



DIGITA PROFESSIONAL SUITE

SQL 2014 / 2016 / 2017 / 2019 / 2022 INSTALLATION AND UPGRADE GUIDE DOCUMENTATION

SQL Server should be installed by a competent IT person.

Please pass this documentation to your IT department or the person installing the suite.

CONTENTS

CONTENTS..... 2

PRE-REQUISITES & RECOMMENDATIONS.....3

SQL SERVER SERVICE PACKS.....3

SQL SERVER COMPATIBILITY..... 4

SQL SERVER INSTALLATIONS AND UPGRADES 4

NEW INSTALLATION PROCESS..... 6

UPGRADE PROCESS18

ADDITIONAL CHANGES 26

DATABASE BACKUP TOOL UPGRADE27

ALL SQL SERVER VERSION UPGRADES..... 28

PRE-REQUISITES & RECOMMENDATIONS

The machine on which the installation is to be run must have all available **Windows Updates** and **Service Packs** applied prior to commencing.

The machine must have all **Regional and Language** settings set to **English (United Kingdom)**.

Should you wish to install a Named Instance of SQL, or amend any of the installation settings, please contact your IT support for guidance. Please note however Digita software only officially supports a 'Default' instance.

Please ensure you backup your databases using the **Digita Database Backup** tool prior to carrying this out.

The Default instance is identified by opening (Start > Run) **Services.msc**, and scroll down to 'SQL Server (MSSQLSERVER).' MSSQLSERVER indicates a Default instance, anything else is a Named instance.

SQL SERVER SERVICE PACKS

Upgrading from SQL Server may require the latest Service Pack to be applied first. We have added the service pack links below.

The information contained in the 'SQLVersion.bat' run earlier will tell you which version you are currently on.

SQL Server 2012 needs at least Service Pack 2 to be applied before it can be upgraded to SQL Server 2014/2016/2017.
Download Service Pack 4: <https://www.microsoft.com/en-us/download/details.aspx?id=56040>

SQL Server 2014 does not require a Service Pack to be installed before upgrading to SQL Server 2016/2017/2019/2022.

SQL Server 2016 does not require a Service Pack to be installed before upgrading to SQL Server 2017/2019/2022.

SQL Server 2017 does not require a Service Pack to be installed before upgrading to SQL Server 2019/2022.

SQL Server 2019 does not require a Service Pack to be installed before upgrading to SQL Server 2022.

The Digita Suite is supplied with SQL Server 2017 Express.

SQL SERVER COMPATIBILITY

Before proceeding, check compatibility with your Windows operating system.

SQL Server Versions				
2014 (v12)	2016 (v13)	2017 (v14)	2019 (v15)	2022 (v16)

Microsoft Windows Server 2012 - Out of support from October 2023	✓	✓	✓	×	×
Microsoft Windows Server 2016	✓	✓	✓	✓	✓
Microsoft Windows Server 2019	✓	✓	✓	✓	✓
Microsoft Windows Server 2022	×	×	✓	✓	✓

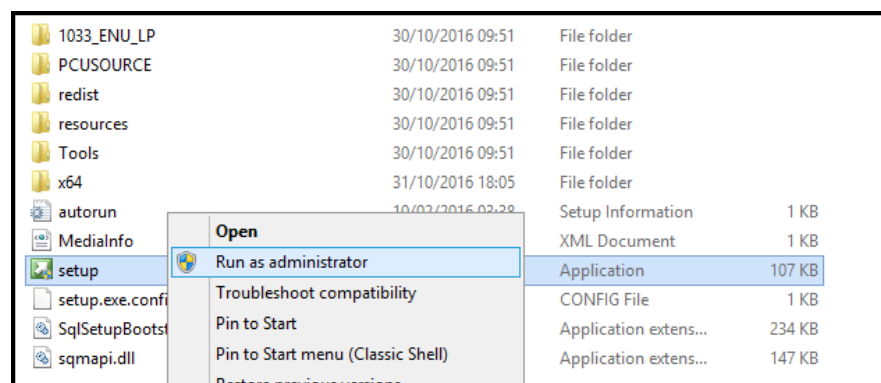
Windows 10	✓	✓	✓	✓	✓
Windows 11	×	×	✓	✓	✓

*Out of Support from July 2022

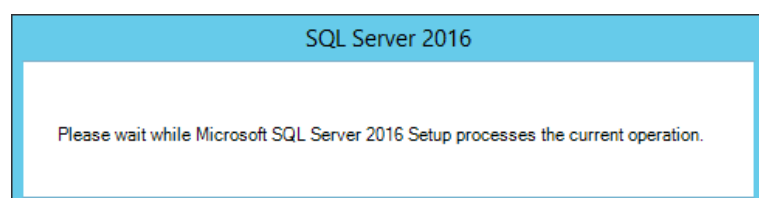
SQL SERVER INSTALLATIONS AND UPGRADES

To start the installer navigate to the DVD or download, right click on the 'setup.exe' and select 'Run as administrator' to start the installation or upgrade process.

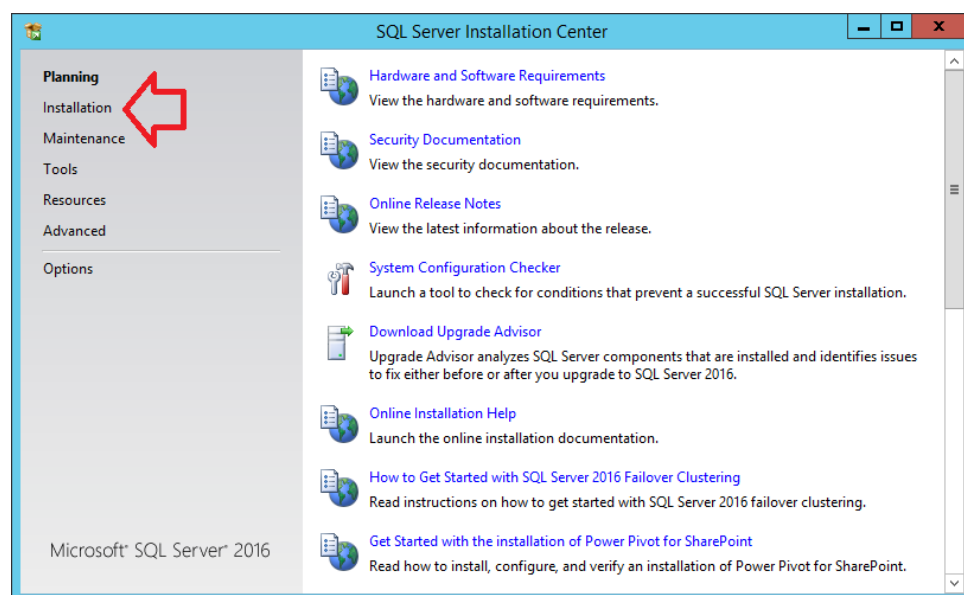
NOTE: If SQL Server Standard has been supplied by Thomson Reuters/Digita, the **setup.exe** can be found in the downloaded media here: **\Updates\SQLStandard**



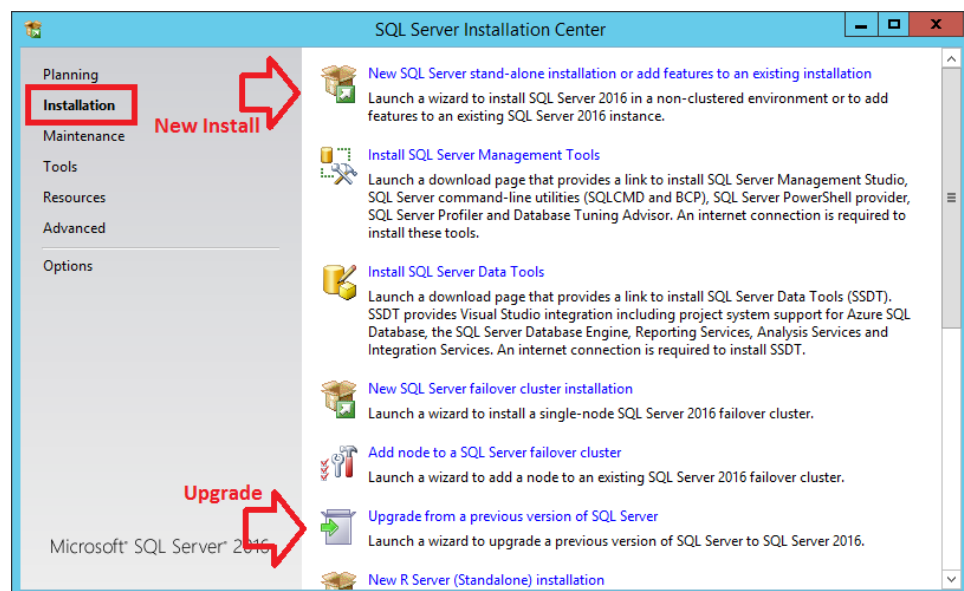
The following dialog will appear showing the initial menu loading.



