



Dell™ NetVault™ Backup Plug-in for MySQL 4.4 Release Notes

April 2014

These release notes provide information about the Dell™ NetVault™ Backup Plug-in for MySQL release.

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About Dell NetVault Backup Plug-in for MySQL 4.4

Dell NetVault Backup (NetVault Backup) Plug-in for MySQL (Plug-in for MySQL) 4.4 is a minor release, with enhanced features and functionality. For complete product documentation, visit <http://software.dell.com/support/>.

- ① **IMPORTANT:** Starting with 10.0, NetVault Backup provides a web-based user interface (WebUI) to configure, manage, and monitor your NetVault Backup system and installed plug-ins. The procedures described in the user's guide for this version of the plug-in are intended for the new Web UI. For procedures based on the NetVault Backup Console (user interface available with NetVault Backup 9.x and 8.x), refer to the documentation for 4.3 or an earlier version of the Plug-in for MySQL.

New features

New features in Plug-in for MySQL 4.4:

- Added support for MySQL 5.6. (25918)
- Added support for Solaris® 11 x86/x86-64. (25938)
- Added support for Windows® Server 2012. (25916)

Enhancements

The following is a list of enhancements implemented in Plug-in for MySQL 4.4.

Table 1. General enhancements

Enhancement	Issue ID
Improved error handling during execution of backup jobs by filtering out and suppressing a new MySQL 5.6 warning.	25824

Known issues

The following is a list of issues, including those attributed to third-party products, known to exist at the time of release.

Table 2. General known issues

Known issue	Issue ID
<p>The plug-in name has been changed to use the “Plug-in for <product>” naming convention (that is, Plug-in for MySQL). If you upgrade the plug-in for a system that is managed by a NetVault Backup Server 9.2 or earlier, a consequence of the name change is that savesets created with the upgraded plug-in are not displayed in the NVBU Restore window when the Selection Method is set to Plugin; only savesets created with an earlier version are displayed.</p> <p>Workaround for NetVault Backup Server 9.2 or earlier: On the Selections tab of the NVBU Restore window, select Job in the Selection Method list to view savesets or backups created with a previous version or the upgraded plug-in.</p> <p>This issue was corrected in NetVault Backup 10.0.</p>	23470

Table 3. MySQL Standard/Community known issues

Known issue	Issue ID
<p>Default setting of lower_case_table_names system variable affects MySQL behavior on Mac OS X - The inconsistent behavior of case-sensitivity of MySQL on Mac OS X platforms affects the ability of the plug-in to restore backups. To ensure that you accommodate this inconsistency, be aware of the following when using the plug-in with Mac OS X:</p> <ul style="list-style-type: none">• If the lower_case_table_names system variable is set to 1, incremental restores work correctly for databases that were created using lowercase, uppercase, or mixed-case names. (Additionally, the database names are displayed in the NetVault Backup Console using lowercase letters regardless of how the actual names were created.)• If the lower_case_table_names system variable is set to 2 (<i>this is the default setting on Mac OS X</i>), incremental restores only work correctly for databases that were created using lowercase names. (Additionally, the database names are displayed in the NetVault Backup Console using the same format with which they were created.) <p>If you change the value of the lower_case_table_names system variable, be aware that you must stop and restart the MySQL Server to ensure that the change is implemented. For more information on this MySQL-related issue, refer to: http://dev.mysql.com/doc/refman/5.0/en/identifier-case-sensitivity.html</p>	18430
<p>Selecting Enable MySQL Replication but not configuring replication causes backups to fail - If you select the Enable MySQL Replication check box on the Configure dialog but do not configure replication, backups will fail. To correct this issue, either clear the Enable MySQL Replication check box on the Configure dialog or set up replication and execute the backup job again.</p>	21629

