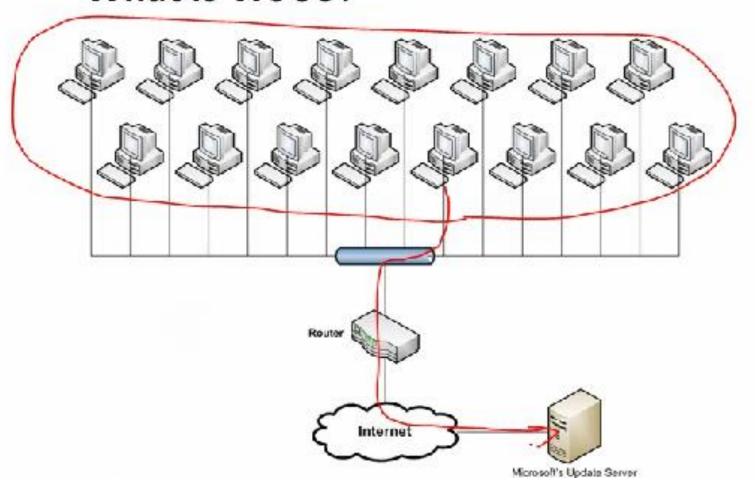
Windows Server Update Services (WSUS)

- What is WSUS?
- WSUS Scenarios
 - Single Server
 - Independent
 - Autonomous Mode
 - Replica Mode
 - Disconnected
- Downloading and Installing WSUS
- How to Configure Computer Groups
 - Server-side Targeting
 - Client-side Targeting
- Configuring Clients Using Group Policy

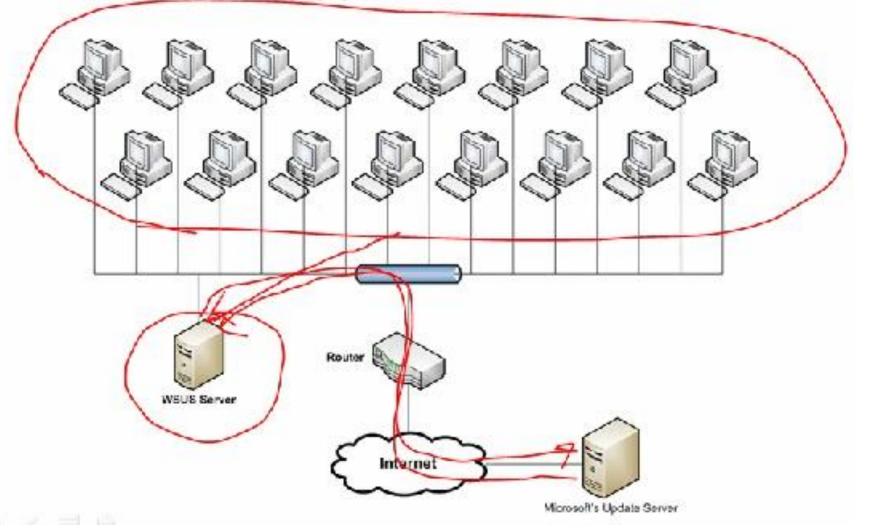
Advantages of Using WSUS

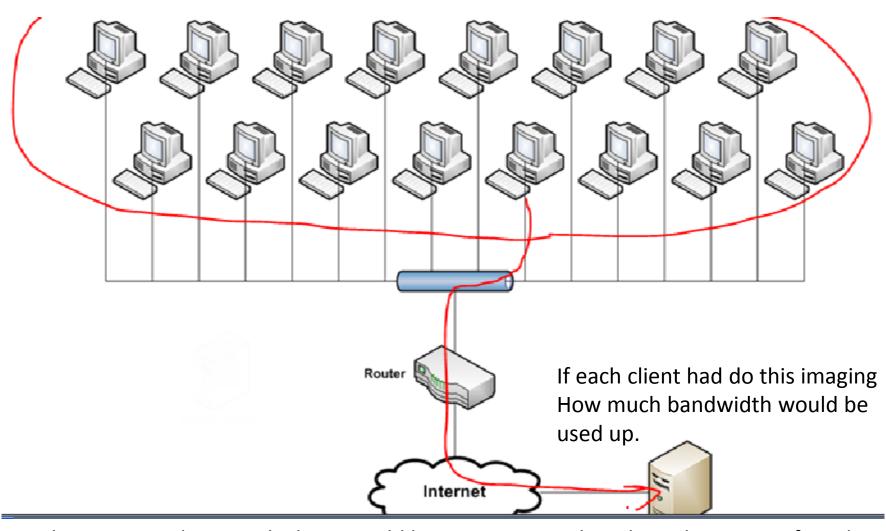
- It allows an internal server within a private intranet to act as a virtual Windows Update server.
- Administrators have selective control over what updates are posted and deployed from the public Windows Update site. No updates are deployed to client computers unless an administrator first approves them.
- Administrators can control the synchronization of updates from the public
 Windows Update site to the WSUS server either manually or automatically
- Administrators can configure Automatic Updates on client computers to access the local WSUS server as opposed to the public Windows Update site.
- WSUS checks each update to verify that Microsoft has digitally signed it. Any
 updates that are not digitally signed are discarded.
- Administrators can selectively specify whether clients can access updated files from the intranet or from Microsoft's public Windows Update site, which is used to support remote clients.
- Administrators can deploy updates to clients in multiple languages.
- Administrators can configure a WSUS statistics server to log update access, which allows them to track which clients have installed updates. The WSUS server and the WSUS statistics server can coexist on the same computer.
- Administrators can manage WSUS servers remotely using HTTP or HTTPS if their web browser is Internet Explorer 6.0 or newer.

What is WSUS?



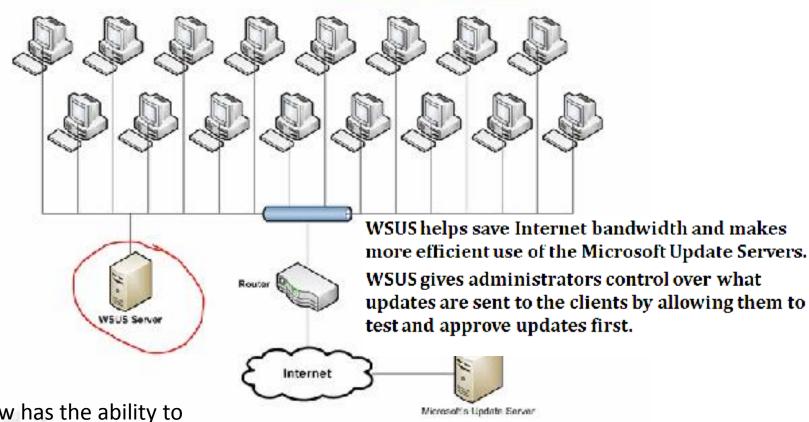
What is WSUS?





