

# SQL Server 2012 on Windows Server 2012

2024

TECHNICAL PAPERS



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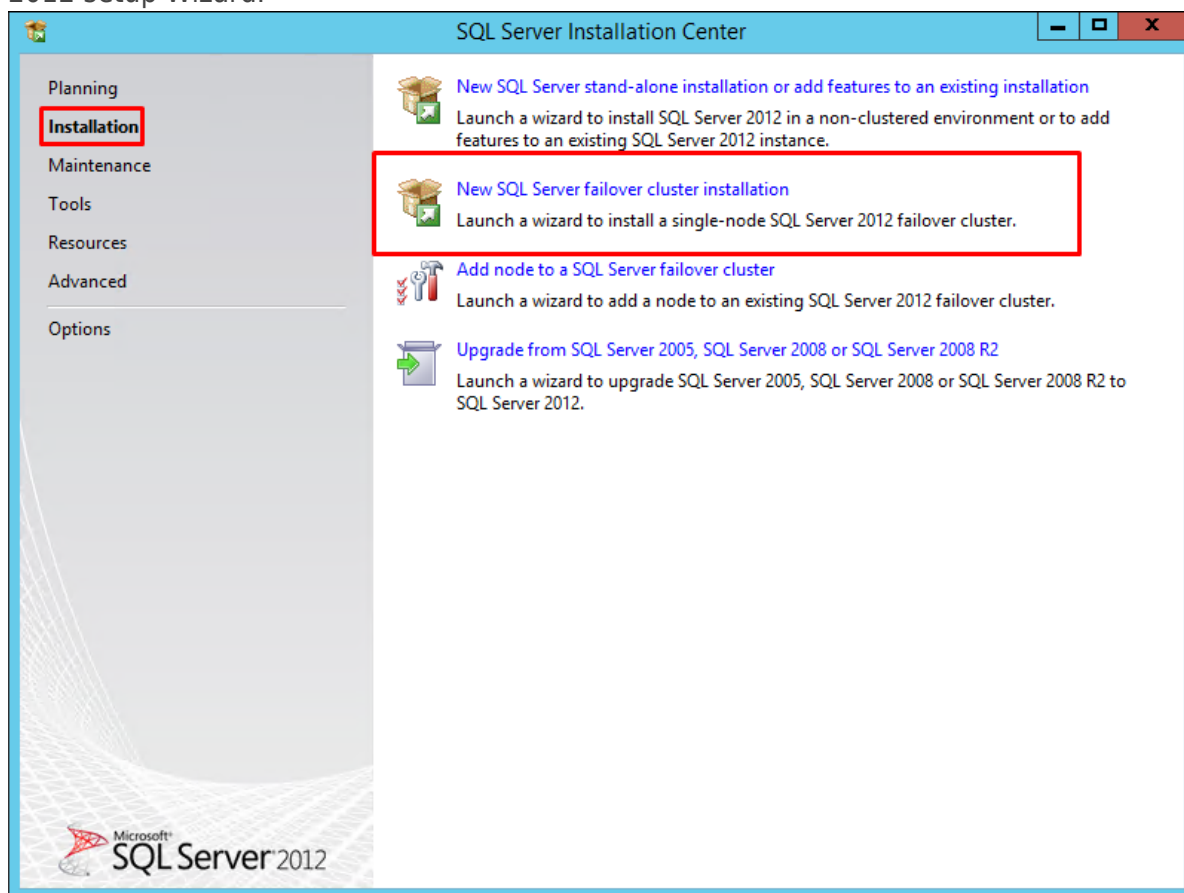
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## Installing Sql Server 2012 On The Failover Cluster

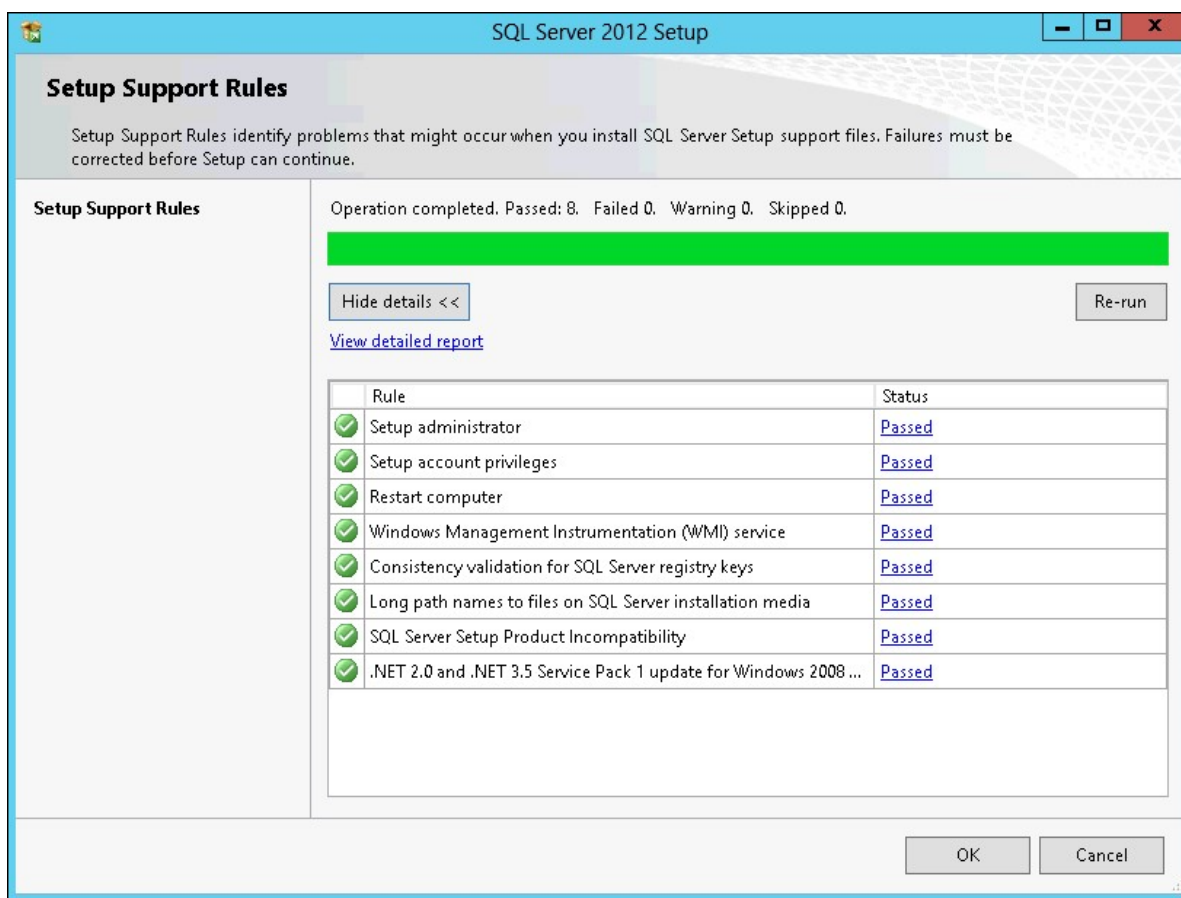
This configuration part assumes that the Windows Server 2012 hosts are configured and Failover Cluster is created on top of StarWind HA storage.

NOTE: The installation process will be performed on the first node of the cluster, SQLNODE1.

