# MySQL Proxy Release Notes

**Abstract**

This document contains release notes for the changes in each release of MySQL Proxy.

For additional MySQL Proxy documentation, see MySQL Proxy.

Updates to these notes occur as new product features are added, so that everybody can follow the development process. If a recent version is listed here that you cannot find on the download page (http://dev.mysql.com/downloads/), the version has not yet been released.

The documentation included in source and binary distributions may not be fully up to date with respect to release note entries because integration of the documentation occurs at release build time. For the most up-to-date release notes, please refer to the online documentation instead.

For legal information, see the Legal Notices.

Document generated on: 2015-05-12 (revision: 6017)

## Table of Contents



# Preface and Legal Notices

This document contains release notes for the changes in each release of MySQL Proxy.

## Legal Notices

For additional licensing information, including licenses for third-party libraries used by MySQL products, see Preface and 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.

For additional documentation on MySQL products, including translations of the documentation into other languages, and downloadable versions in variety of formats, including HTML and PDF formats, see the MySQL Documentation Library.

# Changes in MySQL Proxy 0.8.5 (2014-09-05)

**Functionality Added or Changed**

- As of this release, the admin-server's listening port is logged if `log-level` is set to `message`, `info`, or `debug`.

**Bugs Fixed**

- The `network_mysqld_proto_password_check()` function raised an assertion. (Bug #71165)
- A stored function that used cursors caused the client to hang when the function was used in a nonprepared statement.
- Specifying a directory name as the value of the `--admin-lua-script` option failed to produce an error (the value must be a file name).

# Changes in MySQL Proxy 0.8.4 (2014-01-10)

**Functionality Added or Changed**

- The `admin` plugin now rejects empty passwords.

**Bugs Fixed**

- Building with `automake` 1.13 is now supported. (Bug #17776451)
- A too-strict test for protocol state resulted in writing excessive log output. (Bug #17434833)
- Chassis log rotation functions did not work on Windows. (Bug #17275852)
- Calls to `network_address_set_address()` returned a malformed value on Windows. (Bug #16664004)
- MySQL Proxy `libtool-archive .la` files were inadvertently included with distributions. (Bug #14773448)
- MySQL Proxy could fail to connect to the IPv6 loopback address. (Bug #14677085)
- MySQL Proxy crashed when started with an unknown option. (Bug #14665885)
- The `connected_clients` value was incremented even if the backend was down. (Bug #66399, Bug #16389293)
- If MySQL Proxy was configured to listen on a Unix socket file, it failed to remove the file when exiting, causing the next Proxy instance to fail at startup. (Bug #60781, Bug #14198411)

- MySQL Proxy blocked port 4040.
- Incorrect README files were included in distributions.
- A memory leak resulted from a missing callback to the memory-free function.

# Changes in MySQL Proxy 0.8.3 (2012-08-20)

**Functionality Added or Changed**

- Added support for making connections to backends and clients using IPv6 addresses.
- Added initial support for the Windows authentication plugin.
- Added support for extracting pluggable authentication protocol information. In the Lua API, added these values: `con.client.challenge.auth_plugin_name`, `con.client.response.auth_plugin_name`.
- Added timeouts for connect, read, and write operations through `--proxy-connect-timeout`, `--proxy-read-timeout`, and `--proxy-write-timeout` options.