In the scenario above each client would have to connect directly to the Microsoft update Server to query if they were any updates available. If updates were available the Microsoft Server had to download those updates to the individual machine.

WSUS Scenarios – Single Server

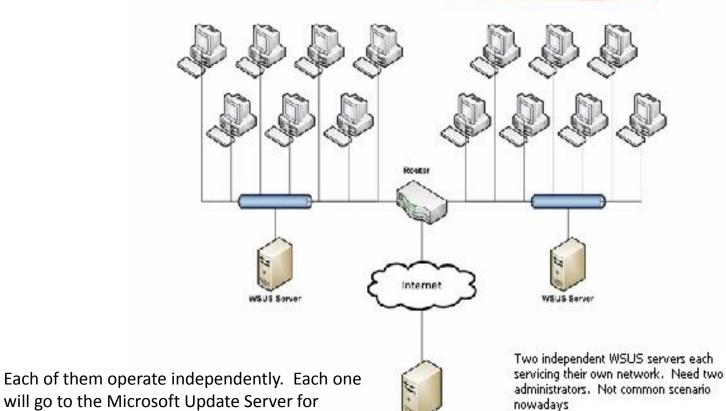


WSUS now has the ability to

Have all the clients communicate with

the WSUS Server for its updates. WSUS will go to the Microsoft update site for all its updates and the updates will be downloaded to the WSUS Server. All the clients will now communicate with the WSUS Server for updates.

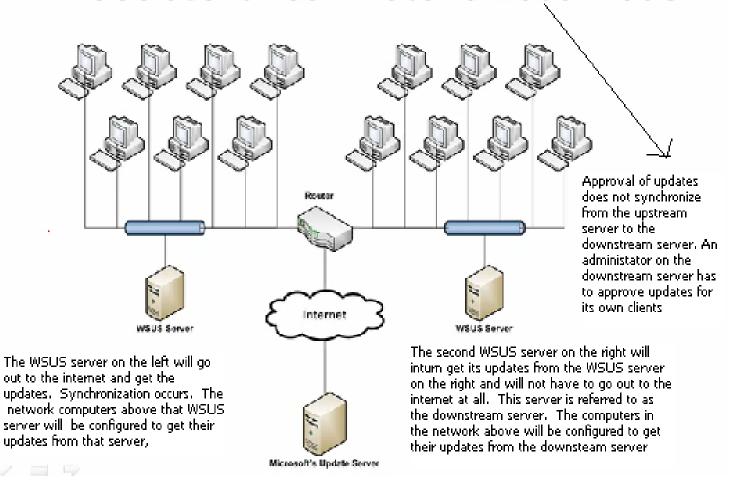
WSUS Scenarios – Independent



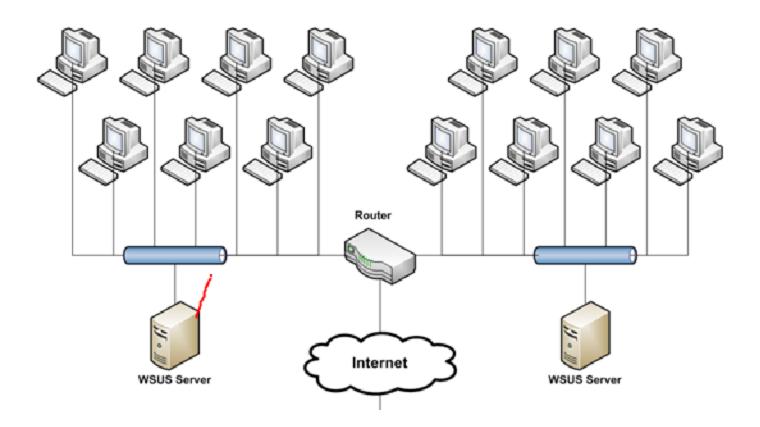
will go to the Microsoft Update Server for updates. There is no replication or synchronization of any kind between the Servers.

Therefore you will need two administrator, one for each WSUS Server

WSUS Scenarios – Autonomous Mode

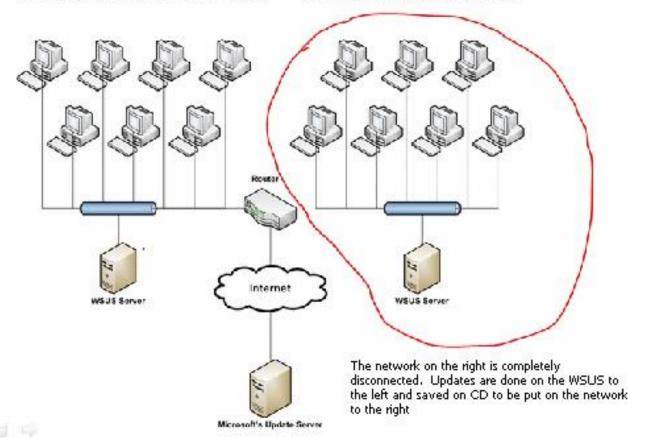


WSUS Scenarios – Replica Mode



This mode is exactly the same as the autonomous mode with one exception. Approvals are not done by the second WSUS server as in the Autonomous mode but are replicated over. So you really need only one Administrator.