Leading to the following installer menu dialog. Click on the 'Installation' page.



Once on the installation page, you have options for both new installations and upgrades.



Choose a new installation if there is not currently a 'Default' instance on the server, or you wish to add new features to an existing instance.

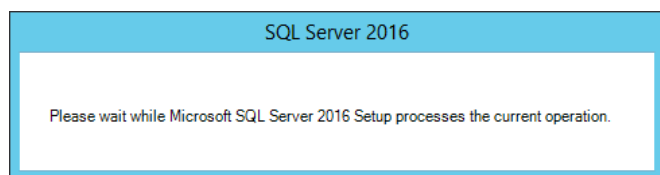
Choose the upgrade path if you are upgrading from an earlier version of SQL Server, no matter whether it is the Express Edition or Standard Edition.

PLEASE NOTE, the dialogs are mostly the same if you are upgrading to Express or Standard Editions.

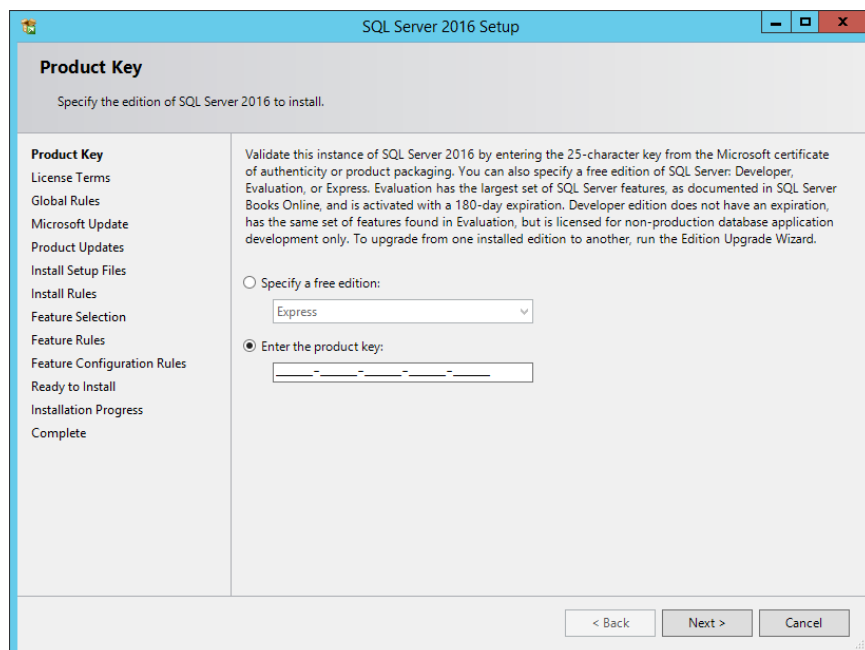
For a New Installation, continue below. For the Upgrade option dialogs, please continue UPGRADE PROCESS on page 18.

NEW INSTALLATION PROCESS

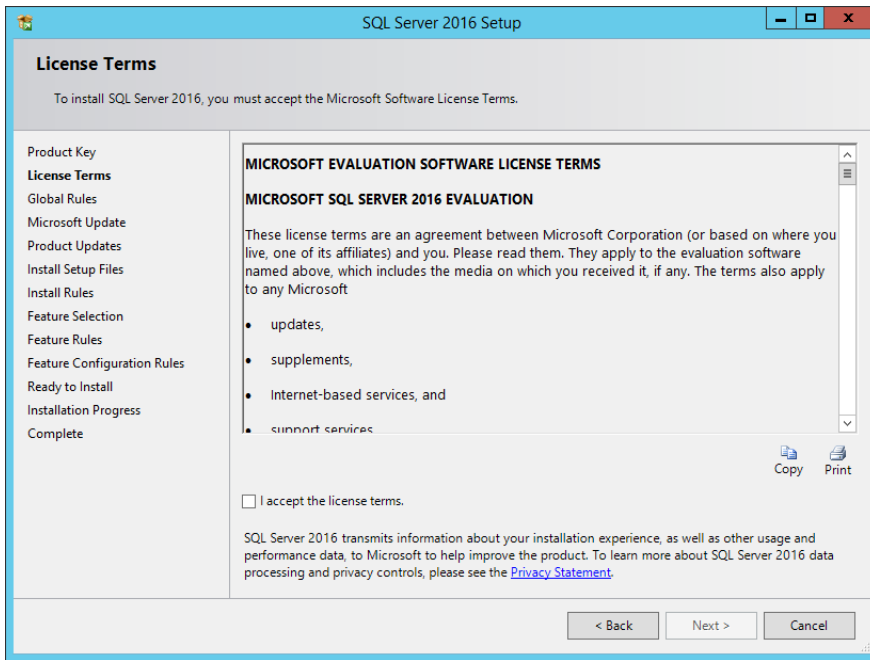
Once the 'New SQL Server ...' option has been selected, the main installer will load.



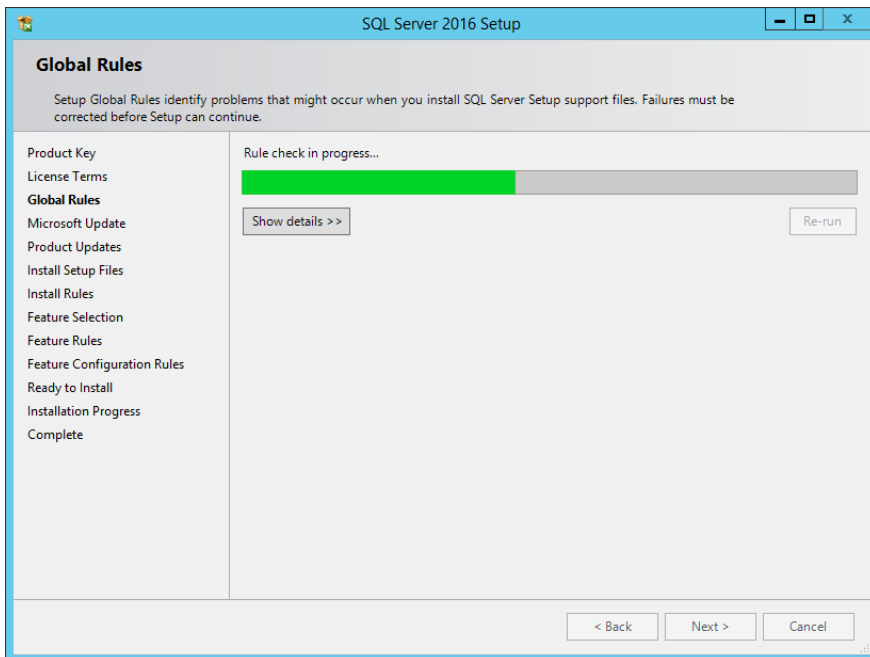
Enter your license key if you are upgrading to the Standard Edition. The license key is prefilled on some distributions.



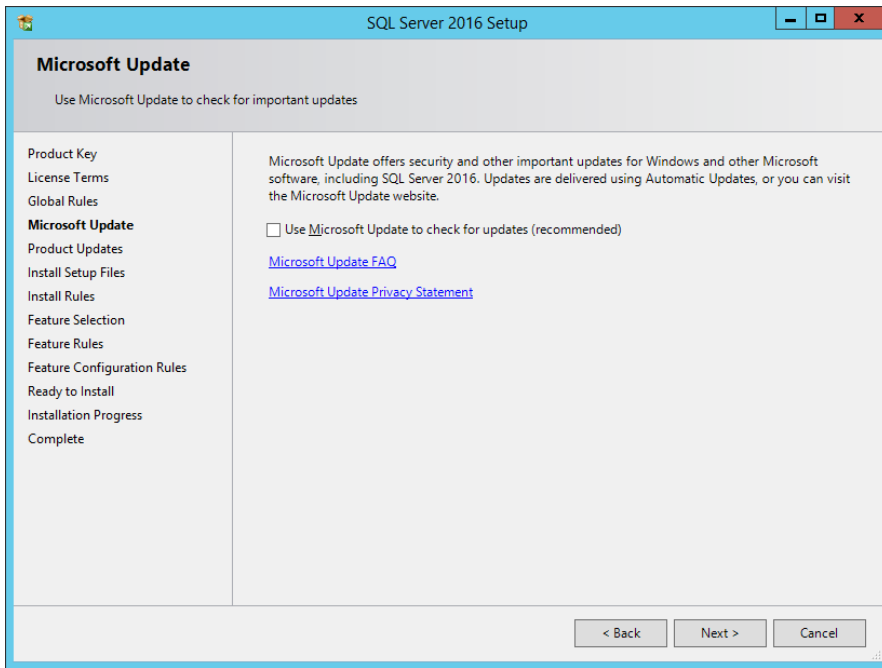
Accept the License terms, then click Next.



