

=====  
4.1.7-Resolved-and-Known-Issues.pdf  
Vertica Analytic Database® Version 4.1.7  
Copyright© 2006-2011 Vertica Systems, Inc., and its licensors. All rights reserved.  
=====

This document contains important information about release 4.1.7, which you should review before you install or upgrade Vertica.

CONTENTS

- 1. What's New
- 2. Downloads
- 3. Resolved Issues
- 4. Known Issues

1. What's New

=====

This release includes enhancements on reliability, performance, scalability, and manageability, delivering a more comprehensive and improved out-of-the-box experience.

Read the Release Notes on the Vertica Web site for information about new features, behavior changes, deprecated components, and performance enhancements. See [http://www.vertica.com/my\\_vertica](http://www.vertica.com/my_vertica)

2. Downloads

=====

Download the Vertica Analytic Database® and related drivers on the Vertica Downloads Web page. See [http://www.vertica.com/my\\_vertica](http://www.vertica.com/my_vertica)

3. Resolved Issues

=====

The following issues were resolved in Vertica 4.1.6:

| ISSUE KEY           | SFDC CASE | RELEASE NOTE DESCRIPTION   |
|---------------------|-----------|--|
| Client<br>VER-16910 |           | Attempting to connect to Vertica via an ODBC DSN using Excel 2007's Data Connection Wizard could have resulted in the error message "The Data Connection Wizard cannot obtain a list of databases from the specified data source." This issue has been resolved.   |
| Server<br>VER-13913 |           | The copy_vertica_database.sh script now supports distinct catalog and data directories. See the Vertica documentation for details.   |
| VER-14437           |           | Connections from non-clients are now reported in the log as LOG, not FATAL messages (though the operation is FATAL to the failed session).   |
| VER-16257           |           | Error message resulting from COPY that uses an empty string as a record terminator has been clarified to be less confusing and now returns:<br>ERROR: COPY RECORD TERMINATOR must be at least ONE character long.  |
| VER-16769           |           | If you created or upgraded your database in 4.0 or 4.1, the PLANNEDCONCURRENCY setting on the GENERAL pool defaults to a too-small value for machines with large numbers of cores. To adjust to a more appropriate value, use the following setting:<br>=> ALTER RESOURCE POOL general PLANNEDCONCURRENCY <#cores>;<br>Only set this parameter if you created a database before 4.1, Patchset 1. |
| VER-16858           |           | When changing the password for a user, if the case of the username passed to the ALTER USER statement did not match the case of the username stored in the catalog, the user's password would become scrambled and the user would be prevented from logging in. This issue has been resolved so that the name passed to ALTER USER is case insensitive.  |

VER-16829 4520 Vertica's private time zone database was outdated and lacked the new rule for the daylight savings switchover in Australia, which began in 2008. The Vertica timezone tables have been updated to Nov 2010, affecting Australian Summer Time, and so on.

VER-16921 Performance between Vertica 4.1 and 3.5 was slower when doing 'INSERT INTO ... SELECT' on a temporary table. This issue has been resolved.

VER-16969 Incorrect answers or node failures were possible for GROUP BY queries with multiple aggregates run on a cluster, where the groups did not fit in memory. This issue has been resolved.

VER-17022 A Vertica database could fail if a FULL OUTER JOIN was executed with ENABLE\_JOIN\_SPILL turned ON. This issue has been resolved.

VER-17030 4920 In Vertica 4.1.3 databases only, a join with a mix of RLE encoding and large non-RLE VARCHAR types could fail. This issue has been resolved.

VER-17085 The Administration Tools command line option 'admintools -t node\_map' did not work on 4.1.2 or 4.1.3. Parameter -t node\_map now lists all mappings by default and only requires -d if a particular database is wanted.

VER-4067 Primary key, foreign key and unique constraints can now be added to (dropped from) tables with projections. The option ALLOW\_CONSTRAINTS\_ON\_TABLE\_WITH\_PROJ is now deprecated. You cannot add/drop NOT NULL constraints. DROP restrictions:

- o A primary key cannot be dropped if there is a foreign key from another table that referencing that primary key.
- o A foreign key cannot be dropped if there are pre-join projections on that table.

Dropping a primary/foreign key does not disable the NOT NULL flag on the base column or columns of that constraint.

Installation

VER-15697 In rare circumstances, the vsread.conf file could be incorrectly written during an upgrade, causing spread to fail to start. This issue has been resolved.