WSUS Scenarios - Disconnected



Download WSUS 3.0 SP1

Install WSUS

Configure WSUS

Software

Configure Computer Groups

Configure Clients

WSUS Server Requirements

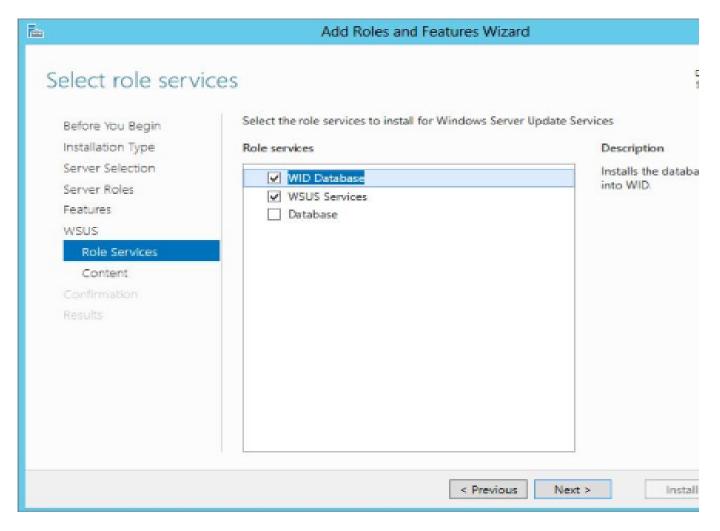
To act as a WSUS server, the server must meet the following requirements

- It must be running Windows 2000 Server with Service Pack 4 or newer,
 Windows Server 2003 SP1 or greater, Windows Vista, Windows 7, Windows 8,
 Windows Server 2008, Windows Server 2008 R2, or Windows Server 2012.
- It must have all of the most current security patches applied.
- It must be running Internet Information Services (IIS) 6.0 or greater.
- It must be connected to the network.
- It must have an NTFS partition with 100 MB free disk space to install the WSUS server software, and it must have 6 GB of free space to store all the update files.
- It must use BITS version 2.0.
- It must use Microsoft Management Console 3.0.
- It must use Microsoft Report Viewer Redistributable 2008.

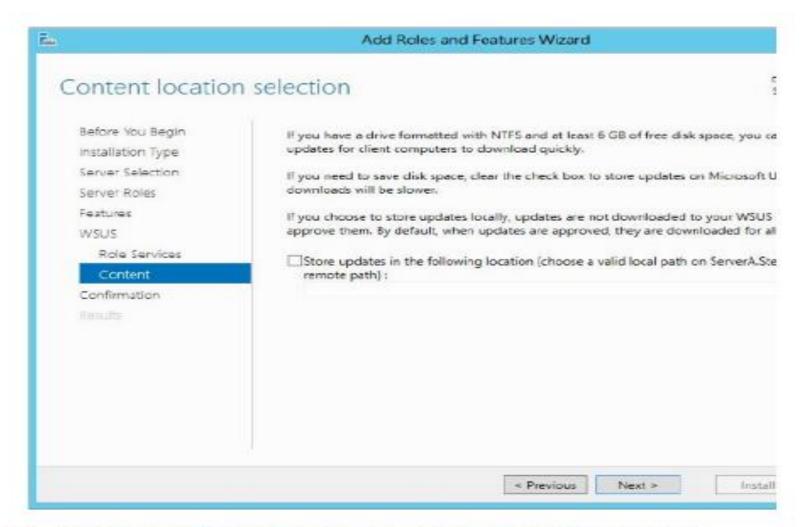
If your WSUS server meets the following system requirements, it can support up to 15,000 WSUS clients: Pentium III 700 MHz processor 512 MB of RAM

Installing a WSUS Server

- Choose Server Manager by clicking the Server Manager icon on the Taskbar.
- 2. Click option number 2, Add Roles And Features.
- Choose role-based or featured-based installation and click Next.
- 4. Choose your server and click Next.
- 5. Choose Windows Server Update Service. Click the Add Features button when the dialog box appears. Then click Next.
- At the Select features screen, just click Next.
- 7. At the Windows Server Update Services screen, click Next.
- 8. At the Select Role Services screen, make sure that WID Database and WSUS Services are both checked. Click Next.

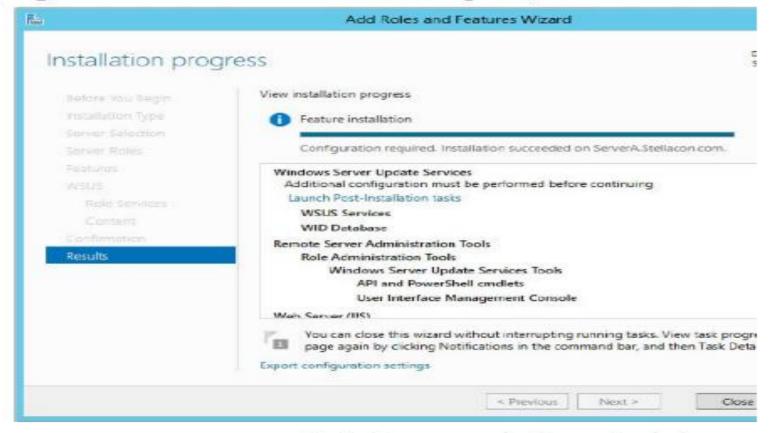


9. At the Content Location Selection screen, uncheck the box Store Updates In The Following Location and click Next. When you uncheck this box, updates are not stored locally. They are only downloaded from Microsoft once they are approved. This will help save hard drive space.

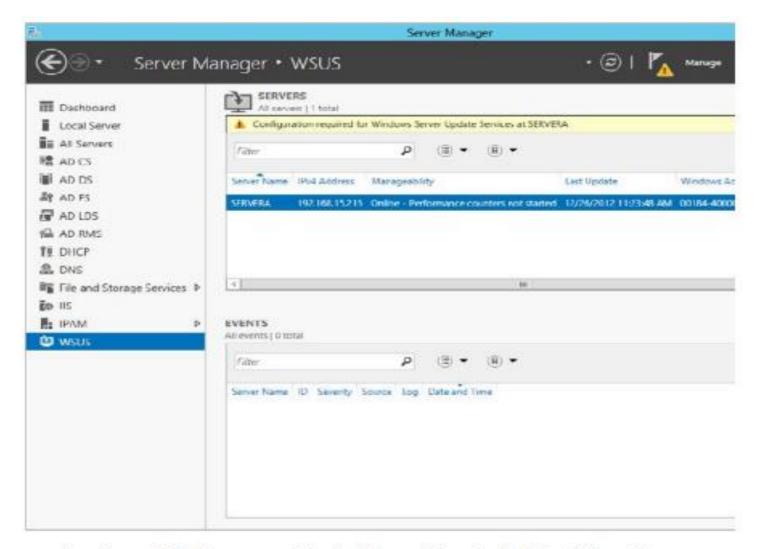


- 10. At the Confirmation screen, click the Install button.
- 11. The installation will begin, and you will see the progress. Once the installation is complete, click Close.

