SQL SERVER CLUSTER CONFIGURATION

SQL Server 2008 Cluster Installation Information Template

07 June 2010

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Document Control

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Section Title	Section No.	Amendment Summary

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Contents

1 Clustering Overview

This document covers the installation of a dedicated SQL Server 2008 Standard Edition named instance cluster into a Node & Disk Majority (default) quorum topology. SQL Server 2008 SSAS is also installed as part of the cluster configuration and shares a physical disk resource with the SQL Server instance data files. The current service pack is then applied post installation of add node. This document assumes that the MSCS cluster is already configured and available and passed verification. Any issues validating the cluster **must** be resolved prior to installing SQL Server 2008.

1.1 Introduction

Both nodes OS are X64 Windows Server 2008R2 Enterprise Edition

The primary node is labelled N03-P-TFSSQL-01

The secondary node is labelled N03-P-TFSSQL-02

The clustered named instance is labelled TFSSQL01\TFSSQL01

The cluster is labelled NCL-TFSSQL

The analysis services cube is labelled Tfs_Analysis dependent on - TFSSQL01\TFSSQL01

In-depth dependencies and cluster validation reports can be generated via the Windows Server Manager / Failover Cluster Manager snap in. These also include reporting on the “public” and “private” teamed NIC configurations.

2 Installation Prerequisites

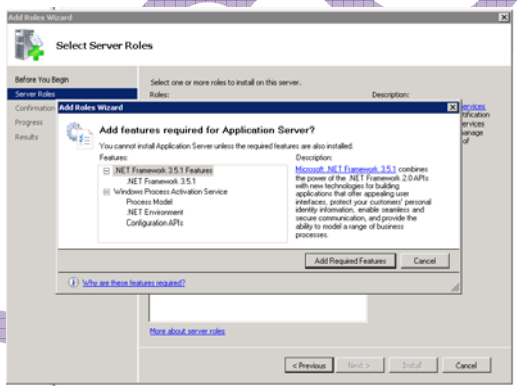
All installation work must be done using the Administrator Account

2.1 Both Nodes

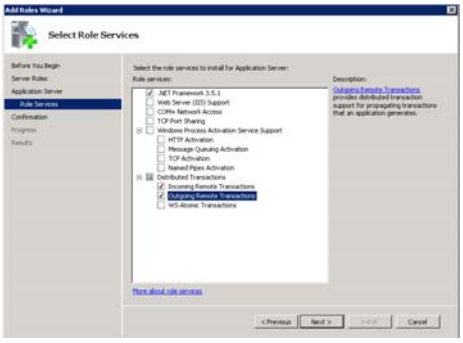
Before installing SQL Server 2008 carry out the following prerequisite steps on **both** nodes to install .Net 3.5, Windows Installer 4.2, Application Server and MSDTC support.

2.1.1 Install Windows Server 2008 Application Server Role

- From the server manager on each node select “Roles”, “Add Roles” and then select “Application Server Role” and add the attached features.



- Also select “Incoming Remote Transactions” and “Outgoing Remote Transactions” from the select Role Services screen; confirm and install.

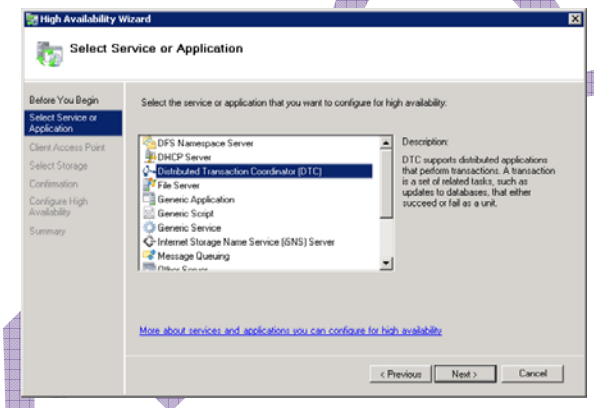


3 Clustering SQL Server 2008

This installation begins with installing a single node SQL Server 2008 failover cluster and ends with add node.

