



***PowerScribe<sup>®</sup> 360 Reporting***  
***Windows Server 2012***  
***Installation and Configuration Manual***



**The latest version of this manual is available from the  
Nuance Healthcare Support Platform on Article 5648.**



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# Introduction

This manual provides instruction and setup information for Sites to install the Windows 2012 Server operating system for the Diagnostics PowerScribe 360 Reporting solution.

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# Considerations for Successful Implementations of VMware Environments for PowerScribe

The following is a list of best practices to ensure that the PowerScribe software remains stable in a virtual environment.

It is the site's responsibility to set up and properly configure the VM environment. Failure to follow the recommendations may cause performance issues and end-user dissatisfaction.

Each site is also responsible for maintaining the VM environment including patches and firmware updates.

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## Virtual Environment Recommendations

- Turn off VMware snapshots. Automated snapshots as part of a backup strategy, via the VMware Consolidated Backup or VMware Data Recovery applications can impact performance.
- Turn off VMotion. This is used as part of a load balancing option to make sure that all servers are running optimally. The problem with this is that on the final switchover, connections will be unavailable to the server, and this can cause the application servers to lose connection with the database.
- Make sure that all firmware and driver updates are installed and kept up to date on the host platform. Patches are constantly being released to address the issue of virtualized connection issues with MSSQL systems by both hardware and software vendors.
- Ensure all Windows updates are appropriately applied within each guest platform Operating System.
- Move the virtual SQL server to the same host as the Web, Interface and SUS.
- Make sure that the VMware Tools are up to date on guest operating systems.
- Make sure that the ESX/VSphere hosts are up to date with a regular patch schedule.
- NIC settings - by default in WIN 2003 & 2008, NICs are configured to hibernate - which enables device to be powered down - this feature needs to be turned off.
- Anti-Virus settings: Exclusions will need to be set, as they can cause extra delays
- If firewall zoning is setup on the network, the app servers and the SQL servers need to be in the same zone.
- Ensure that the SAN is not overloaded when nightly backups run, so that it can still handle normal operational traffic.
- If utilizing memory overcommit in VSphere, calculate any server running SQL at 1:1 as well as the Web server, and the Recognition server if running a separate SQL server.

- Ensure that the SAN is not overloaded when nightly backups run, so that it can still handle normal operational traffic.
  - If utilizing memory overcommit in VSphere, calculate any server running SQL at 1:1 as well as the Web server, and the Recognition server if running a separate SQL server.
  - Any SQL server, Web server, and Recognition server will need a minimum of 320MB/s disk speed on the SAN connection. Anything less will cause latency issues, and cause server instability.
  - Configure backup schedule for database dumps to not occur while the databases are running a full backup.
  - Failover on the NICs - needs to be turned off. When random failovers between NICs occur, it can cause a SQL disconnect. NIC settings – with a teamed NIC, make sure that the team is only set to Fault Tolerance Only, instead of Load Balancing.
  - NIC vs. Switch settings - need to match properly. If the speeds are not set correctly for physical servers that connect to a virtual environment, it can cause unnecessary latency and packet loss.
  - If the SQL server is running on a SAN, the SAN will need a minimum of 320Mb/s bandwidth, and the logical drives for the Data and Dump drives should be on separate connections.
- 

## References

Configuring NIC Speed in ESX:

[http://kb.vmware.com/selfservice/microsites/search.do?language=en\\_US&cmd=displayKC&externalId=1004089](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=1004089)

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# Server Clustering

*PowerScribe 360 Reporting* has been qualified in a clustered server environment. Both the application server software and the Microsoft SQL Server software can be clustered in an active/passive configuration.

It is the customer's responsibility to acquire, install, configure, and maintain the clustered environment. This document outlines the basic requirements that need to be installed / configured in the clusters in Microsoft Windows and Microsoft SQL Server prior to Nuance installing the *PowerScribe 360 Reporting* software.

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## Important Considerations

- Virtual machine clusters are supported on VMware ESX, versions 4, 5 and 6 (6.0, 6.5 and 6.7).
- All operating system and SQL installations must confirm to the Specifications for your version of *PowerScribe 360 Reporting*.
  - ◆ Virtual machine clusters (VMware) are not supported for Microsoft 2012 or 2012 R2 (ESX Limitation in versions prior to 5.5 u1).  
[http://kb.vmware.com/selfservice/microsites/search.do?language=en\\_US&cmd=displayKC&externalId=1037959](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=1037959)
  - ◆ GeoCluster setup is not supported.
  - ◆ The cluster should be installed using the same accounts for each node of the cluster.
  - ◆ The Quorum disk for each cluster should be 1GB.
  - ◆ The Microsoft DTC disk for the SQL cluster should be 1GB. Do not use the same disk as the Quorum disk.
  - ◆ The **X:\Nuance** (Data) folder must be on a different drive than the SQL DB, or it can cause failure during failover.
  - ◆ If using SSL, the SSL certificate must be installed before Nuance installs the *PowerScribe 360 Reporting* software.
  - ◆ The customer must provide Host names and static IP addresses for the Virtual Cluster, Virtual SQL, RadBridge, DTC, and File Service.
  - ◆ PowerXpress, Mobile Bridge Server, and SUS cannot be in a cluster and must be on separate machines.
  - ◆ Reporting Service is not cluster-aware (SQL Standard Edition Only). Nuance will install it on Node 1 only.
  - ◆ *PowerScribe 360 Reporting* can support the use of named instances in SQL.
  - ◆ Objects must be created in the domain in the proper Organizational Unit active directory prior to installing the *PowerScribe 360* software.



- ♦ The Application (IIS) and SQL Cluster Servers needs failover clustering, file server, IIS, and application server roles installed.
- ♦ High Performance should be set up for Clusters (instructions included in this document).
- ♦ The Customer should turn on Network Discovery (instructions included in this document).

---

## Server Setup



**IMPORTANT**

*The IIS must be installed and configured on the C drive for PowerScribe 360 Reporting and for the Mobile server.*



**NOTE**

*If you are setting up a server for SQL only or Mobile server, WebDAV is not required. WebDAV is only used by the Application server.*



**NOTE**

*Application and Mobile servers must have IIS installed and configured as indicated in this chapter.*

---

## .NET Framework



**IMPORTANT**

*Only the most current .NET Framework version is required for proper PowerScribe 360 Reporting v4.0.1 (SP1) and higher installation and operation. Older versions of .NET (i.e., .NET 3.5) should not be installed.*

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## Validate Hardware

Validate that your servers meet the hardware requirements for your version of the PowerScribe 360 Reporting system.

The PowerScribe 360 Reporting System Technical Specification available on Nuance Healthcare Support Platform Article 6389 provides server hardware requirements.

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# Install Windows

Install Windows or create your Virtual Machine (VM), using your normal internal processes.

Once the Windows install completes, follow the guidelines below to configure the server and to prepare it for installation of PowerScribe 360 Reporting.

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## Microsoft Windows Updates

**Using the Internet Explorer method, run the Microsoft Windows Update application, and let the application apply all Nuance-supported updates.**



**IMPORTANT**

*For more information on Nuance-supported updates, see [PN 889700 - PowerScribe® 360 | Reporting - Support for Microsoft and Third Party Software Updates](#).*

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## Install/Configure Server Roles and Services



**IMPORTANT**

*In the following installation steps, you will install roles and features. The list below contains the correct roles and features that must be installed.*




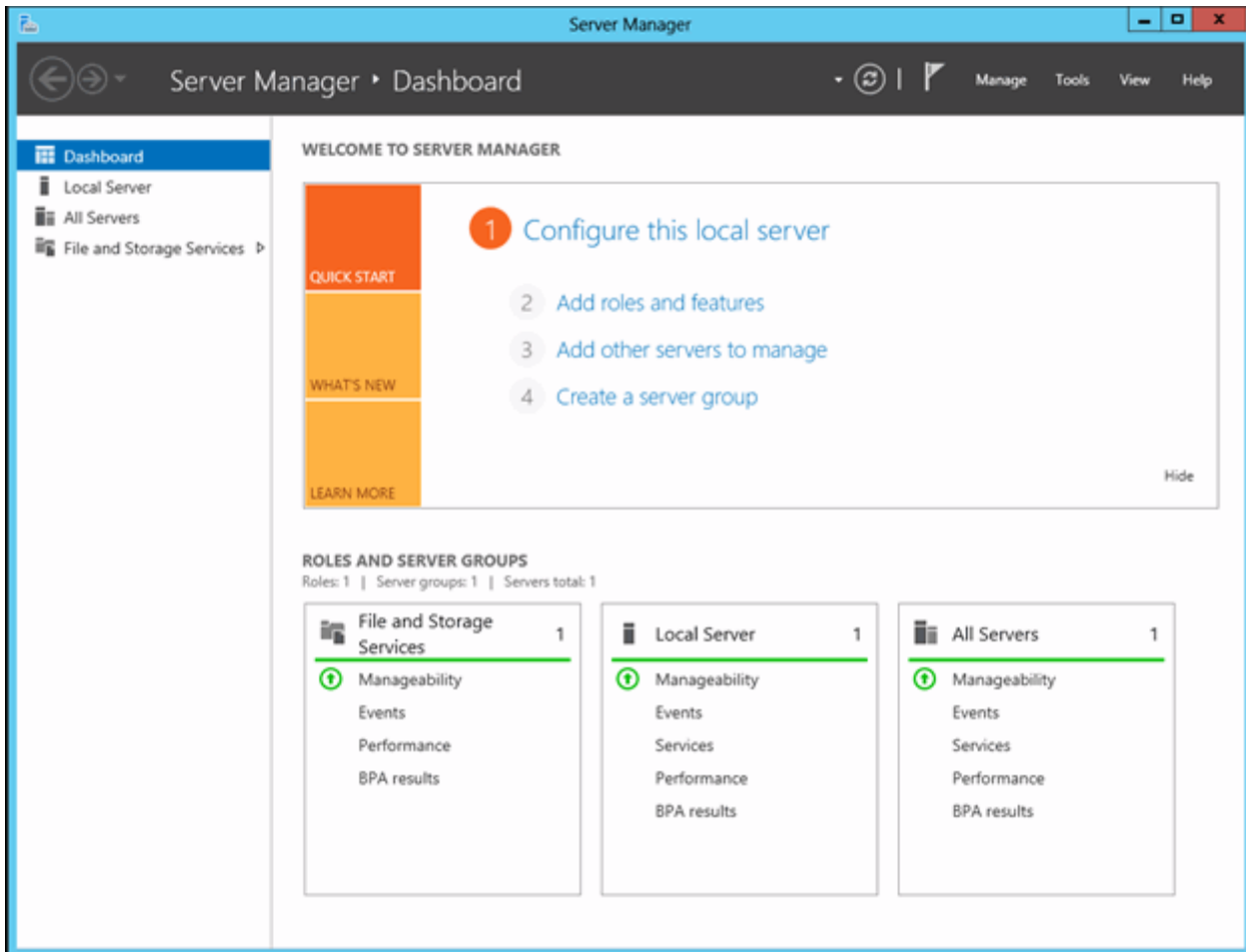
*If you are setting up a server for SQL only or Mobile server, WebDAV is not required. WebDAV is only used by the Application server.*