Table 4. MySQL Enterprise Backup (MEB) known issues

Known issue	Issue ID
Under certain conditions, all InnoDB tables are backed up - All InnoDB tables in a MySQL instance are backed up if either of the following conditions is met: <ol style="list-style-type: none"><li data-bbox="240 374 1182 432">1 Only tables are explicitly selected for backup, and none of the tables are of type or storage engine InnoDB. Example: You have a MySQL Instance with two databases (DB1 and DB2). Each database contains two tables: DB1 has T1_InnoDB and T1_MyISAM and DB2 has T2_InnoDB and T2_MyISAM. If you back up T1_MyISAM and T2_MyISAM, T1_InnoDB and T2_InnoDB are also backed up. If you include one of the InnoDB tables, only that InnoDB table is backed up. If you select one of the databases, only the tables in the database are backed up.<li data-bbox="240 602 1174 660">2 Some or all databases are selected for backup and all associated InnoDB tables are excluded from the backup. Example: You have a MySQL Instance with two databases (DB1 and DB2). Each database contains two tables: DB1 has T1_InnoDB and T1_MyISAM and DB2 has T2_InnoDB and T2_MyISAM. If you back up DB1 and DB2 and exclude T1_InnoDB and T2_InnoDB, T1_InnoDB and T2_InnoDB are also backed up. If you exclude only one of the two InnoDB tables, only the other InnoDB table is backed up.	22383

This reflects current MEB (**mysqlbackup** utility) behavior, which might change in a future release (post-3.8.1).

System requirements

Before installing Plug-in for MySQL 4.4, ensure that your system meets the following minimum hardware and software requirements.

Table 5. MySQL Standard/Community requirements

Platform	Application
FreeBSD® 8.0 (32/64-bit)	MySQL 5.0 (32/64-bit)
FreeBSD® 8.1 (32/64-bit)	MySQL 5.1 (32/64-bit)
NOTE: As noted in the <i>Dell NetVault Backup Installation Guide</i> , you must have the compat6x package installed for 32-bit versions of FreeBSD 8.x.	MySQL 5.5 (32/64-bit)
	MySQL 5.6 (32/64-bit)
Linux® x86 (32-bit)	MySQL 5.0 (32/64-bit)
Linux® x86-64 (64-bit)	MySQL 5.1 (32/64-bit)
	MySQL 5.5 (32/64-bit)
	MySQL 5.6 (32/64-bit)
Mac OS X 10.5 (32/64-bit)	MySQL 5.0 (32/64-bit)
Mac OS X 10.6 (32/64-bit)	MySQL 5.1 (32/64-bit)
Mac OS X 10.7 (32/64-bit)	MySQL 5.5 (32/64-bit)
	MySQL 5.6 (32/64-bit)
Solaris® 10 x86/x86-64 (32/64-bit)	MySQL 5.0 (32/64-bit)
Solaris® 11 x86/x86-64 (32/64-bit)	MySQL 5.1 (32/64-bit)
Solaris® 9 (SPARC®) (32/64-bit)	MySQL 5.5 (32/64-bit)
Solaris® 10 (SPARC®) (32/64-bit)	MySQL 5.6 (32/64-bit)
Windows® Server 2003/2003 R2 (32/64-bit)	MySQL 5.0 (32/64-bit)
Windows® Server 2008/2008 R2 (32/64-bit)	MySQL 5.1 (32/64-bit)
	MySQL 5.5 (32/64-bit)
Windows® Server 2012 (32/64-bit)	MySQL 5.6 (32/64-bit)

Table 6. MySQL Enterprise Backup requirements

Platform	MEB	Application
Linux® x86 (32-bit)	MEB 3.8.1	MySQL 5.5 (32/64-bit)
Linux® x86-64 (64-bit)		MySQL 5.6 (32/64-bit)
Solaris® 10 x86/x86-64 (32/64-bit)	MEB 3.8.1	MySQL 5.5 (32/64-bit)
		MySQL 5.6 (32/64-bit)
Windows® Server 2003/2003 R2 (32/64-bit)	MEB 3.8.1	MySQL 5.5 (32/64-bit)
Windows® Server 2008/2008 R2 (32/64-bit)		
Windows® Server 2012 (32/64-bit)		

Upgrade and compatibility

- Plug-in for MySQL 4.4 requires NetVault Backup 8.6.1 or later. For complete supported-platform information, refer to the *Dell NetVault Backup Plug-in Compatibility Guide*.
- **Upgrades and new installs of MySQL** - As explained in Bug 68807 for MySQL (<http://bugs.mysql.com/bug.php?id=68807>), `mysql_install_db` ignores `/etc/my.cnf` in MySQL 5.6. Because MySQL 5.6 creates new InnoDB statistic tables (`slave_master_info`, `mysql/slave_relay_log_info`,

innodb_index_stats, innodb_table_stats, and slave_worker_info) and adds them to the installation directory (basedir) of MySQL, you might encounter a conflict with the `innodb_data_file_path = ibdata1:2000M;ibdata2:10M:autoextend` option contained in the “my.cnf” file. The `file_path` option places the InnoDB files one directory level higher than the basedir, which can cause the following error to appear in the MySQL error log:

```
"[Warning] InnoDB: Cannot open table mysql/slave_master_info from the internal data dictionary of InnoDB though the .frm file for the table exists. See http://dev.mysql.com/doc/refman/5.6/en/innodb-troubleshooting.html for how you can resolve the problem."
```

Until you address this error, the plug-in cannot browse the main MySQL database, and the following error appears: "Failed to fetch row from query result: showtable status like 'innodb_index_stats'"

It can also cause backup jobs to hang.