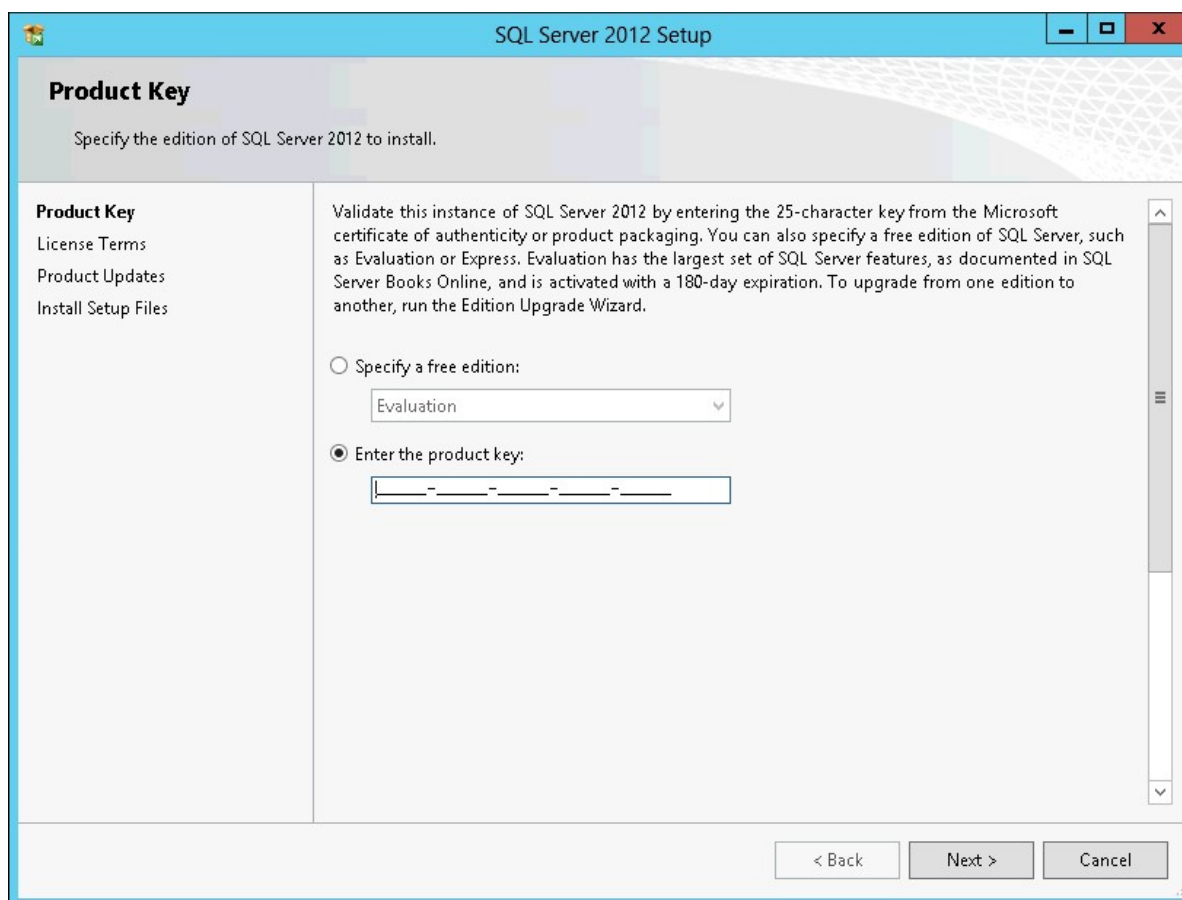
1. Run setup.exe from the SQL Server 2014 installation media to launch SQL Server Installation Center.
2. Click on the New SQL Server failover cluster installation link to run the SQL Server 2012 setup Wizard.



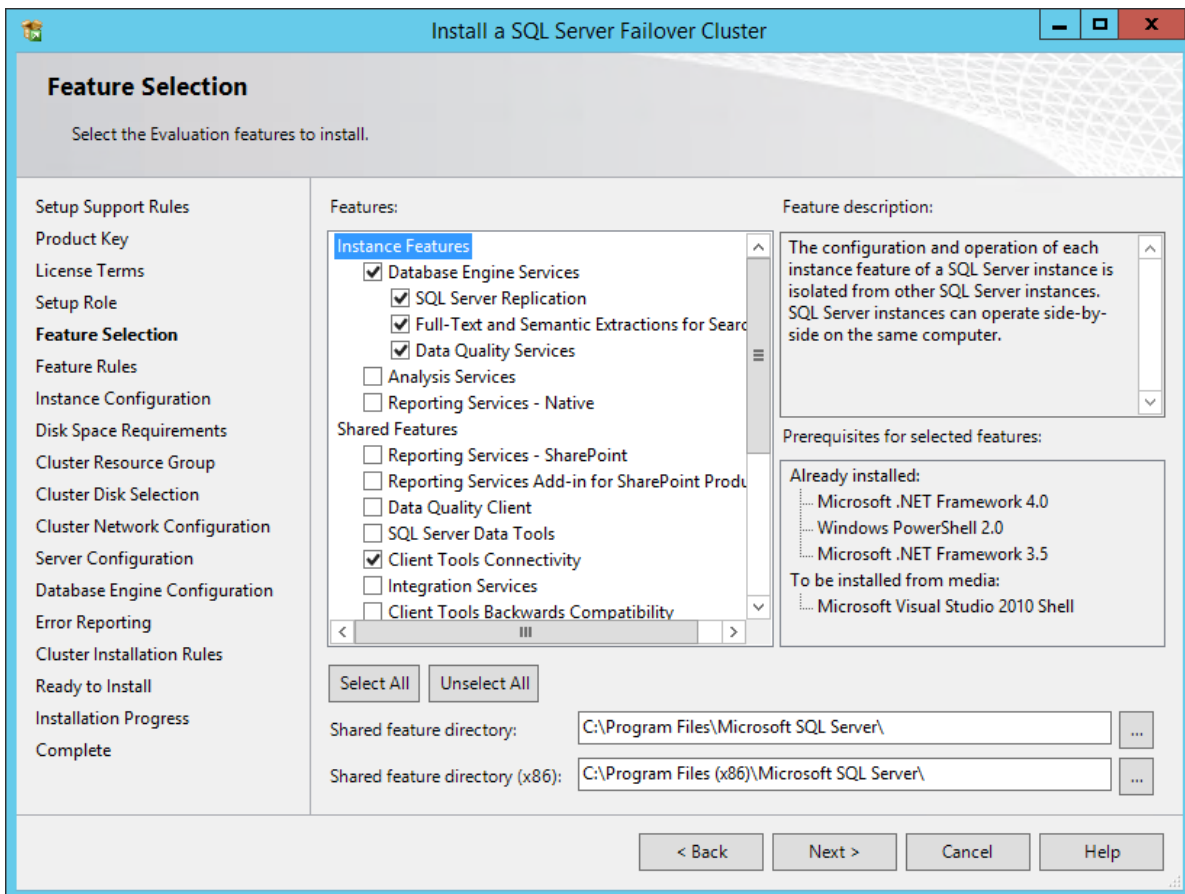
3. In the Setup Support Rules dialog box, validate that the tests return successful results and click Next.