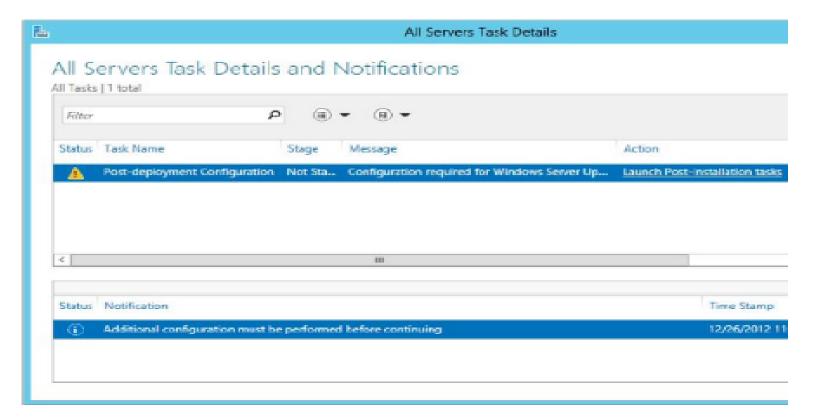
- 10. At the Confirmation screen, click the Install button.
- 11. The installation will begin, and you will see the progress. Once the installation is complete, click Close.



12. In Server Manager, click the WSUS link on the lefthand side. Then click the More link next to Configuration Required For Windows Server Update Services.



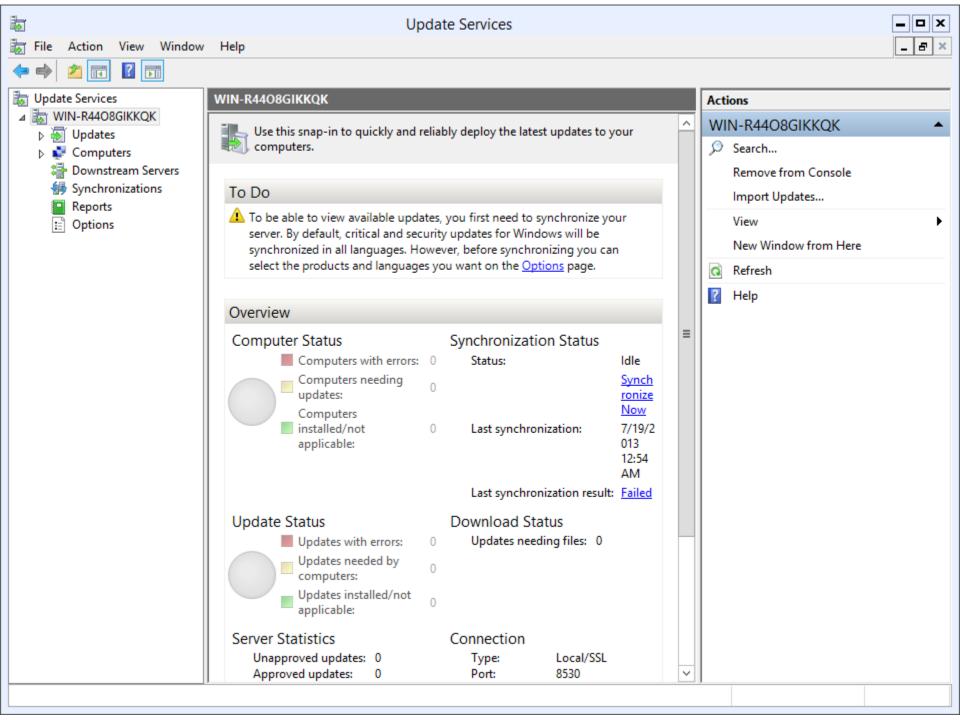
13. At the All Servers Task Details And Notifications screen, click the link for Launch Post-Installation Tasks.



- 14. The installation process will automatically continue. Once it is finished, you will see Complete under Stage. Close the All Servers Task Details And Notifications screen.
- 15. Close Server Manager.
- **16.** If a WSUS Configure Options box appears, just close it. You will set options in the next exercise.

MPIO Network Policy Server ODBC Data Sources (32-bit) ODBC Data Sources (64-bit) Performance Monitor Print Management Remote Access Management Resource Monitor Routing and Remote Access Security Configuration Wizard Services System Configuration System Information Task Scheduler Windows Deployment Services Windows Firewall with Advanced Security Windows Memory Diagnostic Windows PowerShell Windows PowerShell (x86) Windows Server Backup Windows Server Migration Tools

Windows Server Update Services





Before You Begin

Things you should do before starting this wizard

Before You Begin

Microsoft Update Improvement Program

Choose Upstream Server Specify Proxy Server Choose Languages Choose Products Choose Classifications Configure Sync Schedule Finished What's Next



Before you begin:

- 1. Is the server firewall configured to allow clients to access the server?
- Can this computer connect to the upstream server (such as Microsoft Update)?
- 3. Do you have user credentials for the proxy server, if needed?

To run this wizard again, launch the WSUS Administration Snap-in and go to Options

< Back Next > Enish Cancel



Join the Microsoft Update Improvement Program

You have the option of joining the Microsoft Update Improvement Program

Before You Begin

Microsoft Update Improvement Program

Choose Upstream Server Specify Proxy Server Choose Languages Choose Products Choose Classifications Configure Sync Schedule Finished

What's Next



Help us design the next version of Windows Server Update Services. Improve the quality, reliability, and performance of Microsoft Software.

When you opt into the Microsoft Update Improvement Program, your WSUS server will send information to Microsoft about the quality of updates. This information includes:

How many computers are in the organization. How many computers successfully installed each update.

How many computers failed to install each update.

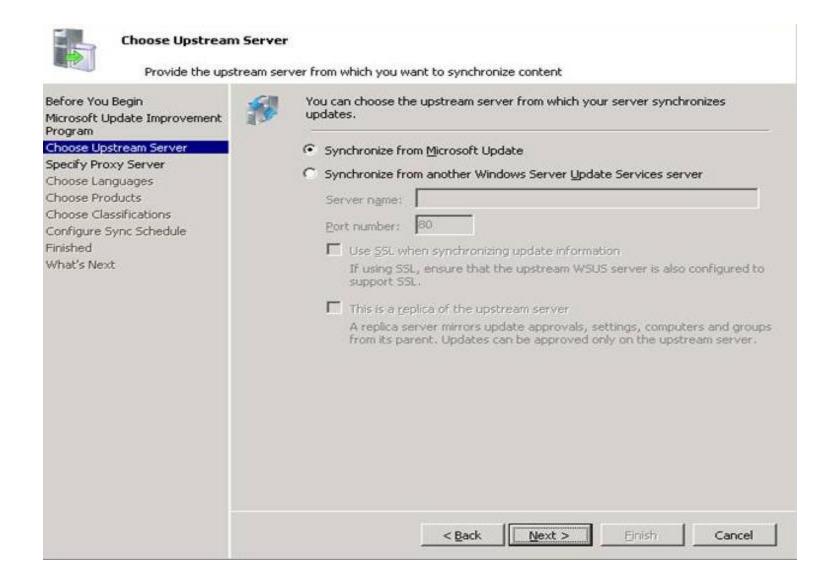
This information is used to improve the quality and reliability of the updates Microsoft provides.