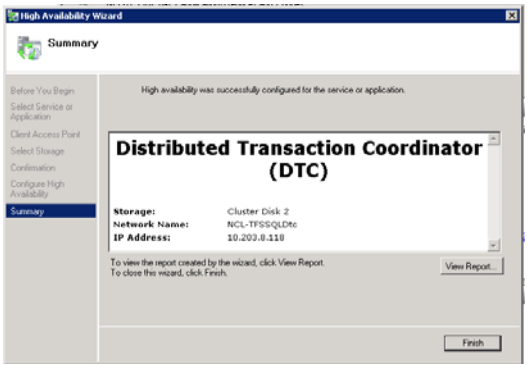
3.1 Installing MSDTC

- From Server Manager select “Features/Failover Cluster manager/Cluster Name/Services and Applications” and select “Distributed Transaction Coordinator (DTC)”



- On the two following screens type in the name of the MSDTC for the client connections to use and allocate it an IP Address, then assign it to its **own** shared storage.

- select “Finish”



3.2 Installing SQL Server

- Download the current service pack for SQL Server 2008 and extract it to a folder. In this example the service pack was extracted to folder C:\SP1. **Slipstream** the installation media following this article "Basic Slipstream Steps". This applies SP1 (current service pack) to the installation media

  ```
  SQLServer2008SP1-KB968369-x64-ENU.exe /x:C:\SP1
  ```

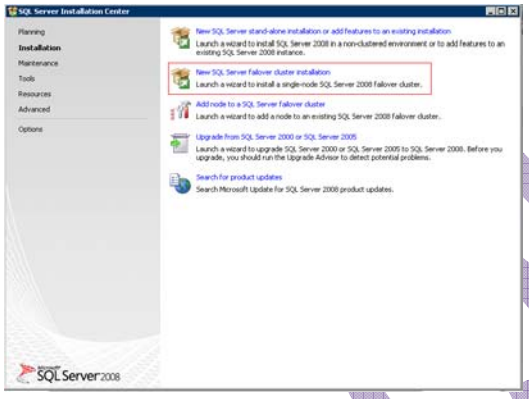
  Install the "Set up Support Files" following several on screen prompts and then click finish.

  ```
  C:\SP1\x64\setup\1033\sqlsupport.msi
  ```

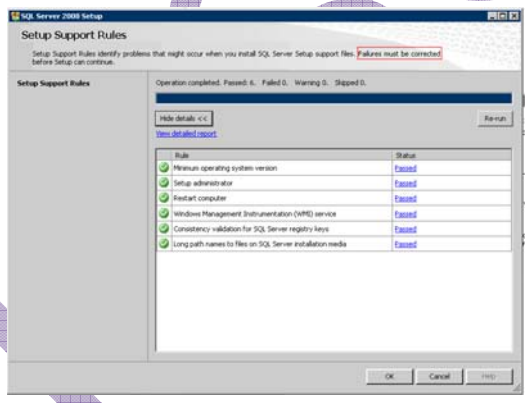
- Launch the SQL Server 2008 Installation Centre on node 01 from the slipstreamed installation media by running the following command to in the SQL Server 2008 installation media directory to launch the SQL Server 2008 Installation Centre

  ```
  Setup.exe /PCUSource=C:\SP1
  ```

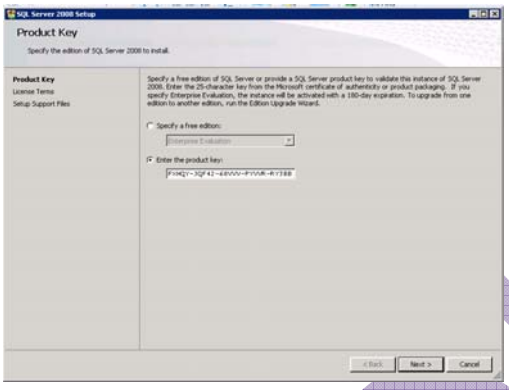
- Select Installation and New SQL Server failover cluster installation.



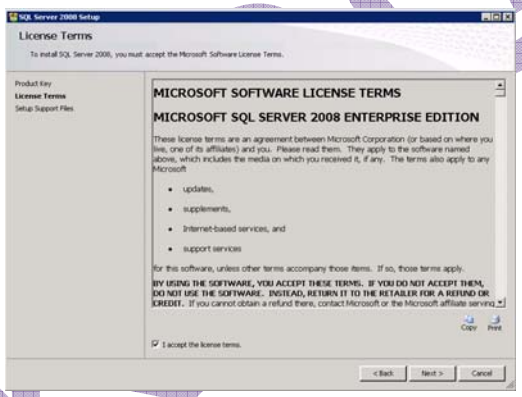
- Run set up support rules. All failures **must** be corrected.



