

Windows Server 2008 R2 Initial Configuration Tasks

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Introduction

When first logging in to a Windows Server 2008 R2 server, you will be presented with the Initial Configuration Tasks Screen. This screen groups a large number of the general configuration tasks required to setup a server in one convenient location. The following tutorial will take you through those tasks. It is recommended to complete these tutorials in the order presented here.

At the bottom of the Initial Configuration Tasks screen, you can choose, "Do not show this window at logon". If you ever need to return to the initial configuration tasks window, you can click the Start menu and enter, "OOBE", in the search bar. Click on the result, "oobe", from the search and the Initial Configuration Tasks screen will appear. "OOBE", stands for Out-of-Box-Experience.

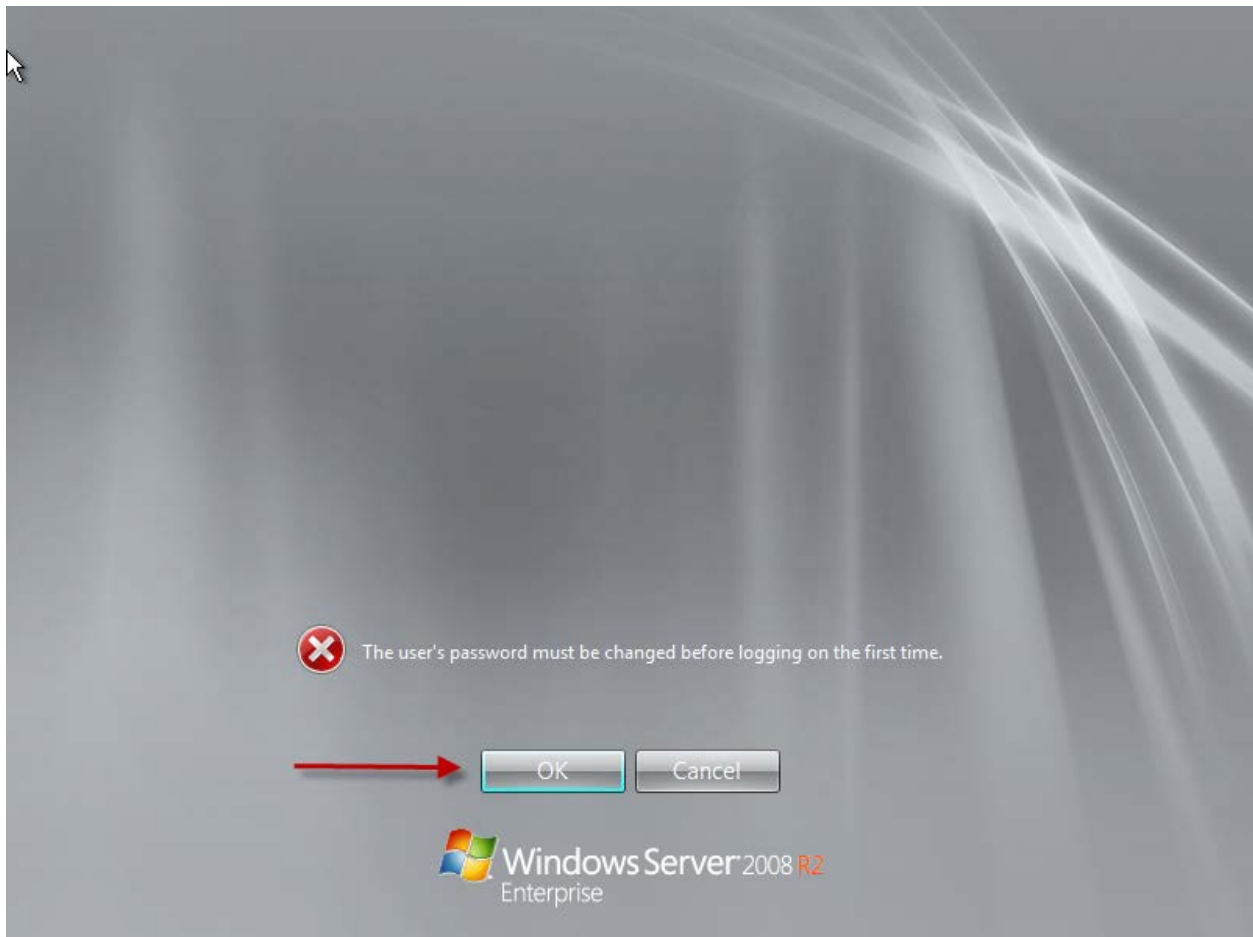
The tasks covered in this tutorial will include:

- Configure Networking
- Enable Remote Desktop
- Create a Remote Desktop Connection and Connect to a Server
- Activate Windows
- Set the Time Zone and Time
- Enable Automatic Updates and Feedback
- Download and Install Updates
- Provide Compute Name and Domain

Configuring the Windows Firewall is beyond the scope of this tutorial. For further information see the tutorial, "Configuring the Windows Firewall". On a side note, when you enable Remote Desktop access, an inbound firewall rule is automatically enabled allowing Remote Desktop traffic. This is a pre-configured firewall rule in the Windows Firewall.

Steps

1. This will be the first screen you encounter upon completing installation of Windows Server 2008 R2. Click the **OK** button to proceed with changing the administrator password upon logging in for the first time.



NOTES: This is mandatory.

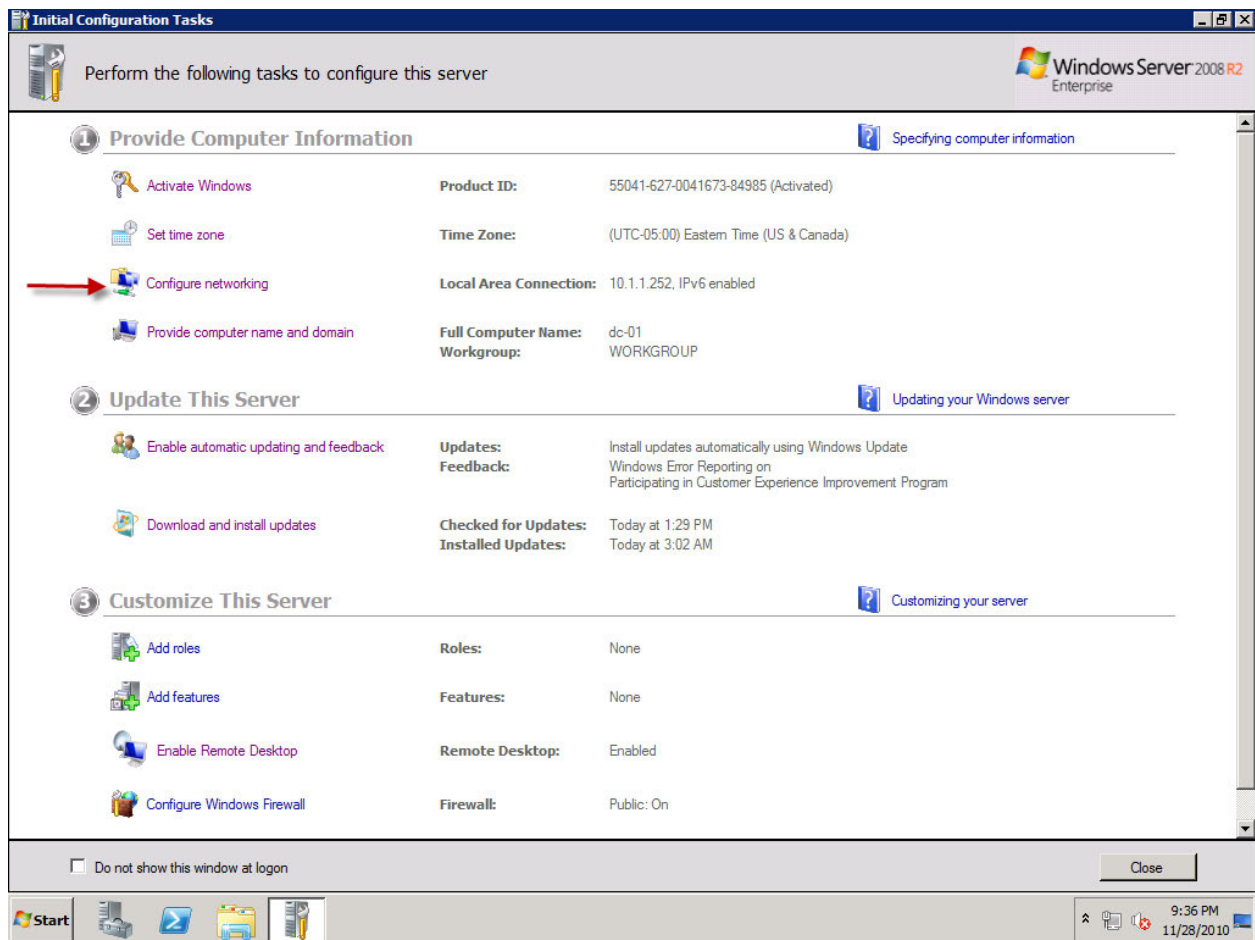
2. Enter and confirm your new password. Click the blue circle with a white arrow in the center to proceed.