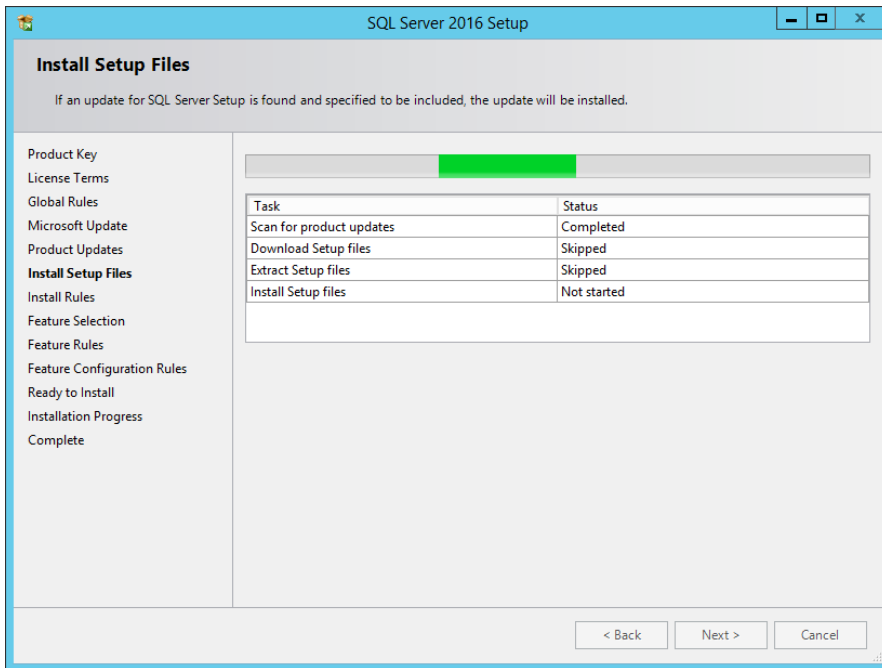
The Installation requirements are then checked.



Click on the check box to “Use Microsoft Update to check for updates”. Click Next.



The installer will now prepare for installation.



The requirements have now been checked, and any warnings or errors will be displayed here. Click on the status text to read about any of the rules. Click Next to continue.

SQL Server 2016 Setup

Install Rules

Setup rules identify potential problems that might occur while running Setup. Failures must be corrected before Setup can continue.

Product Key

License Terms

Global Rules

Microsoft Update

Product Updates

Install Setup Files

Install Rules

Feature Selection

Feature Rules

Feature Configuration Rules

Ready to Install

Installation Progress

Complete

Operation completed. Passed: 4. Failed: 0. Warning: 1. Skipped: 0.

Hide details <<

Re-run

[View detailed report](#)

Rule	Status
Fusion Active Template Library (ATL)	Passed
Consistency validation for SQL Server registry keys	Passed
Computer domain controller	Passed
Microsoft .NET Application Security	Passed
Windows Firewall	Warning

< Back

Next >

Cancel

Once the components list is displayed, for a basic installation for Digita software, there are three features to install that need to be checked.

- ✓ Database Engine Services
- ✓ Client Tools Connectivity
- ✓ Client Tools Backwards Compatibility

Any additional features are optional. Click Next to continue.

This dialog also allows you to customize the installation paths. NOTE the 'Instance Root directory' option is where the bulk of the disk space will be required. If you have limited disk space available on the selected partition, here is the place to change it.

These paths note the general default paths for all instances and the installation of SQL Server itself.

Click Next to continue.

SQL Server 2016 Setup

Feature Selection

Select the Evaluation features to install.

Product Key

License Terms

Global Rules

Microsoft Update

Product Updates

Install Setup Files

Install Rules

Feature Selection

Feature Rules

Instance Configuration

Server Configuration

Database Engine Configuration

Feature Configuration Rules

Ready to Install

Installation Progress

Complete

Features:

Instance Features

- ☒ Database Engine Services
 - ☐ SQL Server Replication
 - ☐ R Services (In-Database)
 - ☐ Full-Text and Semantic Extractions for Search
 - ☐ Data Quality Services
 - ☐ PolyBase Query Service for External Data
- ☐ Analysis Services
- ☐ Reporting Services - Native
- ☐ R Server (Standalone)
- ☐ Reporting Services - SharePoint
- ☐ Reporting Services Add-in for SharePoint Products

Feature description:

The configuration and operation of each instance feature of a SQL Server instance is isolated from other SQL Server instances. SQL Server instances can operate side-by-side on the same computer.

Prerequisites for selected features:

Already installed:

- Windows PowerShell 3.0 or higher
- Microsoft .NET Framework 4.6

Disk Space Requirements

Drive C: 1253 MB required, 47010 MB available

Instance root directory: C:\Program Files\Microsoft SQL Server\

Shared feature directory: C:\Program Files\Microsoft SQL Server\

Shared feature directory (x86): C:\Program Files (x86)\Microsoft SQL Server\

Select All **Unselect All**

< Back **Next >** **Cancel**

Ensure the **Default instance** is selected. Click Next to continue.

Instance Configuration

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

Product Key
License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Instance Configuration
Server Configuration
Database Engine Configuration
Feature Configuration Rules
Ready to Install
Installation Progress
Complete

☒ Default instance
☐ Named instance: MSSQLSERVER

Instance ID: MSSQLSERVER

SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL13.MSSQLSERVER

Installed instances:

Instance Name	Instance ID	Features	Edition	Version
---------------	-------------	----------	---------	---------

< Back Next > Cancel

The next dialog shows the Server Configuration dialog for the instance. The 'Service Accounts' tab is usually left as default.

Server Configuration

Specify the service accounts and collation configuration.

Product Key
License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Server Configuration
Database Engine Configuration
Feature Configuration Rules
Ready to Install
Installation Progress
Complete

Service Accounts Collation

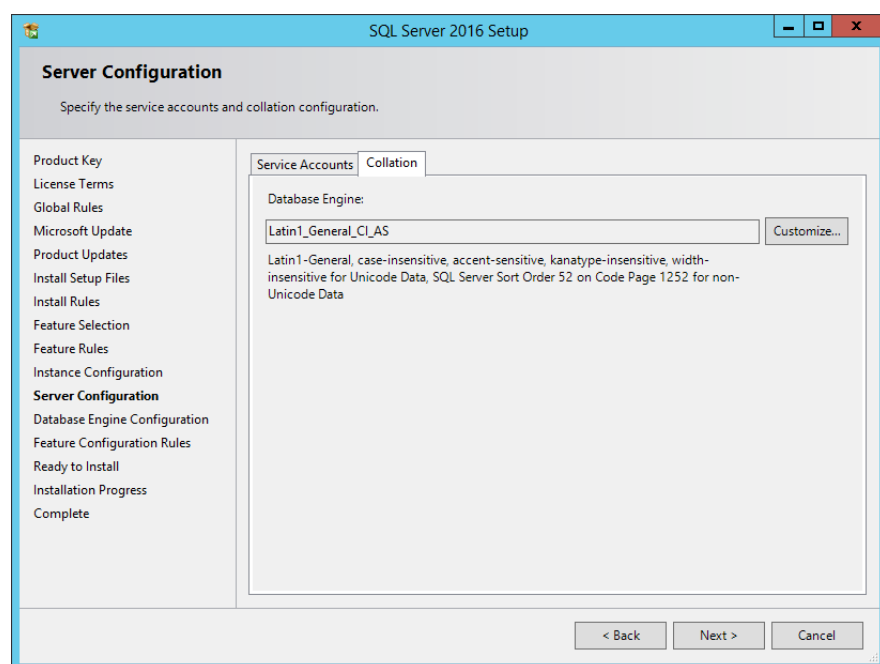
Microsoft recommends that you use a separate account for each SQL Server service.

Service	Account Name	Password	Startup Type
SQL Server Agent	NT Service\SQLSERVERA...		Manual
SQL Server Database Engine	NT Service\MSSQLSERVER		Automatic
SQL Server Browser	NT AUTHORITY\LOCAL ...		Disabled

☐ Grant Perform Volume Maintenance Task privilege to SQL Server Database Engine Service
This privilege enables instant file initialization by avoiding zeroing of data pages. This may lead to information disclosure by allowing deleted content to be accessed.
[Click here for details](#)

< Back Next > Cancel

On the same dialog, selecting the 'Collation' tab, ensure the **Database Engine** is set to 'Latin1_General_CI_AS'. This would likely be preset correctly if your server is set to **English (United Kingdom)** in the Control Panel Regional settings. Click Next to continue.



On the Database Engine Configuration dialogs, the settings on the 'Server Configuration' tab will need to be changed.

Change **Authentication Mode** to 'Mixed Mode (SQL Server authentication and Windows authentication)'.

Enter a password for the SA Account. You will need to remember this password for all software installations into SQL Server.

Within the **Specify SQL Server administrators** box, click on 'Add Current User', and also try to add an Administrators group for future proofing. Click on 'Add...', and search for either 'Domain Admin' or 'Administrators' groups, then adding it to the list. The option available depends on whether the server is a domain controller or not.

Click Next to continue.

SQL Server 2016 Setup

Database Engine Configuration

Specify Database Engine authentication security mode, administrators, data directories and TempDB settings.