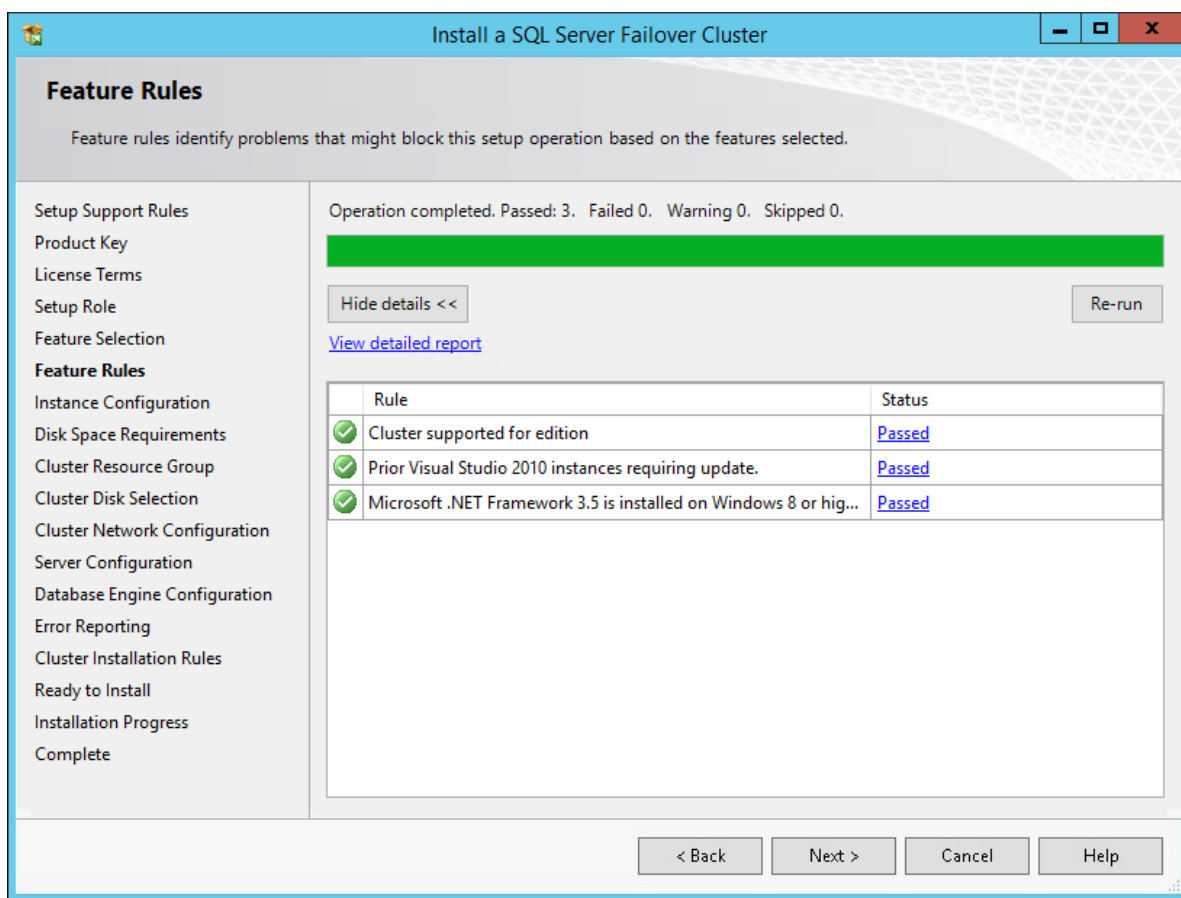
4. In the Product Key dialog box, enter the product key that came with the installation media and click Next.



5. Read the License Terms dialog box and enable the I accept the license terms checkbox. Click Next.
6. In the Setup Role dialog box, choose the SQL Server Feature Installation option and click Next.
7. In the Feature Selection dialog box, select Database Engine Services and Management Tools. Click Next.



9. In the Feature Rules dialog box, verify that all the rules have passed. If the rules return warnings, make sure they are fixed before proceeding with the installation. Click Next.



10. In the Instance Configuration dialog box, enter the following details:

SQL Server Network Name: type the name of the cluster

Instance ID: MSSQLSERVER

**Install a SQL Server Failover Cluster**

**Instance Configuration**

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

Specify a network name for the new SQL Server failover cluster. This will be the name used to identify your failover cluster on the network.

SQL Server Network Name:

☒ Default instance

☐ Named instance:

Instance ID:

SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL12.MSSQLSERVER

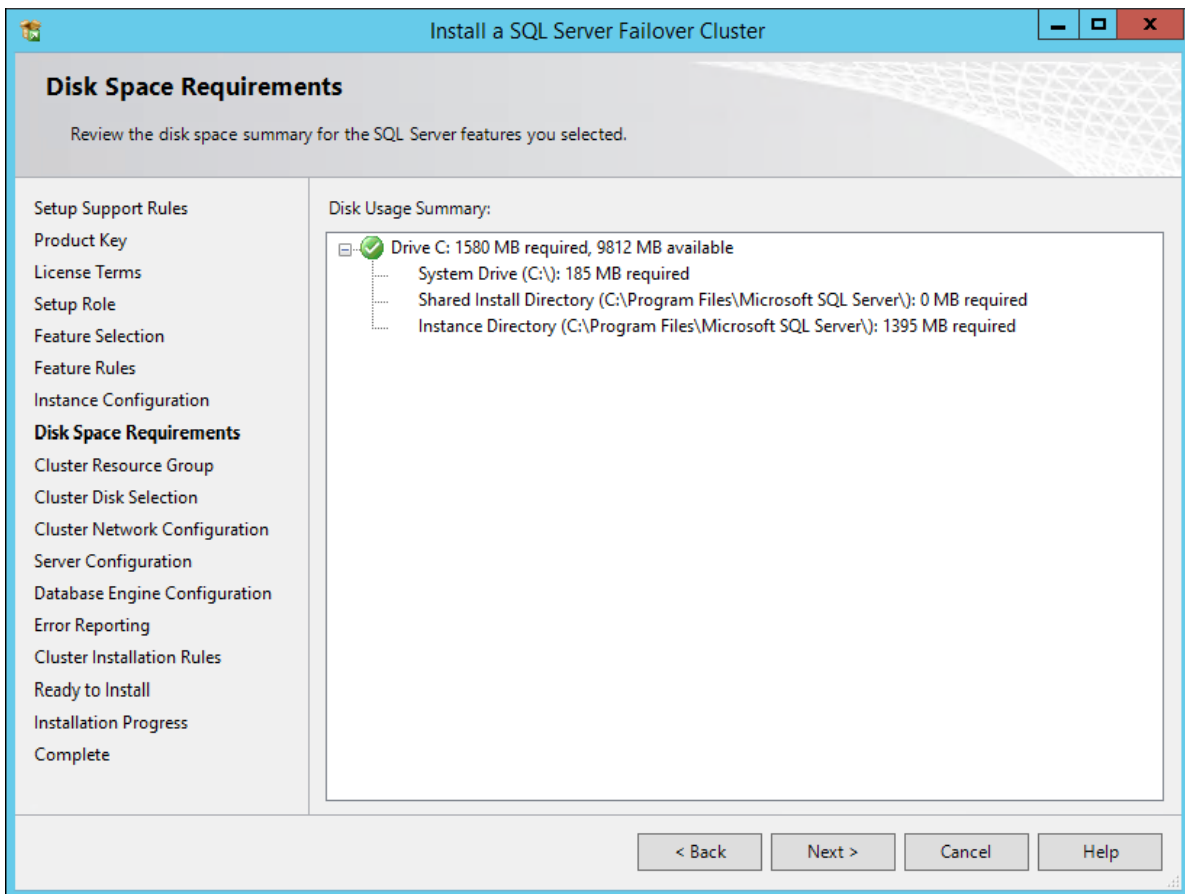
Detected SQL Server instances and features on this computer:

Instance	Cluster Network Name	Features	Edition	Version	Inst

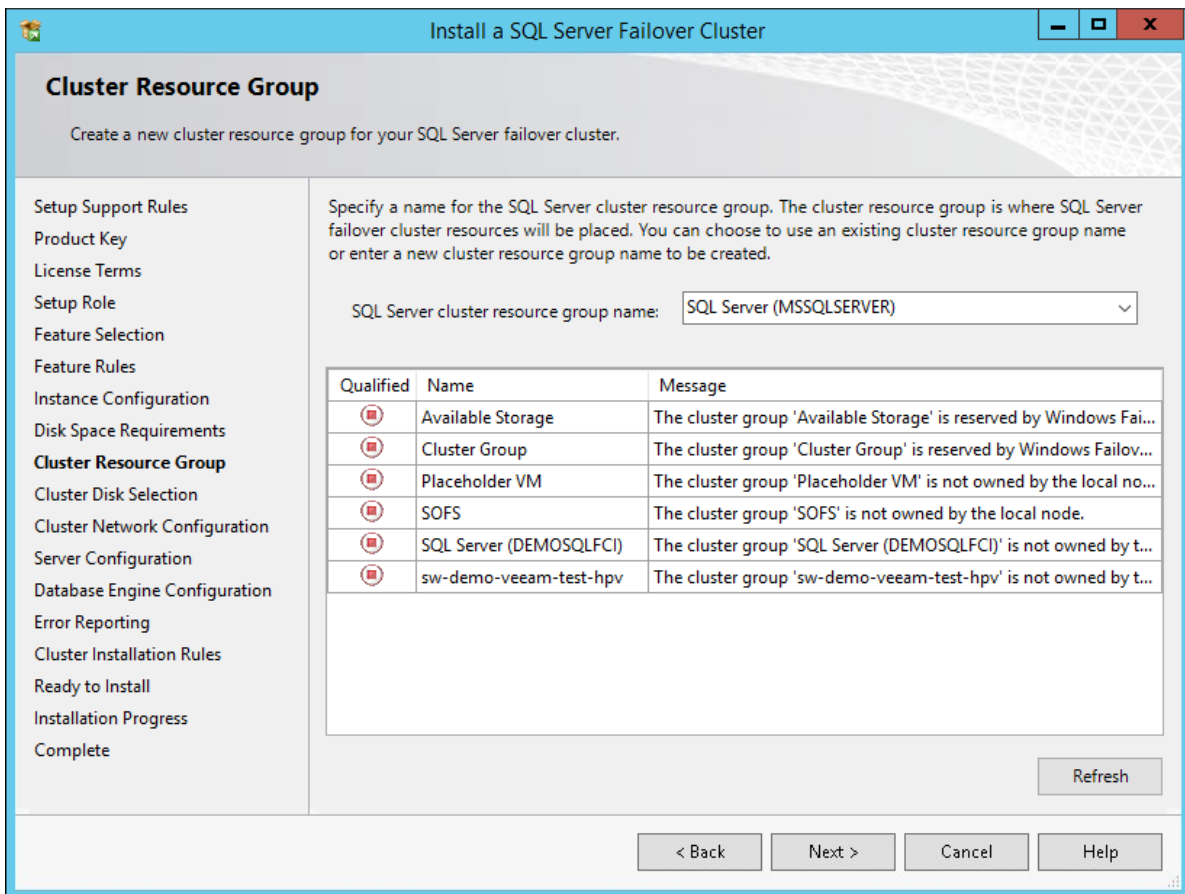
< Back   Next >   Cancel   Help

11. In the Disk Space Requirements dialog box, check that there is enough space on local disks to install the SQL Server 2012 binaries. Click Next.

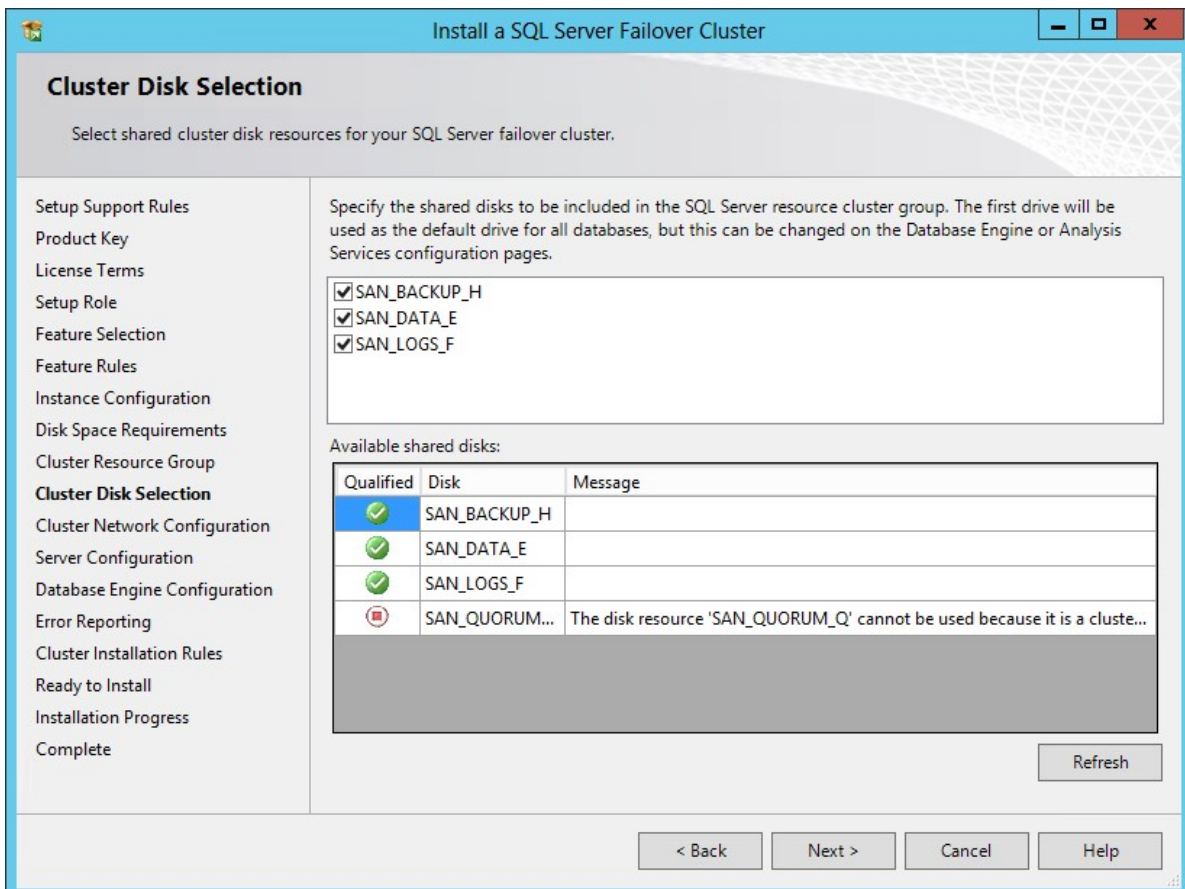




12. To make sure that a new Resource Group for the SQL Server Failover Cluster Instance can be created, check the resources availability in the Cluster Resource Group dialog box. To specify an existing SQL Server cluster resource group name, use the drop-down list or type the name of a new group to create it. Accept all the defaults and click Next.



13. In the Cluster Disk Selection dialog box, select the available disk groups that are to be used in the cluster for SQL Server 2012.



14. In the Cluster Network Configuration dialog box, enter the virtual IP address that the SQL Server 2014 Failover Cluster Instance will use. The checkbox next to the IPv4 column will be used as a static IP address instead of the DHCP-assigned one. Click Next.

15. Type the IP address: 10.4.0.15 (similar to the virtual IP address for the virtual host name/client access point, the IP address could be any within the range of the Production subnet as long as it is available).

**Cluster Network Configuration**

Select network resources for your SQL Server failover cluster.

