Default**.

- The MySQL server, bundled with the MySQL Enterprise Service Manager, has been upgraded to MySQL 5.7.15.

  - **Important**

  If you are upgrading from a previous version, the upgrade installer will handle the upgrade of your existing repository to the new version. All previous versions of MySQL Enterprise Service Manager used MySQL 5.6.x, which must be upgraded to 5.7.15, the version delivered with this release. This only applies to installations using the bundled MySQL Server. If you are using an external MySQL Server as the repository, you must upgrade it manually to at least 5.6.15 before running the MySQL Enterprise Service Manager upgrade installer. MySQL 5.7.15 is the recommended version.

  As of this release, the MySQL Enterprise Service Manager installer and upgrade installer raise an error if an attempt is made to configure MySQL Enterprise Service Manager to use an unsupported MySQL version for the repository.
Bugs Fixed

- The documentation did not specify the correct format for the `ssl-ca-keystore-path` parameter. It was listed as a file path, but is a URL. For example:

  `ssl-ca-keystore-path=file:///mysql/enterprise/agent/etc/mykeystore` (Bug #24386496)

- Attempting to monitor a group replication topology caused all replication topology discovery to fail. (Bug #24376827)

- The **InnoDB Redo Log Pending Writes** graph was not displayed for MySQL 5.7 instances. (Bug #23563358)

- LDAP configuration was not validated when saved. As a result, if the LDAP connection information was incorrectly configured, NullPointerExceptions were logged, and it was not possible to connect to the LDAP server. (Bug #23299288)

- The certificate to keystore upgrade process attempted to use the system's openSSL installation instead of that delivered with the installer. As a result, if openSSL was not installed on the system, the upgrade failed. As of this release, the upgrade only uses the openSSL libraries delivered with the installer. (Bug #22522309)

- The MySQL Enterprise Service Manager utility `config.sh` returned a stack trace for unsupported commands, instead of redirecting the user to the help.

- Custom agent service names were not maintained by the agent upgrade process. The custom name was overwritten by the default agent service name, **MySQLEnterpriseMonitorAgent**.

- A NullPointerException was logged for replication monitoring. This exception did not affect the performance of replication monitoring.

- The advice page generated by the **MySQL Enterprise Backup Health** advisor contained broken links to the InnoDB chapters of the MySQL Reference Manual. It also incorrectly referred to the `--start-lsn` option as the `--lsn` option.

- The **Overview** page elements did not resize properly if the browser window was resized.

- On certain browser versions, the symbol `<<` was transformed to `Å<<`.

- Replication filter information was not collected. As a result, the replica's **Filter/Delay Status** frame of the **Source Replication Status** was not correctly populated.