**Bugs Fixed**

- Fixed `abort()` in `COM_CHANGE_USER+auth-method-switch`.
- Fixed handling of capability flags in the client authentication response. In the C API, `network_mysqld_auth_response_new()` needs the server-side capabilities. In the Lua API, added these values: `con.client.challenge` (mirrors `con.server.challenge`), `con.client.response.server_capabilties`, `con.server.challenge.server_capabilities`.
- Fixed handling of a missing trailing `\0` in MySQL 5.5.7 through MySQL 5.5.10 in the auth-method name.
- Fixed the length of `auth-plugin-data` in the client authentication response packet.
- Fixed crash if the `configfile` value contained invalid characters. In the C API, added `chassis_keyfile_to_options_with_error()` and deprecated `chassis_keyfile_to_options()`.
- Fixed a lockup under very high load.
- Fixed a crash if the `--max-open-files` value was invalid on Win32.
- Fixed a crash if `COM_BINLOG_DUMP` was used with `rw-splitting.lua`.
- Fixed excessive buffering of `LOAD DATA LOCAL INFILE` data.
- Fixed the default `plugin_dir` value for 64-bit Unix systems (`lib64/` versus `lib/`).

# Changes in MySQL Proxy 0.8.2 (2011-08-18)

MySQL Proxy 0.8.2 is a maintenance release and focuses on these areas:

- Adding the protocol changes of MySQL 5.5 and later
- Removing the “admin” plugin from the list of default plugins, as it requires configuration since 0.8.1

**Note to Windows Users**

- The Microsoft Visual C++ runtime libraries are now a requirement for running MySQL Proxy. Users that do not have these libraries must download and install the Microsoft Visual C++ 2008 Service Pack 1 Redistributable Package MFC Security Update. For the current Proxy version, use the following link to obtain the package:

  ```
  http://www.microsoft.com/download/en/details.aspx?id=26368
  ```

  (Bug #12836100)

**Functionality Added or Changed**

- Added support for decoding *all* data types of the row-based replication protocol.
- Added support for `OUT` parameters in prepared statements in stored procedures with MySQL 5.5.
- Removed the “admin” plugin from the list of default plugins, as it requires configuration since 0.8.1.
- Added support for binary log checksums.

**Bugs Fixed**

- Fixed handling of stored procedures with cursors with MySQL 5.5. (Bug #61998)
- A crash occurred if the file named with the `--defaults-file` option did not exist. (Bug #59790)
- The first characters of log messages were stripped. (Bug #59790)
- A memory leak occurred if connection pooling was used. (Bug #56620)
- A crash could occur if run under Valgrind.
- Fixed handling of “used columns” with row-based replication.
- A bogus timestamp log was produced if state tracking was not compiled in.

# Changes in MySQL Proxy 0.8.1 (2010-09-13)

**Functionality Added or Changed**

- Allow interception of `LOAD DATA INFILE` and `SHOW ERRORS` statements.
- The unused `network_mysqld_com_query_result_track_state()` function has been deprecated.
- Shutdown hooks were added to free the global memory of third-party libraries such as `openssl`.
- `con->in_load_data_local` has been removed.
- `chassis_set_fdlimit()` has been deprecated in favor of `chassis_fdlimit_set()`.

**Bugs Fixed**

- The admin plugin had an undocumented default value for `--admin-password`. (Bug #53429)
- Use of `LOAD DATA LOCAL INFILE` caused the connection between the client and MySQL Proxy to abort. (Bug #51864)

- If the backend MySQL server went down, and then the clock on the MySQL Proxy host went backward (for example, during daylight saving time adjustments), Proxy stopped forwarding queries to the backend. (Bug #50806)
- `network_address_set_address()->network_address_set_address_ip()` called `gethostbyname()` which was not reentrant. This meant that a MySQL Proxy plugin needed to guard all calls to `network_address_set_address()` with a mutex. `network_address_set_address()` has been modified to be thread safe. (Bug #49099)
- The hard limit was fixed for the case where the fdlimit was set. (Bug #48120)
- MySQL Proxy returned an error message with a nonstandard SQL State when all backends were down:

  ```
  "#07000(proxy) all backends are down"
  ```

  This caused issues for clients with “retry” logic, as they could not handle these “custom” SQL States. (Bug #45417)
- If MySQL Proxy used a UNIX socket, it did not remove the socket file at termination time. (Bug #38415)
- The `--proxy-read-only-backend-addresses` option did not work. (Bug #38341, Bug #11749171)
- When running `configure` to build, the error message relating to the `lua` libraries could be misleading. The wording and build advice have been updated.