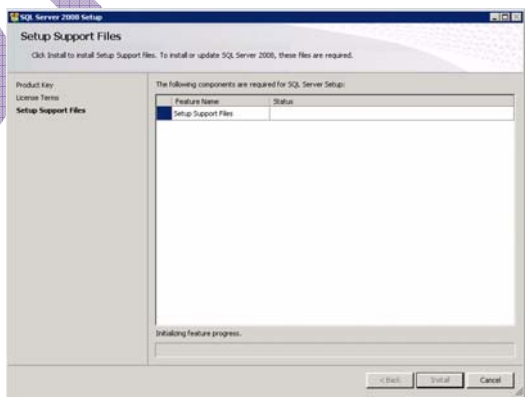
- Enter the product key.



- Accept the EULA.



- Install Set Up Support Files.

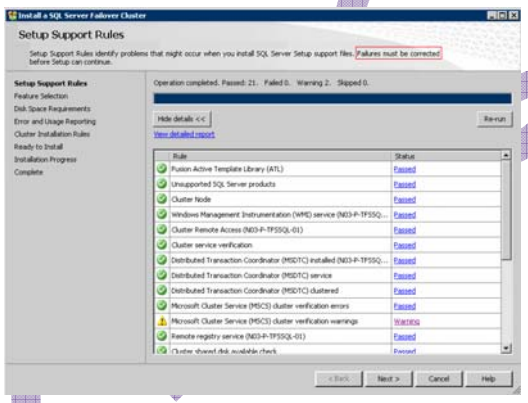


- Correct any errors in Set up Support Rules to continue. Cluster verification warnings should not be ignored however they will not halt installation.

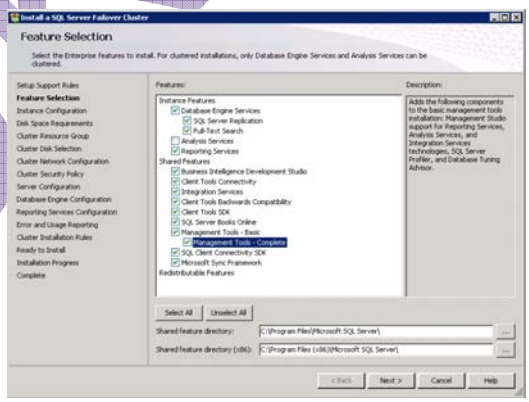
  To remove ghost adapters refer to the following article.

  To correct network binding errors swap round the values under the registry key

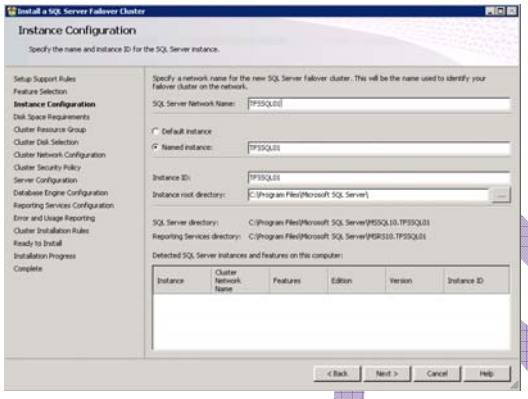
  `HKLM\SYSTEM\CurrentControlSet\Services\Tcpip\Linkage`

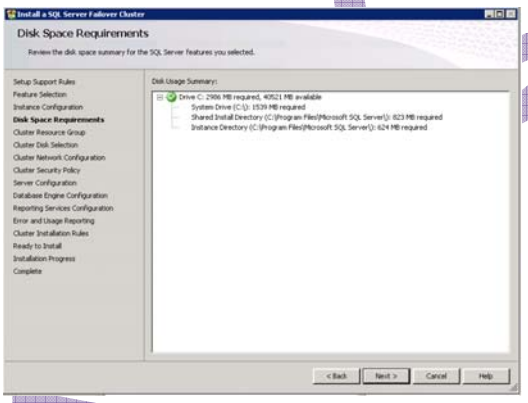


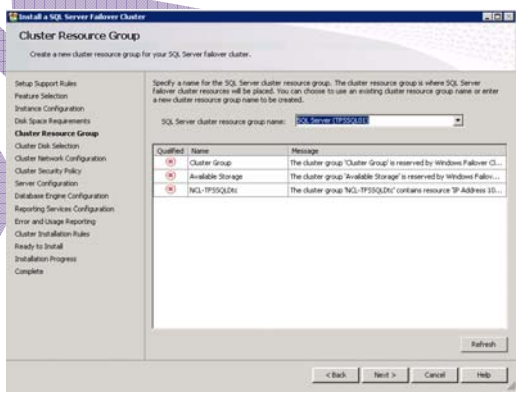
- Select the features to install.