Because this option originated from a recommended sample “my.cnf” file for an earlier version of MySQL, this issue is likely to occur on upgrades or for new installs that have retained the earlier version of the “my.cnf” file. Dell recommends that you do not use the `file_path` option on new installations and that you move the `ibdata` files to `basedir` for upgrades. For assistance, contact MySQL Support. (22367)

Pure64 Builds

Starting with NetVault Backup 8.6, a new build type named “LinuxX86Pure64” has been added, while the pure 32-bit Linux version has been retired. To understand the impact of this change, review the following:

- **Hybrid 32/64-bit Build** - The hybrid 32/64-bit build has been retained. However, the platform type has been renamed from “LinuxX8664” to “LinuxX86Hybrid.” This build functions as the standard build for Linux users who do not have a pure 64-bit-only requirement. This build lets you upgrade from pure 32-bit as well as from hybrid builds of NetVault Backup.

The LinuxX86Hybrid build retains binary compatibility with all previous versions of plug-ins, including those marked as 32-bit and those designated 64-bit. Additionally, this build will work on 32-bit systems that do not have 64-bit capability.

- **Pure 64-bit Build** - A new type of build named “LinuxX86Pure64” has been introduced for pure 64-bit Linux distributions. If you have a specific reason that you cannot use any 32-bit components (for example, you are using a Linux distribution that does not run 32-bit code), use this type. Note that you cannot use this new type to upgrade existing NetVault Backup installations. You must remove the existing version and install the pure 64-bit version separately. To reduce confusion, warning messages have been added to both the upgrade and installation packages to ensure that you understand that they are not compatible.

Table 7. Pure64 builds

OS	Core Build	Plug-in				
		32-bit	64-bit	Hybrid	Itanium	Pure64
32-bit	32-bit	X		X		
	Hybrid	X		X		
64-bit	Itanium				X	
	64-bit		X	X		
	Hybrid		X	X		
	Pure64					X

- ① **NOTE:** X = Compatible
Some plug-ins do not support Pure64-bit builds.

Product licensing

To obtain the license key for your NetVault Backup Server environment, you must first provide the NetVault Machine ID of your main NetVault Backup Server along with the machine IDs of any clients running application plug-ins such as Oracle, MySQL, PostgreSQL, SQL, Exchange, and so on.

You can use the NetVault Configuration Wizard to install the product license keys. Alternatively, you can install the license keys from the Manage Clients page.

To obtain a machine ID

- 1 Start the NetVault WebUI.
- 2 In the Navigation pane, click **Manage Clients**.
- 3 In the list of NetVault Backup machines, select the applicable machine, and click **Manage**.
- 4 On the **View Client** page, note the machine ID exactly as it appears in the **Client Summary** table.

To install permanent license keys using the configuration wizard

- 1 In the **Navigation** pane, click **Guided Configuration**.
- 2 On the **NetVault Configuration Wizard** page, click **Install Licenses**.
- 3 In the list of NetVault Backup Clients, select the applicable machine, and click **Next**.
- 4 In the **Enter the license key string** box, type or copy and paste the license key, and click **Apply**.
After the key is applied successfully, a message is displayed.

To install the license keys from the Manage Clients page

- 1 In the **Navigation** pane, click **Manage Clients**.
- 2 In the list of NetVault Backup Clients, select the applicable machine, and click **Manage**.
- 3 On the **View Client** page, click **Install License**.
- 4 In the **Install License** dialog, type or copy and paste the license key, and click **Apply**.
After the key is applied successfully, a message is displayed.
- 5 To dismiss the dialog, click **Close**.

Getting started with Plug-in for MySQL 4.4

- [Upgrade and installation instructions](#)
- [Additional resources](#)

Upgrade and installation instructions

The steps for upgrading the plug-in differ depending on whether you are using NetVault Backup 10.0 or an earlier version.