NOTES: It is best practice to use strong password policies. Passwords should be 8 characters or longer, use special characters, and have a combination of upper and lower case characters.

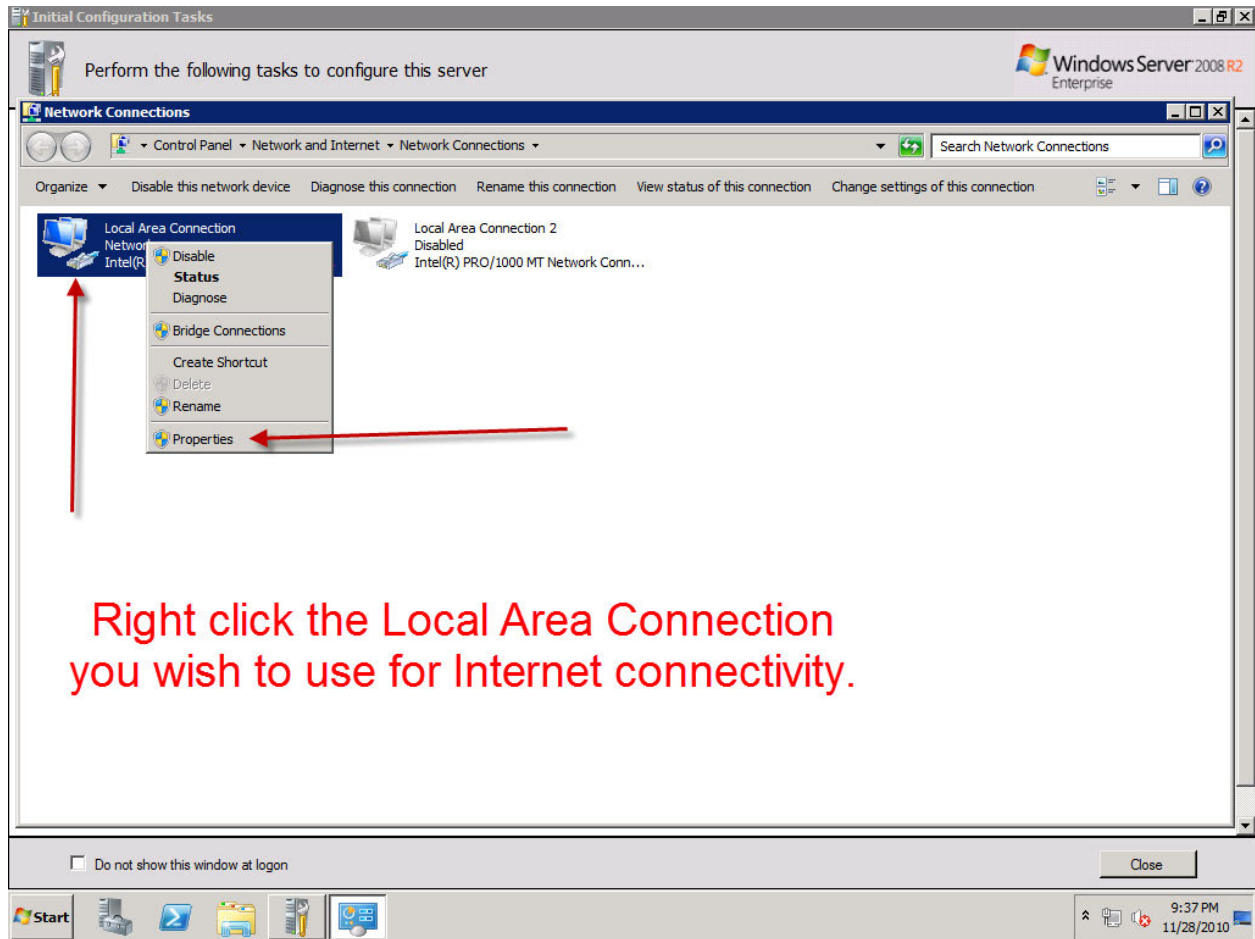
Configuring Networking

3. Select Configure Networking.



NOTES: *If you ever need to return to this screen, open the Start menu, enter "OOBE" into the search bar, and click the "oobe" icon which appears.*

4. Right click the Local Area Connection you will be using for internet connectivity and select Properties.

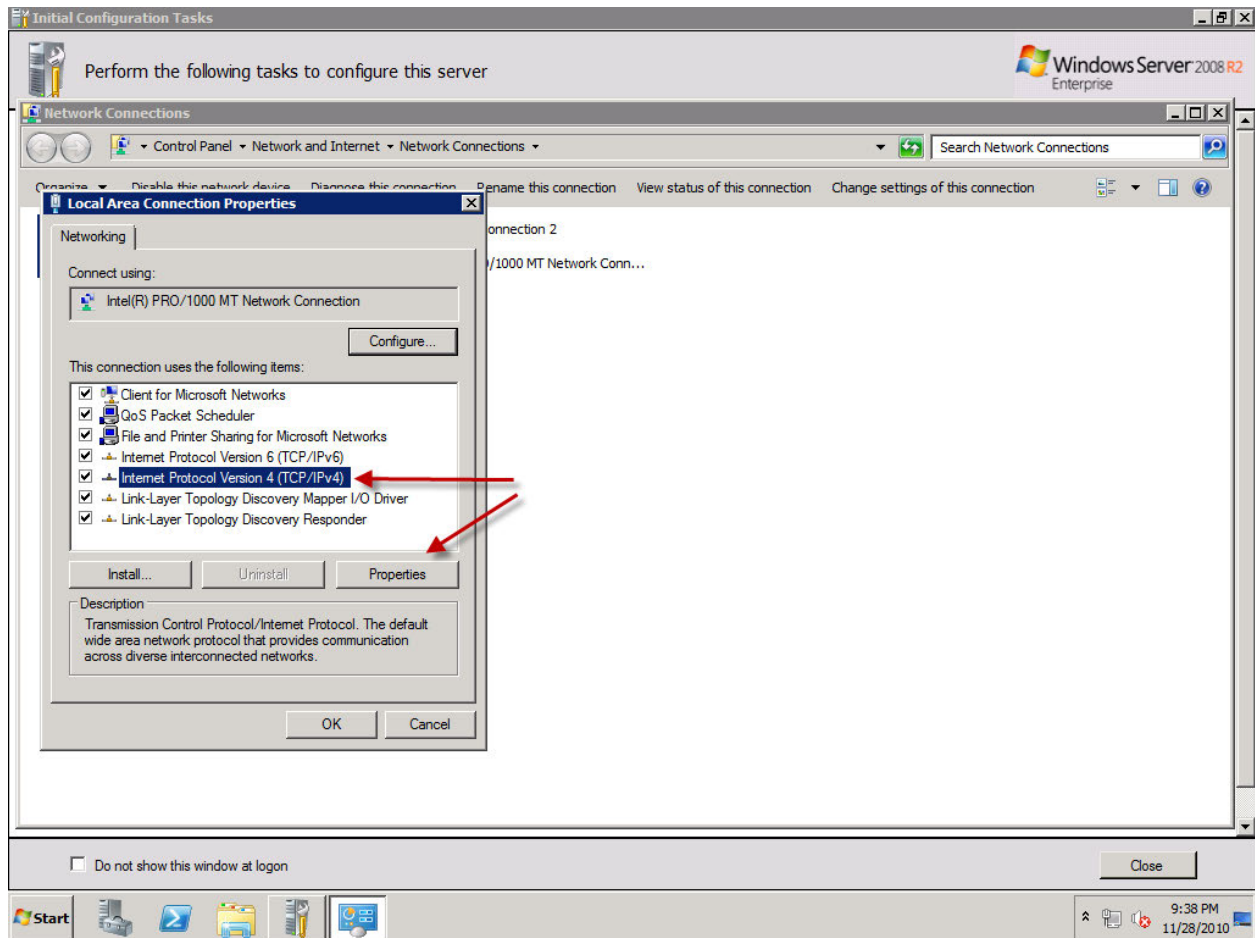


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5. Highlight, "Internet Protocol Version 4 (TCP/IPv4)", and click the Properties button.