Specify the network settings for this failover cluster:

<input checked="" type="checkbox"/> IP Ty...	DHCP	Address	Subnet Mask	Subnet(s)	Network
<input checked="" type="checkbox"/> IPv4	<input type="checkbox"/>	172.16.0.212	255.255.254.0	192.168.12.0/23	Management

Refresh

< Back   Next >   Cancel   Help

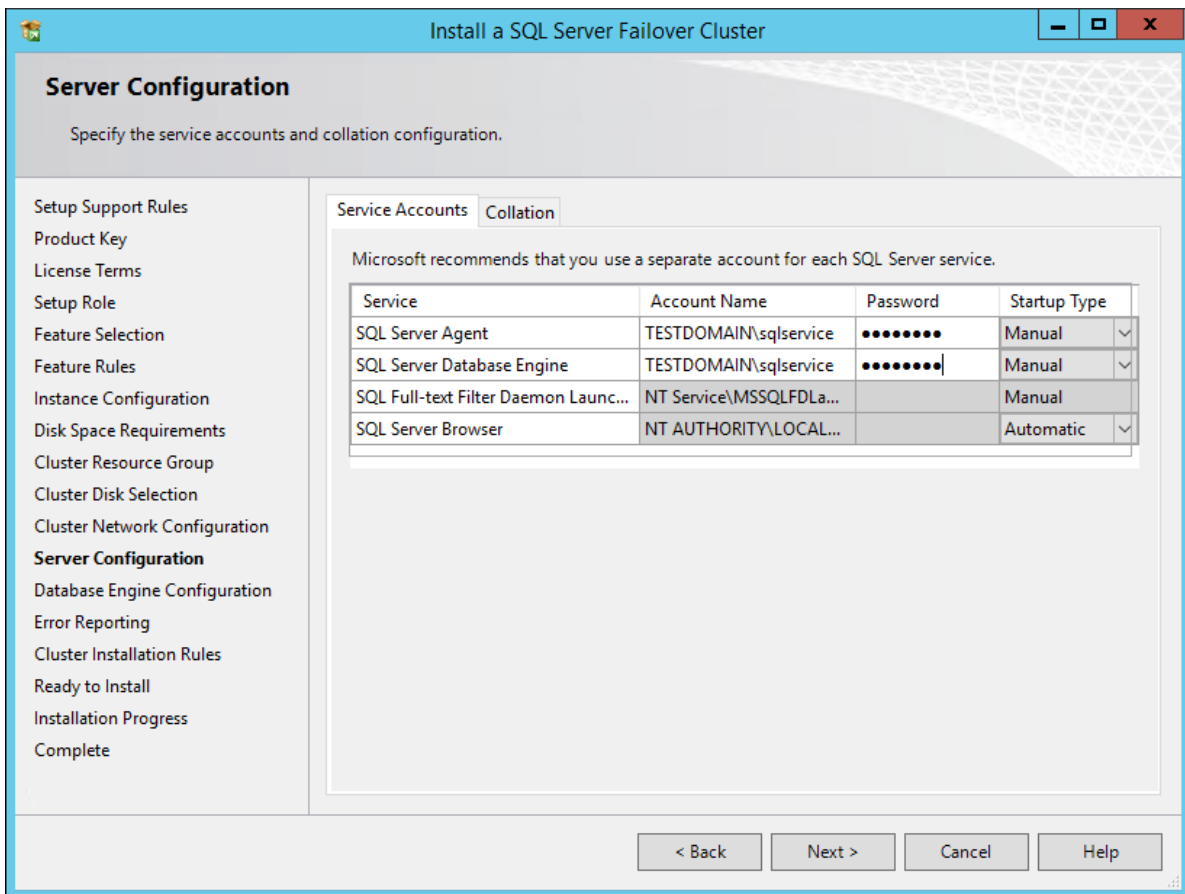
NOTE: The network adapter settings that will be displayed in this dialog box will depend on how the cluster network adapters are configured. Make sure to configure the Heartbeat-iSCSI network adapters with the Do not allow cluster network communication on this network option.

16. In the Server Configuration dialog box, use the following credentials for the SQL Server service accounts in the Service Accounts tab:

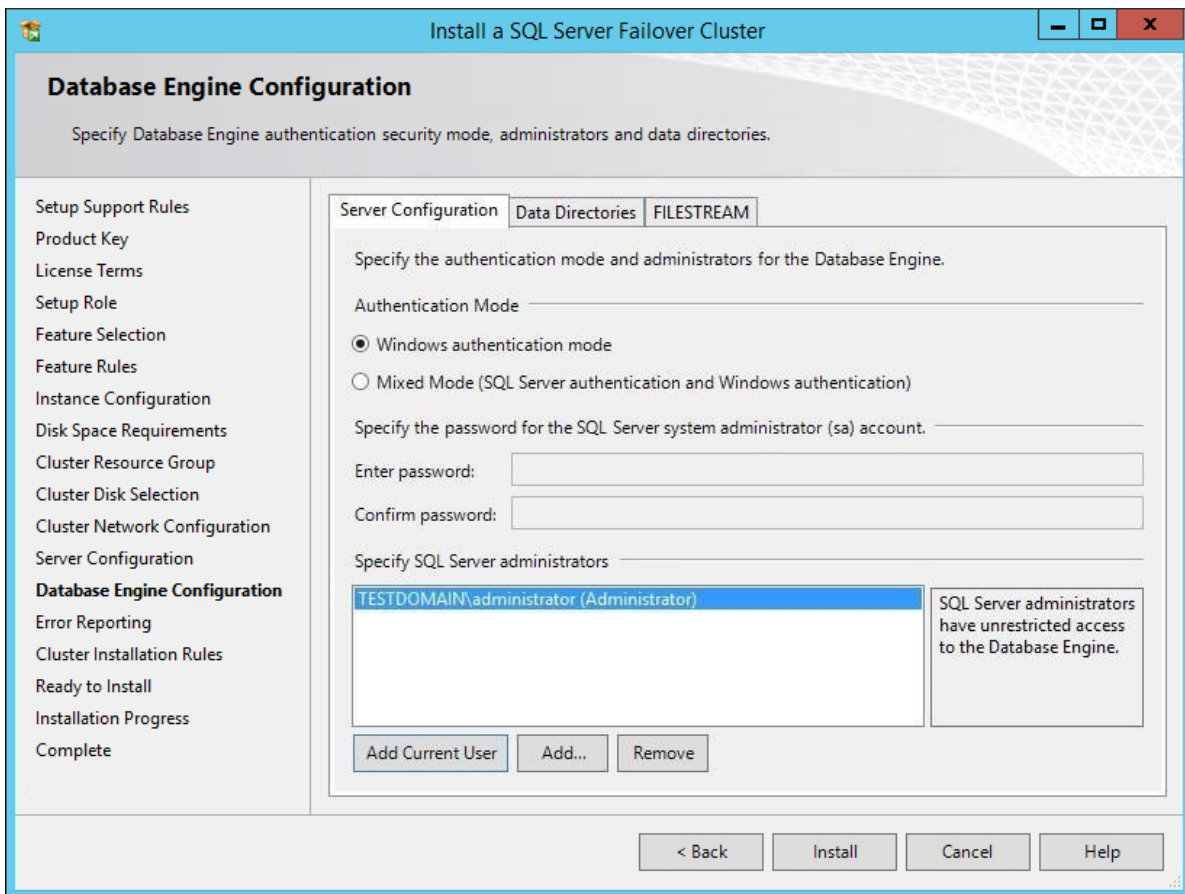
SQL Server Agent: SWTEST\sqlservice

SQL Server Database Engine: SWTEST\sqlservice

Note: Make sure that both SQL Server Agent and SQL Server Database Engine services have the Manual Startup Type. The Windows Server Failover Cluster will take care of stopping and starting the service. Also, set the Collation property for the instance according to the application requirement.