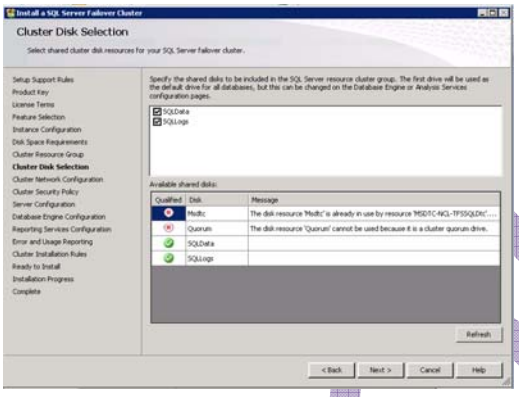
- Configure the instance id and name.



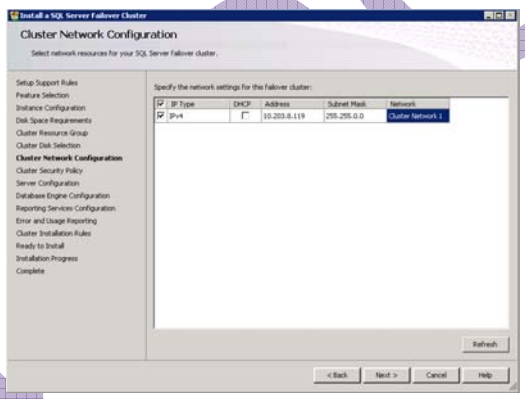




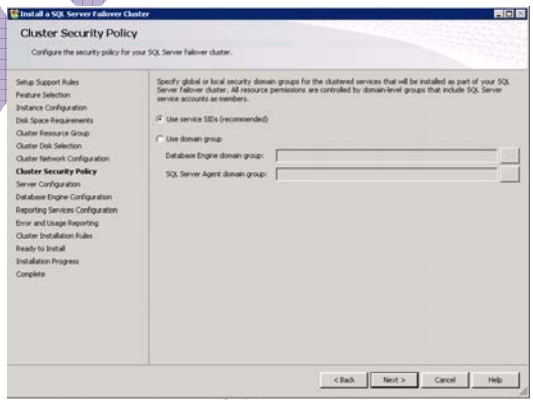
- Allocate the shared disks.



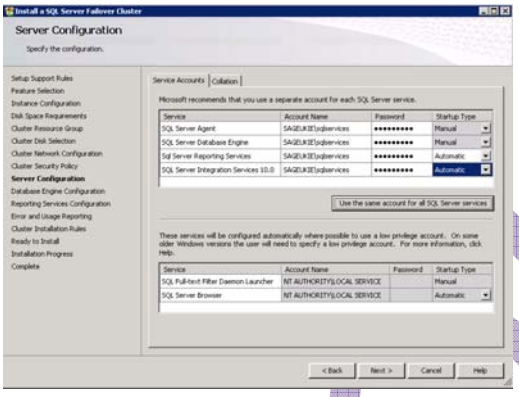
- Allocate the instance IP.



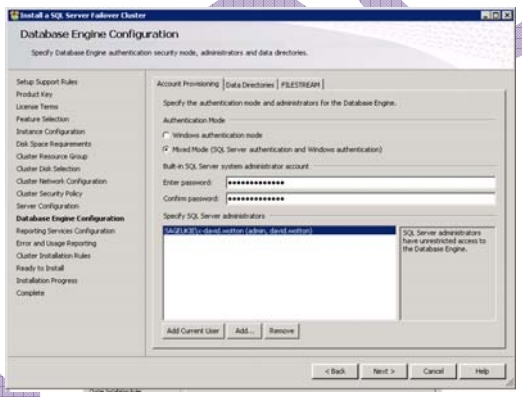
- Accept the default policy.