None of the information collected is used to identify or contact you or your organization.

Privacy Statement

Yes, I would like to join the Microsoft Update Improvement Program

< Back Next > ⊟nish Cancel



The main server will synchronize from Microsoft update server, but when we are configuring the downstream server we will use the second option. The name of the server will then be this server.

Windows Server Update Services Configuration Wizard





Program

Specify Proxy Server

Provide proxy server settings for synchronizing updates with Microsoft Update

Before You Begin Microsoft Update Improvement

Choose Upstream Server

Specify Proxy Server

Choose Languages

Choose Products

Choose Classifications

Configure Sync Schedule

Finished

What's Next

use a proxy server v	when synchronizing
Proxy gerver name:	
Port number:	80
☐ Use user credent	tials to connect to the proxy server
User name:	
<u>D</u> omain:	
Password:	
■ Allow basic a	authentication (password is sent in cleartext)



Connect to Upstream Server

Download update information from Microsoft Update

Before You Begin

Microsoft Update Improvement Program

Choose Upstream Server

Specify Proxy Server

Choose Languages

Choose Products

Choose Classifications

Configure Sync Schedule

Finished

What's Next



To configure Windows Server Update Services on the following screens, we need to apply your upstream server and proxy server settings and synchronize information about available updates.

Information to be downloaded includes:

Types of updates available Products that can be updated Available languages

Click Start Connecting to save and download upstream server and proxy server information. This process might take several minutes or longer, depending on your connection speed.

Start Connecting Stop Connecting

< Back

Next >

Finish

Cancel



Select the languages for which this server will download updates

Before You Begin Microsoft Update Improvement Program Choose Upstream Server Specify Proxy Server

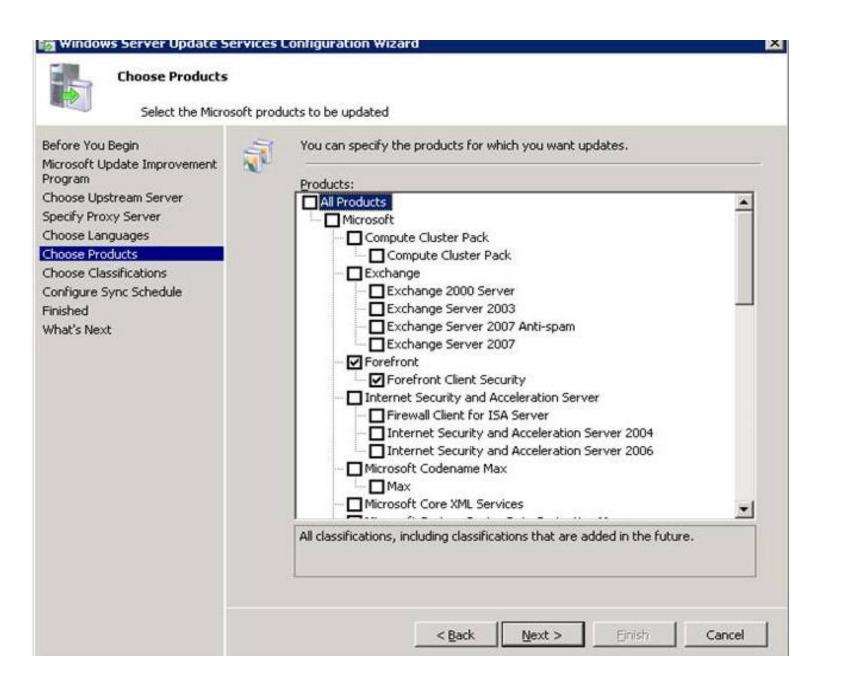
Choose Languages

Choose Products
Choose Classifications
Configure Sync Schedule
Finished
What's Next



If you are storing update files locally, you can filter the updates downloaded to your server by language. Choosing individual languages will affect which computers can be updated on this server and any downstream servers. For more information see Specify the update languages you want to synchronize.

Arabic	☐ Hindi	☐ Slo
Bulgarian	☐ Hungarian	☐ Sp.
Chinese (Hong Kong S.A.R.)	☐ Italian	☐ Sw
Chinese (Simplified)	☐ Japanese	☐ Th
Chinese (Traditional)	☐ Japanese (NEC)	☐ Tui
Croatian	☐ Korean	☐ Uki
Czech	☐ Latvian	
Danish	Lithuanian	
☐ Dutch	□ Norwegian	
✓ English	☐ Polish	
Estonian	☐ Portuguese	
Finnish	Portuguese (Brazil)	
French	☐ Romanian	
German	☐ Russian	
Greek	Serbian (Latin)	
Hebrew	☐ Slovak	
(*





Choose Classifications

Select the update classifications you want to download Before You Begin You can specify what classification of updates you want to synchronize. Microsoft Update Improvement Program Classifications: Choose Upstream Server ✓ All Classifications ☑ Critical Updates Specify Proxy Server Choose Languages ☑ Definition Updates Choose Products ✓ Drivers ▼ Feature Packs Choose Classifications ☑ Security Updates ← Configure Sync Schedule Service Packs Finished **▼** Tools What's Next ✓ Update Rollups ✓ Updates All classifications, including classifications that are added in the future. Next > Finish < Back Cancel





Set Sync Schedule

Configure when this server synchronizes with Microsoft Update

Before You Begin
Microsoft Update Improvement
Program
Choose Upstream Server
Specify Proxy Server
Choose Languages
Choose Products
Choose Classifications

Configure Sync Schedule

Finished What's Next



You can synchronize updates manually or set a schedule for daily automatic synchronization.

C Synchronize manually

Synchronize <u>a</u>utomatically

First synchronization:

12:00:00 AM

Synchronizations per day:



Note that when scheduling a daily synchronization from Microsoft Update, the synchronization start time will have a random offset up to 30 minutes after the specified time.

