LANrev ODBC Export Guide

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Introduction

Thank you for choosing LANrev. The LANrev suite is a uniquely seamless, multi-platform client management solution for managing all of your macOS and Windows workstations in a single unified console on the platform of your choice. All LANrev components including the server, admin console, and clients can be mixed and matched from either platform.

The LANrev MySQL ODBC export provides an alternate way of remotely accessing client inventory data over the network by 3rd party applications since the LANrev SQLite databases only allow local access. Any CMDB or help desk application, such as Web Help Desk, can pull LANrev client inventory data from this external MySQL database. There are numerous steps required to set this up which include

1. Installing a MySQL server if one is not already present.
2. Adding a database on the MySQL server to host the LANrev client inventory data.
3. Installing the MySQL ODBC driver on the LANrev server.
4. Adding an ODBC data source on the LANrev server.
5. Enabling and configuring the MySQL ODBC export in LANrev.
6. Verifying the export.

These steps are described separately for Windows and macOS.

Windows

Installing a MySQL server

To install the MySQL server you need to download the appropriate Setup.EXE or MSI installer for your CPU architecture from http://dev.mysql.com/downloads/mysql/, extract the contents if necessary, and double-click the appropriate file to install it. To maximize compatibility you probably want to install the next to latest GA version of the MySQL server.

1. Click **Next** at the **Welcome** screen.
2. Pick **Typical** for the setup type and click **Next**.
3. Click **Install** at the **Ready to Install** screen.
4. Click **Next** twice through the **MySQL Enterprise Info** screens.

5. At the **Wizard Completed** screen, make sure that the **Configure the MySQL Server now** checkbox is enabled and click **Finish**.

6. At the **Configuration Wizard Welcome** screen click **Next**.

7. Pick **Standard Configuration** and click **Next**.

8. At the **MySQL Server Instance Configuration** screen, make sure **Install As Window Service**, **Launch the MySQL Server automatically**, and **Include Bin Directory in Windows PATH** are all enabled and click **Next**.

9. Next enter and confirm a password for the default root account and click **Next**.

10. At the **Ready to execute** screen click **Execute**.

11. At the **Processing configuration** screen click **Finish**.

Adding a database to the MySQL server

You need to add a database to the server to store the LANrev agent inventory information that will be exported. To do this, launch the mysql command line utility by going to the Windows Start menu and choosing **MySQL** > **MySQL Server X.X** > **MySQL Command Line Client**.

1. Enter the root password you set up previously when configuring the server.

2. At the mysql> prompt run the commands displayed below. Replace the <username> and <password> placeholders with your own values. If the MySQL server is hosted on a separate physical system than the LANrev and help desk application server, execute additional GRANT statements for each of these systems and replace the loopback address with those for the LANrev and help desk application servers.

```
create database LANrev;
GRANT ALL ON LANrev.* TO <username>@127.0.0.1 IDENTIFIED BY
            "<password">;
```

3. To verify your database was created run the following command.

```
SHOW DATABASES;
quit
```

Installing the ODBC driver

For LANrev to be able to access the MySQL server you must download and install an ODBC connector or driver. Download the MSI installer for the ODBC connector from http://dev.mysql.com/downloads/connector/odbc/ and double click it. Download the x86 version if you are using the 32-bit version of LANrev Server and the x64 version if you are using the 64-bit version. To maximize compatibility you probably want to install the next to latest GA version of the ODBC connector. The connector must be installed on the system hosting the LANrev server itself and not necessarily the one hosting the MySQL database, although they could potentially be the same system.

1. At the **Welcome** screen click **Next**.
2. Pick **Typical** as the setup type and click **Next**.
3. At the **Ready to Install** screen click **Install**.
4. When the setup wizard has completed click **Finish**.

Adding a system DSN

Next you need to define a data source connection that will be used by the LANrev server to export data to the MySQL database. It must be a system DSN so that the LANrev server can access it at the login screen even when no user is logged in. The system DSN must be defined on the system hosting the LANrev server itself and not necessarily the one hosting the MySQL database, although they could potentially be the same system. To do this, open the Data Sources (ODBC) application from the Administrative Tools folder in either Control Panels or the Windows Start menu.

1. In the **System DSN** tab, click **Add**.
2. Select **MySQL ODBC X.XX Driver** from the list of available drivers and click **Finish**.
3. When the **MySQL ODBC Add Data Source Name** dialog appears, enter a name (e.g. LANrev) for the DSN into the **Data Source Name** field. You can leave all other fields blank and then click **OK**. Your new DSN should now be listed in the **System DSN** tab.
4. Click **OK**.