Product Key
License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Instance Configuration
Server Configuration
Database Engine Configuration
Feature Configuration Rules
Ready to Install
Installation Progress
Complete

Server Configuration | Data Directories | TempDB | FILESTREAM

Specify the authentication mode and administrators for the Database Engine.

Authentication Mode

☐ Windows authentication mode

☒ Mixed Mode (SQL Server authentication and Windows authentication)

Specify the password for the SQL Server system administrator (sa) account.

Enter password:

Confirm password:

Specify SQL Server administrators

TEN.u6041909 (U6041909)
TLR\Domain Admins (Domain Admins)

SQL Server administrators have unrestricted access to the Database Engine.

Add Current User Add... Remove

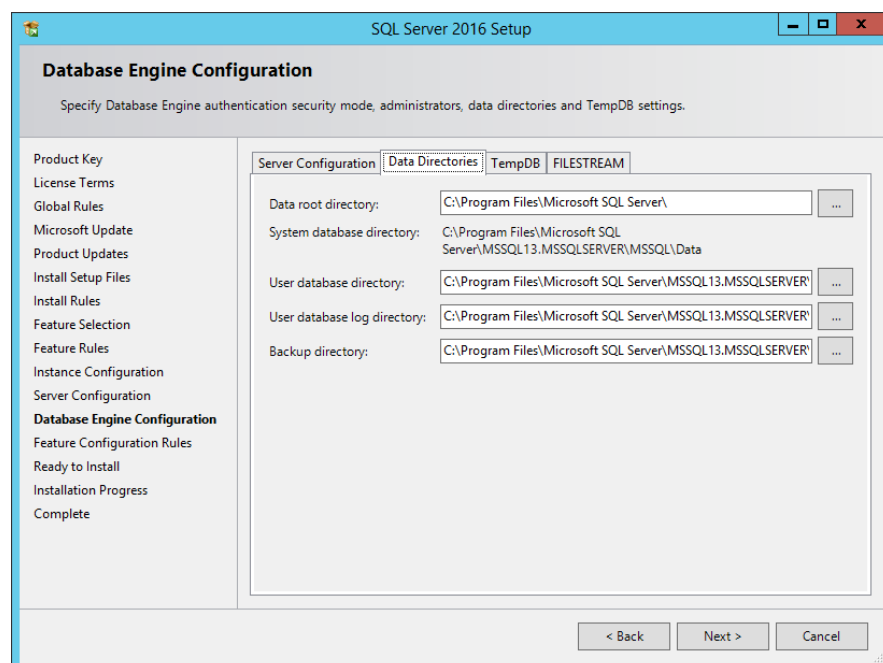
< Back Next > Cancel

On the 'Data Directories' tab, you should decide on where you need the elements of the software installed.

Data Root directory – Set the installation path for this specific Instance.

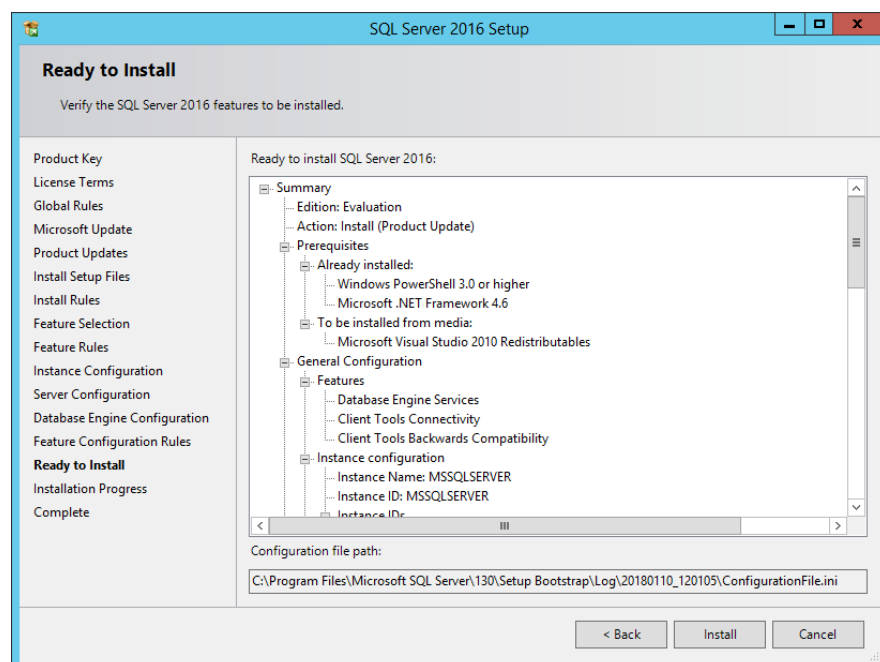
Backup Directory – This folder will likely become big unless historical backups are continually moved or removed from the system.

Click Next to continue.

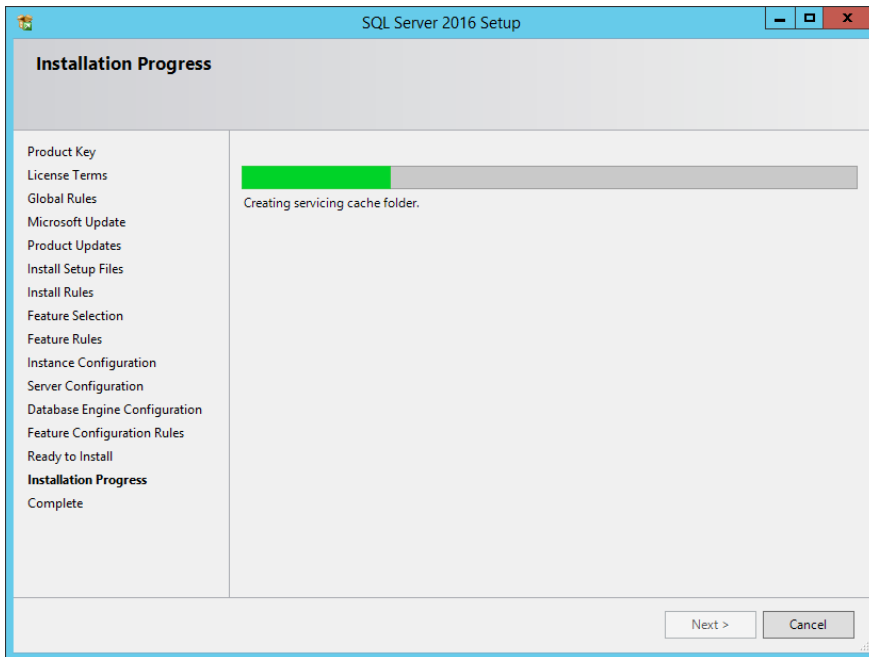


Once all the configuration options have been set, the following installer dialog summarises the settings. Take a look through it to ensure the settings are as expected.

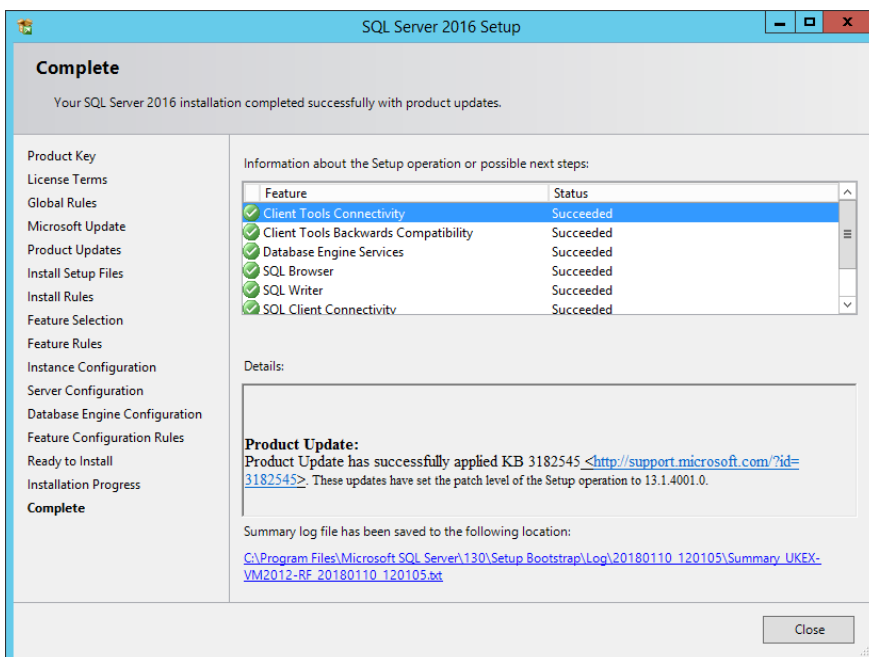
Click Install to continue.



The installation will now proceed, and may take a while.