< Back

Next >

Finish

Cancel





Finished

Finished initial configuration of your server

Before You Begin Microsoft Update Improvement Program

Choose Upstream Server

Specify Proxy Server

Choose Languages

Choose Products

Choose Classifications

Configure Sync Schedule

Finished

What's Next



You have now finished configuring your WSUS server. You can go on to launch the WSUS Administration Console or start the initial synchronization.

- Launch the Windows Server Update Services Administration Console

 Get started administering your organization by starting the Windows Server
 Update Services Administration Console.
- Begin initial synchronization

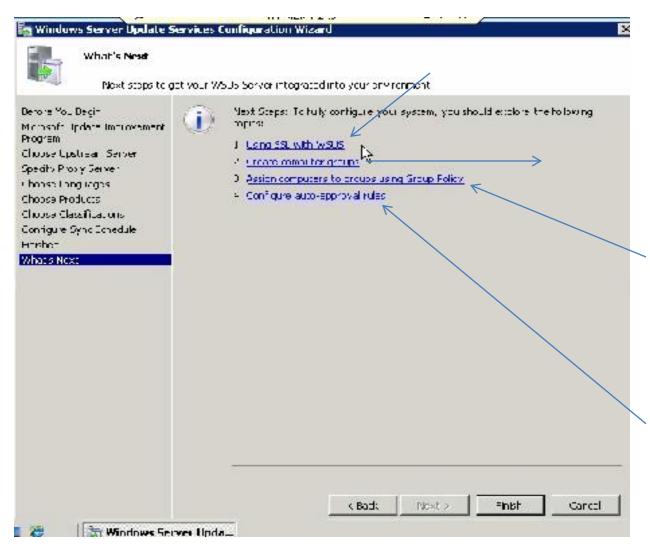
The initial synchronization with Microsoft Update or your upstream server can take some time. The length of the initial synchronization depends on the number of products, update classifications, and languages you have selected, as well as the speed of your Internet connection.

< Back

Next >

Finish

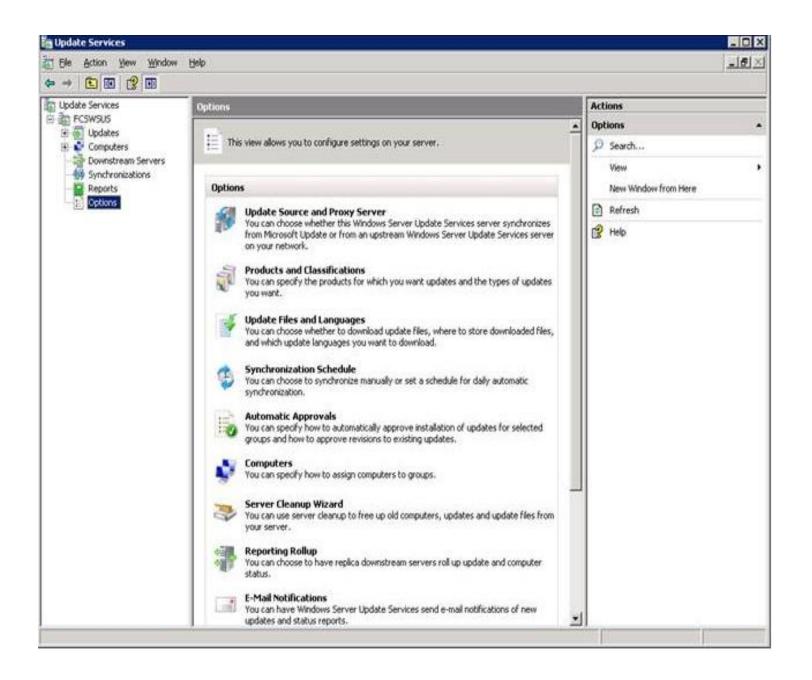
Cancel

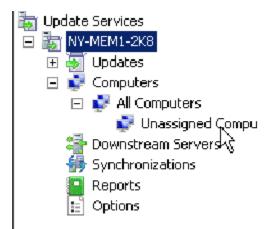


1. Use SSL because wsus is be in done on a web page

- 2. Create computer groups
- 3. Assign computers to groups

4. Set up rules For auto approval



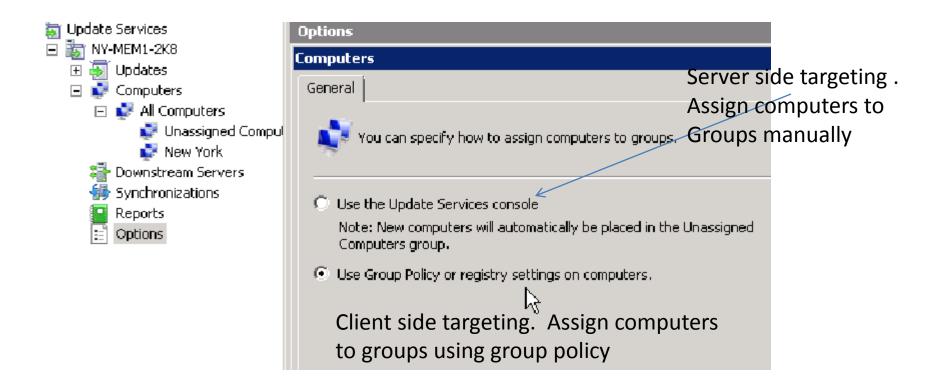


The Unassigned computer group will hold all computers pointing to The WSUS server for updates that do not belong to a computer group.

To create a computer group:

- 1. Right click on All computers
- 2. Click on Add computer group
- 3. Specify a name for the computer group
- 4. (computer groups allow us the ability to approve different updates for different computer within our organization)

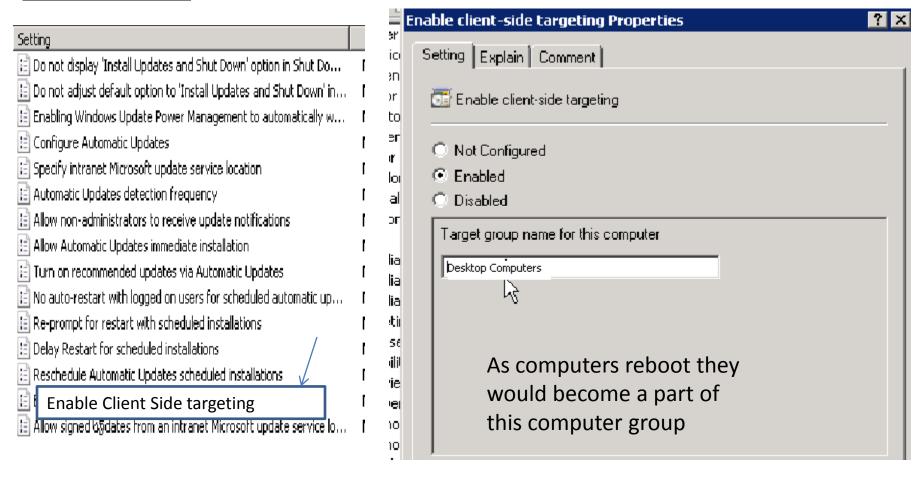
There are two ways to decide how a computer will get updates. One way is called <u>Server-side targeting</u> and the second way Is called <u>Client-side targeting</u>. You can select the any of the Two ways through **options**



