Dell™ NetVault™ Backup Plug-in for MySQL 11.1

Release Notes

August 2016

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

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About this release

Dell NetVault Backup (NetVault Backup) Plug-in for MySQL (Plug-in for MySQL) 11.1 is a major release, with enhanced features and functionality. For complete product documentation, visit http://software.dell.com/support/.

ⓘ | **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 WebUI. For procedures based on the NetVault Backup Console (user interface available with NetVault Backup 9.x), see the documentation for 4.3 or an earlier version of the Plug-in for MySQL.

New features

New features in Plug-in for MySQL 11.1:

- Added support for pure 64-bit Windows®. To use the pure 64-bit version of the plug-in, you must use the pure 64-bit version of NetVault Backup 11.1 or later. (30809)

- Added support for MySQL 5.7. (30763)

- Added support for MySQL Cluster Network Database (NDB) 7.x, which is based on a cluster-enabled MySQL Server 5.6. This feature uses the **mysqldump** utility as the backup method. (28481)

Enhancements

The following is a list of enhancements implemented in Plug-in for MySQL 11.1.

Table 1. General enhancements

Enhancement	Issue ID
Added support for backing up database views. Backups of **mysql** databases now include **view** table types.	18392
Updated the backup process to exclude the **performance_schema** database when all databases are selected for a Full Backup job. You can no longer select the performance_schema database for an Individual Database/Table Copy Only Backup job.	21754
Improved error log messages that appear during restore failures. Messages now include the MySQL error number and corresponding text.	24063
Updated the severity level from **Warning** to **Job message** for backup jobs that include an empty database. Updated the message to read: Database *<xyz>* is empty and will not be backed up.	30743
To reduce the impact of the known issue described for issue ID 30852 and MySQL 5.5 and 5.6, the plug-in displays detailed error messages. The plug-in also restores the remaining **mysql** database tables to ensure that the **mysql.user** table, which contains all MySQL user account information, is available during subsequent database restores.	30858
Consolidated hybrid 32-bit and 64-bit plug-in installation packages into one package. This change applies to hybrid installation packages for Linux®, Solaris SPARC, Solaris x86, and Windows®.	30859

Deprecated features

The following is a list of features that are no longer supported starting with NetVault Backup Plug-in for MySQL 11.1:

- Mac OS X 10.5 and 10.6 (26830)

- MySQL 5.0 (26830)

- Windows Server 2003 and 2003 R2 (29355)

Resolved issues

The following is a list of issues addressed in this release.

Table 2. General resolved issues

Resolved issue	Issue ID
Corrected an issue that created a crash dump file in the **\\Dell\NetVault Backup\\logs\dumps** directory when a backup or restore job completed with warnings, failed, or was aborted in NetVault Backup 11.0 or later.	30177
Corrected an issue that prevented successful backup of a table when the MySQL password contained the **$** character on Linux® or UNIX®.	30456
Corrected an issue that prevented successful backup of a table, trigger, or view when the object name contained the **$** character on Windows®.	30851
Corrected an issue that created a crash dump file in the **\\Dell\NetVault Backup\\logs\dumps** directory every time the plug-in was installed in NetVault Backup 11.0 or later.	31394

Known issues

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

Table 3. General known issues

Known issue	Issue ID
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, 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. **Workaround for NetVault Backup Server 9.2:** 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. This issue was corrected in NetVault Backup 10.0.	23470
Due to MySQL bug 69953, performing a restore to MySQL Server 5.5 or 5.6 fails to drop the existing **slow_log** table in the **mysql** database if MySQL logging is enabled. Therefore, the restore also fails to restore the same table. If the **slow_log** table is critical to your environment, re-create the **slow_log** table manually after the restore job completes. This issue is corrected in MySQL 5.7.	30852

Table 4. MySQL Standard/Community known issues

Known issue	Issue ID
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: • 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. Also, 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**, *the default setting on Mac OS X*, Incremental Restores only work correctly for databases that were created using lowercase names. Also, the database names are displayed in the NetVault Backup Console using the same format with which they were created. If you change the value of the lower_case_table_names system variable, stop and restart the MySQL Server to ensure that the change is implemented. For more information on this MySQL-related issue, see: http://dev.mysql.com/doc/refman/5.0/en/identifier-case-sensitivity.html	18430 (MYG-235)
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 box but do not configure replication, backups fail. To correct this issue, either clear the **Enable MySQL Replication** check box on the **Configure** dialog box or set up replication and run the backup job again.	21629

Table 5. 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: 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. 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. This behavior reflects current MEB (**mysqlbackup** utility) behavior, which might change in a future release (post-3.8.1).	22383

System requirements

Before installing Plug-in for MySQL 11.1, ensure that your system meets the requirements outlined in the *Dell NetVault Backup Compatibility Guide* available at https://support.software.dell.com.

Upgrade and compatibility

- Plug-in for MySQL 11.1 requires NetVault Backup 10.0 or later. For complete supported-platform information, see the *Dell NetVault Backup 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 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 usually occurs on upgrades or new installs that 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)

Product licensing

To obtain the license key for your NetVault Backup Server environment, determine the NetVault Machine ID of your main NetVault Backup Server. Also identify the machine IDs of any clients running application plug-ins, such as Oracle®, MySQL, PostgreSQL, SQL Server®, and Exchange.

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.

- Obtaining a machine ID
- Installing a license key using the configuration wizard
- Installing a license key from the Manage Clients page

Obtaining a machine ID

1 Start the NetVault Backup WebUI.

2 In the Navigation pane, click **Manage Clients**.

3 In the **NetVault Backup Clients** list, 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.

Installing a license key 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 **NetVault Backup Clients** list, 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.

Installing a license key from the Manage Clients page

1 In the **Navigation** pane, click **Manage Clients**.

2 In the **NetVault Backup Clients** list, select the applicable machine, and click **Manage**.

3 On the **View Client** page, click **Install License**.

4 In the **Install License** dialog box, 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 box, click **Close**.

Upgrade and installation instructions

For upgrade and installation instructions, see the *Dell NetVault Backup Plug-in for MySQL User's Guide*.

ⓘ | **IMPORTANT:** Due to the plug-in name change, *you must remove the existing plug-in before you install the new version if you are using a version before 4.4*. This process ensures that items with the previous plug-in name are removed before items with the new name are installed.

More resources

Additional information is available from the following:

- Online product documentation
- NetVault community

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.

About Dell

Dell listens to customers and delivers worldwide innovative technology, business solutions and services they trust and value. For more information, visit http://www.software.dell.com.

Contacting Dell

For sales or other inquiries, visit http://software.dell.com/company/contact-us.aspx or call +1-949-754-8000.

Technical support resources

Technical support is available to customers who have purchased Dell software with a valid maintenance contract and to customers who have trial versions. To access the Support Portal, go to https://support.software.dell.com.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. In addition, the Support Portal provides direct access to product support engineers through an online Service Request system.

The Support Portal enables you to:

- Create, update, and manage Service Requests (cases).
- View Knowledge Base articles.
- Obtain product notifications.
- Download software. For trial software, go to http://software.dell.com/trials.
- View how-to videos.
- Engage in community discussions.
- Chat with a support engineer.

Legend

⚠ **CAUTION: A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.**

⚠ **WARNING: A WARNING icon indicates a potential for property damage, personal injury, or death.**

ⓘ **IMPORTANT NOTE**, **NOTE**, **TIP**, **MOBILE**, or **VIDEO:** An information icon indicates supporting information.