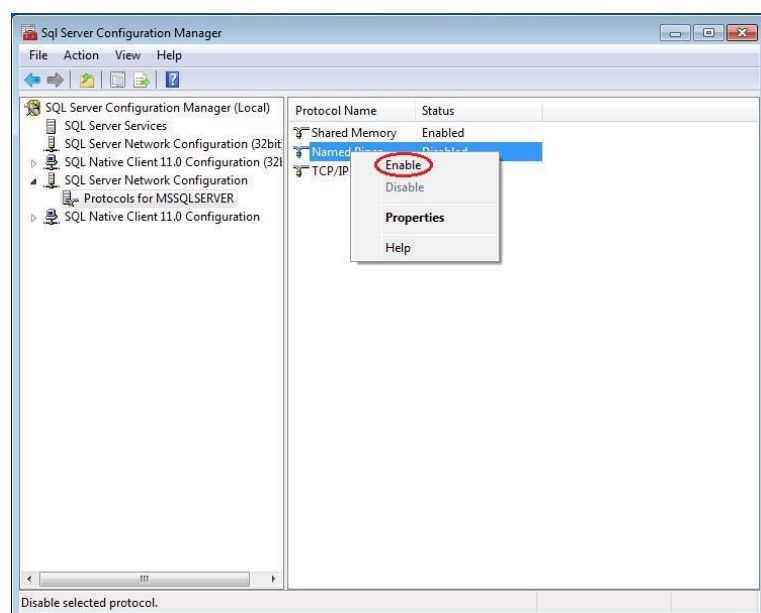
Once the installation has completed, the dialog below will show any failures from the installation. If you get any failures, retain as much information as possible from the details box.



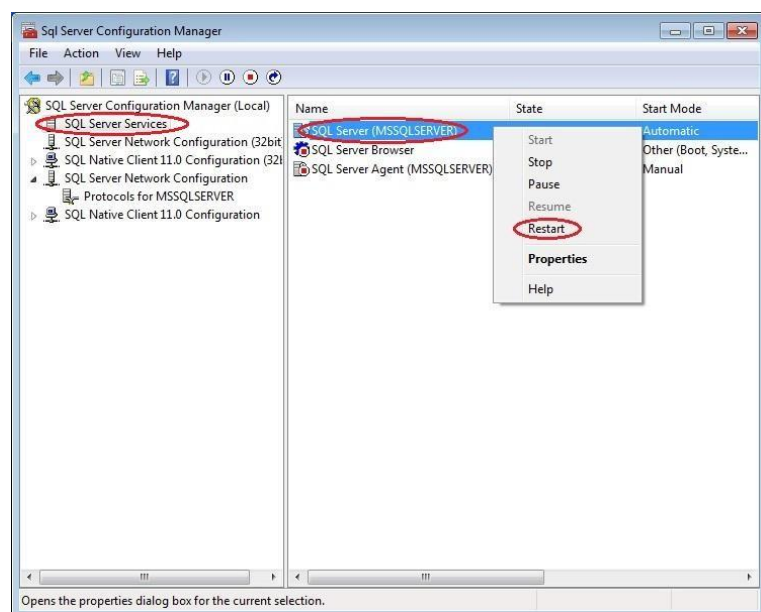
It is then necessary to configure the SQL instance to ensure the databases will be accessible.

Launch SQL Server Configuration Manager from **Start > All Programs > Microsoft SQL Server 2016 > Configuration Tools > SQL Server 2016 Configuration Manager**

Expand **SQL Server Network Configuration** and click **Protocols for MSSQLSERVER**. Ensure both **Named Pipes** and **TCP/IP** are set to **Enabled** by right-clicking and selecting **Enable**:



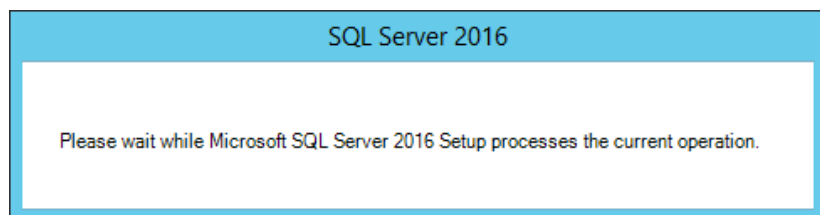
Click **SQL Server Services**, then right-clicking **SQL Server (MSSQLSERVER)** and click **Restart**:



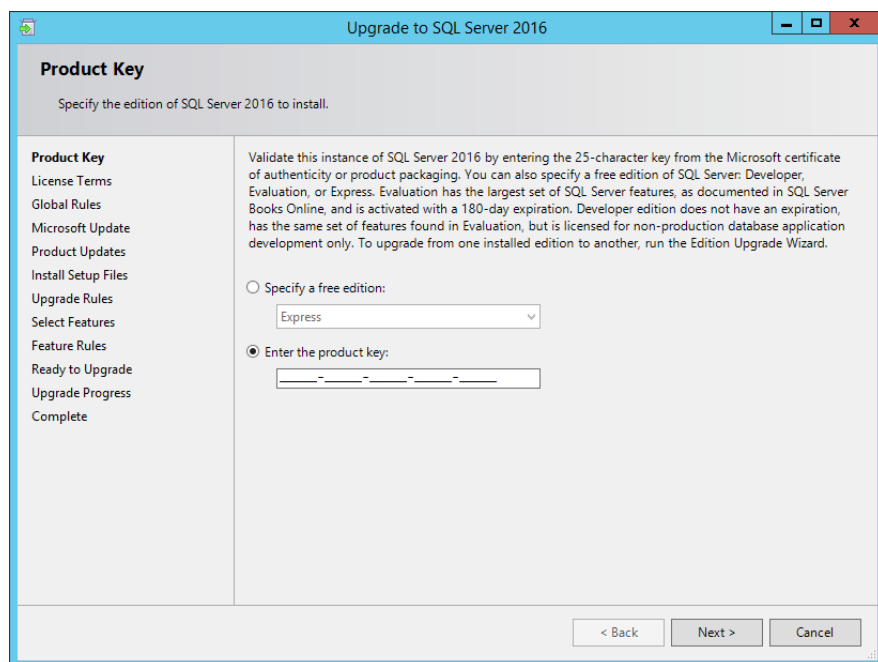
Once complete, a Default Instance of SQL Server 2016 Standard has been installed and configured for use with the Digita Suite.

UPGRADE PROCESS

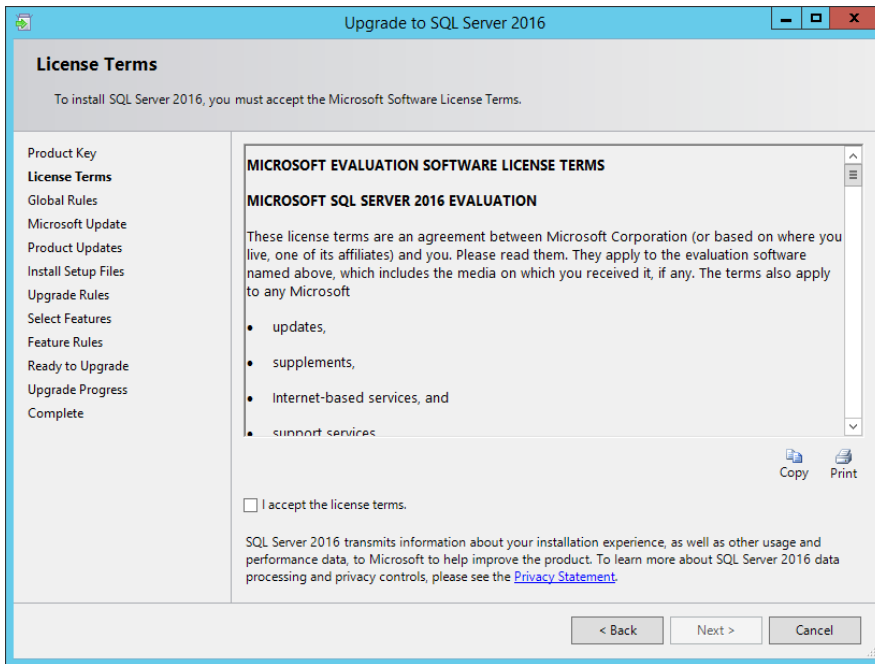
Once the 'Upgrade SQL Server ...' option has been selected, the main installer will load.