# Changes in MySQL Proxy 0.8.0 (2010-01-21)

**Functionality Added or Changed**

- The `--no-daemon` has been renamed to The `--daemon`. By default, MySQL Proxy now starts in foreground mode. Use the `--daemon` option to override this and start in daemon mode.

**Bugs Fixed**

- A memory leak occurred in MySQL Proxy if clients older than MySQL 4.1 connected to it. (Bug #50993)
- A segmentation fault occurred in MySQL Proxy if clients older than MySQL 4.1 connected to it. (Bug #48641)
- MySQL Proxy would load a configuration file with unsafe permissions, which could permit password information to be exposed through the file. MySQL Proxy now refuses to load a configuration file with unsafe permissions. (Bug #47589)
- Several supplied scripts were updated to account for flag and structure changes:
  - `active-transactions.lua` was updated to use the `resultset_is_needed` flag.
  - `ro-balance.lua` was updated to use the `resultset_is_needed` flag and updated `proxy.connection.dst.name` structure.
  - `rw-splitting.lua` was updated to use the `resultset_is_needed` flag and updated `proxy.connections` structure.

  (Bug #47349, Bug #45408, Bug #47345, Bug #43424, Bug #42841, Bug #46141)
- The line numbers provided in stack traces were off by one. (Bug #47348)

- MySQL Proxy accepted more than one address in the value of the `--proxy-backend-addresses` option. You should specify one `--proxy-backend-addresses` option for each backend address. (Bug #47273)
- MySQL Proxy returned the wrong version string internally from the `proxy.PROXY_VERSION` constant. (Bug #45996)
- MySQL Proxy could stop accepting network packets if it received a large number of packets. The listen queue has been extended to permit a larger backlog. (Bug #45878, Bug #43278)
- Due to a memory leak, memory usage for each new connection to the proxy increased, leading to very high consumption. (Bug #45272)
- MySQL Proxy failed to work with certain versions of MySQL, including MySQL 5.1.15, where a change in the MySQL protocol existed. Now Proxy denies `COM_CHANGE_USER` commands when it is connected to MySQL 5.1.14 to 5.1.17 servers by sending back an error: `COM_CHANGE_USER is broken on 5.1.14-.17, please upgrade the MySQL Server`. (Bug #45167)

  References: See also Bug #25371.
- Logging to `syslog` with the `--log-use-syslog` option did not work. (Bug #36431)
- MySQL Proxy could incorrectly insert `NULL` values into the returned result set, even though non-`NULL` values were returned in the original query. (Bug #35729)
- MySQL Proxy raised an error when processing query packets larger than 16MB. (Bug #35202)

# Changes in MySQL Proxy 0.7.2 (2009-06-30)

**Bugs Fixed**

- On Windows, MySQL Proxy might not find the required modules during initialization. The core code has been updated to find the components correctly, and the Lua-based C modules are prefixed with `lua-` and Lua plugins with `plugin-`. (Bug #45833)

# Changes in MySQL Proxy 0.7.1 (2009-05-15)

**Bugs Fixed**

- Due to a memory leak, memory usage for each new connection to the proxy increased, leading to very high consumption. (Bug #45272)
- The port number was reported incorrectly in `proxy.connection.client.address`. (Bug #43313)
- Result sets with more than 250 fields could cause MySQL Proxy to crash. (Bug #43078)
- MySQL Proxy was unable to increase its own maximum number of open files according to the limit specified by the `--max-open-files` option, if the limit was less than 8192. When set to debug level, Proxy now reports the open files limit and when the limit has been updated. (Bug #42783)
- MySQL Proxy crashed when connecting to a MySQL 4.0 server. Now it generates an error message instead. (Bug #38601)
- When using the `rw-splitting.lua` script, you could get an error when talking to the backend server:

```
2008-07-28 18:00:30: (critical) (read_query) [string
"/usr/local/share/mysql-proxy/rw-splitting.l..."]:218: bad argument #1 to 'ipairs' (table
```

```
expected, got userdata)
```