If you are running the 32-bit version of LANrev Server on a 64-bit Windows system, using the Data Sources (ODBC) control panel in Administrative Tools will open the x64 ODBC control panel which is not the one that you need. In this case, you must instead define a 32-bit system DSN using the 32-bit ODBC control panel. This 32-bit x86 ODBC control panel can be launched from %WINDIR%\SysWOW64\odbcad32.exe.

Enabling and configuring the MySQL ODBC export in LANrev

Before the LANrev server can export client inventory data to the MySQL database you must enable the MySQL ODBC export within LANrev and configure it with the appropriate settings to access the database over the network.

1. In the LANrev Server Center window, open the **Server Setup** > **Server** > **Server Settings** > **ODBC Export** pane.
2. Enable the **Enable ODBC export** option.
3. Enter the name of your system DSN, the MySQL server address (usually 127.0.0.1 if your SQL server is hosted on the same computer as your LANrev server), the database name, and the username and password previously assigned to the database with the GRANT command.

4. Set the export interval to 5 minutes temporarily. Change this value back to how often you want the export to occur after you are done testing.

5. From the **Server** menu, choose **Save Server Settings**.

Verifying the export

Examine the %windir%\Temp\lanrevodbcexport.log file to verify that the ODBC connection was established correctly. Then view the contents of the database to make sure tables were created and that the export actually populated these tables with inventory data.

1. View the contents of the %windir%\Temp\lanrevodbcexport.log file for any error messages. If the export was successful you'll see a series of entries like these.

```
2009-12-12 04:48:26 <5> - Database system: MySQL, version
           5.0.88-community-nt
2009-12-12 04:48:26 <5> - Autodetected RDBM system to be
           MySQL
2009-12-12 04:48:26 <5> - Creating schema (version 62)
2009-12-12 04:48:34 <5> - Updating enumeration tables to
           version 163 (language=en)
2009-12-12 04:49:32 <5> - Export complete - sync timestamp:
           2009-12-12T12:48:38Z
```

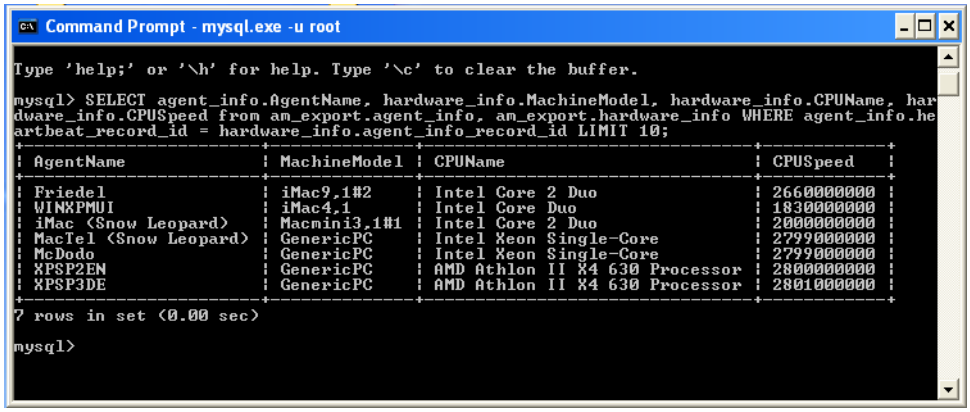
2. Open a command prompt session, launch the mysql command line utility with the following command and enter the MySQL root password when prompted.

```
mysql LANrev -u root -p
```

3. At the mysql> prompt run the following command (there is only a single command, followed by quit).

```
SELECT agent_info.AgentName, hardware_info.MachineModel,
           hardware_info.CPUName, hardware_info.CPUSpeed
           FROM agent_info, hardware_info WHERE
           agent_info.heartbeat_record_id =
           hardware_info.agent_info_record_id LIMIT 10;
quit
```

You should see a table of ten lines with values of computer names, computer types, processors, and processor speeds.



macOS

Installing a MySQL server

To install the MySQL server you need to download the appropriate package format installer for your CPU architecture from http://dev.mysql.com/downloads/mysql/ and install it. To maximize compatibility you probably want to install the next to latest GA version of the MySQL server. For macOS Server you can just use the built-in MySQL server included with the OS instead of installing your own. You only need to install a MySQL server on the client version of macOS. There may not always be a version that exactly matches your macOS version so pick the one for the OS version closest to yours.

1. Mount the downloaded disk image and install the mysql-X.X.XX-osx10.X-XXX.pkg package.
2. Install the MySQLStartupItem.pkg package.
3. Install the MySQL.prefPane by double-clicking it.
4. When asked whether you want to install it for this user or all users, choose an option and click the **Install** button.
5. Open the MySQL preference pane, check **Automatically Start MySQL Server on Startup**, and click the **Start MySQL Server** button.