17. In the Database Engine Configuration dialog box, select the appropriate Authentication Mode in the Server Configuration tab. To add the currently logged on user to the SQL Server administrators group, click the Add Current User button. Otherwise, add the appropriate domain accounts or security groups.



18. In the Data Directories tab, enter the following data (based on the available cluster disks):

Data root directory: J:\

User database directory: J:\MSSQL12.MSSQLSERVER\MSSQL\Data

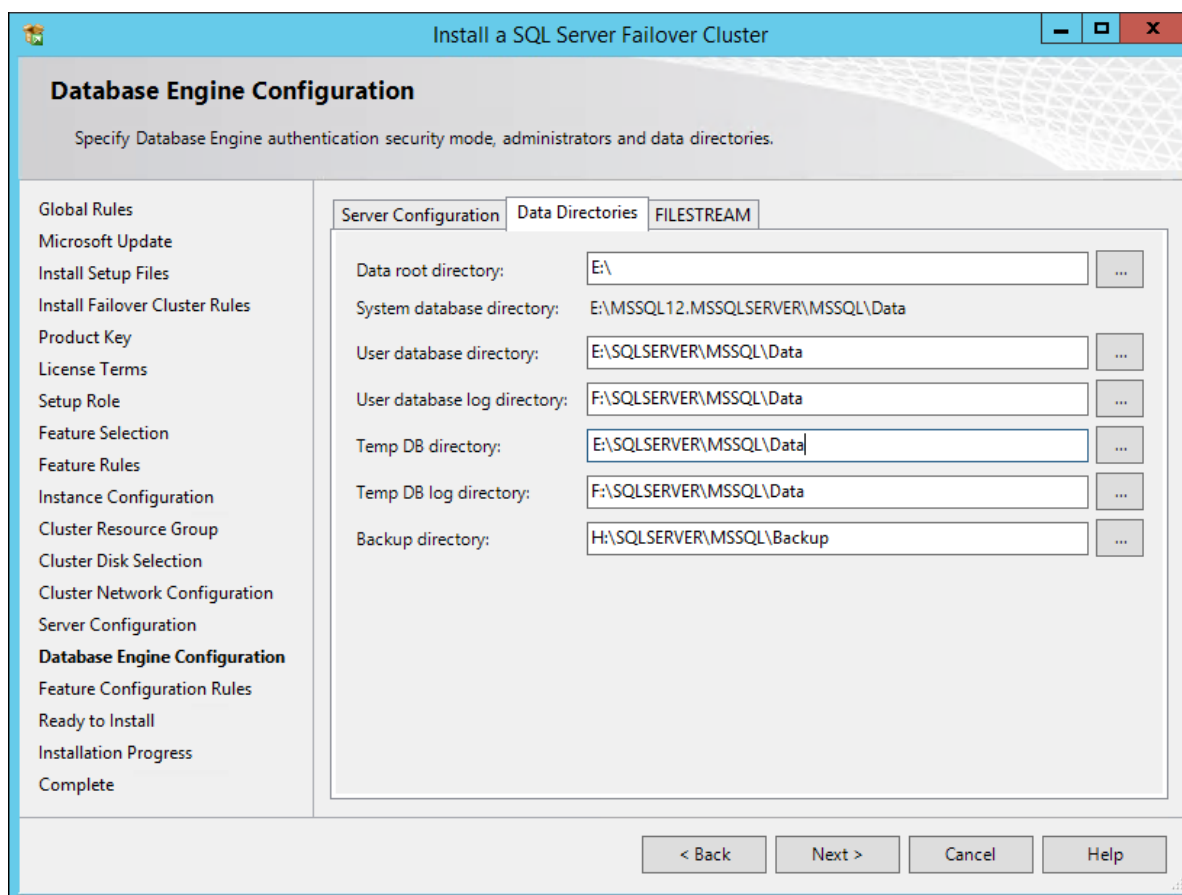
User database log directory: L:\MSSQL12.MSSQLSERVER\MSSQL\Data

Temp DB directory: J:\MSSQL12.MSSQLSERVER\MSSQL\Data

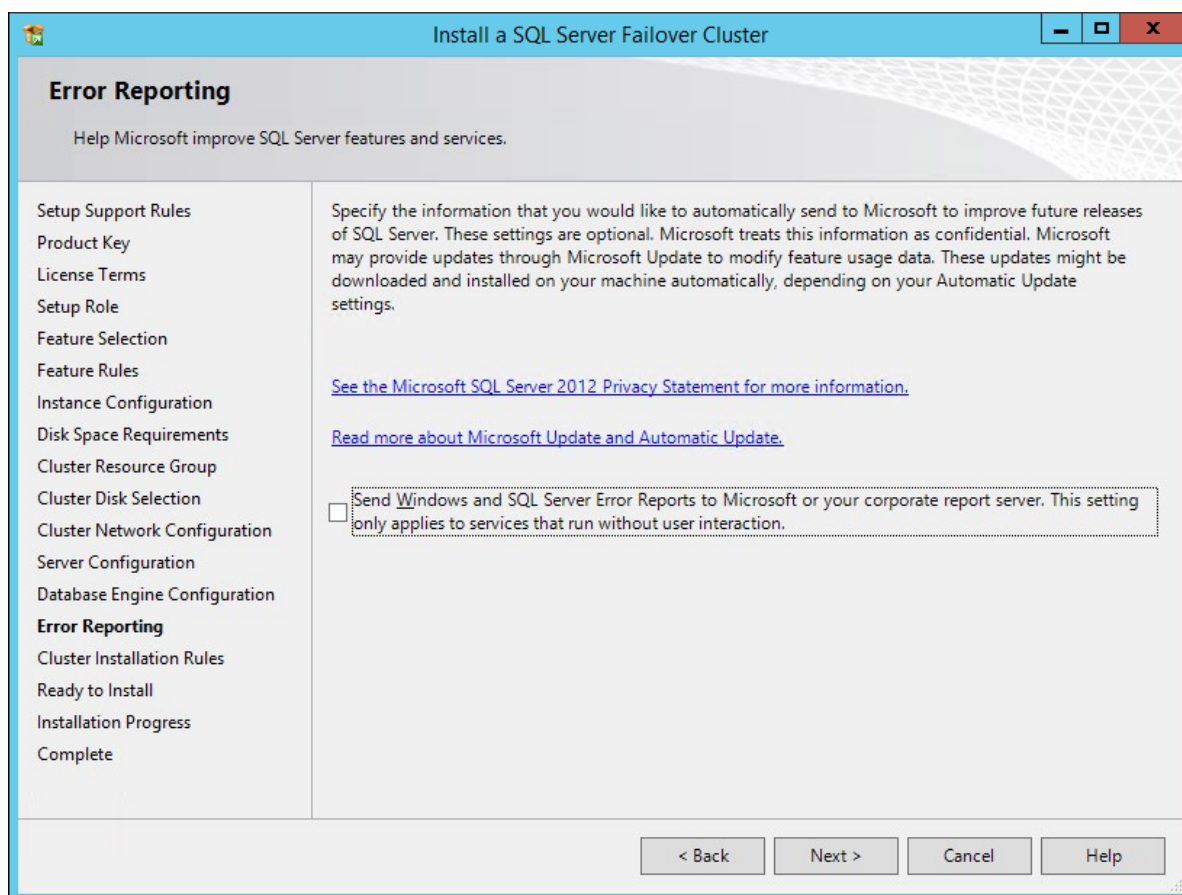
Temp DB log directory: L:\MSSQL12.MSSQLSERVER\MSSQL\Data

Backup directory: J:\MSSQL12.MSSQLSERVER\MSSQL\Backup

NOTE: For WSFC, it is recommended to store the tempdb database on a local drive instead of the replicated storage. Make sure that all the nodes in the cluster contain the same directory structure and that the SQL Server service account has Read/Write permissions for those folders.