The following issues were resolved in Vertica 4.1.2:

| ISSUE KEY    | SFDC CASE | RELEASE NOTE DESCRIPTION  |
|--------------|-----------|---|
| Installation |           |   |
| VER-16345    | 4225      | Upgrading from a Vertica 3.0 database resulted in the Ancient History Mark not advancing, which caused issues when dropping partitions. This issue has been resolved.   |
| Client       |           |   |
| VER-16174    | 4104      | When a query was invoked via a client interface that used PREPARE/EXECUTE, rather than just EXECUTE, if the query needed to be retried, the following internal error could have occurred: VIAssert(offset < sql.size()). This issue has been resolved.  |
| VER-16224    | 4166      | Vertica encountered a timeout and locking issue with a SQLSetConnectAttr failedODBC error. This issue has been resolved.  |
| VER-16118    | 3882      | The ODBC driver failed to the find target process when sending a message, returning the following error: [Error] Unknown failed. Unable to connect. This issue has been resolved.   |
| VER-16058    | 4043      | The regex function dropped a client connection to Vertica. This issue has been resolved.  |
| VER-15553    | 3570      | For each SQL statement that either inserts multiple records or selects from multiple tables through ODBC, you were required to execute a COMMIT command for the next iteration to proceed; otherwise the system returned the following error message after retrieving the first record: [HY000]No query has been executed with that handle. This issue has been resolved. |

| Server    |      |  |
|-----------|------|--|
| VER-16516 | 4341 | Node failed on a 3-node cluster with malloc error: 'Cannot allocate memory'; size 167772160 LOCATION: addChunk,). This issue has been resolved.  |
| VER-16505 | 4367 | Under limited circumstances, using SELECT to query a large number of rows led to per-row memory use, and all memory was released after the SELECT operation finished. This issue has been resolved.  |
| VER-16427 | 4337 | Prepared statements with the LIMIT parameter set to constant returned an error: <ERROR> @initiator: 0A000: n of LIMIT n clause is not supported for expressions, HINT: Only constant numbers and NULL are allowed. This issue has been resolved.   |
| VER-16289 | 4218 | When executing a Database Designer API to create projections with user-supplied scripts, the system returned an error: INTERNAL: Internal DBDesigner Error (12), DETAIL: allCols.size() >= _numRLECols. This issue has been resolved.  |
| VER-16288 | 4218 | A refresh operation failed on some non-superprojections when the anchor table had a column that defaulted to NEXTVAL('sequence') and the projection did not contain that table column. This issue has been resolved.   |
| VER-16237 | 4145 | Large queries caused Vertica to become unresponsive and return the following error message: Internal Optimizer Error (11) (_c.cpu_data). This issue has been resolved.   |
| VER-16212 | 4150 | The copy_vertica_database.sh syntax change was accidentally omitted from the Vertica Release Notes and has been added.   |
| VER-16197 | 4131 | When the system found more than one automatic purge job, and one of them was for an inactive partition, the system failed. This issue has been resolved.   |
| VER-16084 | 3959 | When upgrading from Vertica 2.5 to 4.0, query response time slowed after running statistics. This issue has been resolved.   |
| VER-16083 | 3982 | A query returned the wrong results when using ANALYZE_ROW_COUNTS. This issue has been resolved.  |
| VER-16048 | 4014 | Analytic queries returned incorrect results when aggregated across nodes. This error occurred when: <ul style="list-style-type: none"> <li>o The query had at least one join, and at least one subquery with analytic functions.</li> <li>o Data was segmented on the nodes where the analytic subquery runs.</li> <li>o The results of the subquery (with analytics) were joined to some other table that is segmented according to the join key.</li> <li>o The join key is a subset of the PARTITION BY columns of the subquery's analytic function.</li> </ul> This issue has been resolved. |
| VER-16027 | 4022 | The ROS count was missing from the 'Too many ROS containers' error. Now on a ROS pushback event, Vertica prints out the limit, the current ROS file count, the delete vector file count, and the new file count that the INSERT/COPY operation will make that causes it to reach ROS pushback.   |
| VER-16078 | 3655 | Trying to use a partition expression based on week and year failed. Vertica EXTRACT(WEEK) is ISO-8601 but there was no ISO-8601 YEAR function. EXTRACT parameters ISOYEAR and ISODOW have been added. See the Vertica documentation for details.   |
| VER-15934 | 3812 | A cancel applied early in the first SELECT transaction statement no longer results in the transaction running in SERIALIZABLE isolation.   |
| VER-15871 | 3905 | The ROUND() function converted decimals to floating point, rather than rounding, which lost precision in some cases. The numeric ROUND() and TRUNC() functions now operate directly on numeric values and return numeric results.  |
| VER-15844 | 3858 | If a COPY statement's EXCEPTION or REJECTED data files were not stored in a disk location managed by Vertica, the vertica.log could fill up with warnings. This issue has been resolved.   |