Adding a database to the MySQL server

You need to add a database to the server to store the LANrev agent inventory information that will be exported. To do this run the mysql command line tool from Terminal.

1. Launch Terminal and run this commands:

   ```
   /usr/local/mysql/bin/mysql -u root -p
   ```

   Press return when prompted for a password. The default password is blank.

2. At the mysql> prompt run the commands displayed below. Replace the <username> and <password> placeholders with your own values. If the MySQL server is hosted on a separate physical system than the LANrev and help desk application servers, execute additional GRANT statements for each of these systems and replace the loopback address with those for the LANrev and help desk application servers. The first command will change the default MySQL root account password from the default, which is blank.

   ```
   SET PASSWORD = PASSWORD('<password>');
   create database LANrev;
   GRANT ALL ON LANrev.* TO <username>@127.0.0.1 IDENTIFIED BY
               "<password>";
   ```

3. Then run the following command to verify that your database is listed.

```
SHOW DATABASES;
quit
```

Installing the ODBC driver

For LANrev to be able to access the MySQL server you must download and install an ODBC connector or driver. Download the appropriate macOS package format version for the ODBC connector from http://dev.mysql.com/downloads/connector/odbc/. There may not always be a version that exactly matches your macOS version so pick the one for the OS version closest to yours. To maximize compatibility you probably want to install the next to latest GA version of the ODBC connector. The connector must be installed on the system hosting the LANrev server itself and not necessarily the one hosting the MySQL database, although they could potentially be the same system. Mount the DMG and run the MySQL Connector ODBC PKG installer.

Adding a system DSN

Next you need to define a data source connection that will be used by the LANrev server to export data to the MySQL database. It must be a system DSN so that the LANrev server can still access it even at the login screen. The system DSN must be defined on the system hosting the LANrev server itself and not necessarily the one hosting the MySQL database, although they could potentially be the same system. To do this launch the ODBC Administrator application from /Application/Utilities. (For some macOS systems, you must first download and install the ODBC Administrator application from Apple at http://support.apple.com/kb/DL895.) Mount the DMG and install the ODBCAdministrator.pkg package.

To add a system DSN:

1. Select the **System DSN** tab.
2. Unlock the preference pane and click the **Add** button.
3. Select the MySQL ODBC driver from the list and click **OK**.
4. In the **Add Data Source Name** dialog enter a name (e.g., LANrev) for your DSN.
5. Leave the rest of the fields blank and click **OK** when you are done.
6. Click the **Apply** button and close ODBC Administrator.

Enabling and configuring the MySQL ODBC export in LANrev

Before the LANrev server can export client inventory data to the MySQL database you must enable the MySQL ODBC export within LANrev and configure it with the appropriate settings to access the database over the network.

1. In the LANrev Server Center window, open the **Server Setup** > **Server** > **Server Settings** > **ODBC Export** pane.

2. Enable the **Enable ODBC export** option.

3. Enter name of your system DSN, the MySQL server address (usually 127.0.0.1 if your SQL server is hosted on the same computer as your LANrev server), the database name, and the username and password previously assigned to the database with the GRANT command.

4. Set the export interval to 5 minutes temporarily. Change this value back to how often you want the export to occur after you are done testing.

5. From the **Server** menu, choose **Save Server Settings**.

Verifying the export

Examine the /Library/Logs/LANrevODBCExport.log file to verify that the ODBC connection was established correctly. Then view the contents of the database to make sure tables were created and that the export actually populated these tables with inventory data.

1. View the contents of the /Library/Logs/LANrevODBCExport.log file for any error messages. If the export was successful you'll see a series of entries like these:

```
2009-12-11 15:44:27.267 <5> - Database system: MySQL,
           version 5.0.88
2009-12-11 15:44:27.267 <5> - Autodetected RDBM system to be
           MySQL
2009-12-11 15:44:27.322 <5> - Creating schema (version 62)
2009-12-11 15:44:27.627 <5> - Updating enumeration tables to
           version 163 (language=en)
2009-12-11 15:44:49.681 <5> - Export complete - sync
           timestamp: 2009-12-11T23:44:28Z
```

2. Launch Terminal, run the mysql command line utility with the following command, and enter the root password when prompted:

```
/usr/local/mysql/bin/mysql LANrev -u root -p
```

3. At the mysql> prompt run the following command (there is only a single command followed by quit):

```
SELECT agent_info.AgentName, hardware_info.MachineModel,
           hardware_info.CPUName, hardware_info.CPUSpeed
           FROM agent_info, hardware_info WHERE
           agent_info.heartbeat_record_id =
           hardware_info.agent_info_record_id LIMIT 10;
quit
```

You should see a table of ten lines with values of computer names, computer types, processors, and processor speeds.