This led to Proxy closing the connection to the configured MySQL backend. (Bug #38419)

- When using MySQL Proxy with multiple backends, failure of one backend caused Proxy to disconnect all backends and stop routing requests. (Bug #34793)

# Changes in MySQL Proxy 0.7.0 (Not Released)

**Functionality Added or Changed**

- Support for using a configuration file, in addition to the command-line options, has been added. To specify such a file, use the `--defaults-file=file_name` command-line option. See MySQL Proxy Command Options. (Bug #30206)

- A number of the internal structures developed for use with Lua scripts that work with MySQL Proxy have been updated and harmonized to make their meaning and contents easier to use and consistent across multiple locations.

  - The address information has been updated. Instead of a combined `ip:port` structure that you had to parse to extract the individual information, you can now access that information directly. For example, instead of structures providing a single `.address` item, you now have these items: `name` (the combined `ip:port`), `address` (the IP address), and `port` (port number). In addition, all addresses now supply both the `src` (source) and `dst` (destination) socket information for both ends of connections.

    Some familiar structures have been updated to accommodate this information:

    - `proxy.connection.client.address` is `proxy.connection.client.src.name`
    - `proxy.connection.server.address` is `proxy.connection.server.dst.name`

  - `proxy.backends` is now in `proxy.global.backends` The `.address` field of each backend is an address-object as described earlier. For example, `proxy.backends[1].address` is `proxy.global.backends[1].dst.name`.

  - The `read_auth()` and `read_handshake()` functions no longer receive an `auth` parameter. Instead, all the data is available in the connection tables.

    In `read_handshake()`, you access the information through the global `proxy.connection` table:

| 0.6 | 0.7 |
|---|---|
| `auth.thread_id` | `proxy.connection.server.thread_id` |
| `auth.mysqld_version` | `proxy.connection.server.mysqld_version` |
| `auth.server_addr` | `proxy.connection.server.dst.name` |
| `auth.client_addr` | `proxy.connection.client.src.name` |
| `auth.scramble` | `proxy.connection.server.scramble_buffer` |

    In `read_auth()`, you can use the following:

| 0.6 | 0.7 |
|---|---|
| `auth.username` | `proxy.connection.client.username` |
| `auth.password` | `proxy.connection.client.scrambled_password` |

| 0.6 | 0.7 |
|---|---|
| auth.default_db | proxy.connection.client.default_db |
| auth.server_addr | proxy.connection.server.dst.name |
| auth.client_addr | proxy.connection.client.src.name |

- In the proxy.queries:append() function, a third parameter is an (optional) table with options specific to the this packet. Specifically, if you want to have access to the result set in the read_query_result() hook, you must set the resultset_is_needed flag:

```
proxy.queries:append( 1, ..., { resultset_is_needed = true } )
```

  For more information, see proxy.queries.

- proxy.backends is now in proxy.global.backends.

**Bugs Fixed**

- **Security Enhancement:** Accessing MySQL Proxy using a client or backend from earlier than MySQL 4.1 resulted in Proxy aborting with an assertion. This is because Proxy supports only MySQL 4.1 or higher. Proxy now reports a fault. (Bug #31419)
- MySQL Proxy was configured with the LUA_PATH and LUA_CPATH directory locations according to the build host rather than the execution host. In addition, during installation, certain Lua source files could be installed into the incorrect locations. (Bug #44877, Bug #44497)
- Using MySQL Proxy with very large return data sets from queries could cause a crash, with or without manipulation of the data set within the Lua engine. (Bug #39332)
- MySQL Proxy terminated if a submitted packet was smaller than expected by the protocol. (Bug #36743)
- When using MySQL Proxy in a master-master replication scenario, Proxy failed to identify failure in one of the replication masters and did not redirect connections to the other master. (Bug #35295)

# Changes in MySQL Proxy 0.6.1 (2008-02-06)

**Functionality Added or Changed**

- Fixed assertions on write errors.
- Added new features to run-tests.lua.
- Fixed sending fake server-greetings in connect_server().
- Fixed error handling for socket functions on Windows.