Display Name	Name	
[X] Application Server	Application-Server	
[X] .NET Framework 4.5	AS-NET-Framework	
[X] TCP Port Sharing	AS-TCP-Port-Sharing	
[X] Web Server (IIS) Support	AS-Web-Support	
[X] Windows Process Activation Service Support	AS-WAS-Support	
[X] HTTP Activation	AS-HTTP-Activation	
[X] Named Pipes Activation	AS-Named-Pipes	
[X] TCP Activation	AS-TCP-Activation	
[ ] Fax Server	Fax	optional
[X] File And Storage Services	FileAndStorage-Services	
[X] File and iSCSI Services	File-Services	
[X] File Server	FS-FileServer	
[X] Storage Services	Storage-Services	
[X] Web Server (IIS)	Web-Server	
[X] Web Server	Web-WebServer	
[X] Common HTTP Features	Web-Common-Http	
[X] Default Document	Web-Default-Doc	
[X] Directory Browsing	Web-Dir-Browsing	
[X] HTTP Errors	Web-Http-Errors	
[X] Static Content	Web-Static-Content	
[X] HTTP Redirection	Web-Http-Redirect	
[X] WebDAV Publishing	Web-DAV-Publishing	
[X] Health and Diagnostics	Web-Health	
[X] HTTP Logging	Web-Http-Logging	
[X] Logging Tools	Web-Log-Libraries	
[X] Request Monitor	Web-Request-Monitor	
[X] Tracing	Web-Http-Tracing	
[X] Performance	Web-Performance	
[X] Static Content Compression	Web-Stat-Compression	
[X] Dynamic Content Compression	Web-Dyn-Compression	
[X] Security	Web-Security	
[X] Request Filtering	Web-Filtering	
[X] Basic Authentication	Web-Basic-Auth	
[X] Centralized SSL Certificate Support	Web-CertProvider	
[X] Client Certificate Mapping Authentic...	Web-Client-Auth	
[X] Digest Authentication	Web-Digest-Auth	
[X] IIS Client Certificate Mapping Authe...	Web-Cert-Auth	
[X] IP and Domain Restrictions	Web-IP-Security	
[X] URL Authorization	Web-Ur1-Auth	
[X] Windows Authentication	Web-windows-Auth	
[X] Application Development	Web-App-Dev	
[X] .NET Extensibility 3.5	Web-Net-Ext	
[X] .NET Extensibility 4.5	Web-Net-Ext45	(In Win2012 for 2008 run MS updates)
[X] ASP.NET 4.5	Web-Asp-Net45	
[X] ISAPI Extensions	Web-ISAPI-Ext	
[X] ISAPI Filters	Web-ISAPI-Filter	
[X] Management Tools	Web-Mgmt-Tools	
[X] IIS Management Console	Web-Mgmt-Console	
[X] IIS 6 Management Compatibility	Web-Mgmt-Compat	
[X] IIS 6 Metabase Compatibility	Web-Metabase	
[X] IIS 6 WMI Compatibility	Web-WMI	
[X] IIS Management Scripts and Tools	Web-Scripting-Tools	
[X] .NET Framework 3.5 Features	NET-Framework-Features	
[X] .NET Framework 3.5 (includes .NET 2.0 and 3.0)	NET-Framework-Core	
[X] HTTP Activation	NET-HTTP-Activation	
[X] Non-HTTP Activation	NET-Non-HTTP-Activ	
[X] .NET Framework 4.5 Features	NET-Framework-45-Fea...	
[X] .NET Framework 4.5	NET-Framework-45-Core	
[X] ASP.NET 4.5	NET-Framework-45-ASPNET	
[X] WCF Services	NET-WCF-Services45	
[X] HTTP Activation	NET-WCF-HTTP-Activat...	
[X] Named Pipe Activation	NET-WCF-Pipe-Activat...	
[X] TCP Activation	NET-WCF-TCP-Activati...	
[X] TCP Port Sharing	NET-WCF-TCP-PortShar...	
[X] Message Queuing	MSMQ	
[X] Message Queuing Services	MSMQ-Services	
[X] Message Queuing Server	MSMQ-Server	
[X] Message Queuing Triggers	MSMQ-Triggers	
[X] User Interfaces and Infrastructure	User-Interfaces-Infra	
[X] Graphical Management Tools and Infrastructure	Server-Gui-Mgmt-Infra	
[X] Server Graphical Shell	Server-Gui-Shell	
[X] Windows PowerShell	PowerShellRoot	
[X] Windows PowerShell 3.0	PowerShell	
[X] Windows PowerShell 2.0 Engine	PowerShell-V2	
[X] Windows PowerShell ISE	PowerShell-ISE	
[X] Windows Process Activation Service	WAS	
[X] Process Model	WAS-Process-Model	
[X] .NET Environment 3.5	WAS-NET-Environment	
[X] Configuration APIs	WAS-Config-APIS	
[X] Wow64 Support	wow64-Support	