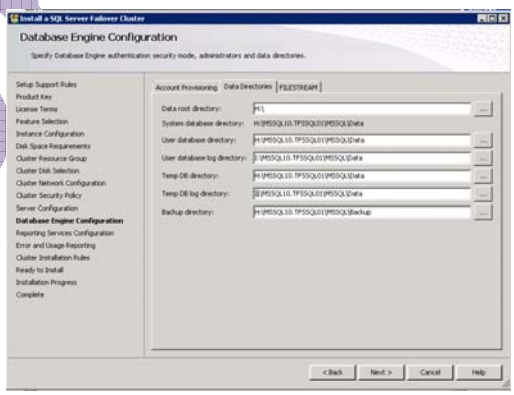


- Allocate the instance start up security and default language.

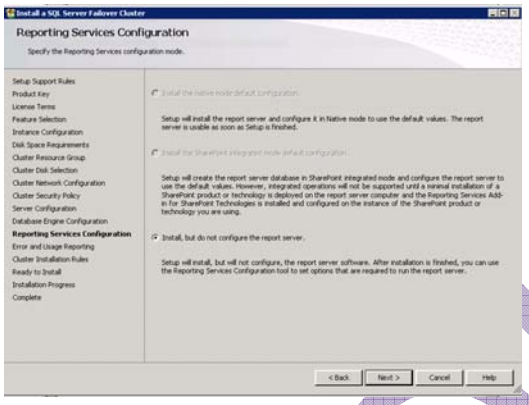


- Configure instance security, shared data directories and add current user.

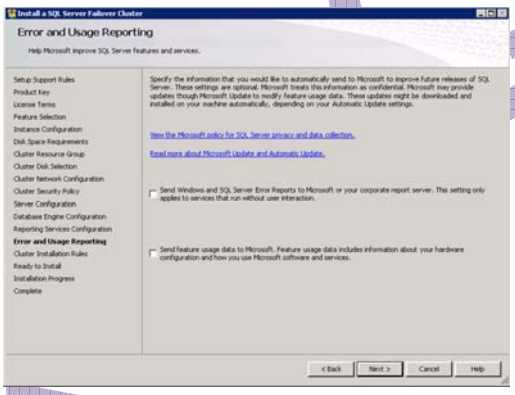




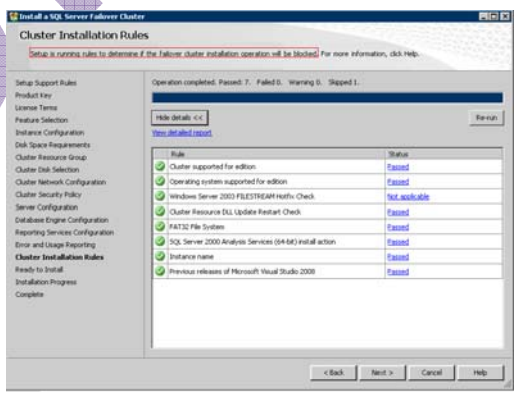
- Choose SSRS configuration options.



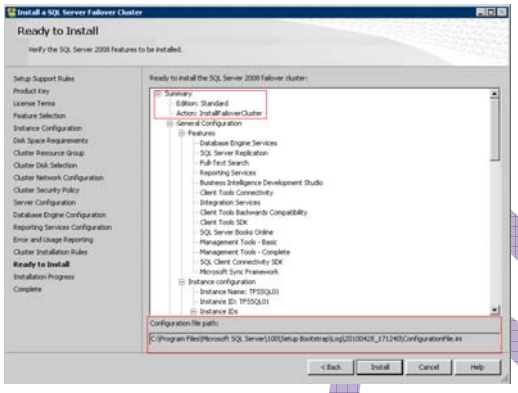
- Choose or ignore notifications.



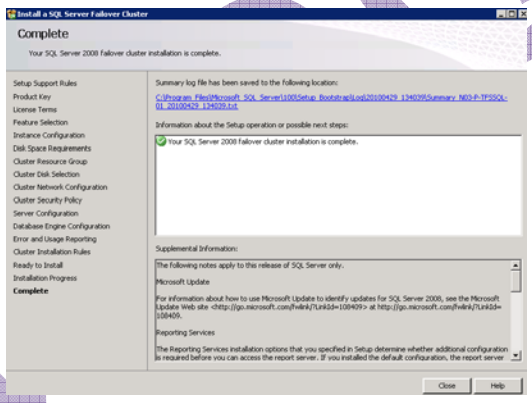
- Repair any blocked rules to continue.