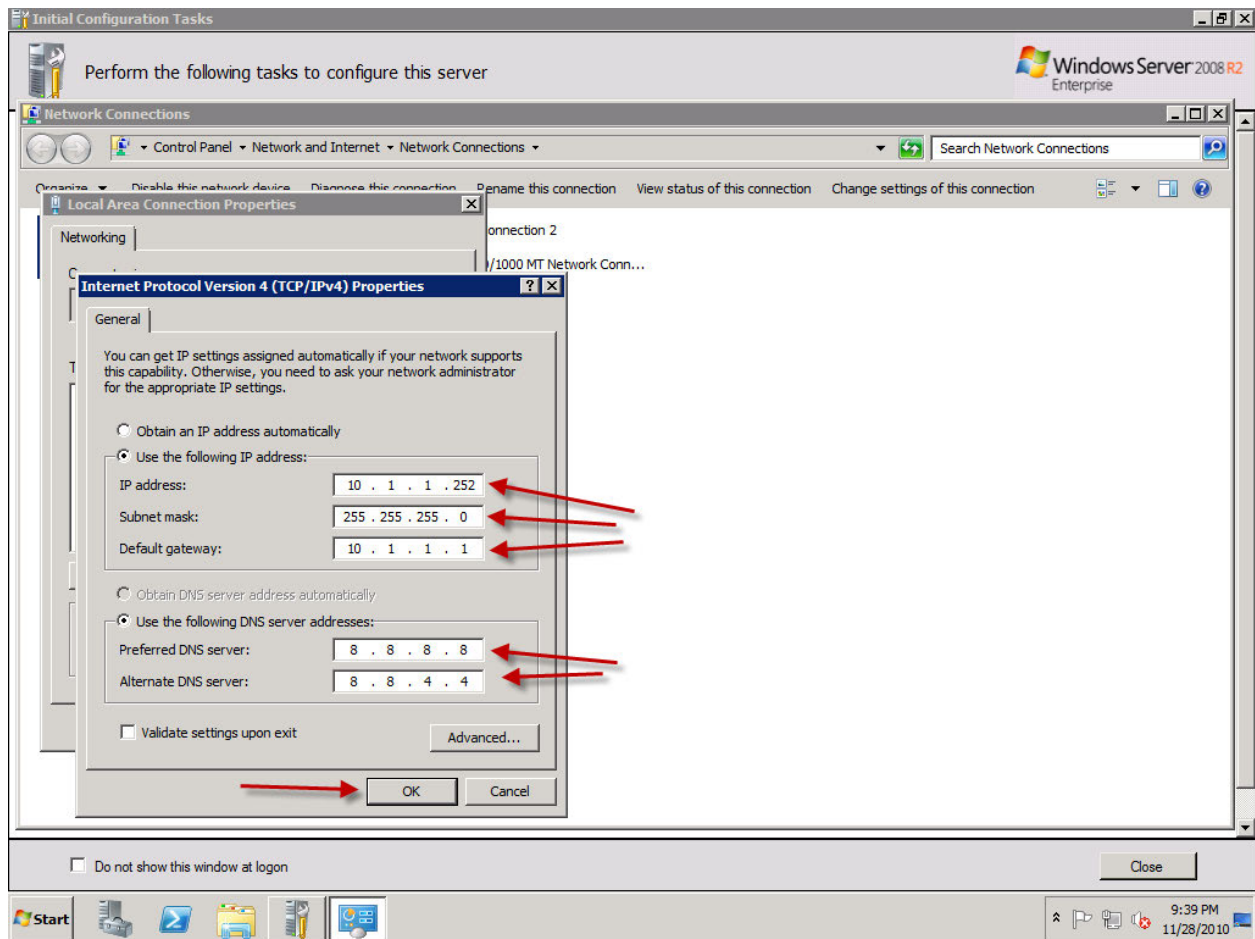


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6. **No server should run on a dynamically allocated IP address.** Manually enter a static IP address, subnet mask, and default gateway. Enter your preferred and alternate DNS servers. If you do not have a DNS infrastructure set up on your network, you can enter 8.8.8.8 (Preferred DNS server) and 8.8.4.4 (Alternate DNS server). These are the public DNS servers provided by Google. **Click the OK button when you are finished.**

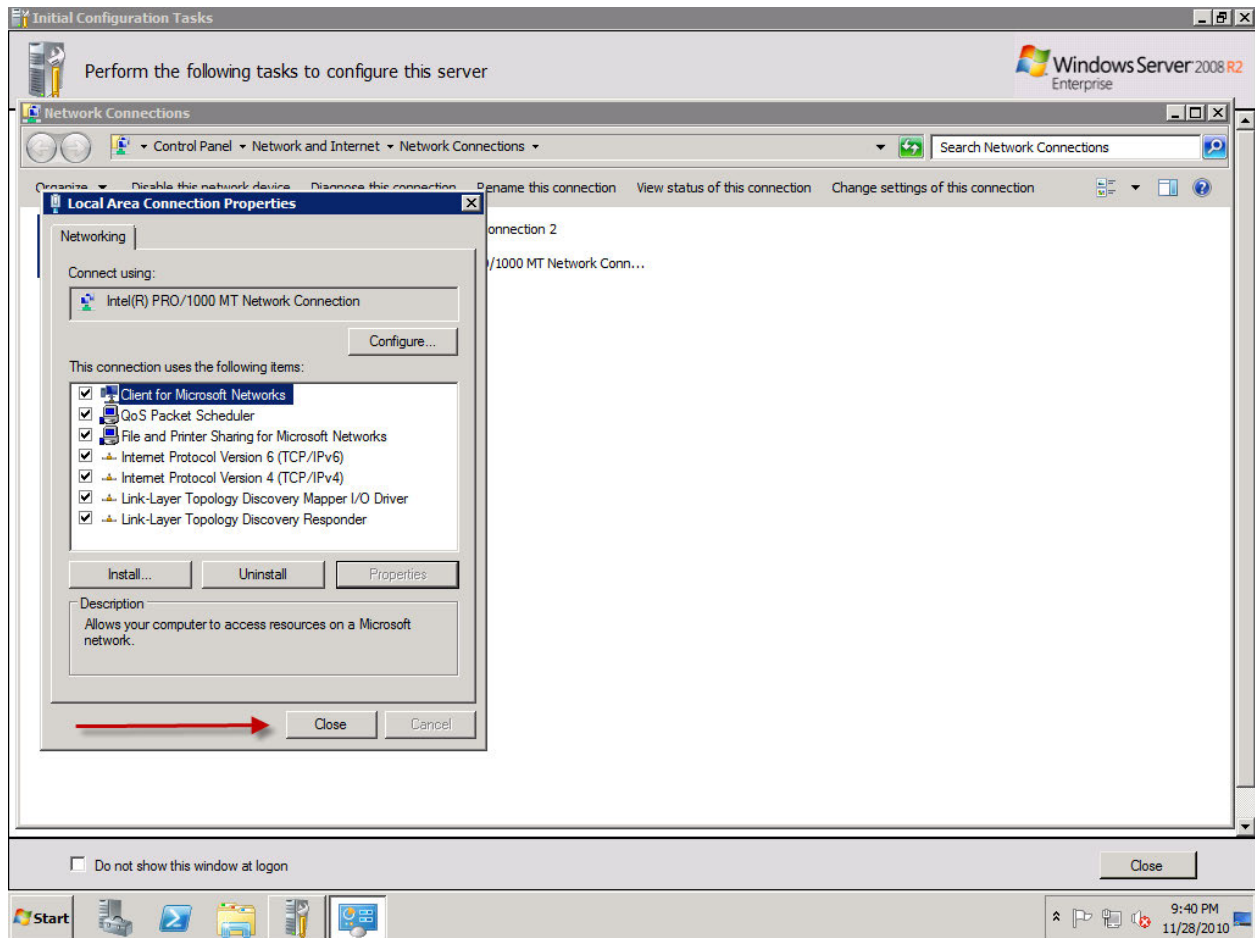


NOTES: **DO NOT ALLOW YOUR SERVERS TO ACCEPT A DHCP ADDRESS.** This will change their IP address when they are restarted and will make communications with the server unreliable. **Servers should always have static IP addresses.**

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7. Click the Close button.