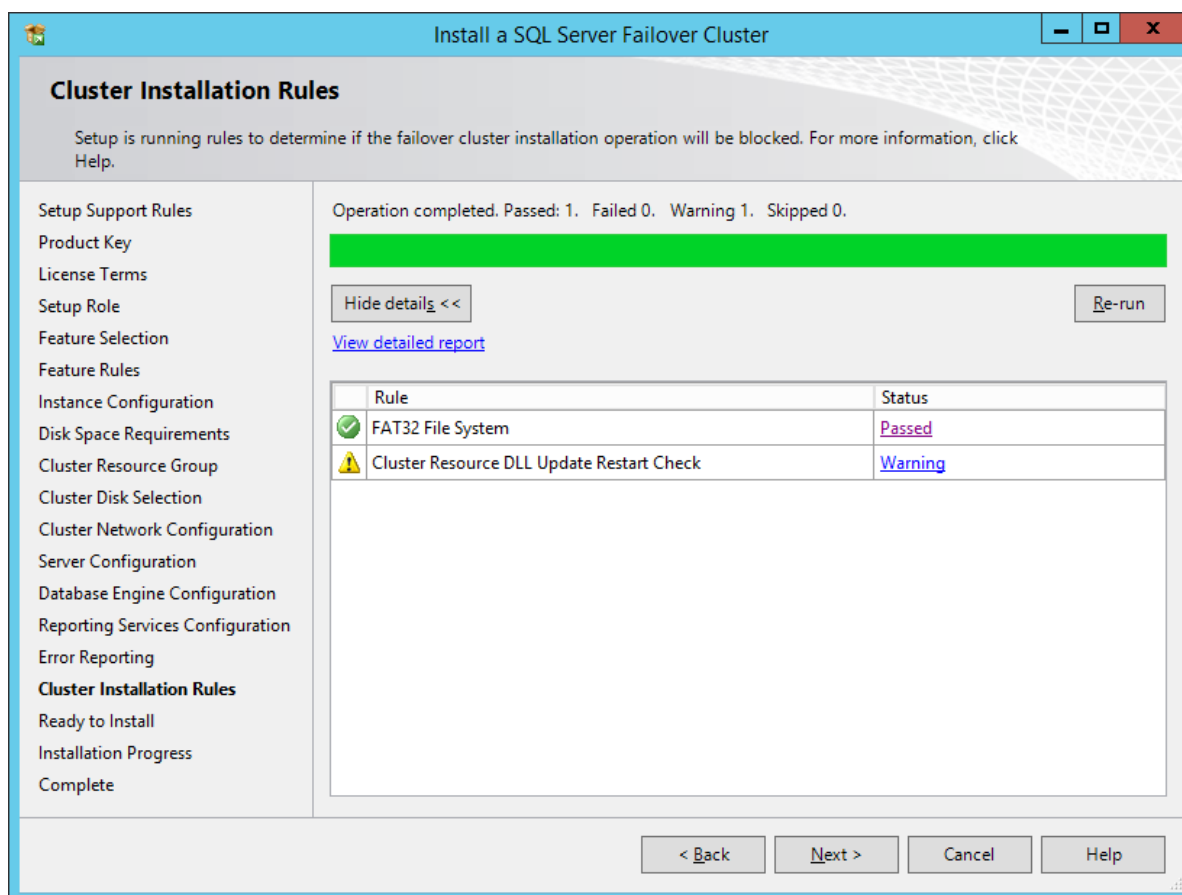


19. In the Error Reporting dialog box, click Next.

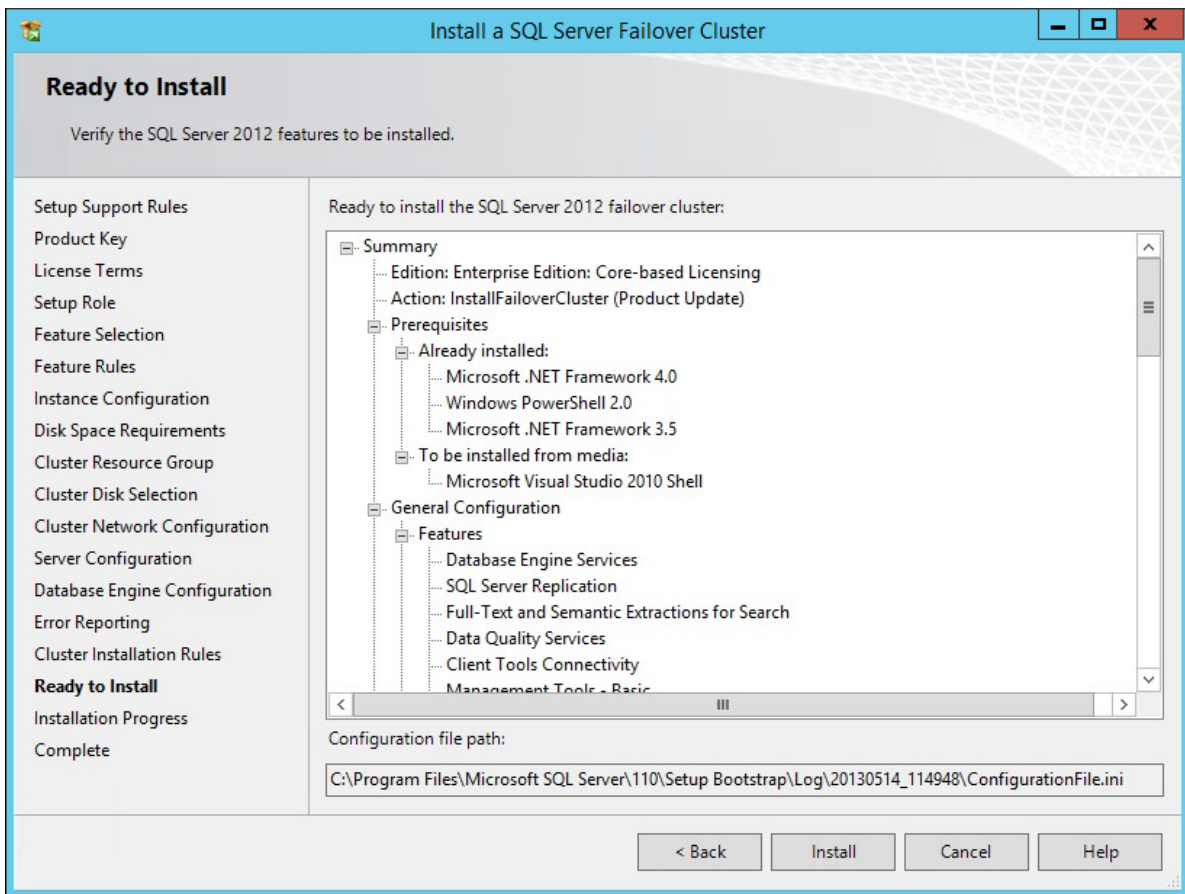


20. In the Cluster Installation Rules dialog box, verify that all tests are successful and click Next.





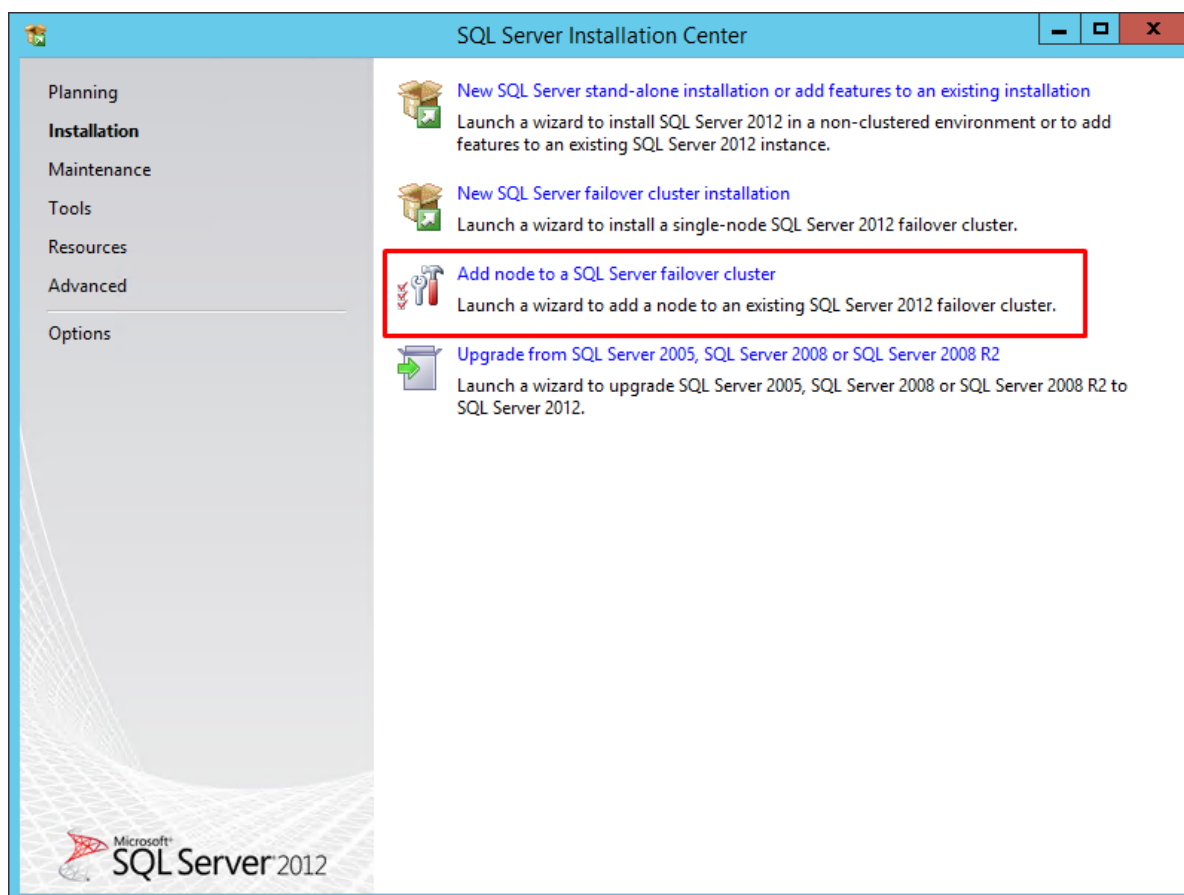
21. In the Ready to Install dialog box, verify that all configurations are correct and click Install.



22. Once the installation is finished, in the Complete dialog box, click Close.

## Adding Node To Sql Server 2012 Failover Cluster

1. Run setup.exe from the installation media to launch SQL Server Installation Center.
2. Click the Add node to a SQL Server failover cluster link to run the SQL Server 2012 Setup wizard.



3. In the Product Key dialog box, enter the product key that came with the installation media.
4. Read and accept the License Terms.
5. In the Global Rules dialog box, validate that the tests return successful results.
6. In the Microsoft Update dialog box, click Next.
7. In the Add Node Rules dialog box, validate that the tests return successful results. If the tests return warnings, make sure to fix them before proceeding with the installation.
8. In the Cluster Node Configuration dialog box, verify that the information for the existing SQL Server 2012 Failover Cluster Instance is correct.

The screenshot shows the 'Add a Failover Cluster Node' wizard, specifically the 'Cluster Node Configuration' step. The window title is 'Add a Failover Cluster Node'. The main heading is 'Cluster Node Configuration' with the instruction 'Add a node to an existing SQL Server failover cluster.'.

On the left is a navigation pane with the following items: Product Key, License Terms, Global Rules, Microsoft Update, Product Updates, Install Setup Files, Add Node Rules, **Cluster Node Configuration** (selected), Cluster Network Configuration, Service Accounts, Feature Rules, Ready to Add Node, Add Node Progress, and Complete.

The main configuration area contains the following fields:

- SQL Server instance name:** A dropdown menu with 'MSSQLSERVER' selected. This field is highlighted with a red rectangle.
- Name of this node:** A text box containing 'WIN-V8VC4SBL0BA'.
- Disk Space Requirements:** A text box containing 'Drive C: 2656 MB required, 13111 MB available'.

Below these fields is a table showing the configuration for the instance:

Instance Name	Cluster Network Name	Features	Nodes
MSSQLSERVER	SQLCLUSTER2	SQLEngine, SQ...	WIN-M2IGGM12OBI

At the bottom of the wizard are four buttons: '< Back', 'Next >', 'Cancel', and 'Help'.

9. In the Cluster Network Configuration dialog box, review the configuration of the SQL Server Failover Cluster Instance.

10. In the Service Accounts dialog box, verify that the information of the configuration is the same as was used to configure the first node. Provide the appropriate password for the SQL Server service accounts.

**Add a Failover Cluster Node**

**Service Accounts**

Specify the service accounts and collation configuration.

Product Key  
License Terms  
Global Rules  
Microsoft Update  
Product Updates  
Install Setup Files  
Add Node Rules  
Cluster Node Configuration  
Cluster Network Configuration  
**Service Accounts**  
Feature Rules  
Ready to Add Node  
Add Node Progress  
Complete








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

Service	Account Name	Password	Startup Type
SQL Full-text Filter Daemon Launcher	NT Service\MSSQLFDLaun...		Manual
SQL Server Database Engine	sw-demo\suser	.....	Manual
SQL Server Browser	NT AUTHORITY\LOCAL SE...		Automatic ▼
SQL Server Agent	sw-demo\suser	.....	Manual

< Back   Next >   Cancel   Help

11. In the Feature Rules dialog box, verify that all the rules have passed. If the rules return warnings, make sure they are fixed before proceeding with the installation. Click Next.
12. In the Ready to Add Node dialog box, verify that all settings are correct and click Install.
13. Once the installation is finished, click Close in the Complete dialog box.
14. Repeat the steps 1-13 to add other nodes to the existing SQL Server 2012 Failover Cluster.

## Contacts

US Headquarters	EMEA and APAC
 +1 617 829 44 95	 +44 2037 691 857 (United Kingdom)
 +1 617 507 58 45	 +49 800 100 68 26 (Germany)
 +1 866 790 26 46	 +34 629 03 07 17 (Spain and Portugal)
	 +33 788 60 30 06 (France)

Customer Support Portal: <https://www.starwind.com/support>

Support Forum: <https://www.starwind.com/forums>

Sales: [sales@starwind.com](mailto:sales@starwind.com)

General Information: [info@starwind.com](mailto:info@starwind.com)



StarWind Software, Inc. 100 Cummings Center Suite 224-C Beverly MA 01915, USA  
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