- Install.



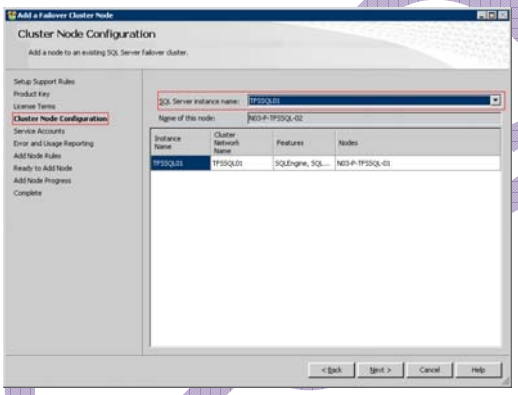
- Completed installation of single node SQL Server 2008 failover cluster.



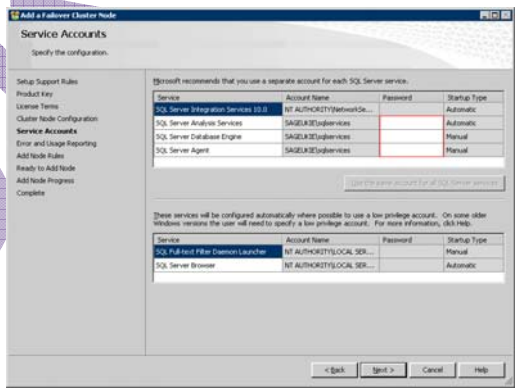
3.3 Add Node

To add a node to a single node SQL Server 2008 failover cluster run the SQL Server 2008 installation media on the node that is being added to the cluster. Some installation screen captures will be omitted from this step as they are the same as the installation steps installing a single node SQL Server 2008 failover cluster.

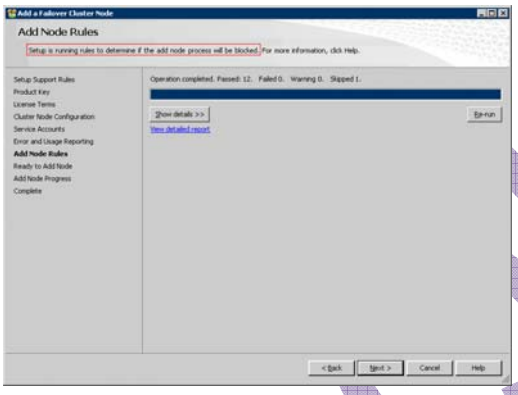
- On the cluster node configuration screen identify the clustered instance and node to add.



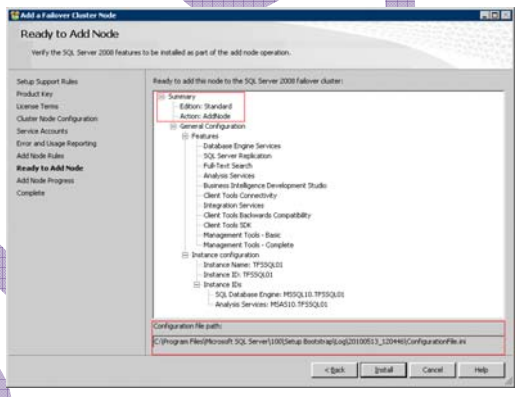
- Enter the service account security.

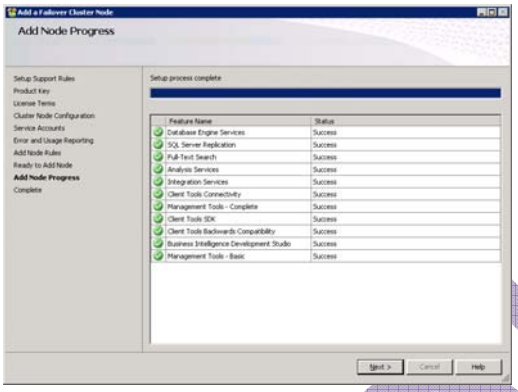


- Rule checks.