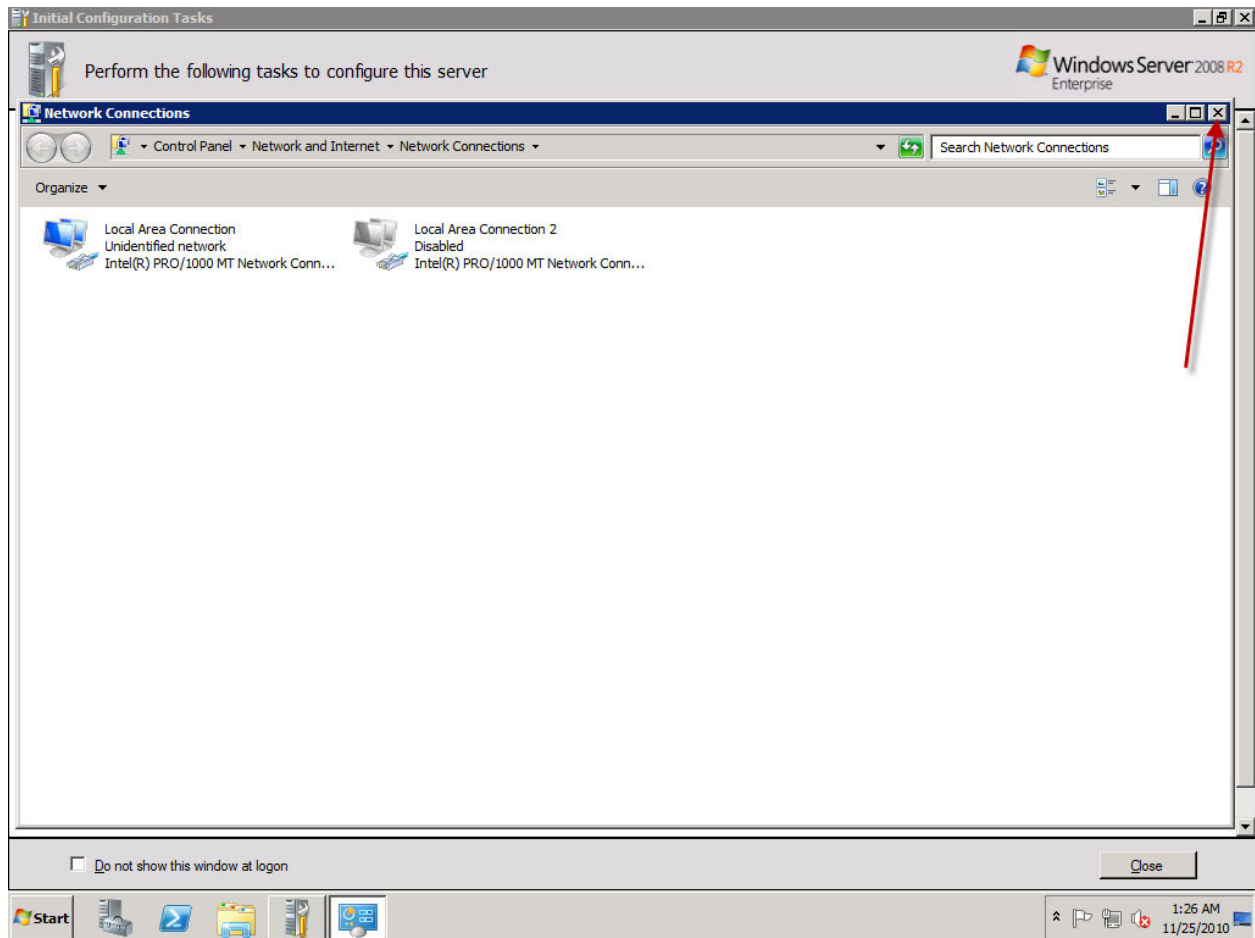


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8. Close the Network Connections window.