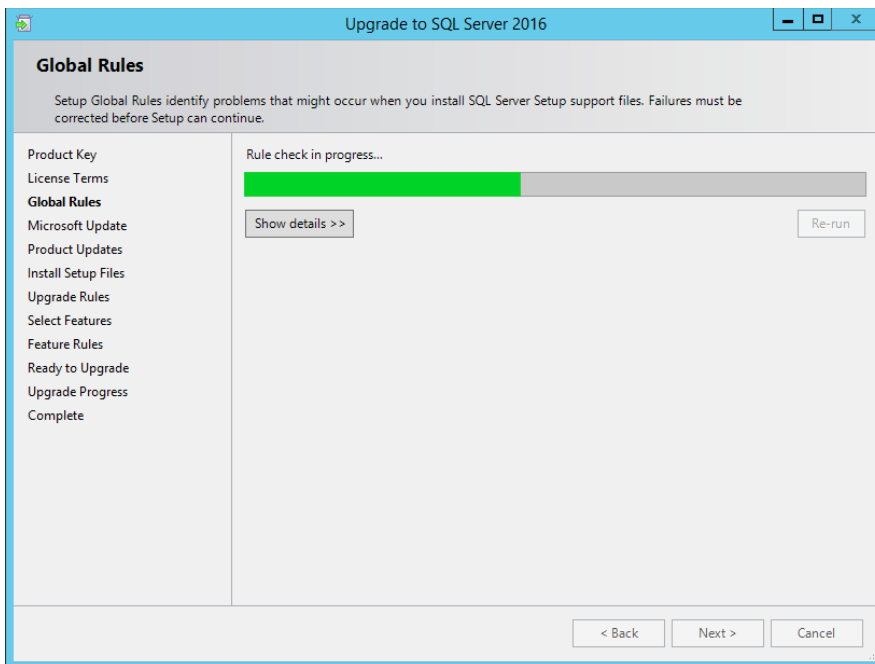
Enter your license key if you are upgrading to the Standard Edition. The license key is prefilled on some distributions.



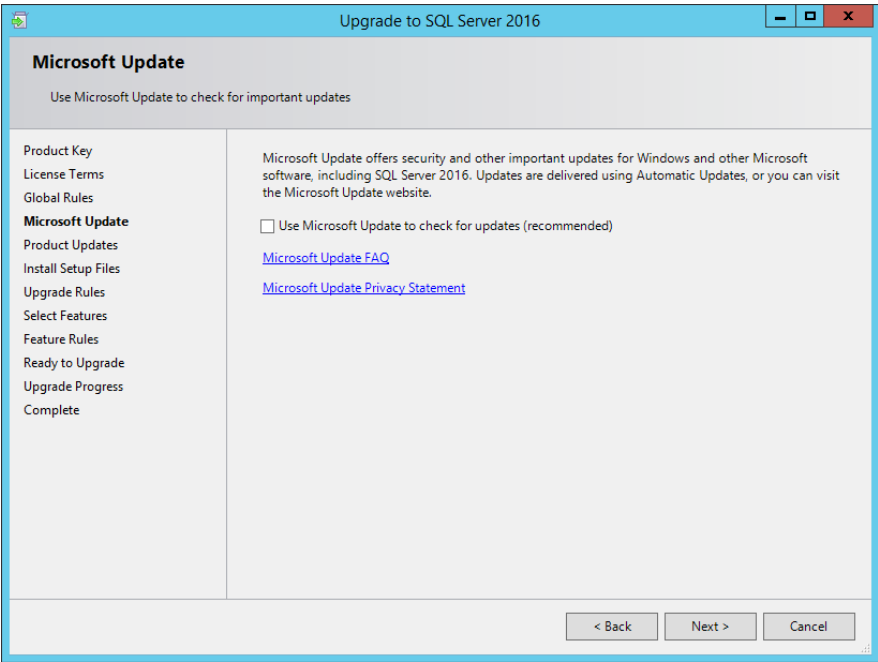
Accept the License terms, then click Next.



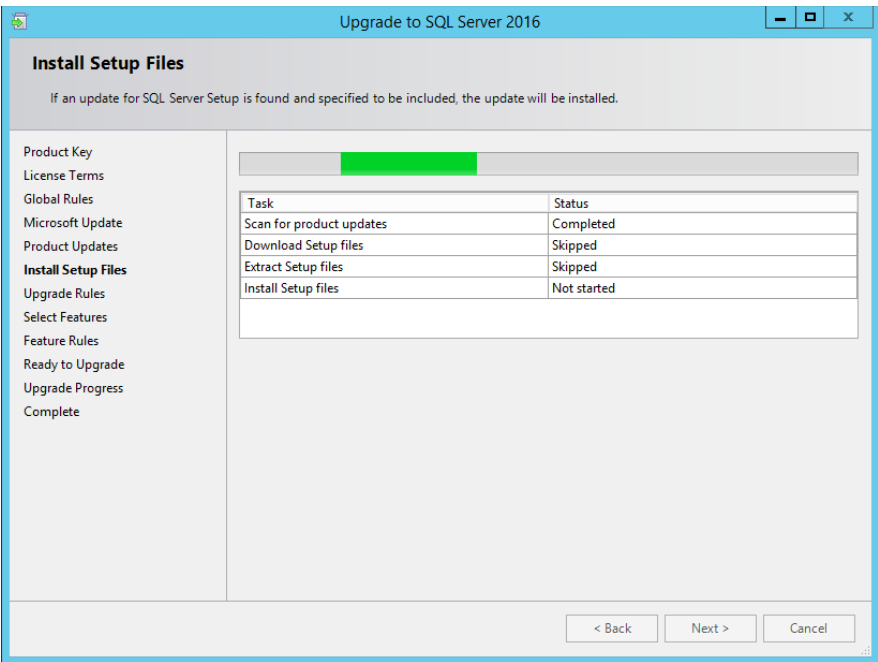
The Installation requirements are then checked.



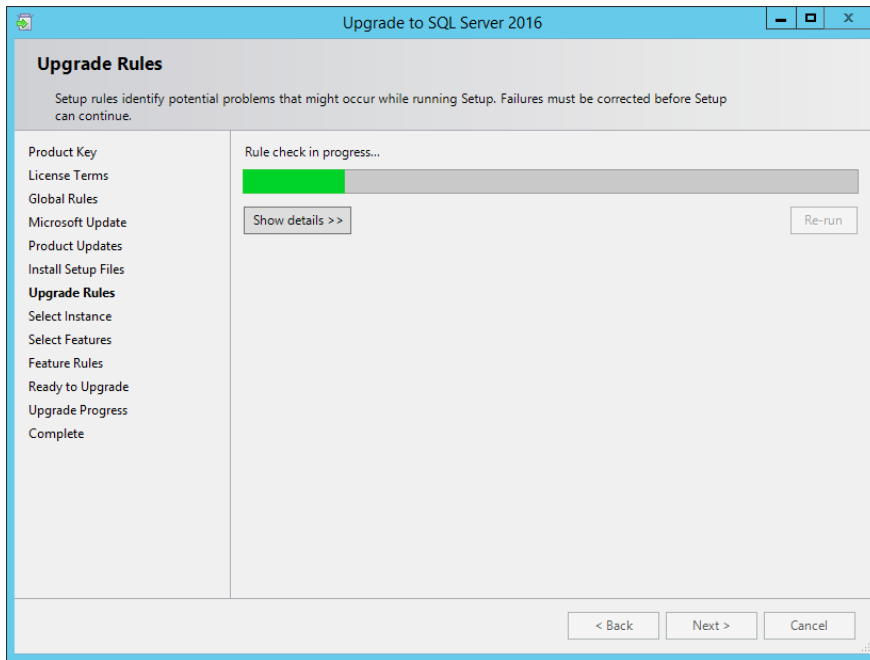
Click on the check box “Use Microsoft Update to check for updates”. Click Next.



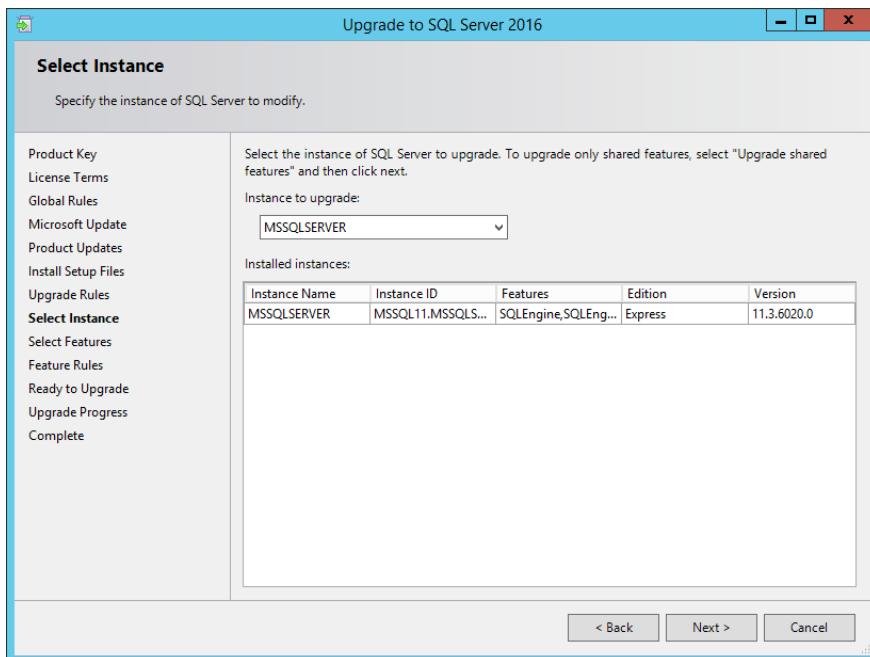
The installer will now prepare for upgrade.



The Upgrade Rules are then checked against the environment.