|           |      |  |
|-----------|------|--|
| VER-15772 | 3821 | If a storage location was not yet in place and the catalog had not been loaded, the system returned a strong warning. The message has been changed to a less alarming message.   |
| VER-15735 | 4302 | When rows are deleted from a grouped ROS container, the number of filehandles required is no longer underestimated.  |
| VER-15574 | 3712 | Values in the column SORT_POSITION, in the system table PROJECTION_COLUMNS no longer show the wrong sort order.  |
| VER-15466 | 3959 | The following improvements have been made to the collect_diag_dump.sh script: <ul style="list-style-type: none"> <li>o Improved error message when the current directory is not writeable</li> <li>o Added vs_sequences for finding sequences with small caches</li> <li>o Changed 'Password:' prompt to 'Database Password:'</li> <li>o Changed usage to include full path</li> <li>o Redirected tar stderr output to /dev/null</li> <li>o Quieted export functions, sending output to /dev/null</li> </ul> |
| VER-15244 | 3760 | The argument types in a subquery expression in the WHERE/HAVING clause did not match. Uncorrelated queries in the WHERE/HAVING clause as single-row expressions are now permitted.   |
| VER-15122 | 3808 | The function EVALUATE_DELETE_PERFORMANCE() uses sampling to quickly determine whether projections might exhibit slow delete performance when replaying deletes. It reports its results in the V_INTERNAL.COMMENTS system table.  |
| VER-15085 | 4021 | The EXPORT_CATALOG() function returned errors on tables that did not exist when the view referred to a dropped table. EXPORT_CATALOG() now warns users that the view is invalid.   |
| VER-8483  | 2198 | The performance of GROUP BY queries has been improved for the case where the data is not segmented on the grouping keys.   |
| VER-8084  | 2083 | Resources used by the delete operator in replay delete plans and unoptimized delete/update plans were bounded.   |
| VER-8913  | 2992 | Vertica now lets you set password policies in a flexible manner. The new profile system contains the password policies. You can create different profiles for different types of users and assign them to each profile to set the password policy for the user. See the Vertica Release Notes for details.   |

#### 4. Known Issues

=====

The following are the known issues in Vertica 4.1.6:

| ISSUE KEY | SFDC CASE | RELEASE NOTE DESCRIPTION  | WORKAROUND |
|-----------|-----------|---|------------|
| VER-17279 |           | Vertica no longer supports creating pre-join projection between temporary and base tables.  | N/A        |
|           |           | Previously, Vertica allowed any combination of temporary and normal tables to be used in a pre-join projection. With certain combinations, such as dimension tables that are shorter-lived than fact tables, wrong answers could occur because the temporary table data outlives its scope. |            |

The following are the known issues in Vertica 4.1.2:

| ISSUE KEY | SFDC CASE | RELEASE NOTE DESCRIPTION   | WORKAROUND   |
|-----------|-----------|--|--|
| VER-15899 | [3793]    | Upgrading the license fails on a single-node cluster.  | After an Administration Tools upgrade fails, install the license interactively with vsql:<br>=> SELECT install_license<br><br>('/opt/vertica/config/share/license.key');<br>Also verify the permissions—especially ownership—on the license.key file.  |
| VER-16553 | [4378]    | When you use an external procedure from the command line, the client returns the following: ERROR: Procedure execution error: exit status=1; | When you execute an external procedure from the command line, make sure there are no extraneous spaces before the command #!/bin/bash. If you are using programs within the external procedure, such as vsql, make sure the program is fully pathed in the script; for example /opt/vertica/bin/vsql.  |
| N/A       | N/A       | Installing the vertica-ganglia monitoring package on Open SuSE 11.3 could fail due to missing dependencies.                                  | Before you install the vertica-ganglia monitoring package, install the required packages using the package manager tool for your system, such as yast, in the following order:<br><ol style="list-style-type: none"><li>1. rrdtool</li><li>2. libconfuse0</li><li>3. php5-fastcgi</li></ol> NOTE: The following ganglia packages are not part of the Open SuSE distribution and can be found at <a href="http://software.opensuse.org">http://software.opensuse.org</a> . When you search for these packages, make sure to select the correct version of your SuSE distribution. After you download packages, install them using rpm -i in the following order:<br><ol style="list-style-type: none"><li>1. libganglia-3_1_7-0-3.1.7-3.1.x86_64.rpm</li><li>2. ganglia-gmetad-3.1.7-4.1.x86_64.rpm</li><li>3. ganglia-gmond-3.1.7-4.1.x86_64.rpm</li></ol> Then download, install, and configure the vertica-ganglia package as described the Vertica Administrator's Guide. |