## Role Installation

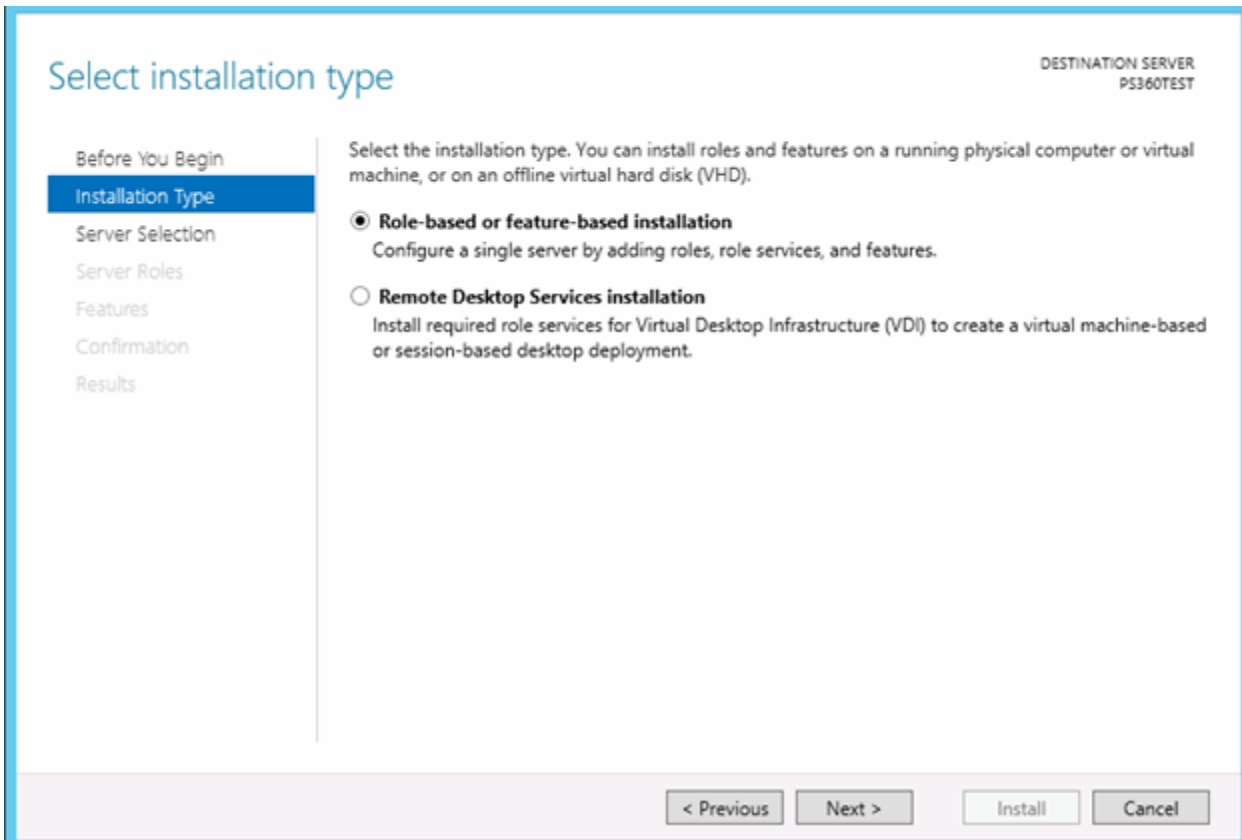


1. Click the  icon in the Task Bar to start the Server Manager.  
The Server Manager Dashboard displays.



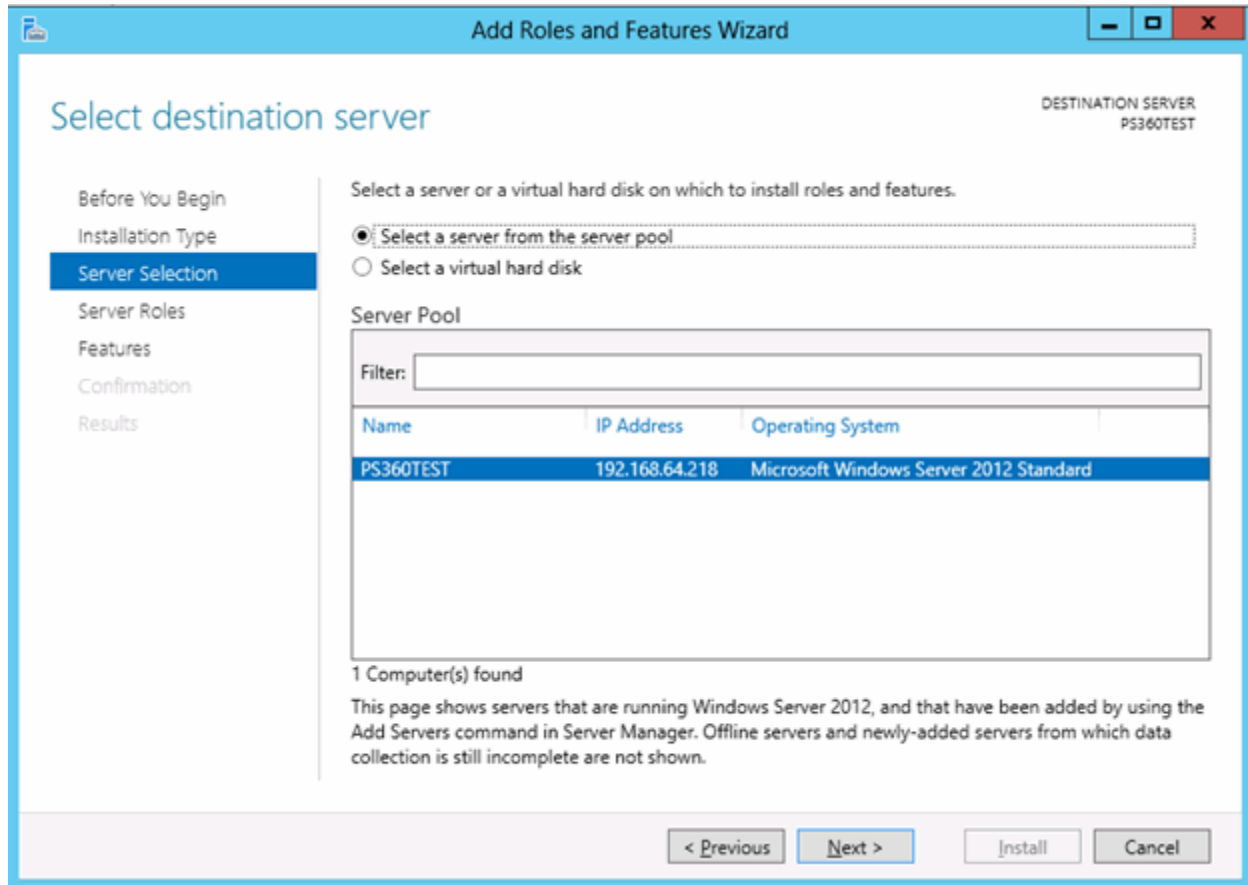
2. From QUICK START, click **(2) Add Roles and Features**.

The Select installation type dialog displays.



3. Select **Role-based or feature-based installation**, then click **Next**.

The Select destination server dialog displays.

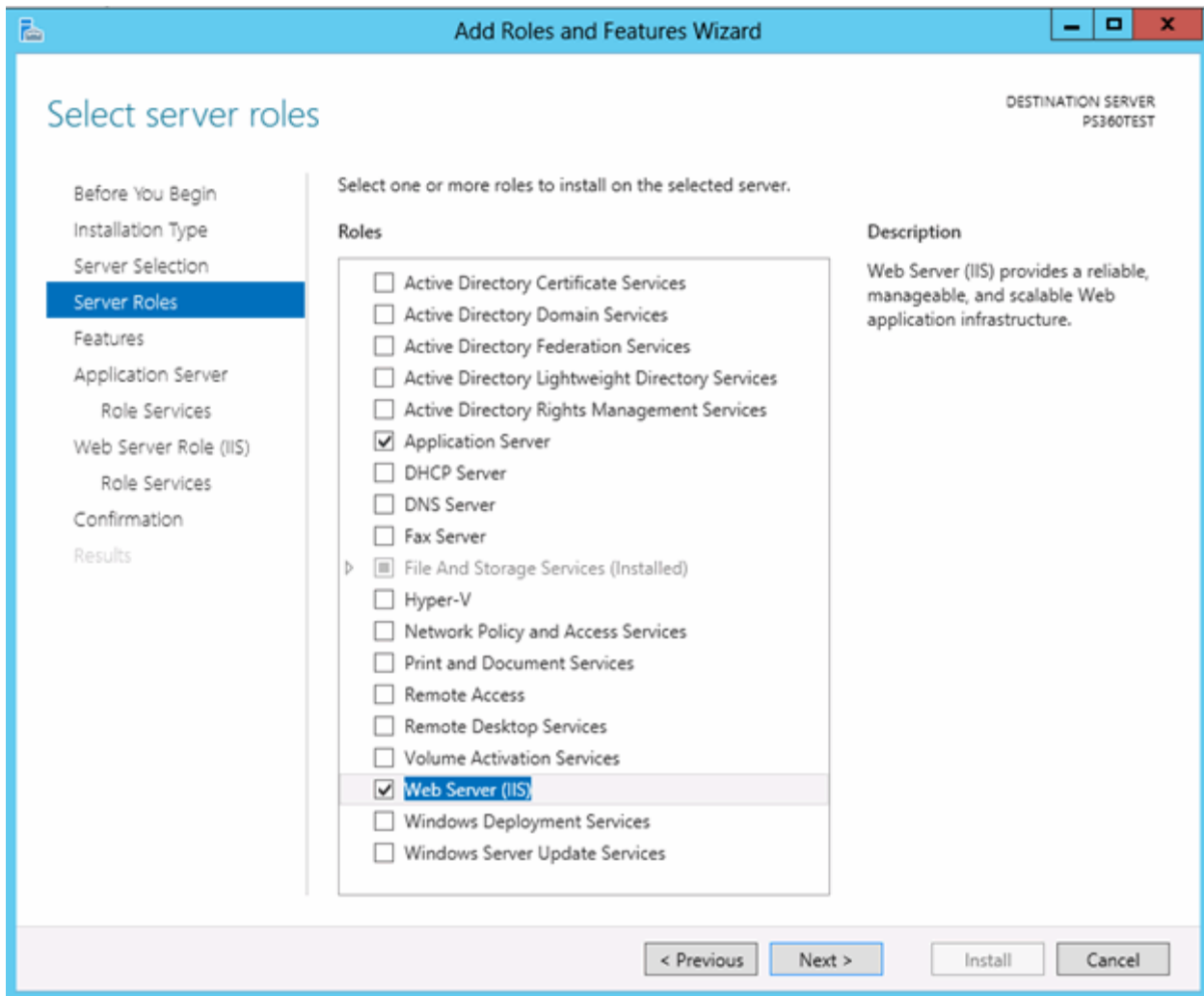


4. Choose **Select a server from the server pool**, and click **Next**.



*By default, the Server Pool shows the local server where the roles will be installed.*

The Select server roles dialog displays.



5. Check the following Server Roles:
  - ◆ Application Server
  - ◆ File And Storage Services (Installed)
  - ◆ Web Server (IIS) (*default install*)
  - ◆ Fax Server (*optional, check if Fax is used*)
6. Click **Add Feature** to all dialogs requesting to add features for any new service role you install.
7. Click **Next**.

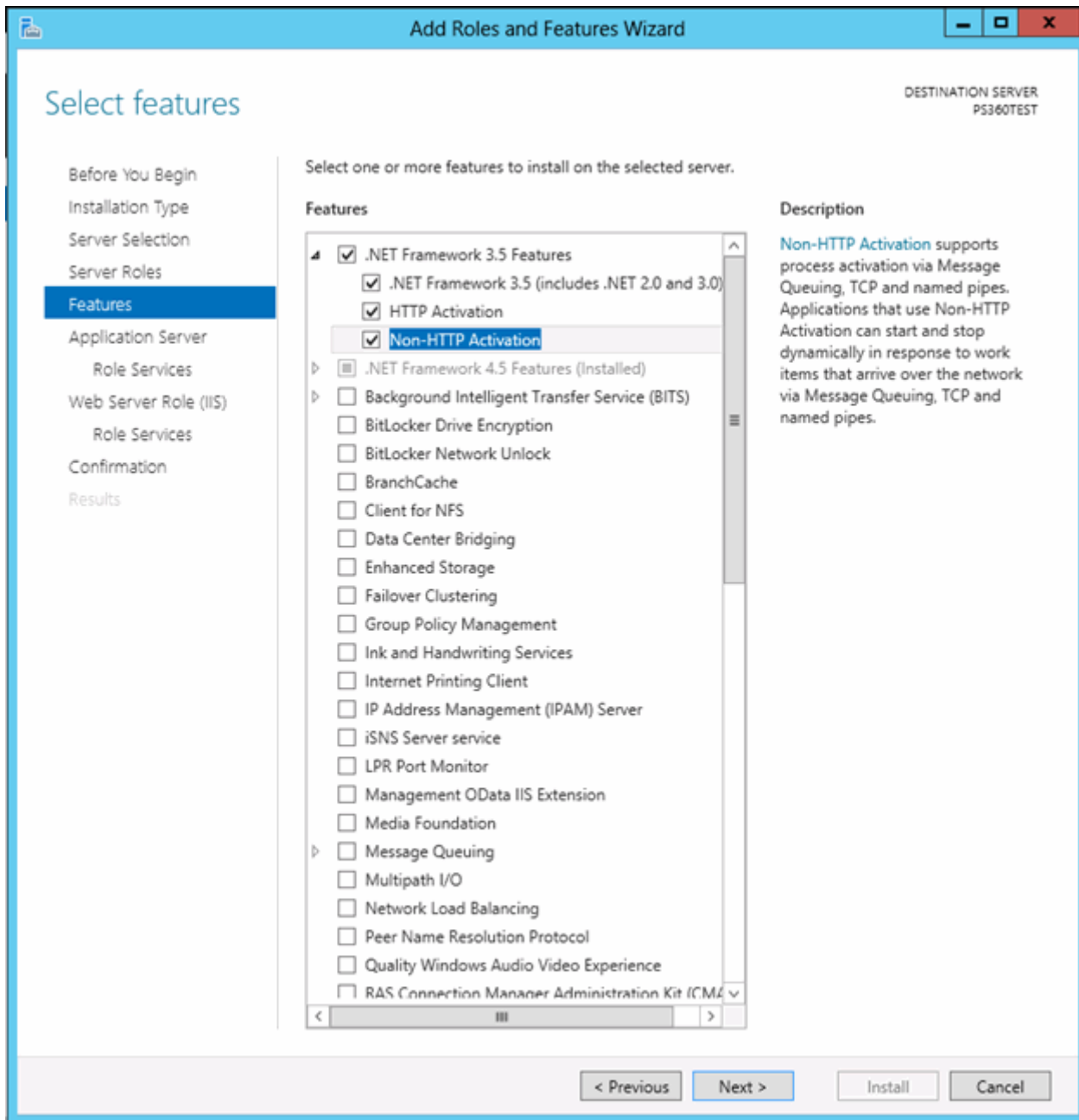


**IMPORTANT**

*If you will be installing PowerScribe 360 Reporting v4.0.1 (SP1) or higher, you should skip Step 8. as .NET Framework v3.5 is not required; and proceed to Step10.*