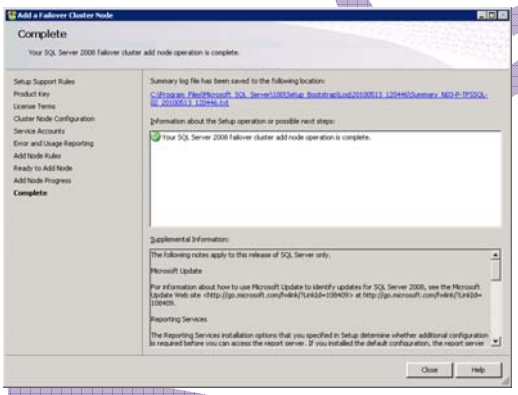


- Add node 02. On completion there may be a warning that node 02 requires the current SQL Server 2008 service pack level applying to bring Node 02 into line with Node 01.





- Completed installation of adding a node to a single node SQL Server 2008 failover cluster.

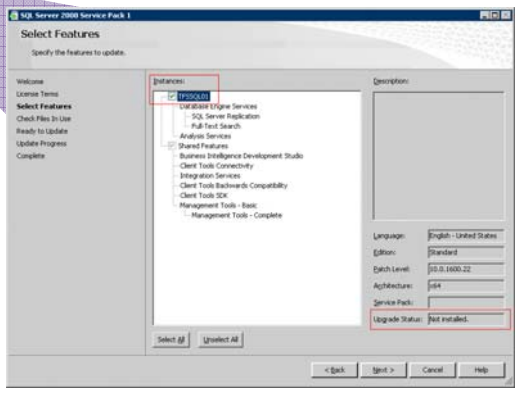


3.4 Apply Current Service Pack

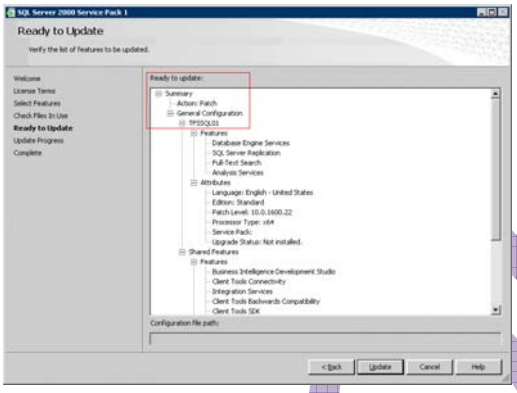
Download the current SQL Server 2008 Service Pack and apply firstly to the node holding no current resources, failover if necessary and then re-apply the service pack to the remaining node holding no resources. Again some screen captures from installing the Service Pack will be omitted as they appear in installing a single node SQL Server 2008 failover cluster and add node. **Ensure** a backup is available prior to applying **any** service pack.

- Accept the license terms.

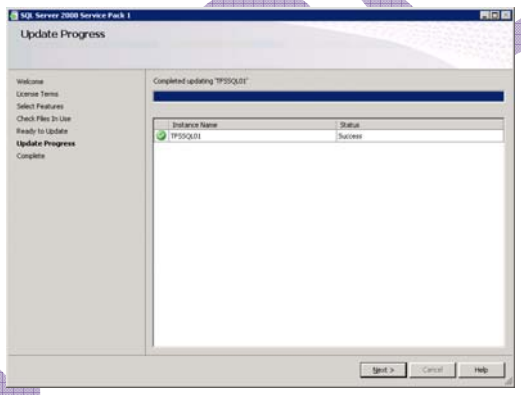
- Select features to upgrade.

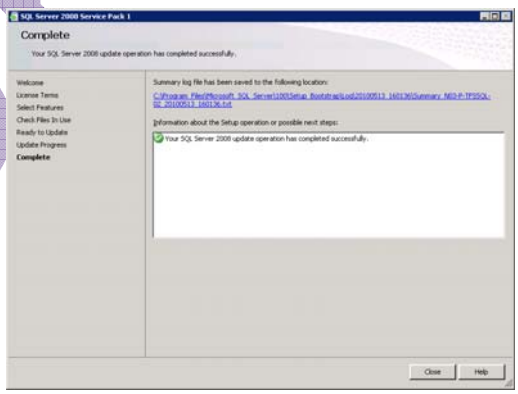


- Update.



- Completed.





4 Appendix

4.1 Useful Links

http://support.microsoft.com/kb/955392

http://support.microsoft.com/?kbid=968369

http://support.microsoft.com/kb/955963