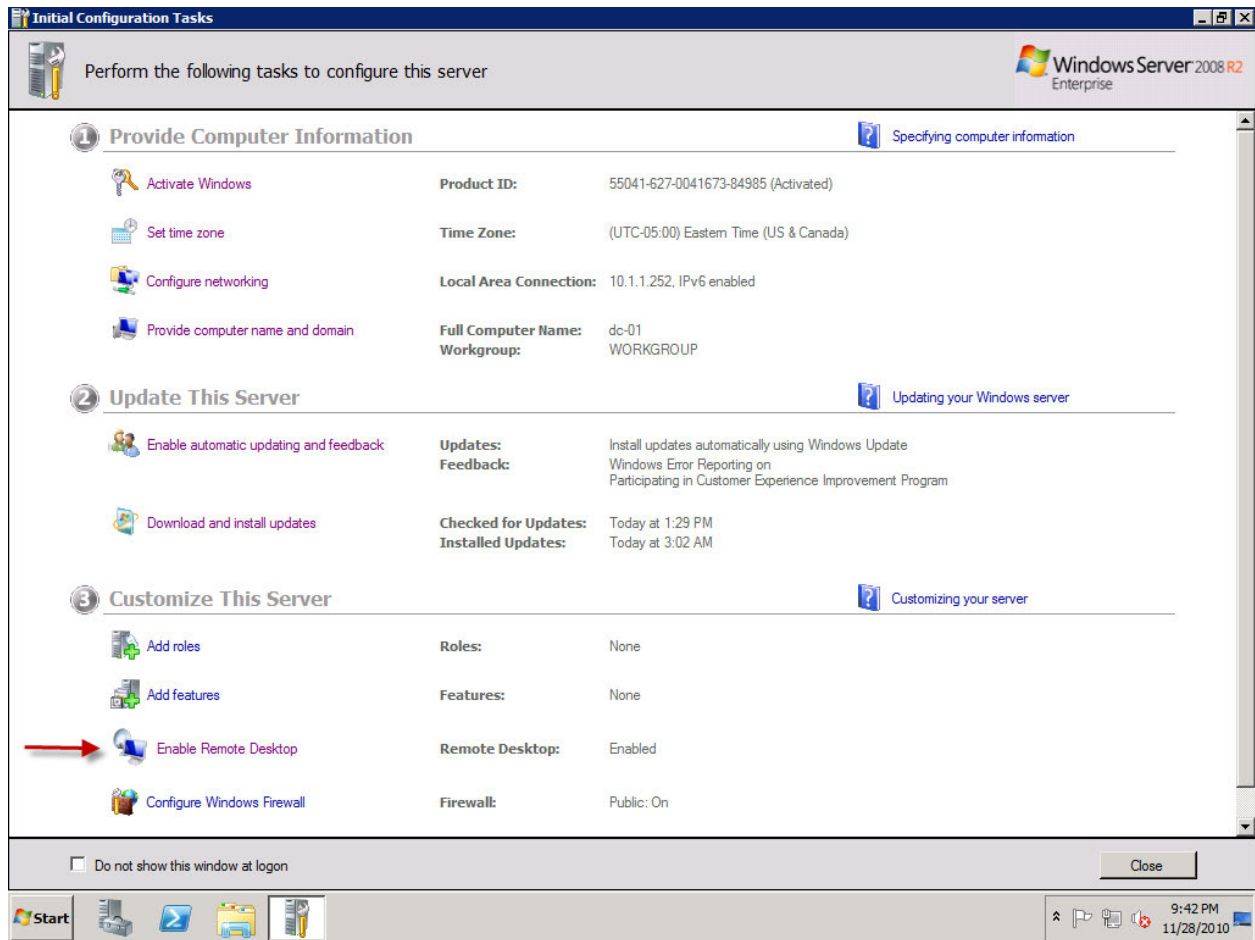


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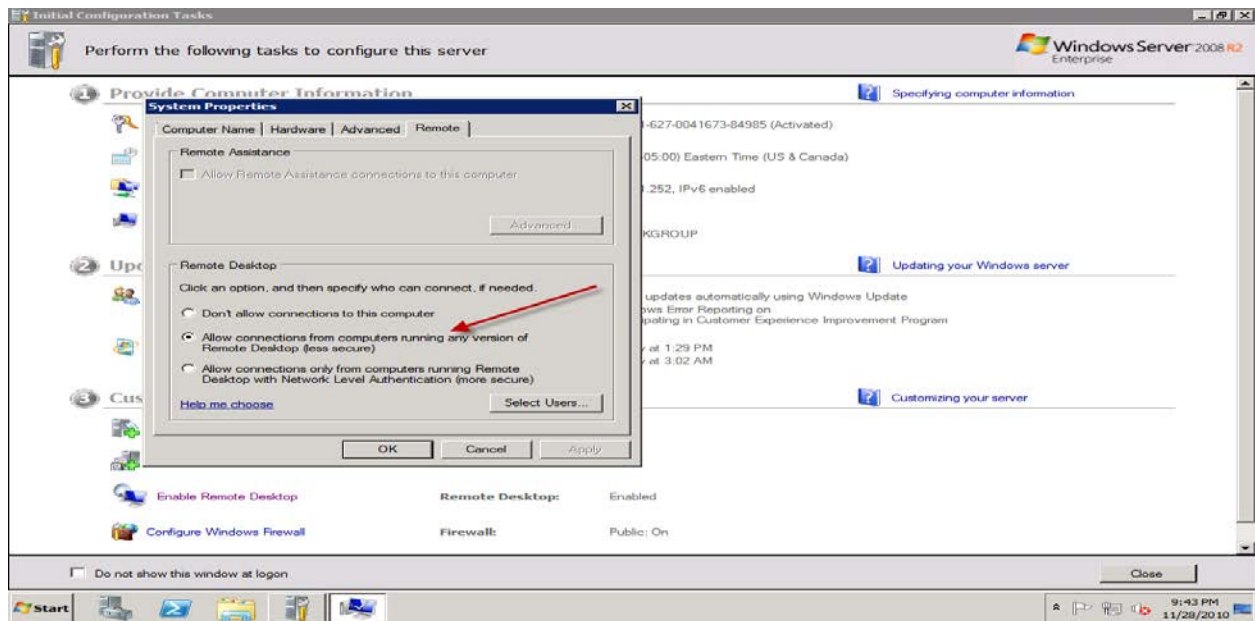
Enable Remote Desktop

9. Select Enable Remote Desktop.

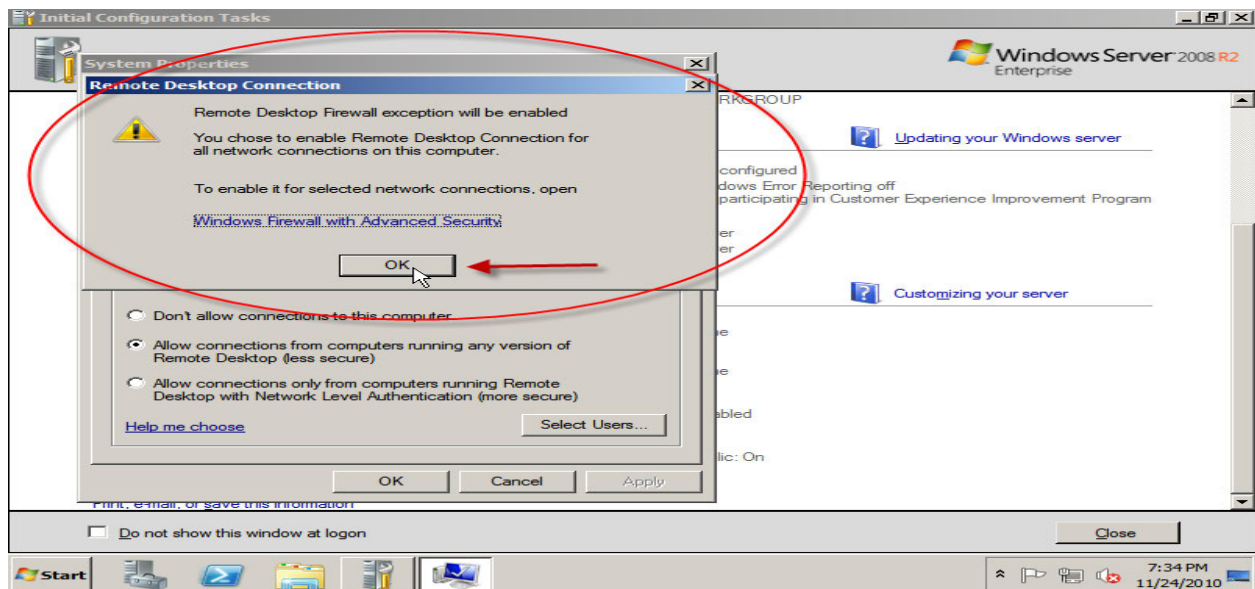


NOTES: *If you ever need to return to this screen, open the Start menu, enter "OOBE" into the search bar, and click the "oobe" icon which appears.*

10. Select the radio button next to, "Allow connections from computers running any version of remote Desktop (less secure)". If you need to secure your Remote Desktop sessions, you can choose the option which implements Network Level Authentication.



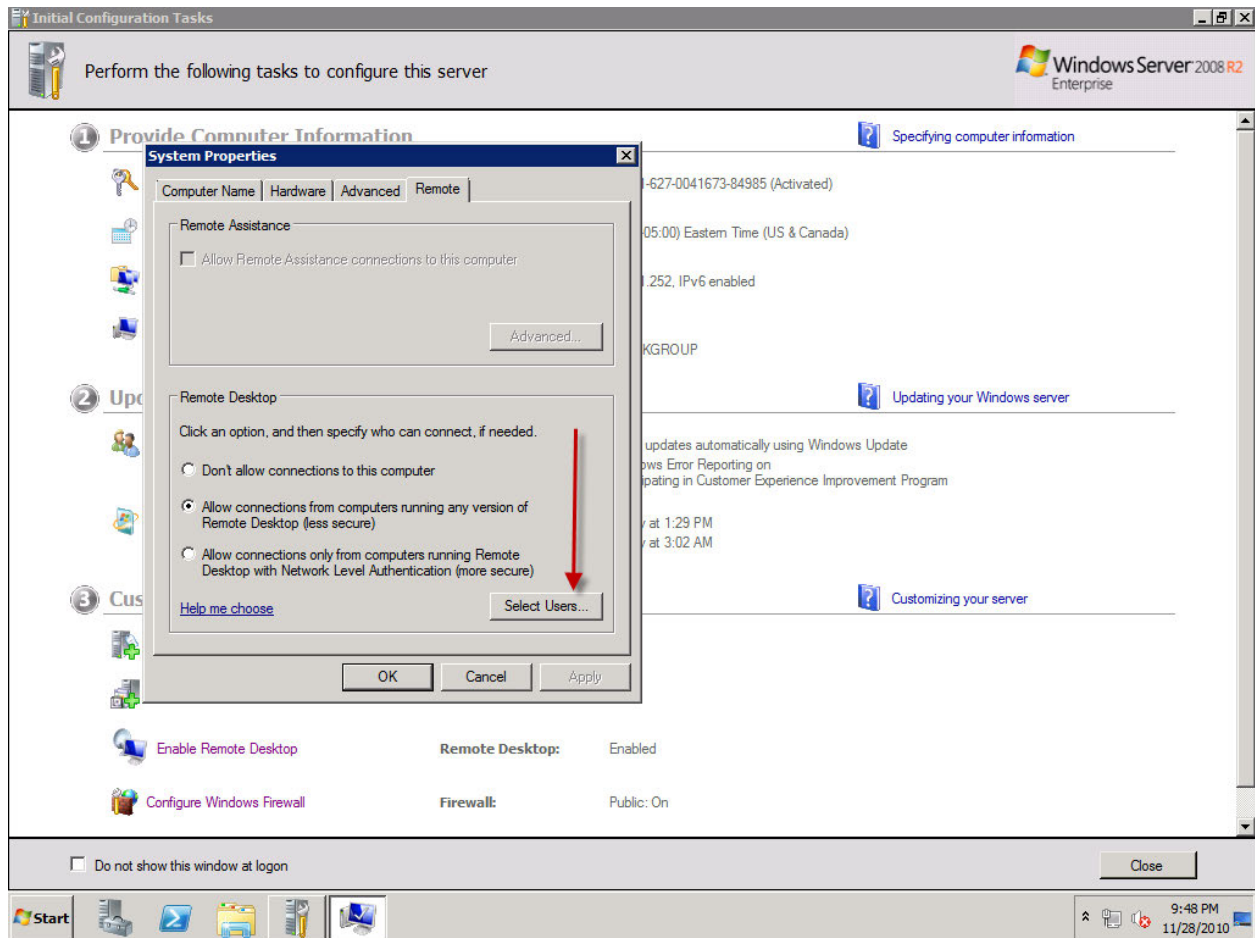
NOTES: A popup window will be displayed notifying you that a firewall exception will be made. This allows Remote Desktop Protocol traffic to pass through the firewall. **If this firewall exception is not present and allowed, Remote Desktop connections will not be possible.** Click the OK button to accept this change to the firewall.