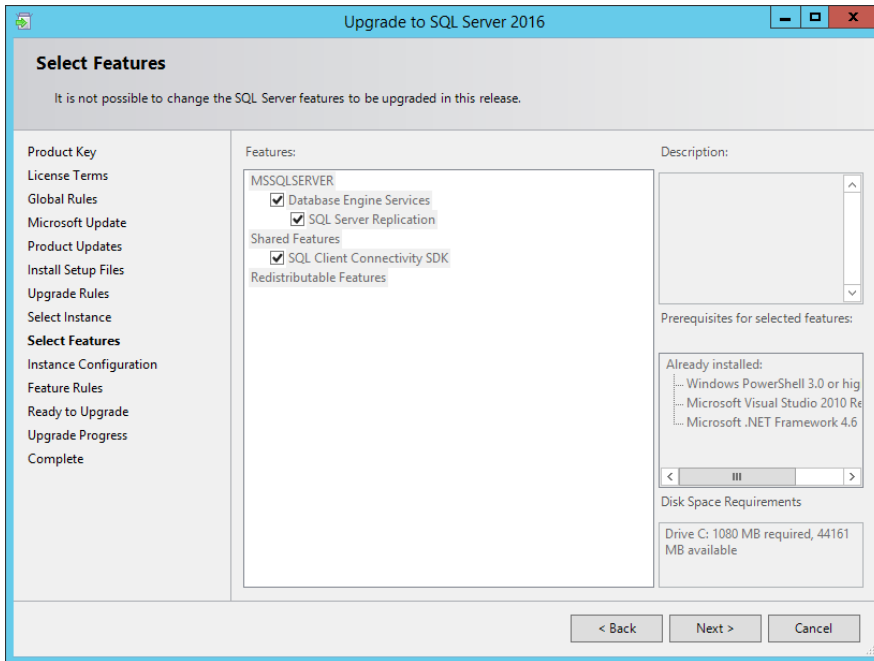


Once done, the following dialog asks which SQL Instance is to be upgraded. The 'Default' instance is denoted by the name 'MSSQLSERVER' in the drop down menu. Select the instance that the Digita software is installed into, typically that will be the 'MSSQLSERVER' instance.



The components installed with the selected instance will then be listed for upgrade.

At this stage, new components cannot be added to the installation. Only existing installed components are upgraded. To add new components after the upgrade, the 'New Installation' route is taken. Click on Next to continue.



The Instance Configuration dialog allows for the instance to be upgraded to a new name. Leave the entries as default. Click on Next to continue.

Instance Configuration

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

Product Key
License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Upgrade Rules
Select Instance
Select Features
Instance Configuration
Feature Rules
Ready to Upgrade
Upgrade Progress
Complete

☐ Default instance
☒ Named instance:

Instance ID:

SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL13.MSSQLSERVER

Installed instances:

Instance Name	Instance ID	Features	Edition	Version
MSSQLSERVER	MSSQL11.MSSQLS...	SQLEngine, SQLEn...	Express	11.3.6020.0

< Back Next > Cancel

The feature rules are then checked.

Feature Rules

Setup is running rules to determine if the upgrade process will be blocked. It is recommended that you run Upgrade Advisor to completely analyze your prior installations. See help for more information.

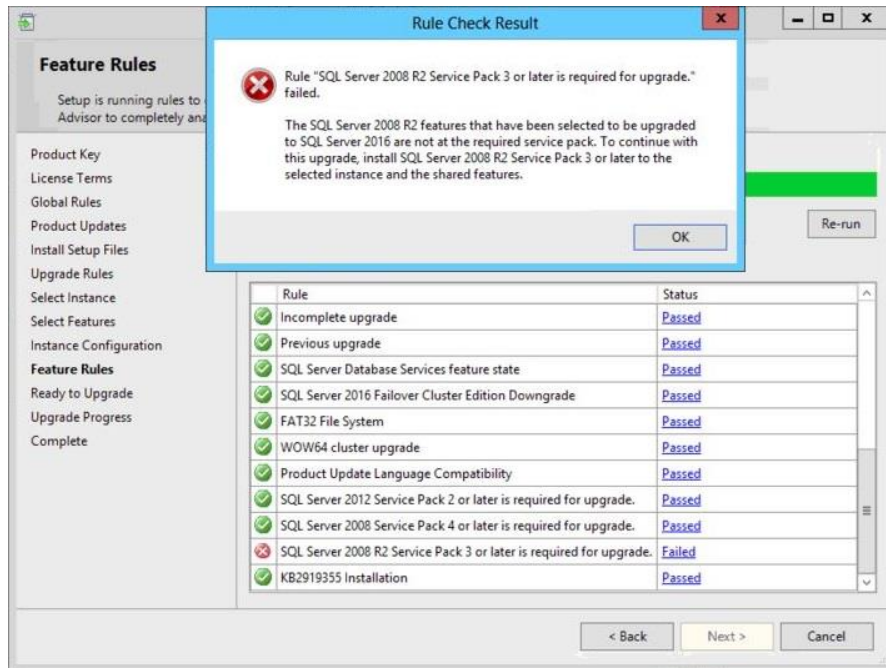
Product Key
License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Upgrade Rules
Select Instance
Select Features
Instance Configuration
Feature Rules
Ready to Upgrade
Upgrade Progress
Complete

Rule check in progress...

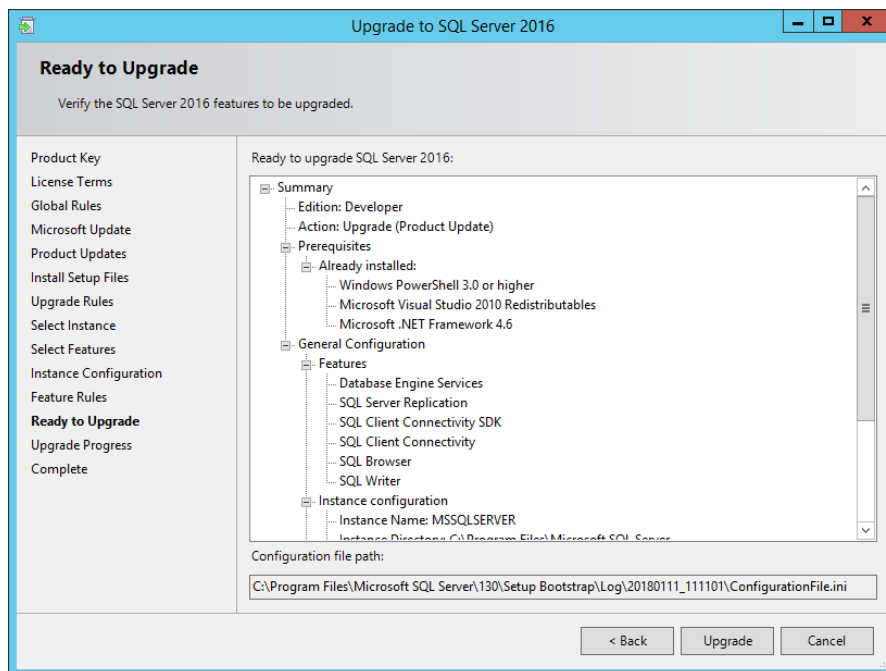
Show details >> Re-run

< Back Next > Cancel

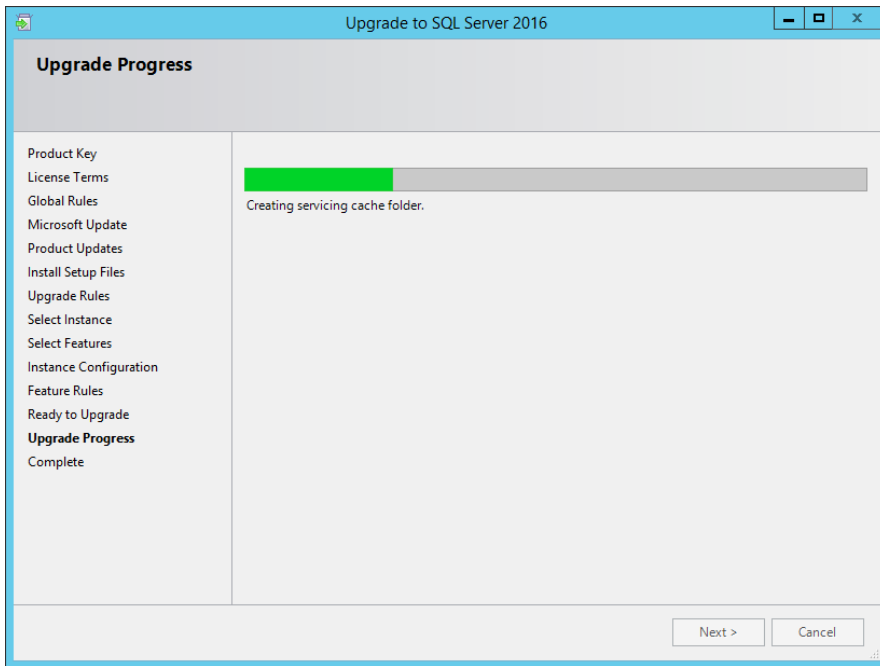
This is where a missing required service pack would present itself as a problem, and it would need to be installed prior to this upgrade continuing.