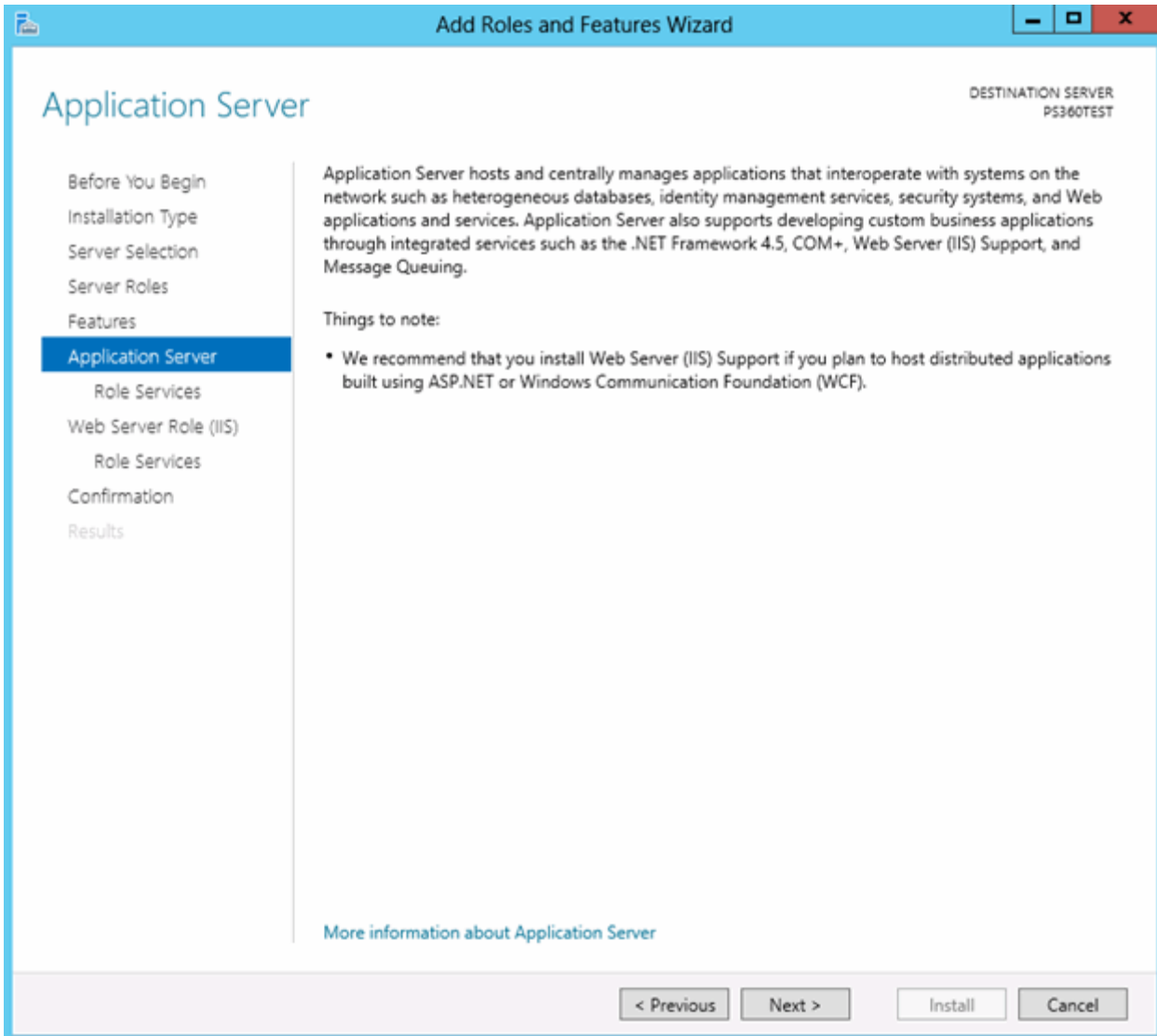


8. Check the following .NET Framework 3.5 Features:
  - ◆ .NET Framework 3.5 Features
    - ◆ .NET Framework 3.5 (includes .NET 2.0 and 3.0)
    - ◆ HTTP Activation
    - ◆ Non-HTTP Activation



9. Click **Add Feature** to all dialogs requesting to add new features you install.
10. Click **Next**.

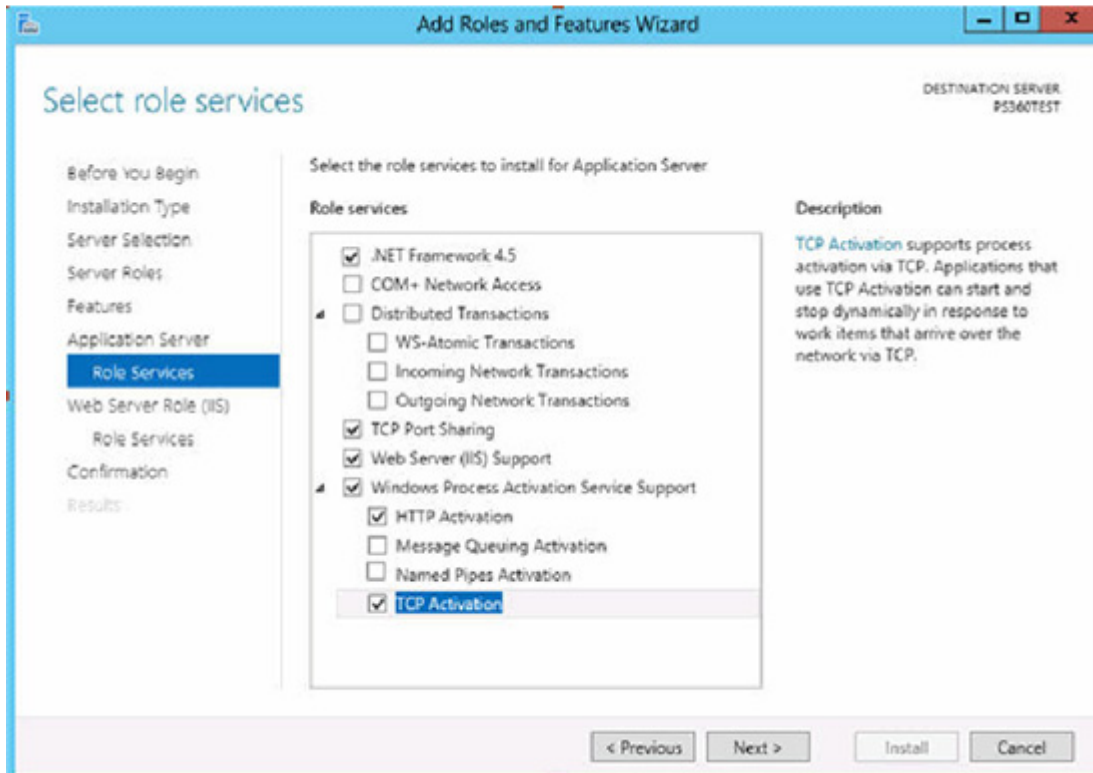
The Application Server dialog displays.



11. Click **Next**.

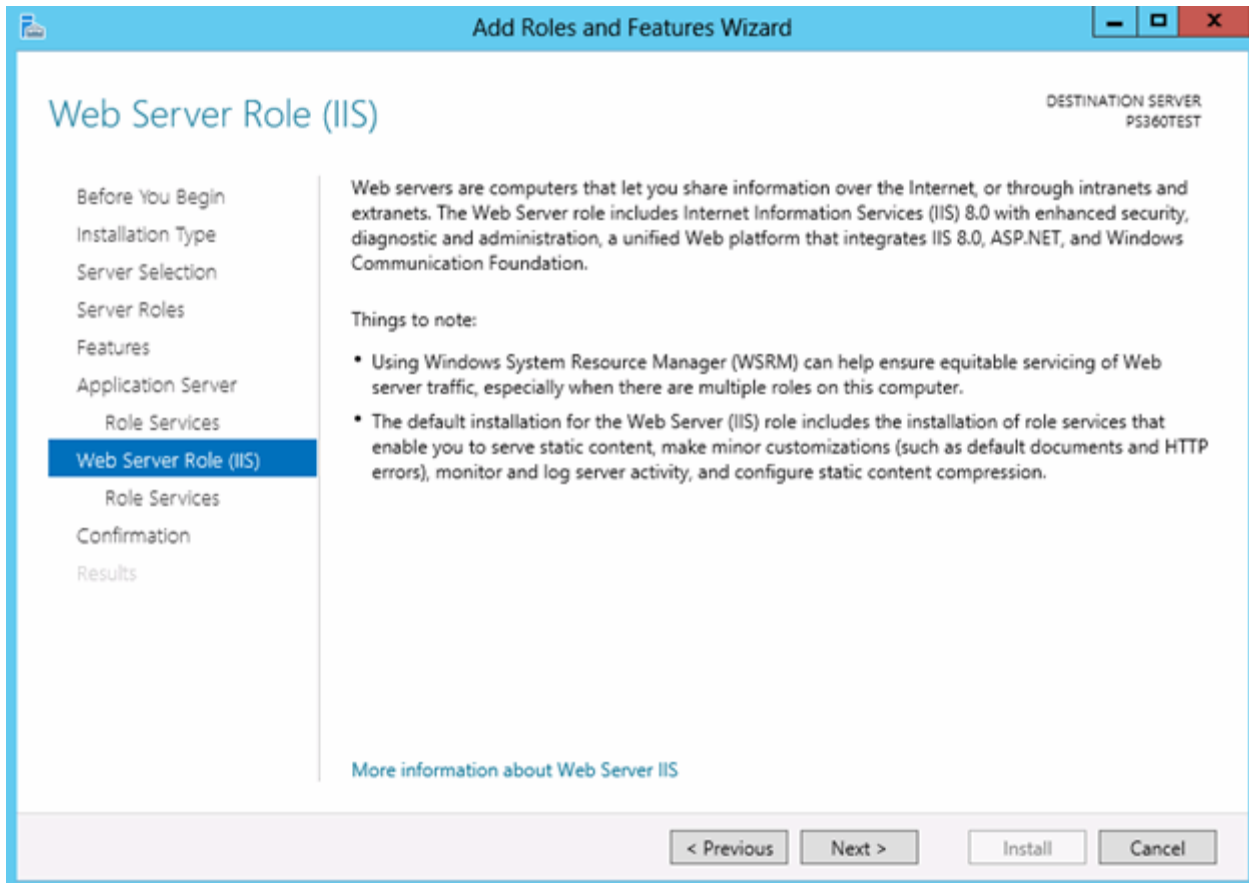
12. Check the following Role services:

- ◆ .NET Framework 4.5
- ◆ TCP Port Sharing
- ◆ Web Server (IIS) Support
- ◆ Windows Process Activation Service Support
  - ◆ HTTP Activation
  - ◆ TCP Activation



13. Click **Next**.

The Web Server Role (IIS) dialog displays.



14. Click **Next**.

15. Select the following Role services to install for Web Server (IIS).

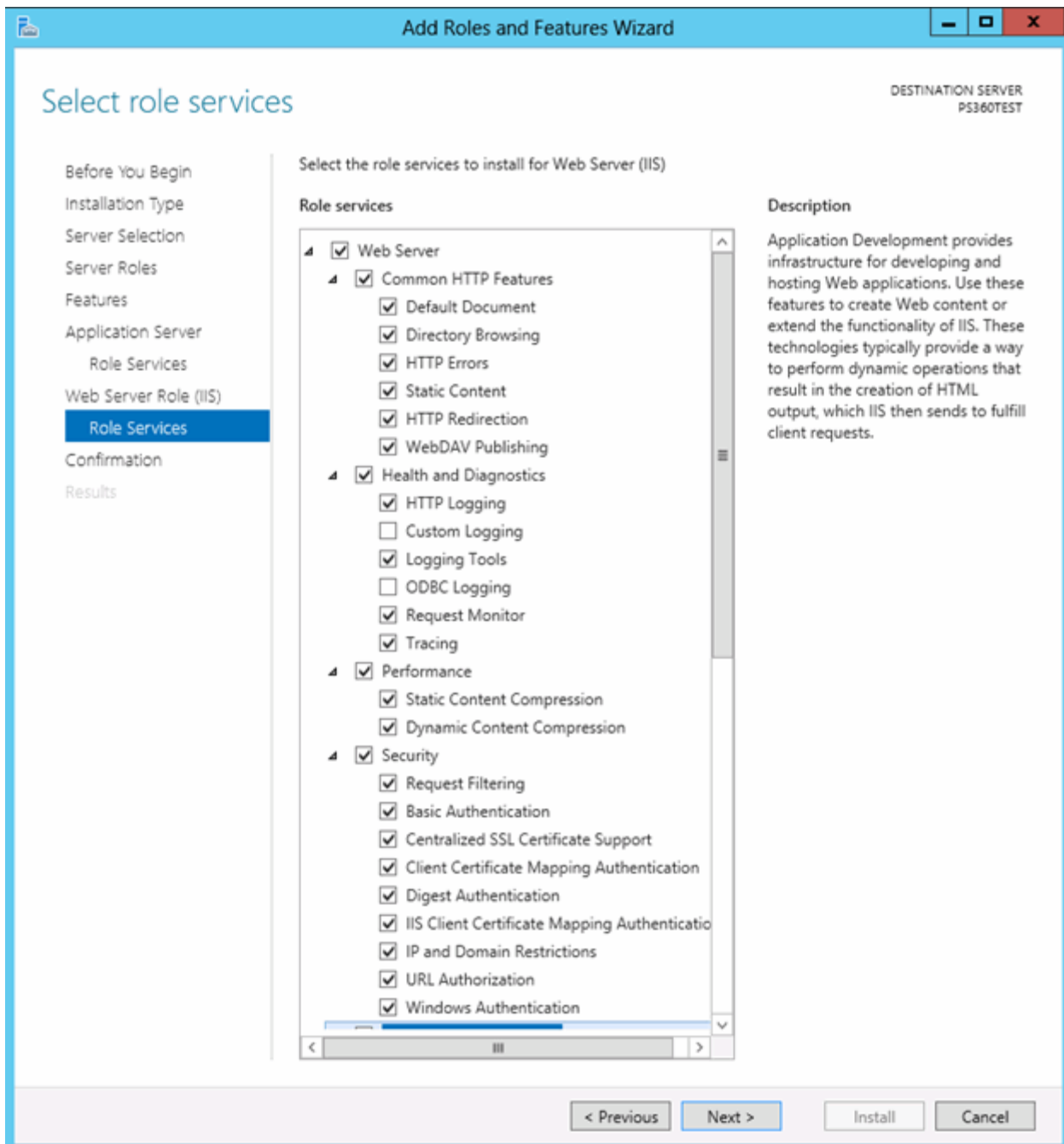


**IMPORTANT**

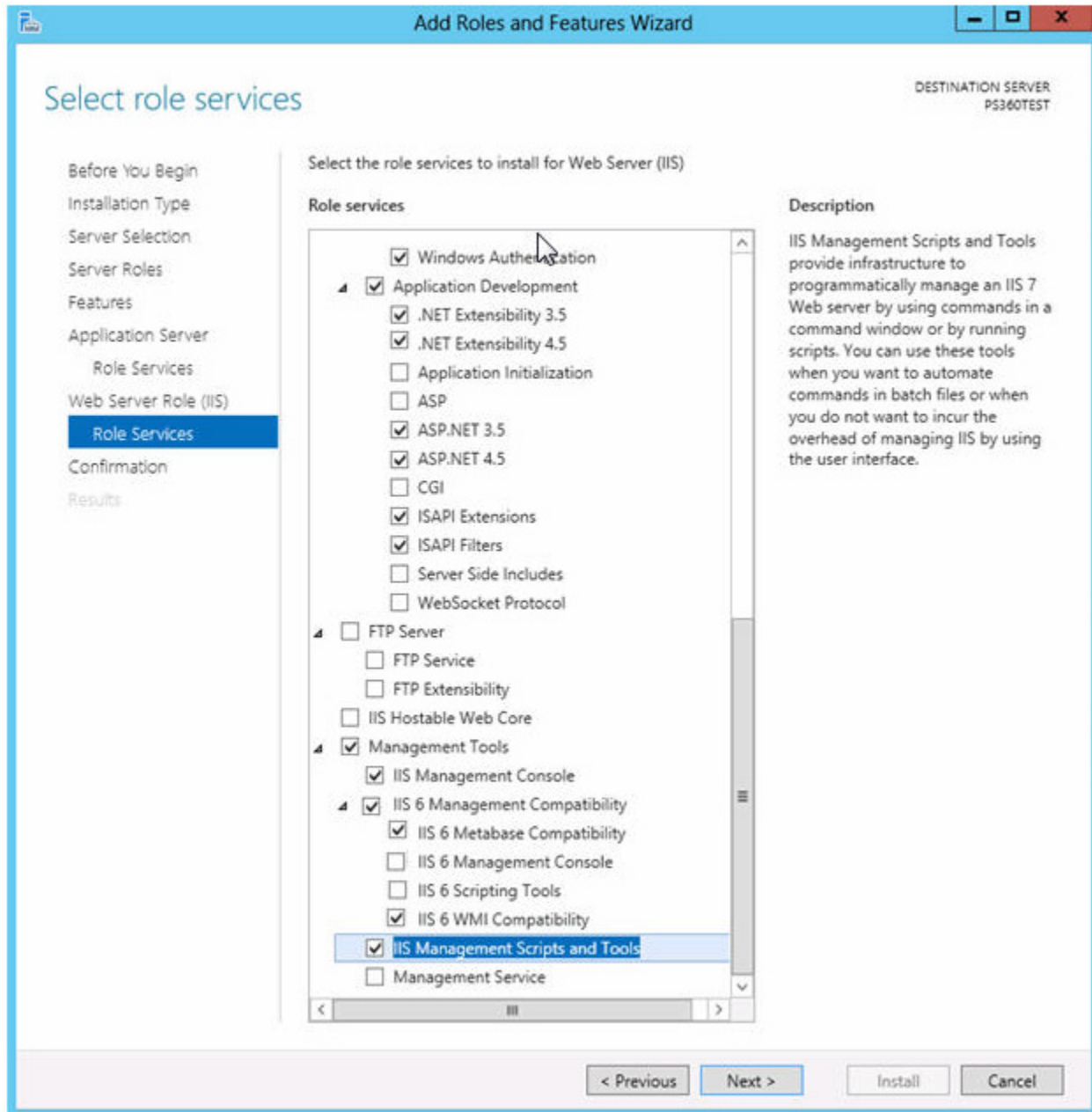
*The complete list of Web Server (IIS) Role services to install are provided in the following two dialogs.*



*If you are setting up a server for SQL only or Mobile server, WebDAV is not required. WebDAV is only used by the Application Server.*



16. Scroll and continue checking the following Role services to install for Web Server (IIS).



17. Click **Add Feature** to all dialogs requesting to add new Role service you install.
18. Click **Next**.

The Confirm installation selections dialog displays.