# Changes in MySQL Proxy 0.6.0 (2007-09-11)

**Functionality Added or Changed**

- When using read/write splitting and the rw-splitting.lua example script, connecting a second user to the proxy returns an error message. (Bug #30867)
- Added a global Lua-scope proxy.global.*.
- Added hooks for read_auth(), read_handshake() and read_auth_result().

- Added `--no-proxy` to disable the proxy.
- By default, MySQL Proxy now starts in daemon mode. Use the new `--no-daemon` option to override this. Added the `--pid-file` option for writing the process ID to a file after becoming a daemon.
- Added support for listening UNIX sockets.
- Added support for `proxy.response.packets`.
- Added support in `read_query_result()` to overwrite the result set.
- Added handling of `proxy.connection.backend_ndx` in `connect_server()` and `read_query()` to support read/write splitting.
- Added connection pooling.
- Added test cases.

**Bugs Fixed**

- Fixed an assertion on `COM_BINLOG_DUMP`. (Bug #29764)
- Fixed an assertion on result-packets like `[field-len | fields | EOF | ERR]`. (Bug #29732)
- Fixed an assertion that MySQL Proxy raised at login time if a client specified no password and no default database. (Bug #29719)
- Fixed an assertion at `COM_SHUTDOWN`. (Bug #29719)
- Fixed decoding of length-encoded ints for 3-byte notation.
- Fixed a crash if `proxy.connection` is used in `connect_server()`.
- Fixed length encoding on `proxy.resultsets`.
- Fixed handling of (SQL) `NULL` in result sets.
- Fixed connection stalling if `read_query_result()` raised an assertion.
- Fixed the `glib2` check to require at least `glib2` 2.6.0.
- Fixed an assertion when connecting to MySQL 6.0.1.
- Fixed compilation on win32.
- Fixed `inj.resultset.affected_rows` on `SELECT` queries.
- Fixed a memory leak when `proxy.response.*` is used.
- Fixed an assertion at connect time when all backends are down.

# Changes in MySQL Proxy 0.5.1 (2007-06-30)

**Functionality Added or Changed**

- Added protection against duplicate result sets from a script.
- Added script examples for rewriting and injection.

- Added support for UNIX sockets.
- Added `resultset.affected_rows` and `resultset.insert_id`.
- Added support for pre-4.1 passwords in a 4.1 connection.
- Added `proxy.VERSION`.
- Changed `--proxy.profiling` to `--proxy-skip-profiling`.
- Added missing dependency to `libmysqlclient-dev` to the `INSTALL` file.
- Added `inj.query_time` and `inj.response_time` into the Lua scripts.

**Bugs Fixed**

- Fixed an assertion when an error occurs at initial script exec time.
- Fixed a compile error with MySQL 4.1.x on missing `COM_STMT_*`.
- Fixed a warning if `connect_server()` is not provided.
- Fixed handling of duplicate ERR on `COM_CHANGE_USER` in MySQL 5.1.18+.
- Fixed a crash on fields longer than 250 bytes when the result set is inspected.
- Fixed an assertion when `read_query_result()` is not provided when `PROXY_SEND_QUERY` is used.
- Fixed mysql check in `configure` to die when `mysql.h` isn't detected.

# Changes in MySQL Proxy 0.5.0 (2007-06-19)

This is the first beta release.

**Bugs Fixed**

- Added `automake`/`autoconf` support.
- Added `CMake` support.