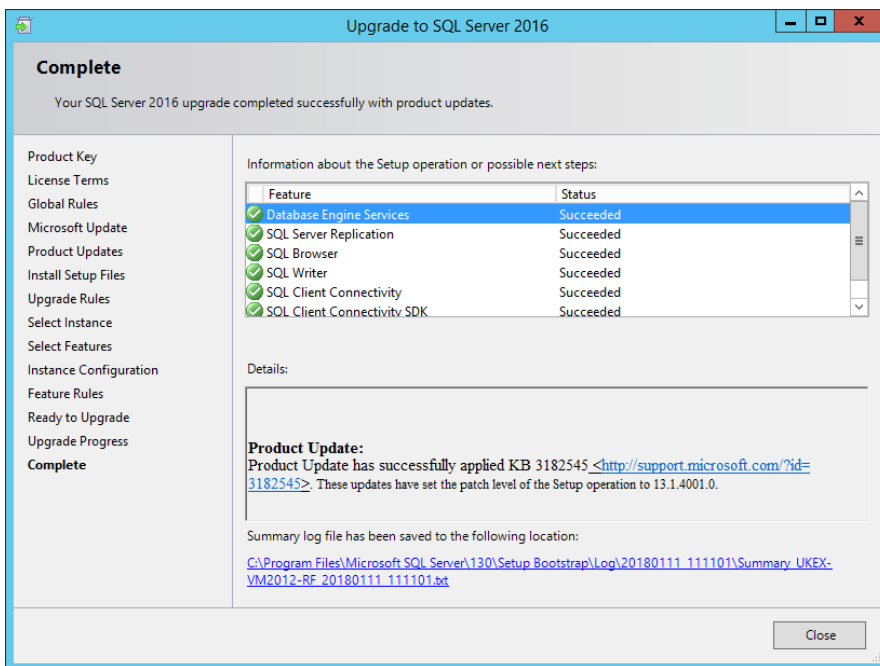
The final dialog before the upgrade starts confirms the components and SQL instance to be upgraded. Click on Upgrade to begin the upgrade.



The upgrader will now proceed, and may take some time depending on the speed of the server.



Once the upgrade has completed, the dialog below will show any failures from the upgrade. If you get any failures, retain as much information as possible from the details box.



SQL Server is now upgraded.

ADDITIONAL CHANGES

SQL Server Settings and Database changes.

Additional updates need to be applied, and we have made it easy to do by means of the script below.

NOTE This can be run for both new installs and upgrades.

1. Download the following ZIP file:
https://productdownloads.digita.com/digitavarious/Post_SQL_Standard_Upgrade.zip
2. Navigate to your 'Downloads' folder.
3. Right click on the ZIP file, and select 'Extract All'.
4. Double click on the extracted CMD file.
5. Agree to the terms, and then select which Version of SQL Server is now installed.

More information on one element of the script update can be found here:

<https://docs.microsoft.com/en-us/sql/database-engine/configure-windows/agent-xps-server-configuration-option>

SQL Server Agent Changes

1. Once done, click on the start menu, type in 'services.msc',
2. Launch the services dialog.
3. Scroll down to 'SQL Server Agent (MSSQLSERVER)'.
4. Double click on it to open the dialog.
5. Change the 'Startup type' to 'Automatic'.
6. Navigate to the 'Log On' tab.
7. Change the 'Log on as' radio button to 'Local System account'.

DATABASE BACKUP TOOL UPGRADE

Once you have upgraded SQL Server, you will need to upgrade the Database backup Tool on the server.

If you are upgrading to....

SQL Server 2016-2022 (v13-v16)

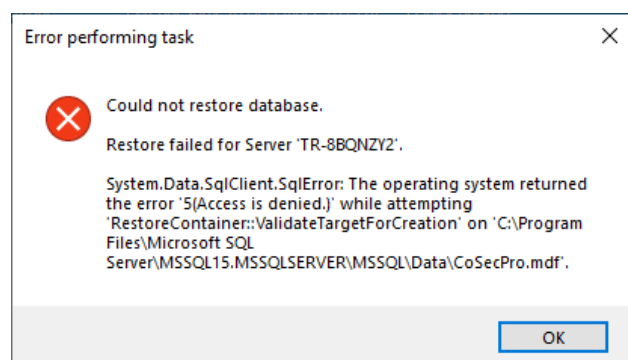
Download and install: https://productdownloads.digita.com/digitavarious/DDB_2_0_1005.zip

SQL Server 2008-2014 (v10-v12)

Download and install: https://productdownloads.digita.com/digitavarious/DDB_1_7_261.zip

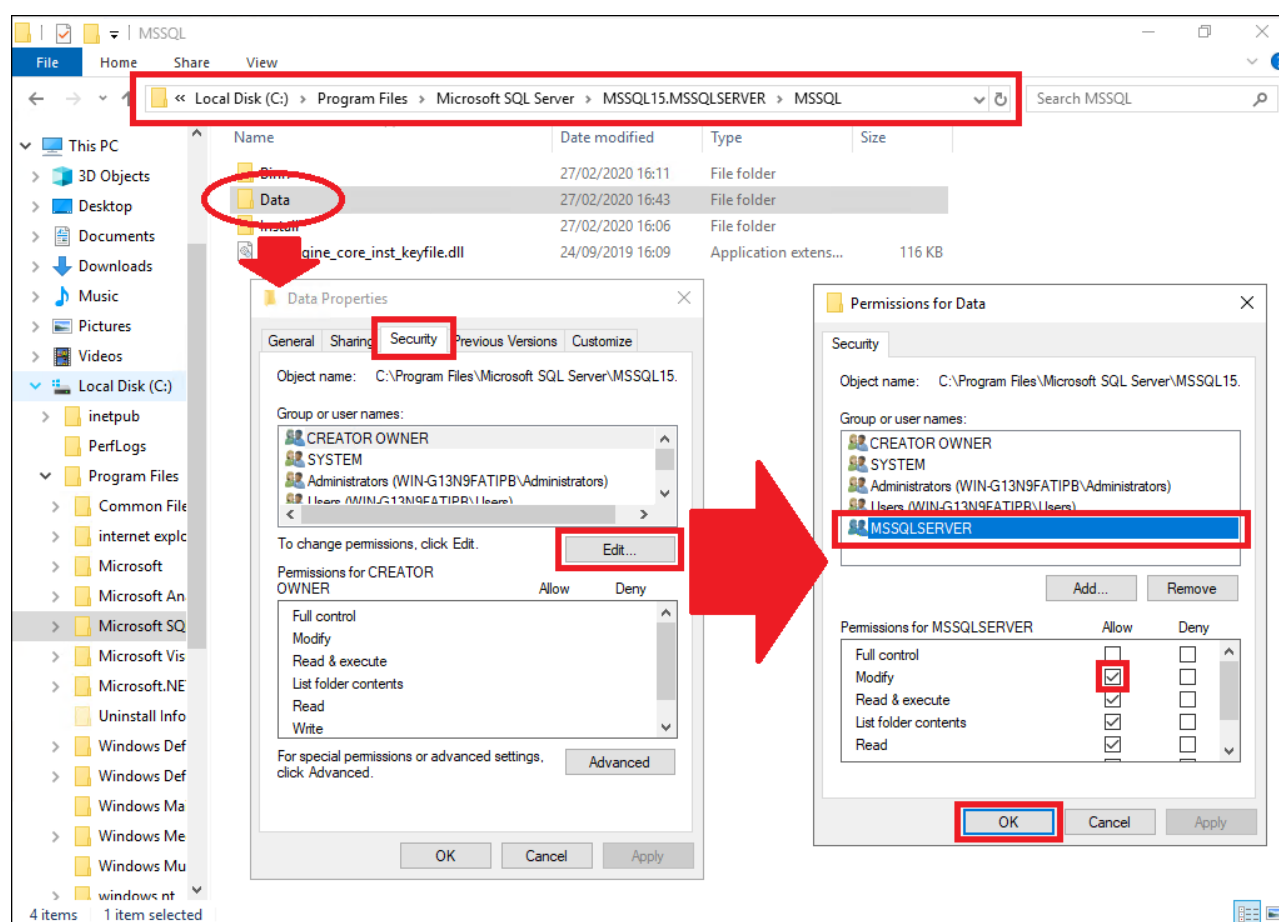
ALL SQL SERVER VERSION UPGRADES

Upon upgrade, all existing database remain in the folder they were before upgrade. However, restoring or installing a new database will make use of the new 'Data' folder location. In some cases, the following error might appear.



The solution to this 'Access is denied' error is to navigate to the 'Data' folder noted in the error (as shown below), right click on the Data folder and select 'Properties'. If you are pre-empting this, you may need to create the folder first.

Select the 'Security' tab, and select 'Edit'. Select 'MSSQLSERVER' user, then check the 'Modify' check box. Then 'Ok'.



The database will then successfully restore.