- ① **IMPORTANT:** Due to the plug-in name change, *you must remove the existing plug-in before you install the new version*. This ensures that items with the previous plug-in name are removed before items with the new plug-in name are installed.

Using NetVault Backup 9.2 or earlier

If you upgrade your plug-in without removing the existing version first, some items will be duplicated in the existing NetVault Backup Console. (If you do not remove the existing version of the plug-in before upgrading to the current version and you want to eliminate the duplication of items, you must remove the current plug-in, install the previous version, remove the previous version, and install the current plug-in again.)

To remove the plug-in

- 1 From the NetVault Console running on the NetVault Backup Server, open the **NetVault Backup Client Management** window (via either of the toolbar buttons or by clicking **Administration > Client Management**).
- 2 On the **Clients** tab, right-click the machine that houses the Plug-in for MySQL, and select **Remove Software**.
- 3 On the **Remove Software** dialog, select the **Plug-in for MySQL** item, and click **Remove**.
- 4 When the next **Remove Software** dialog appears, click **OK** to proceed (or **Cancel** to abort).
- 5 When the confirmation message appears that indicates the software was removed, click **OK** to close the dialog and return to the **NetVault Backup Client Management** window.

To install the plug-in

- 1 From the NetVault Console running on the NetVault Backup Server, open the **NetVault Backup Client Management** window (via either of the toolbar buttons or by clicking **Administration > Client Management**).
- 2 On the **Clients** tab, locate the applicable machine, right-click it, and select **Install Software**.
- 3 On the dialog that appears, navigate to the location of the “.npk” installation file for the Plug-in for MySQL (for example, the Dell NetVault Backup Plug-in Installation CD or the directory to which the file was downloaded from the Dell web site).
Based on the operating system (OS) in use, the path for this software may vary on the installation CD.
- 4 Select the file entitled “mys-x-x-x-x.npk” (where xxxx represents the platform and version number), and click **Open**.
The installation process will occur automatically.
- 5 When the **Install Software** dialog appears that indicates the software was successfully installed, click **OK** to dismiss it.

Using NetVault Backup 10.0

To remove the plug-in

- 1 In the Navigation pane, click **Manage Clients**.
- 2 On the **Manage Clients** page, select the applicable client, and click **Manage**.
- 3 In the **Installed Software** table on the **View Client** page, select **Plug-in for MySQL**, and click the **Remove Plugin** button (🗑).
- 4 In the **Confirm** dialog, click **Remove**.

To install the plug-in on multiple clients simultaneously

- 1 In the Navigation pane, click **Guided Configuration**.
- 2 On the **NetVault Configuration Wizard** page, click **Install Plugins**.
- 3 On the next page, select the applicable clients.

- 4 Click **Choose Plug-in File**, navigate to the location of the “.npx” installation file for the plug-in (on the installation CD or the directory to which the file was downloaded from the web site).

Based on the OS in use, the path for this software may vary on the installation CD.

- 5 Select the file entitled “mys-x-x-x.npx” (where xxxx represents the platform and version number), and click **Next**.
- 6 Click **Next** to begin installation.

When the installation completes successfully, a message is displayed.

To install the plug-in on a specific client

- 1 In the Navigation pane, click **Manage Clients**.
- 2 On the **Manage Clients** page, select the applicable machine, and click **Manage**.
- 3 Click the **Install Plugin** button (+).
- 4 Click **Choose Plug-in File**, navigate to the location of the “.npx” installation file for the plug-in (on the installation CD or the directory to which the file was downloaded from the web site).

Based on the OS in use, the path for this software may vary on the installation CD.

- 5 Select the file entitled “mys-x-x-x.npx” (where xxxx represents the platform and version number), and click **Open**.
- 6 Click **Install Plugin** to begin installation.

When the installation completes successfully, a message is displayed.

Additional resources

Additional information is available from the following:

- [Online product documentation](#)
- [NetVault](#)

Globalization

This section contains information about installing and operating this product in non-English configurations, such as those needed by customers outside of North America. This section does not replace the materials about supported platforms and configurations found elsewhere in the product documentation.

This release supports any single-byte or multi-byte character set. In this release, all product components should be configured to use the same or compatible character encodings and should be installed to use the same locale and regional options. This release is targeted to support operations in the following regions: North America, Western Europe and Latin America, Central and Eastern Europe, Far-East Asia, Japan. It supports bidirectional writing (Arabic and Hebrew).

The release is localized to the following languages: Chinese (Simplified), French, German, Japanese, Korean.

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