**Check List for Down Grading SQL Server Enterprise to Standard Edition (2016)**

The only route available for downgrading the SQL Edition is to uninstall and reinstall SQL Server entirely.

**Pre-Check List:**

1. Note down the current SQL Server Version Details (Build Version, Edition, SP Details)
2. Note down SQL Server & All DB’s Collation.
3. Check whether Enterprise Features enabled in all databases.

(Note: Need to Disable the Enterprise Features to avoid backup & restore (or) DB Detach Process in Std SQL Server)

1. Check and gather features that might stop us to directly downgrade to a Standard Edition of SQL Server:

Table/index partitioning

Transparent data encryption (TDE)

Change data capture (CDC)

Data compression (Page or Row)

Column Store Index

Partitioned Tables

Always on Availability Groups

1. Extract SQL Server Configuration Details (SP\_Configure), Startup Parameters, Service Account Details, TCP/IP details.
2. Extract SQL Installation Folders, SQL Binaries Paths, Data Files, Log Files, TempDB Files paths.
3. Perform all databases full backups (System DB’s, User DB’s).
4. Detach the User Databases. Make ready a Script for detaching all User Databases in order to reduce the downtime
5. Extract all Logins, Server Roles, SQL Connect Permissions.
6. Extract all SQL Agent Jobs Scripts, Note down their schedule details, DB Maintenance jobs details if any.
7. Check SSISDB Catalogue and backup if it exists.
8. Extract all Linked Servers, DB Mail, SSIS Package Details (Paths).
9. Check Certifications and Encryption Keys and save backup of these in a safe place.
10. Perform a DBCC CHECK DB on all the databases to ensure that DBs that will be backed up are good and not eligible for any corruption. Perform this depending on the server load and size of the user databases.
11. Copy the master, model, msdb DB files (both mdf and ldf) in a safe folder.
12. Disable all SQL Agent Jobs and stop if any DB Maintenance job in execution status.

**Un-installation Task:**

1. Finally, Stop the SQL Server Services.
2. Goto Control Panel and Uninstall the SQL Server 2016 Enterprise Edition.

**Post SQL Server 2016 uninstallation:**

1. Reboot the Windows Server to clean-up old SQL Installation files if any exists.
2. Install SQL Server 2016 Standard Edition. (Use similar installation paths and Directories used for previous one).
3. Restart the Server if prompted.
4. Apply the necessary Service Packs\Cumulative Updates & Restart the Server if prompted.
5. Goto SQL configuration Manager and Stop SQL Services.
6. Copy the master, model, and msdb database files (both mdf and ldf) from the folder we saved them (of SQL Server 2016 Ent Edition) into the current location (OVERWRITE) on the newly installed SQL 2016 Std.

(Take backup of current System DB’s mdf & ldf files backup of SQL Server 2016 Std Edition too for safer side)

1. Goto SQL Configuration Manager and then Startup SQL Server Services.
2. Restore all user DB Full Backups (or) Attach User databases which were earlier detached.
3. Verified all databases are restored (or) attached successfully and in ONLINE Status (accessible).
4. Deploy back the SQL Server Configuration which was extracted earlier.
5. Re-create the logins.
6. Recreate SQL Agent Jobs and Enable them, DB Maintenance Jobs, DB Mail, Linked Servers.
7. Restore SSISDB (as per Microsoft defined Restore process)
8. Inform the application team to check do smoke test\connectivity and resume operations if everything is as expected.

**Reference Links:**

<https://www.sqlskills.com/blogs/jonathan/downgrading-sql-server-editions/>

<http://learnsqlwithbru.com/2009/09/24/downgrading-sql-server-enterprise-edition-to-standard-edition/>