*The yellow warning box at the top of the screen is for .NET 3.5. It is not included with Server 2012. If the server has Internet access, .NET 3.5 will be installed from Windows Update. If the server does not have access to Windows Update, you need to specify an alternate source path.*



**DECISION**

*Alternative Source Path (**OPTIONAL**)*

*To specify an alternate source path:*

*1. On the Confirmation installations selection dialog, click **Specify an alternate source path**, and enter the path.*

*The Server 2012 ISO image has .NET 3.5 Features in the \Sources\SxS\ folder. For example, if this is installed as Z:\, the path would be Z:\Sources\SxS\.*

*2. Click **OK**.*

### **No .Net 3.5 Framework Media Available**



*If no .Net 3.5 Framework media is available, you can load it as follows:*

- 1. Verify the server has not been modified to only get updates from WSUS (typical for new servers).*
- 2. Close the server manager and anything that is currently open.*
- 3. Open a command prompt and run the following command:*

***`dism.exe /online /enable-feature /featurename:NetFX3 /all`***


19. Verify the list and click **Install**.

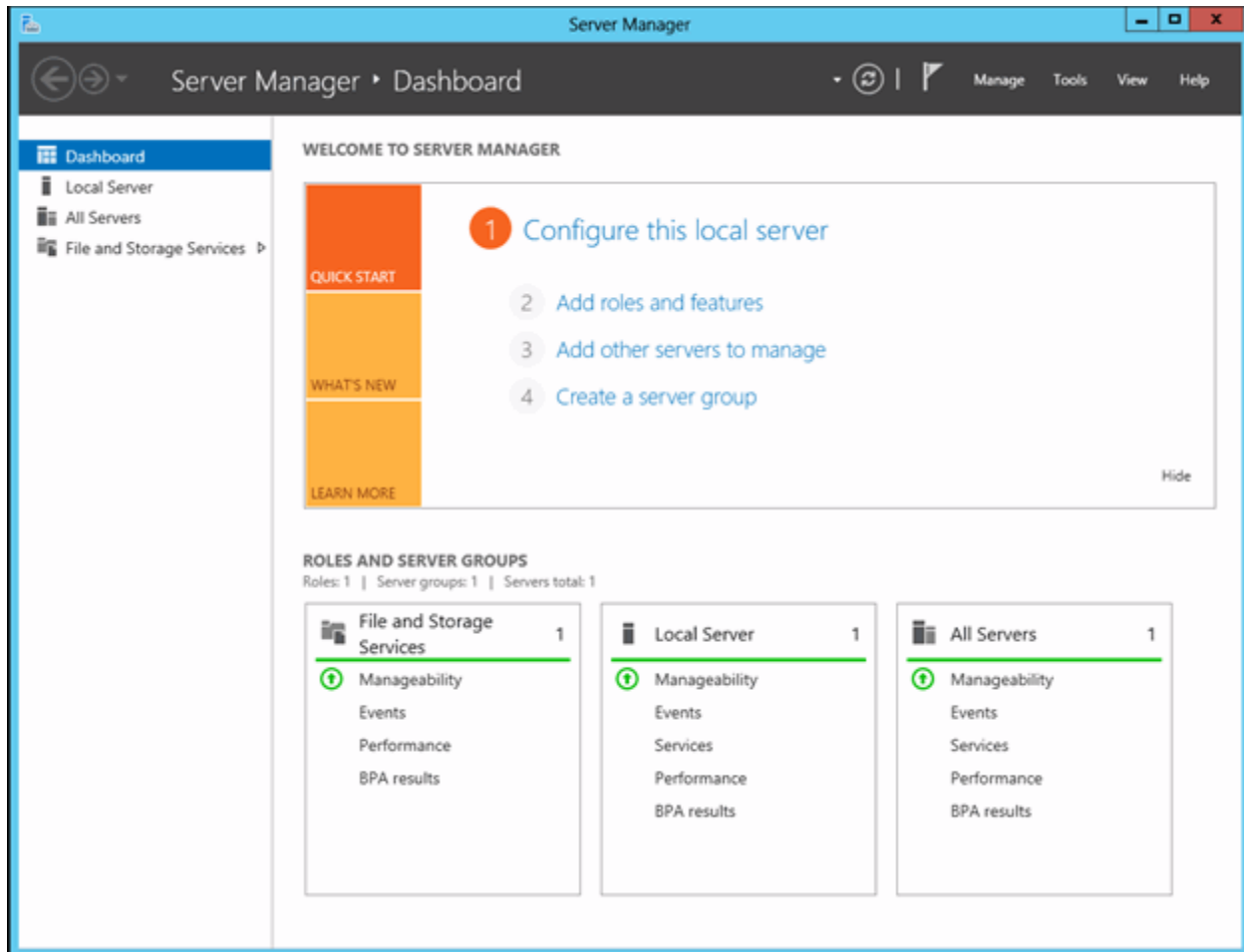
20. Click **Install**.

The Installation progress dialog displays.

21. Click **Close**.

# Install Message Queuing Features

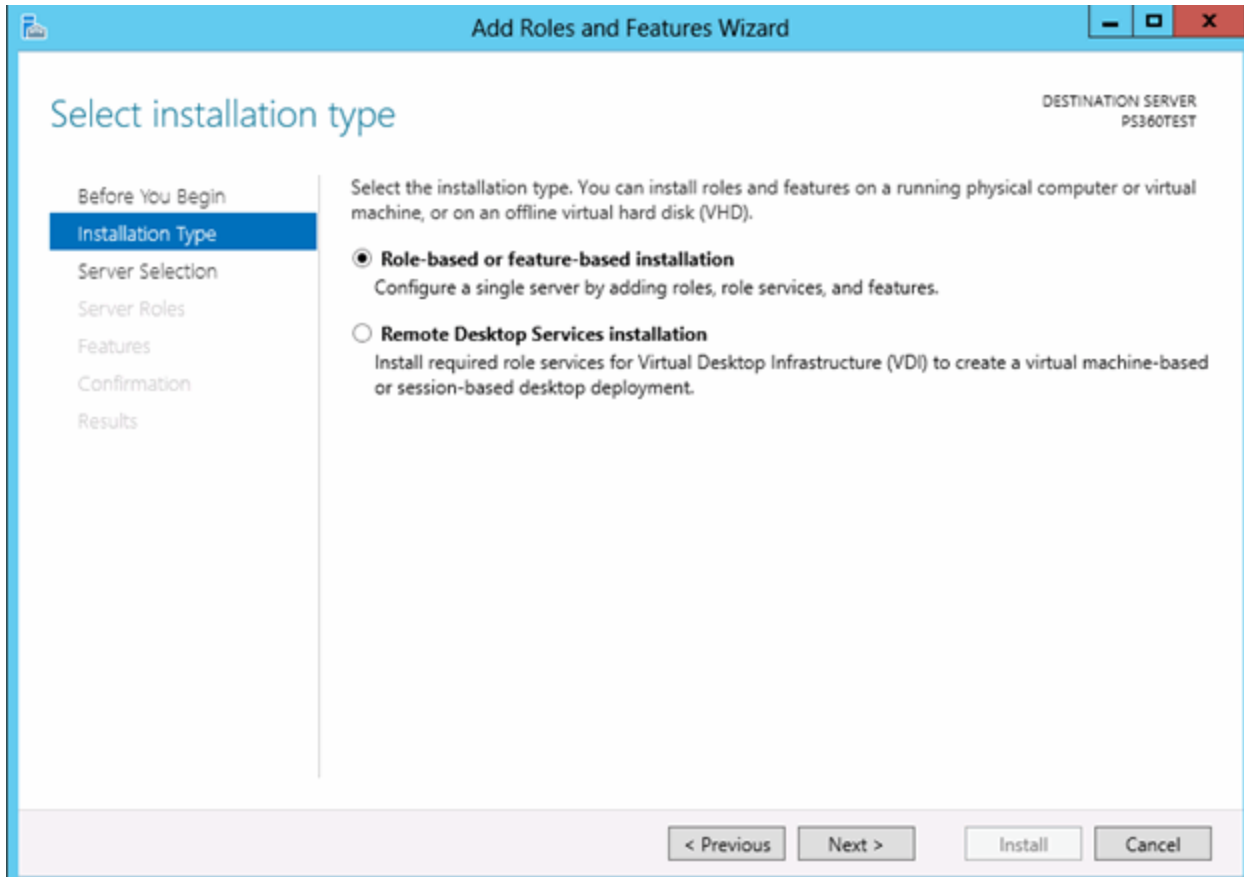
1. If Server Manager is not already open, click the  icon in the Task Bar. The Server Manager Dashboard displays.