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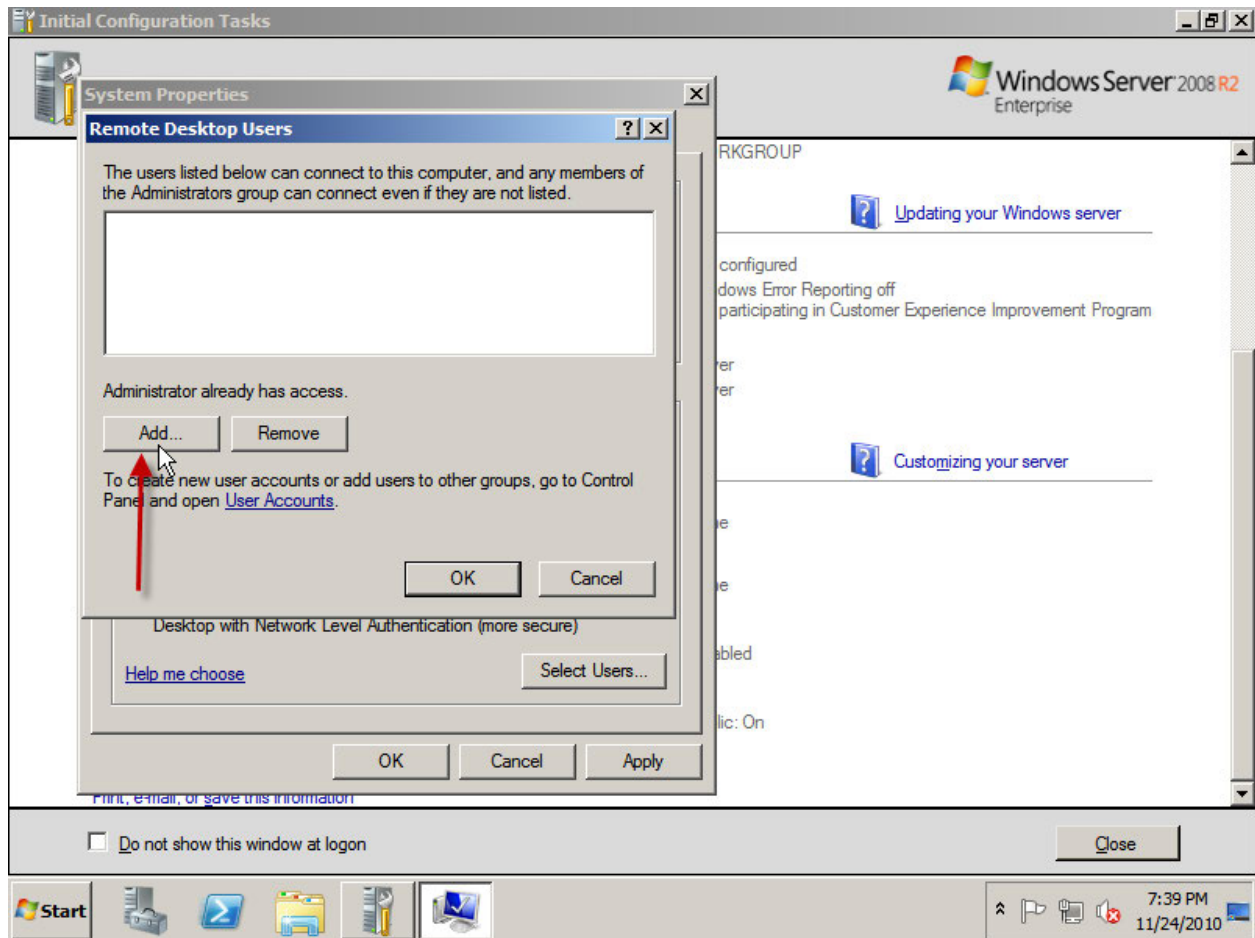
11. Click the Select Users button.



NOTES:

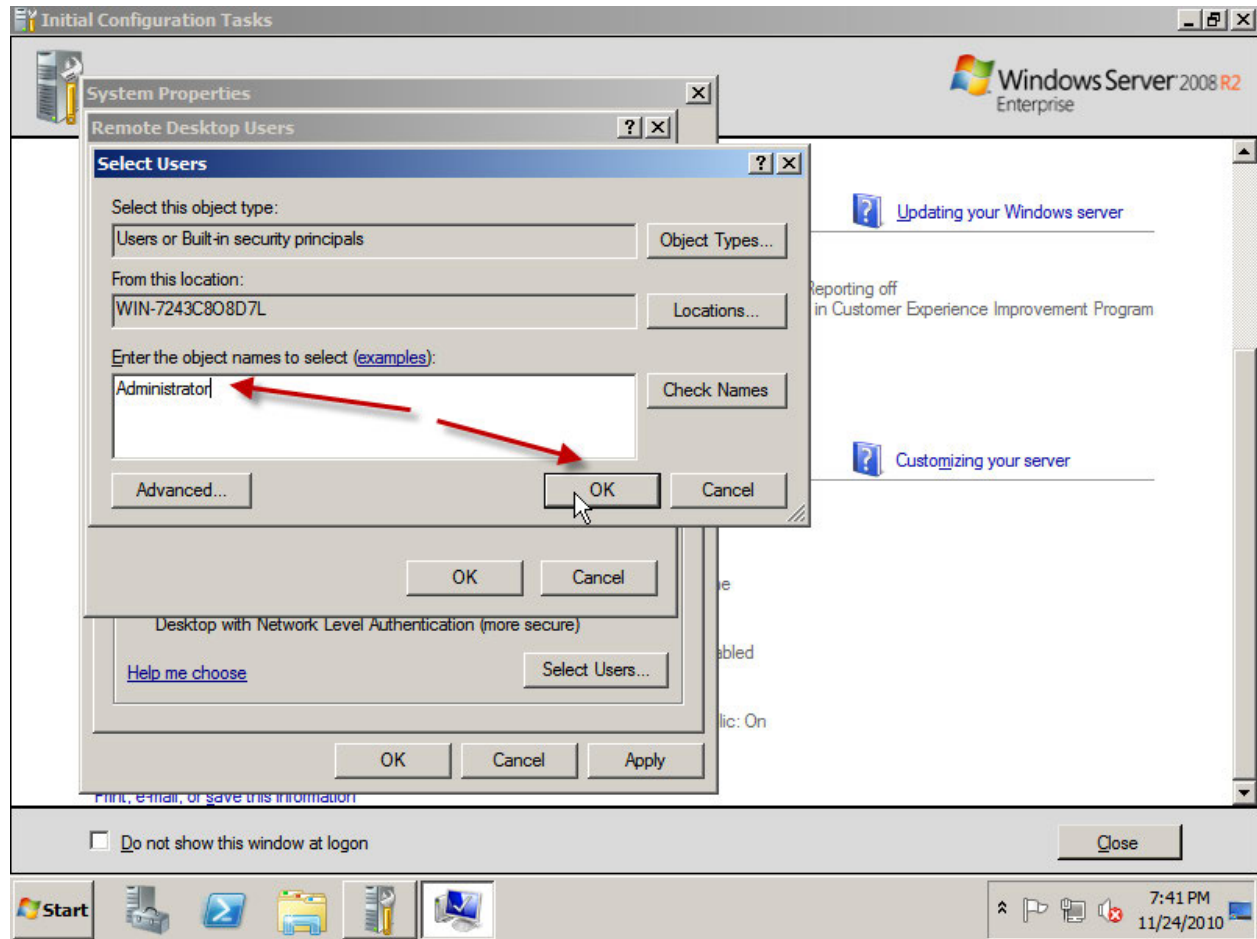
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12. Click the Add button.



NOTES:

13. Type, "Administrator", in the, "Enter the object names to select (examples):" textbox. Click the OK button when finished.

