Database Server Requirements for Identity Manager 5.1

Tivoli Identity Manager supports a JDBC type 4 driver to connect a Java-based application to a database. The supported database products are IBM DB2 Database, Oracle DB, and MS SQL Server database.

If the database is Oracle or MS SQL, the Tivoli Identity Manager installation program prompts for the directory containing the JDBC driver and the driver name. In a cluster configuration, the JDBC driver is required on the computer that has the deployment manager and on each of the Tivoli Identity Manager cluster member computer. You can copy the Oracle/MS SQL JDBC driver from the Oracle/MS SQL server directory or download it from the Oracle/Microsoft Web site into a directory on the computer on which Tivoli Identity Manager is to be installed.

For example, if Oracle database is installed on Linux, but Tivoli Identity Manager is installed on Windows, create a directory C:\itim_jdbcdriver\ and copy the JDBC driver file to that directory, then point to this directory during installation.

For DB2 database, ITIM installer comes bundled with a copy of the DB2 type 4 driver jar files and copies them to <ITIM_HOME/lib directory.

Upgrading the drivers:

IBM Tivoli Identity Manager 5.1 database server prerequisites are mentioned in following link

http://publib.boulder.ibm.com/infocenter/tivihelp/v2r1/topic/com.ibm.itim.doc/cpt/cpt_ic_release_oview_dbreqs.html

IBM does not certify ITIM for different versions of the drivers. If the customer wishes to upgrade the drivers then they should do so at their own risk. They should ensure that thorough testing is done to prevent any potential issues with the new driver. This is similar to what they do when they apply fixpacks/patches to their existing database installation. IBM just certifies the product with a major version of database, with some minimum version of fixpack/patch. We recommend contacting the appropriate database support team and determine if there is a real need to upgrade the database drivers.

Automatic driver update:

The default and the supported driver configuration is to manually copy the database driver jar or zip files to a folder on each node of a cluster. The folder name should be specified to ITIM installation program. Whenever the customer wishes to upgrade the drivers, they can replace the new driver files in that directory.

If the customer wishes that ITIM automatically start using the updated drivers as soon as the database is upgraded then they can define a symbolic link in the directory and define the link to point to the JDBC driver file present within the database installation directory. It creates link to a file by creating a file that contains the name of the destination file to which it is being linked. The symbolic link functions as a pointer to the driver file in database installation folder and will automatically point to the new file when the driver gets updated.

We do not recommend creating symbolic links for the below mentioned reasons/challenges.

1. Defining Symbolic link on single server installation can be done easily if the database and the server are running on the same machine. However, in a cluster installation or if database is installed on a different machine than WebSphere application installation, then symbolic links should point to files on different file systems (possibly NFS mounted from different machines). If there are some network issues or if the remote file system was not mounted properly then WebSphere cannot load the driver classes and cannot perform any database operations.

2. If the database and ITIM is managed by different teams and the database driver gets upgraded, then there could be some unforeseen issues if the new driver was not tested with ITIM thoroughly.

3. Often the database installation is shared among different applications and there might be a situation where some applications might have specific driver version requirements. So in such scenarios it is better to have separate driver files for each application within the application installation directory.