2. From the QUICK START dialog, click **(2) Add Roles and Features**.

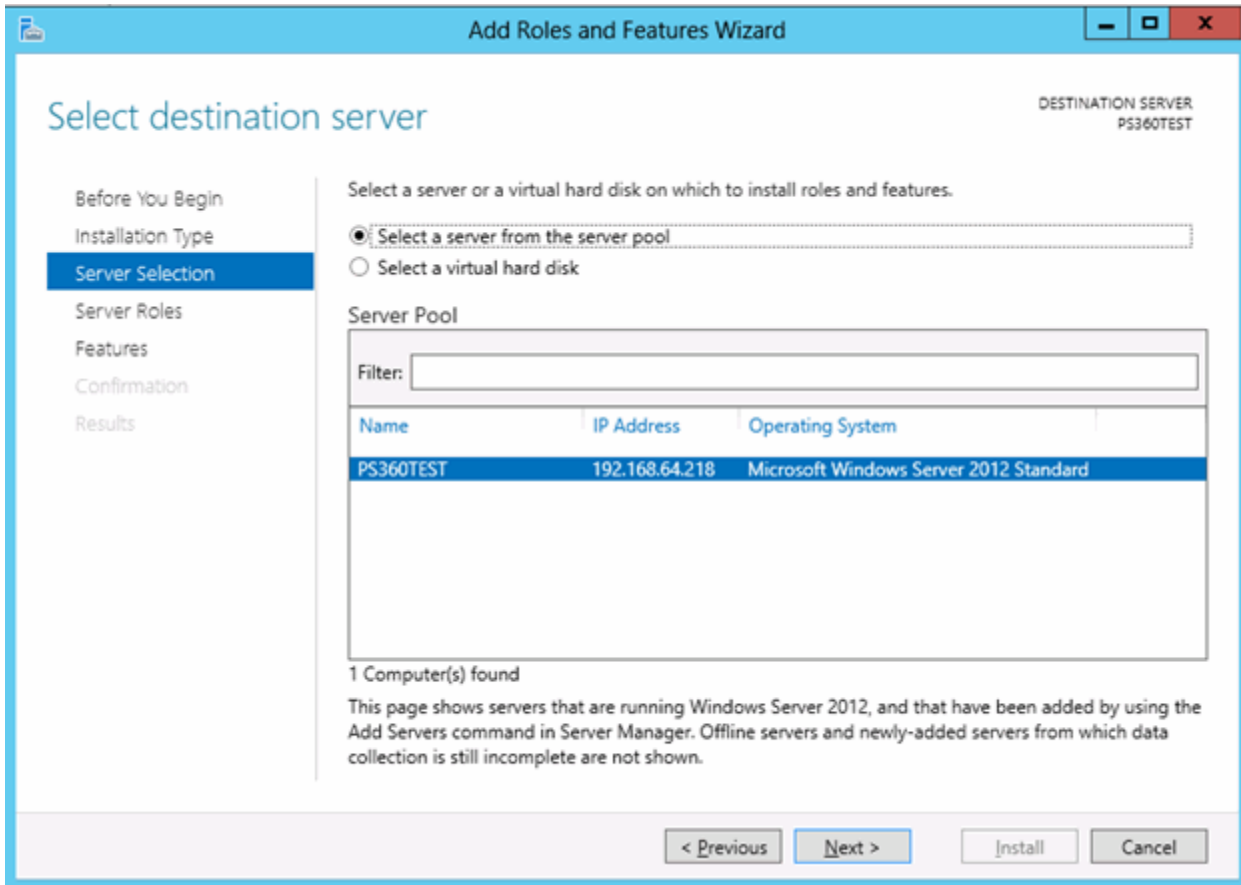


The Select installation type dialog appears.



3. Select **Role-based or feature-based installation**, and click **Next**.

The Select destination server dialog displays.



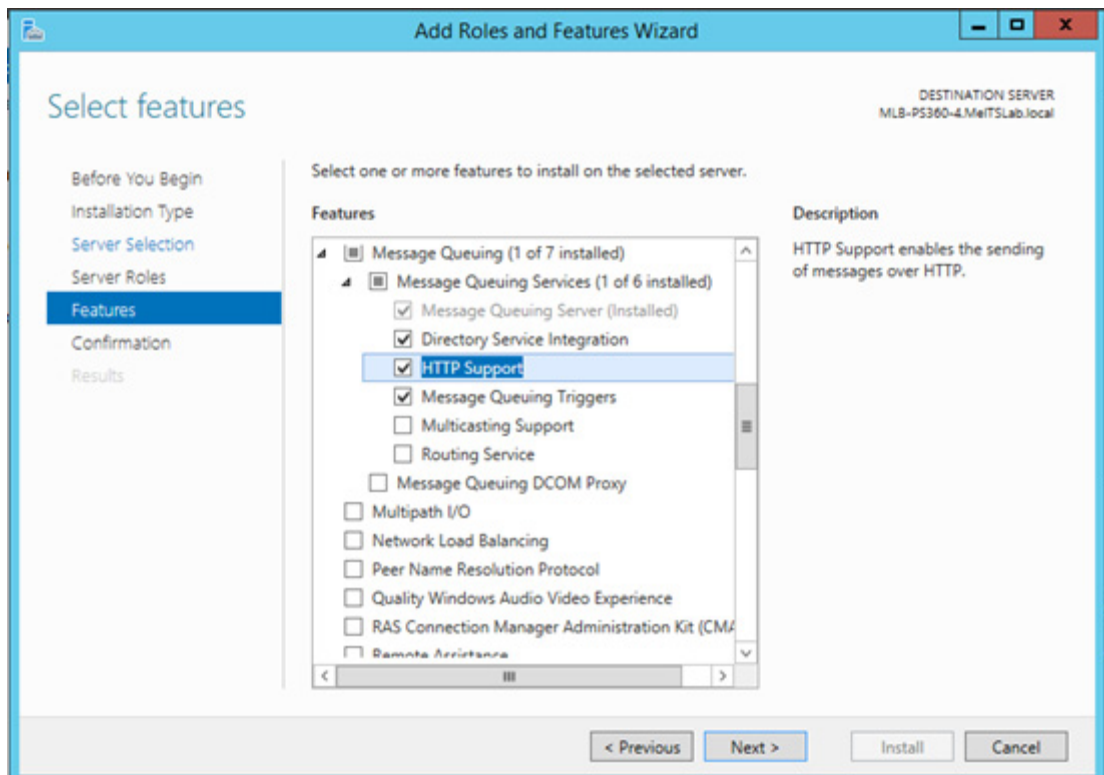
4. Choose **Select a server from the server pool**, and click **Next**.



*By default, the Server Pool shows the local server where the roles will be installed.*

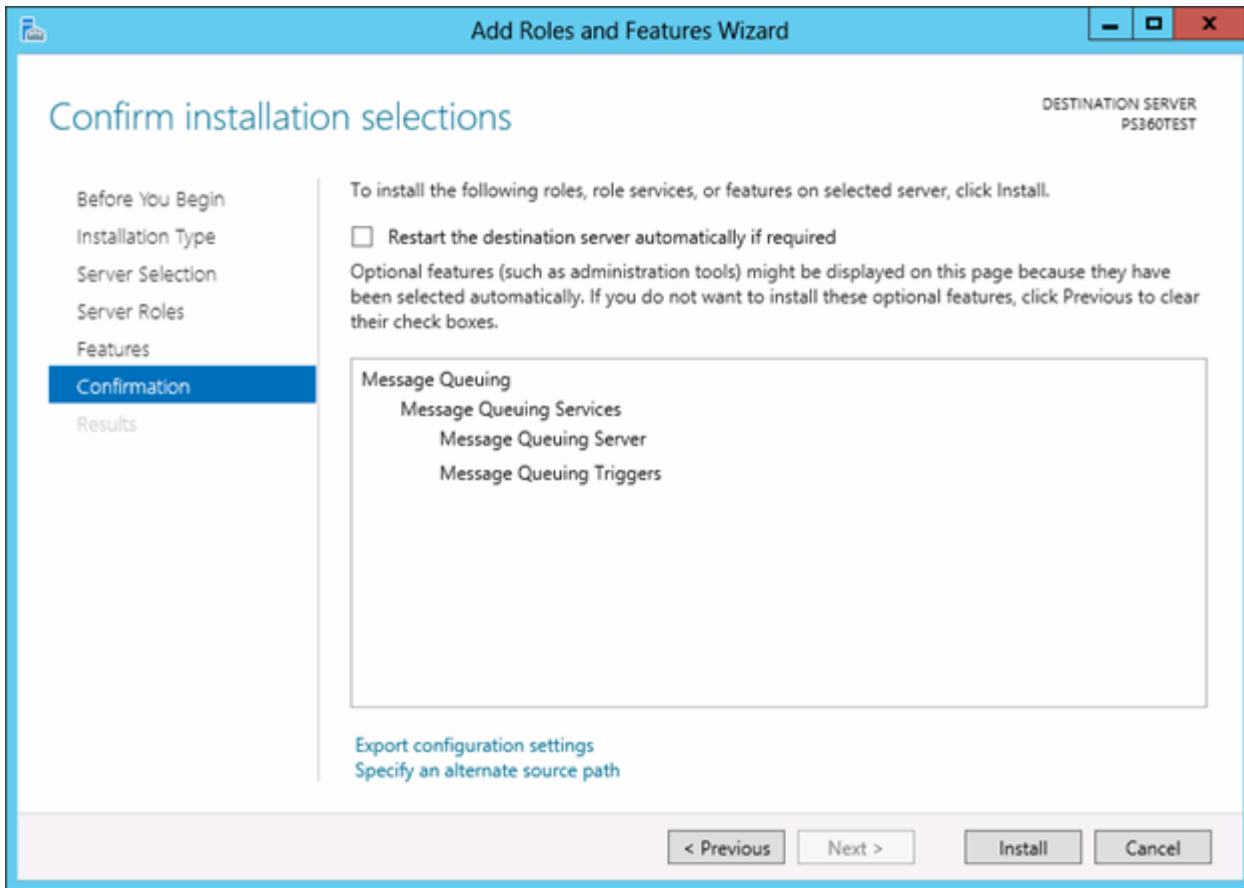
5. Click **Features**.

The Select features dialog displays.