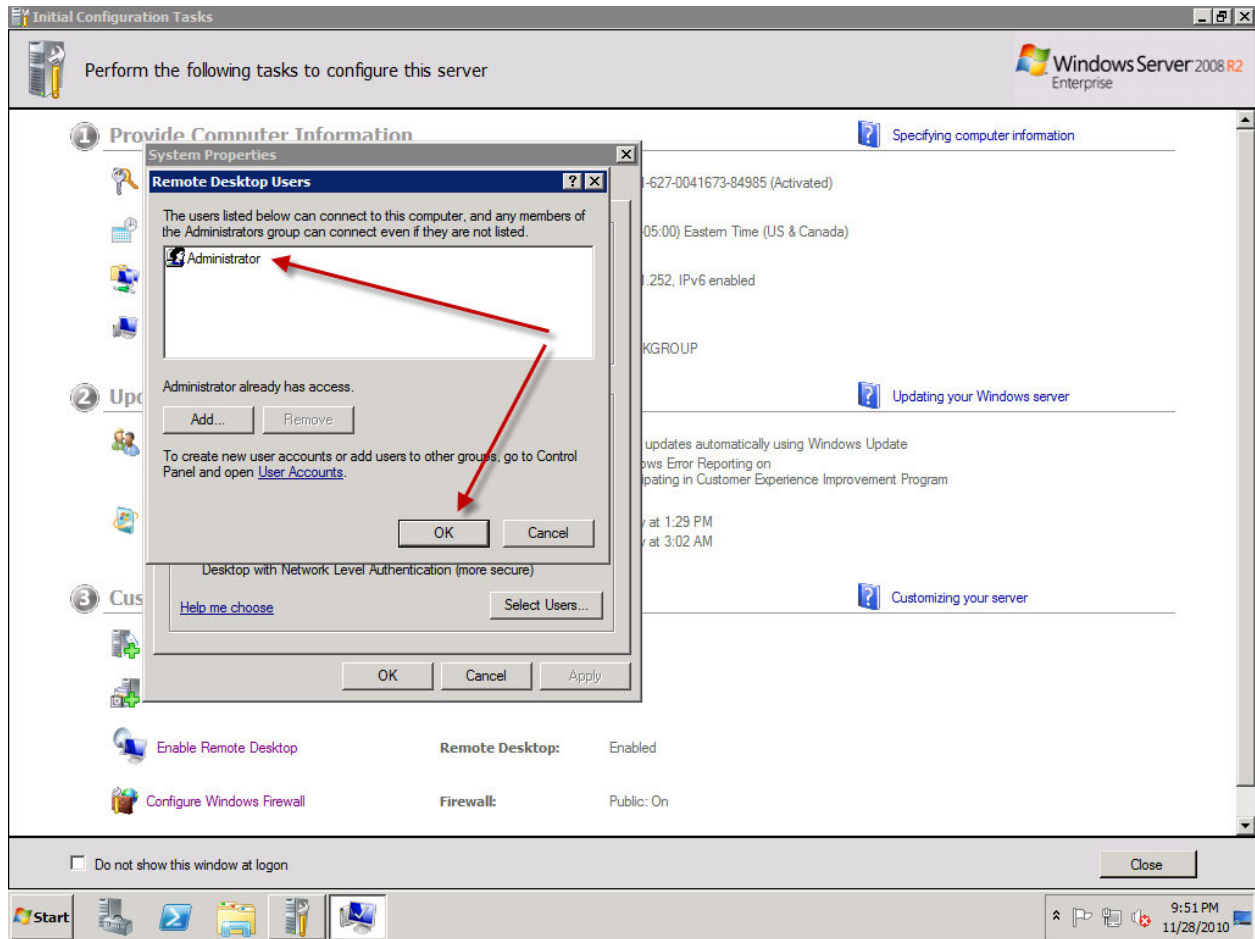


NOTES: You can add as many users as you want during this step. If you are unsure of an account name, you can click Check Names to check the local user accounts on your Windows Server 2008 R2 server.

You are adding the LOCAL Administrator account in this step.

If you are joined to a domain, you can enter the domain prefix to specify a particular user in a particular domain.

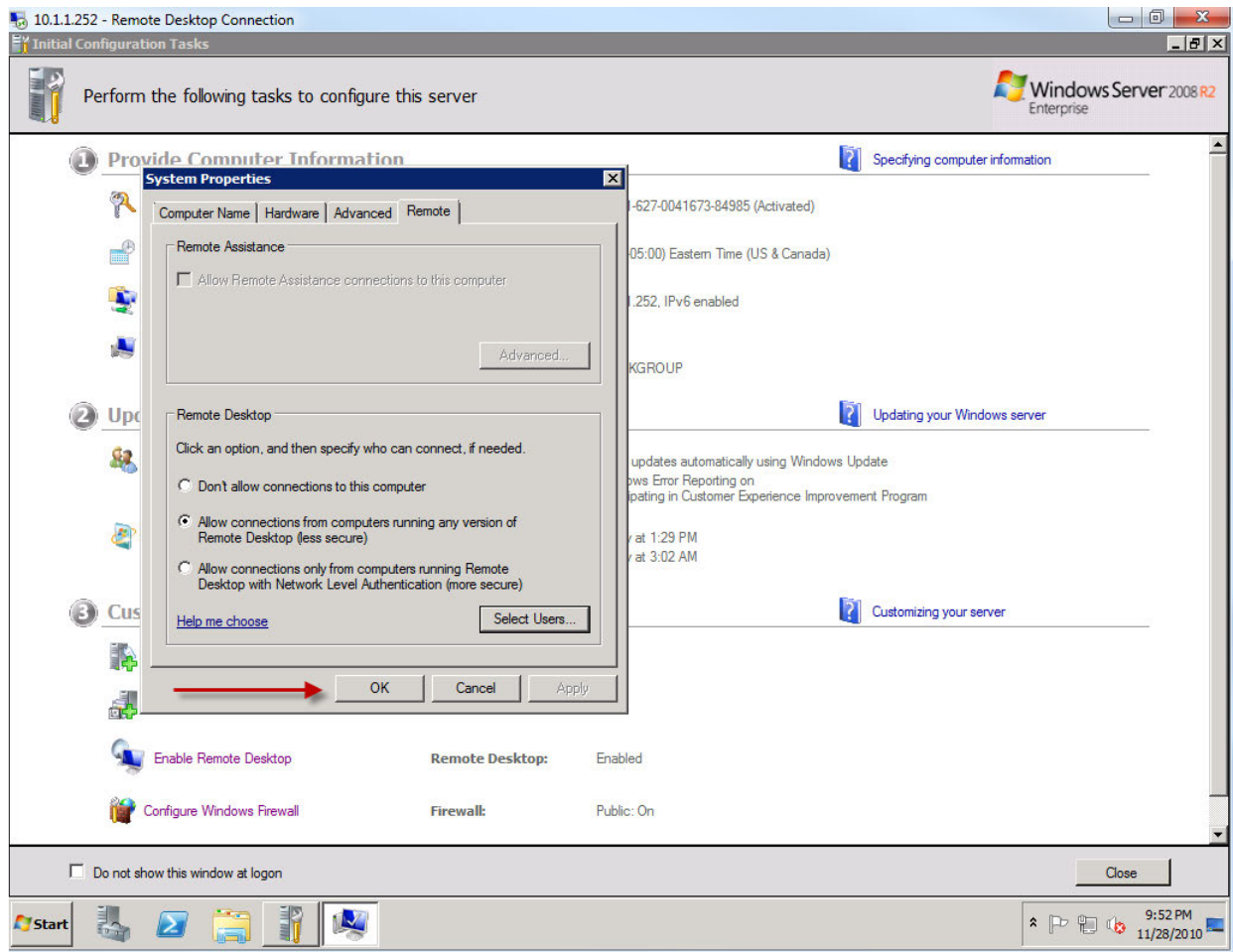
14. Ensure the accounts you wish to add are listed in the, "Remote Desktop users", textbox. **Click the OK button.**



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15. Click the OK button.