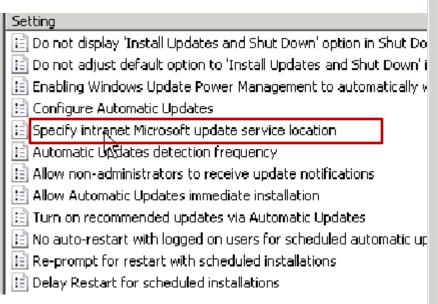
Regardless of the method used to assign client computers to groups, you must first create the groups using the WSUS console.

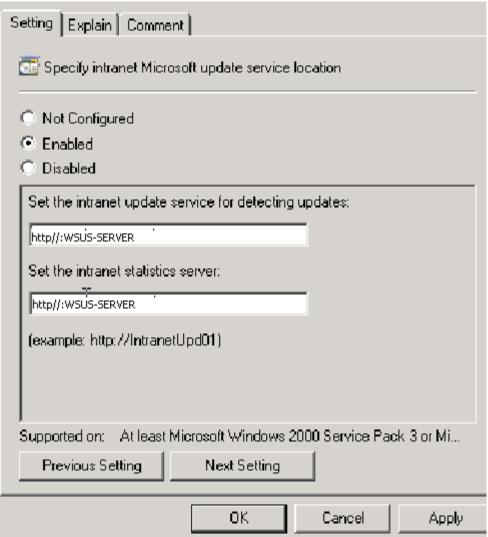
Client side targeting – Group policy settings

<u>Computer Configuration</u>: <u>Policies</u>: <u>Administrative Templates</u>: <u>Windows Component</u>: <u>Windows Update</u>

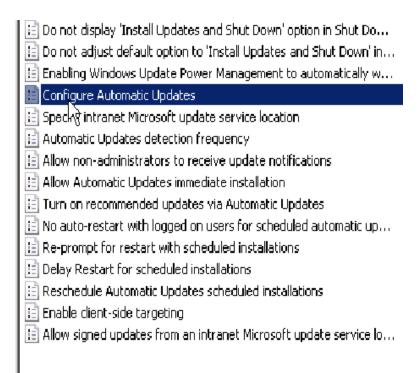


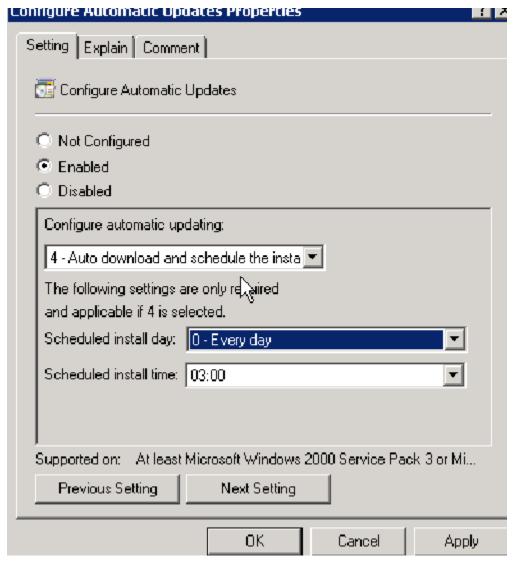
How to have the clients use WSUS for updates





HOW TO CONFIGURE UPDATES





Every day at 3:00 a.m. I want these computers to download any updates that are available and Install them.

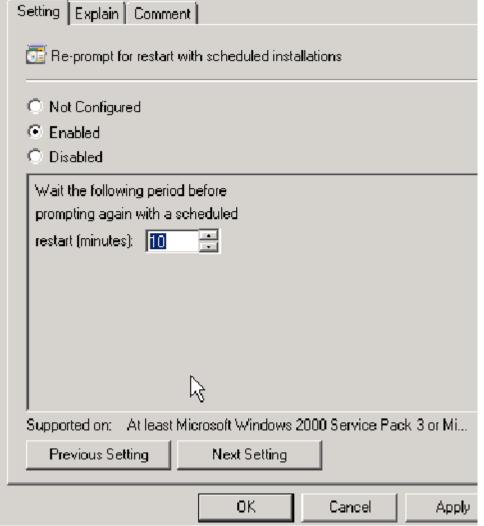
A few more Settings that are fairly common 57.09

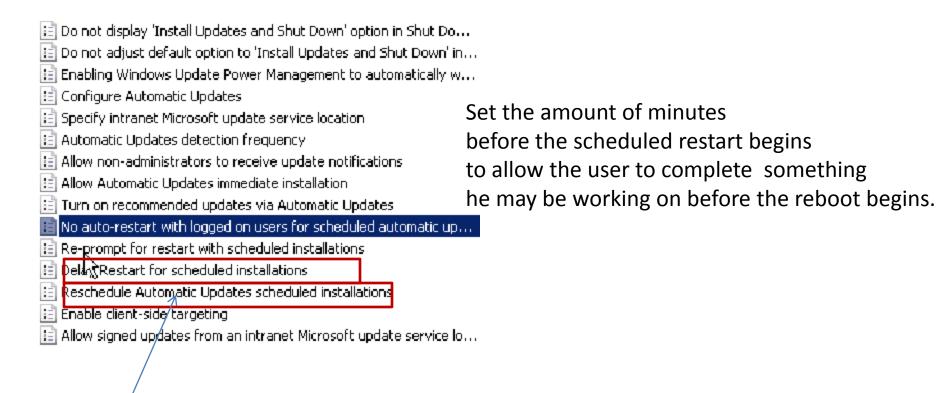
📴 Do not display 'Install Updates and Shut Down' option in Shut Do	Not configured			
🔡 Do not adjust default option to 'Install Updates and Shut Down' in	Not configured			
🛅 Enabling Windows Update Power Management to automatically w	Not configured			
🔳 Configure Automatic Updates	Enabled			
📴 Specify intranet Microsoft update service location	Enabled			
🛅 Automatic Updates detection frequency	Not configured			
🔡 Allow non-administrators to receive update notifications	Not configured			
🔡 Allow Automatic Updates immediate installation	Not configured			
Turn on recommended updates via Automatic Updates	Not configured			
No autogrestart with logged on users for scheduled automatic updates installations ed				
Re-prort® for restart with scheduled installations	Not configured			
🔳 Delay Restart for scheduled installations	Not configured			
🔡 Reschedule Automatic Updates scheduled installations	Not configured			
🛅 Enable client-side targeting	Enabled			
🔝 Allow signed updates from an intranet Microsoft update service lo	Not configured			

If a user is logged on the update will not do a reboot because the user might be in the middle of something and you don't want to kill that.