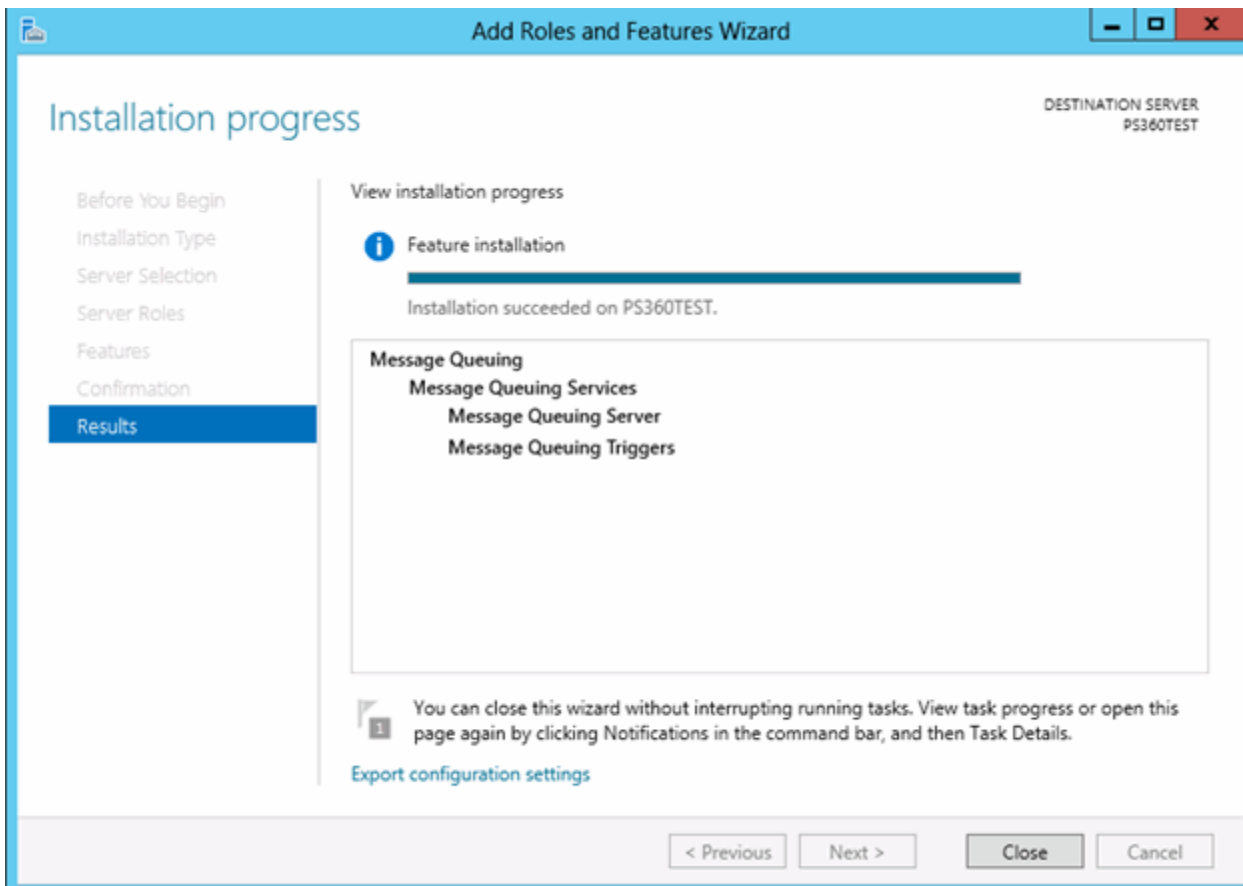
6. Check and expand **Message Queuing** and **Message Queuing Services**.
7. Check **Message Queuing Server**, **Directory Service Integration**, **HTTP Support**, and **Message Queuing Triggers**, and then click **Next**.

The Confirm installation selections dialog displays.



8. Verify Feature selections.
9. Click **Install**.

The Installation progress dialog displays.



10. Click **Close**.
11. Close the Server Manager.
12. Run the Windows 2012 PowerShell Command, `Get-WindowsFeature`, and then compare the list with the features and options listed on [page -6](#).

---

## Setup Purge Process to Delete Old IIS Log Files

IIS Log Files are produced daily, and accumulate without any maintenance procedure available by default. A Scheduled Task can be created to perform a purge of older log files as defined by the task. A Batch file performs the purge according to settings entered as part of the command.

Download the [.bat file here](#).

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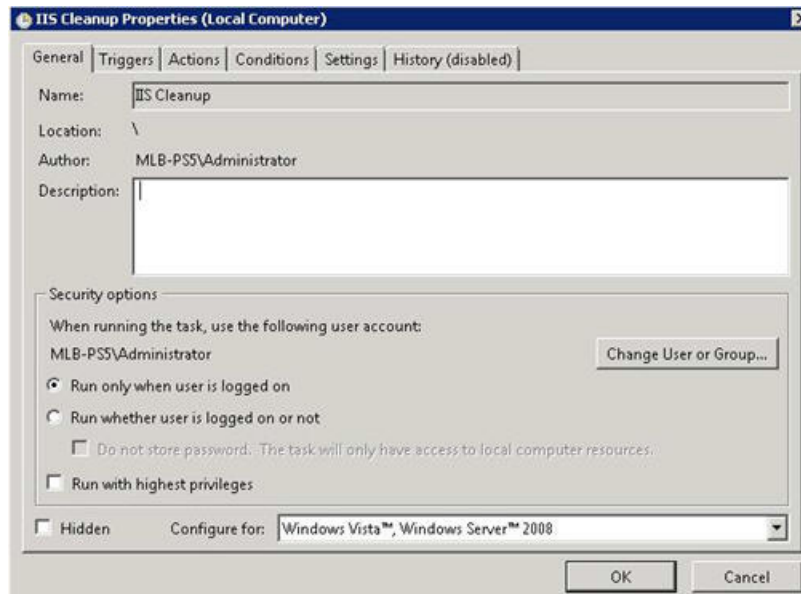
### Preparation

1. Download the deleteoldfiles.zip and copy to the <DataDrive>:\Nuance folder.
  2. Extract the zip.
  3. Edit the deleteoldfiles.txt file extension to .bat file.
- 

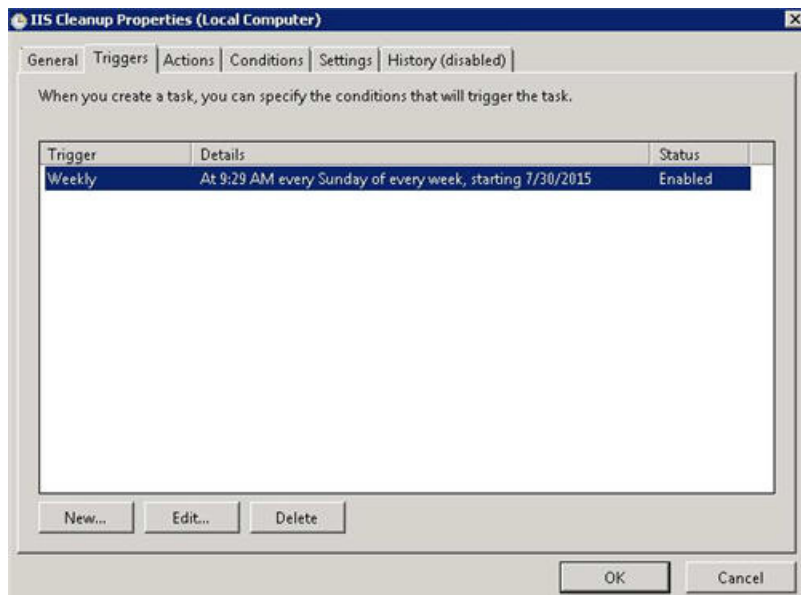
### Create Windows Tasks

1. Select **Start/Programs/Administrative tools/Task Scheduler**.
2. Choose **Create Basic Task** in the right pane. The Create Basic Task wizard opens.
3. Name the task, "IIS Cleanup".
4. Click **Next** to schedule the Task Trigger. The Task Trigger window displays.
5. Set the task to run **weekly**.
6. Click **Next**.
7. Set a **Start** date and time for the Task to run.
8. Set the task to reoccur every 1 week on Sunday.
9. Click **Next** to set the Task Action.
10. Select the **Start a program** option.
11. Click **Next** to select the program to start.
12. Using the Browse button, browse to the program to the **deleteoldfiles.bat** file.
13. In the Argument window, add the path to the IIS log file folder followed by \*.log 7  
**Example:** C:\Nuance\IIS\_Logs\W3SVC1 \*.log 7
14. Click **Next**. The Summary window displays.
15. Confirm that the options are correct in the Summary window for the task and click **Finish**. You are returned to the Task Scheduler window.
16. Click the **Refresh** button for the window.
17. Browse the list of Tasks for the IIS Cleanup Task, and double-click it to see the particulars for this Task in the lower center pane. From this location, you can further select to Run, End, Disable, Properties, etc., for the Task using the options in the lower half of the right pane.

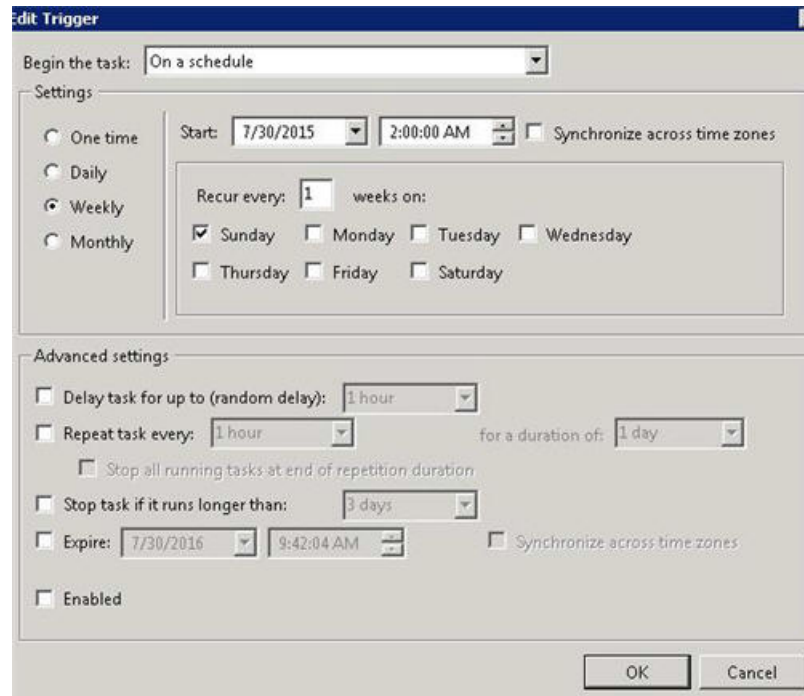
18. Make sure that the IIS Cleanup task is highlighted in the Scheduler window and select **Properties** in the lower right pane.
19. On the Data Move Properties dialog General tab, select Security option to **Run whether user is logged on or not**, and click **OK**.



20. A prompt displays for the account to run, use the Nuance Service Account.
21. Next click the **Triggers** tab.



22. Click **Edit**. The Edit Trigger dialog displays.



23. In the Advanced settings pane, check the **Enabled** option.

24. Click **OK** to close the Edit Trigger dialog.

25. Click **OK** to close the Properties dialog.

26. Execute the task and verify the log files are deleted.

27. Close the Task Scheduler application.