If some postponed the reboot, how long Do we want to wait to prompt them again to say you still need to reboot





This has to do with how long automatic updates are goingt o wait following a system startup. In other words if the system was off, when the user comes turns on the computer in the morning lots of updates will attempt to come down and you may not want that to occur the minute they turn on the computer so you may want to set the setting to wait maybe 30 minutes. That way the updates do not occur immediately when the computer is turned on.

HOW TO APPROVE UPDATES

Update Services







🖃 🥵 All Computers

Unassigned Comput
New York

Downstream Servers

🥌 Downstream Serve

Reports

Options

Options

Server Update Services server on your network.



Products and Classifications

You can specify the products for which you want updates and the types of updates you want.



Update Files and Languages

You can choose whether to download update files, where to store downloaded files, and which update languages you want to download.



Synchronization Schedule

You can choose to synchronize manually or set a schedule for daily automatic synchronization.



<u>Automatic App@yals</u>

You can specify had to automatically approve installation of updates for selected groups and how to approve revisions to existing updates.



Computers

You can specify how to assign computers to groups.



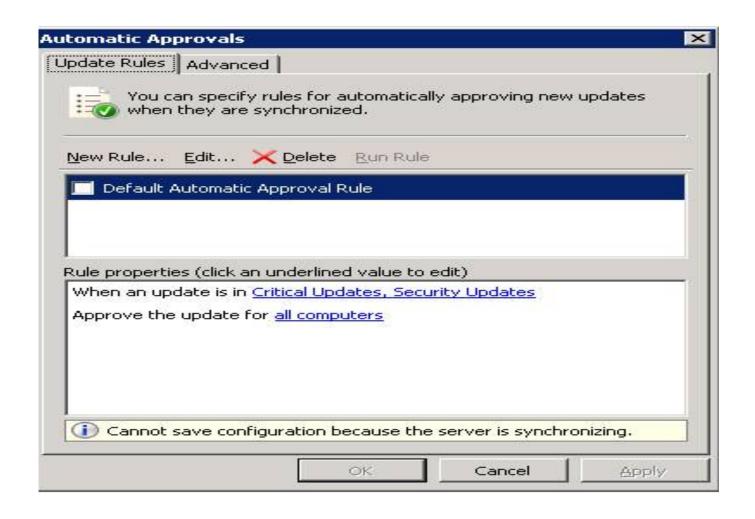
Server Cleanup Wizard

You can use server cleanup to free up old computers, updates and update files from your server.



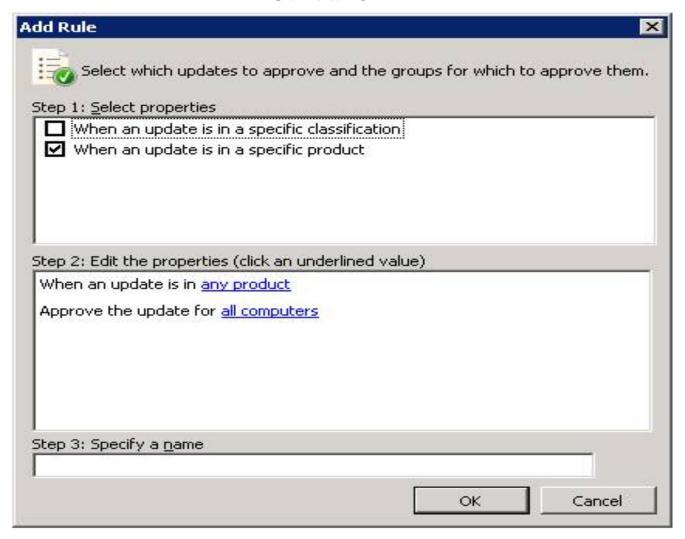
Reporting Rollup

You can choose to have replica downstream servers roll up update



On the automatic approval window, check the default automatic approval rule (automaticly approves critical and security updates) and click new rule if you wish to add additional auto-approve rules for specific products or classifications.

UPDATES

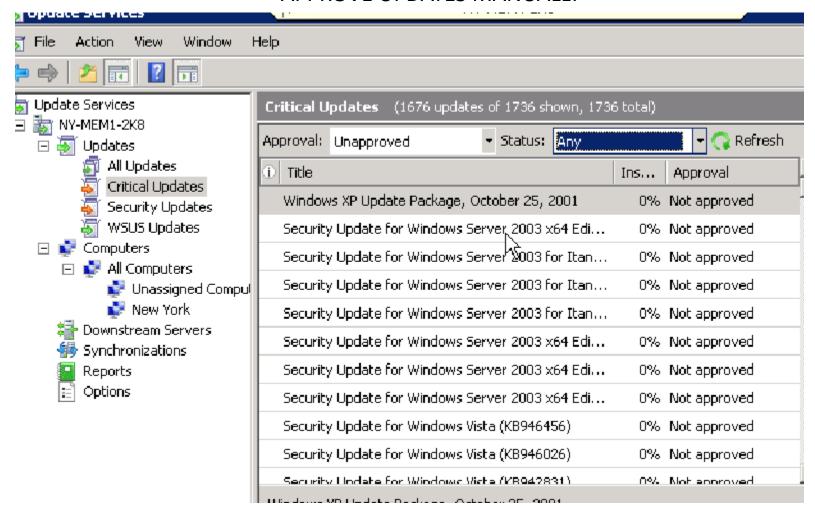


.On the add rule wizard specify any other auto approve rules that you wish by product or classification



.On the choose product window, check only forefront-forefront client security and click ok

APPROVE UPDATES MANUALLY



You can right click on one of the updates and select <u>Approve</u> or you can shift select All of the computers and select <u>Approve</u> a specific group and select <u>Approved for Install.</u>