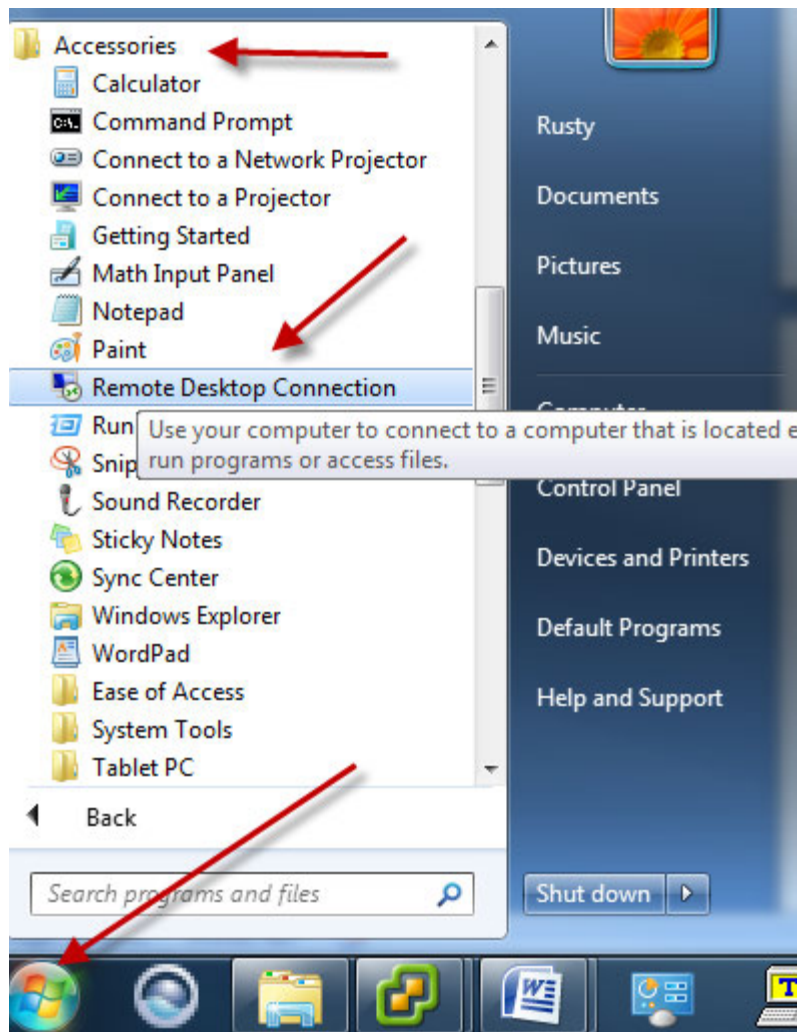


NOTES: *From here on out, it is recommended to use Remote Desktop to connect to, and manage, your Windows Server 2008 R2 virtual server. Microsoft Remote Desktop Protocol will provide better performance and an enhanced user experience when compared to using the Console tab in the vSphere client.*

Create a Remote Desktop Connection and Connect to a Server

16. **ON YOUR CLIENT PC, WHICH YOU ARE MANAGING THE ESXi HYPERVERSOR FROM; INITIATE A REMOTE DESKTOP CONNECTION TO YOUR SERVER.** Windows 7 is being used as the desktop OS in this tutorial. Click:

Start Menu -> All Programs -> Accessories -> Remote Desktop Connection



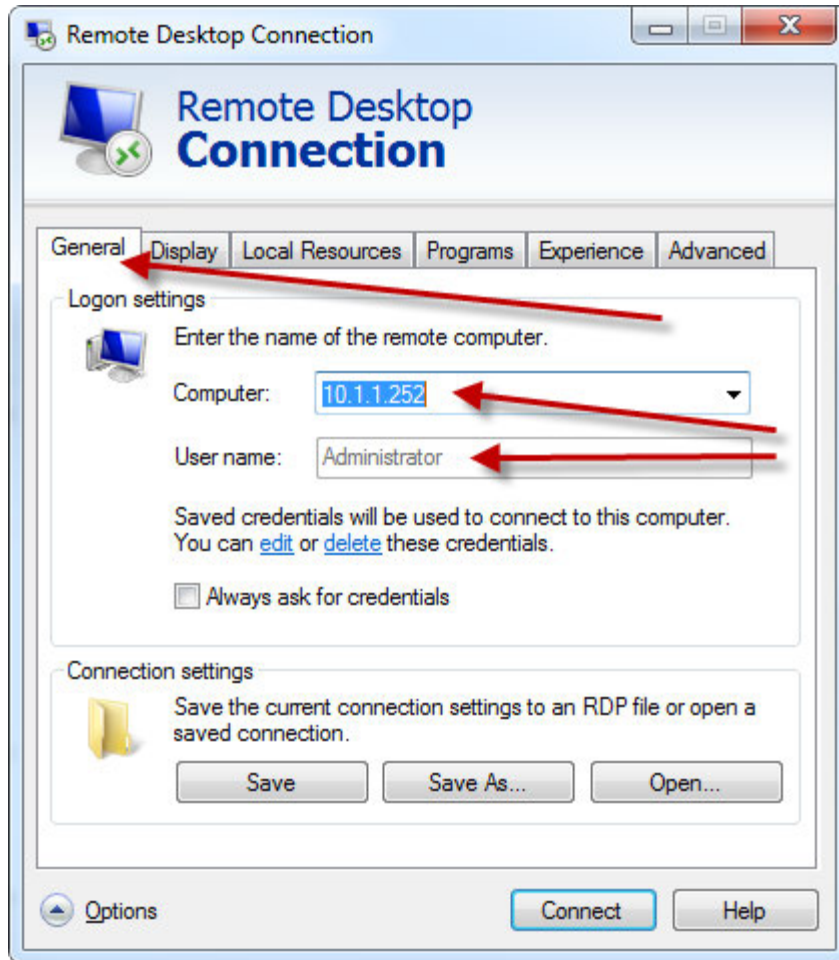
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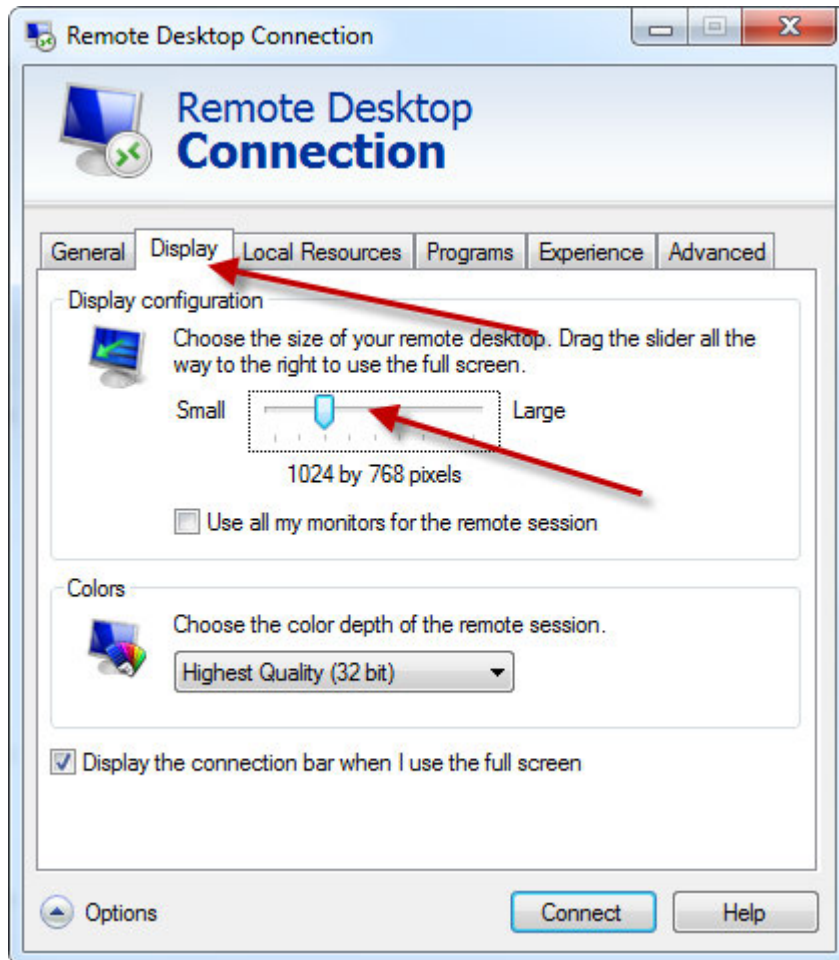
17. Make sure you are looking at the General tab, it should be the first one displayed. **Enter the IP address of the server you wish to connect to and your User Name. *DO NOT CLICK CONNECT.***



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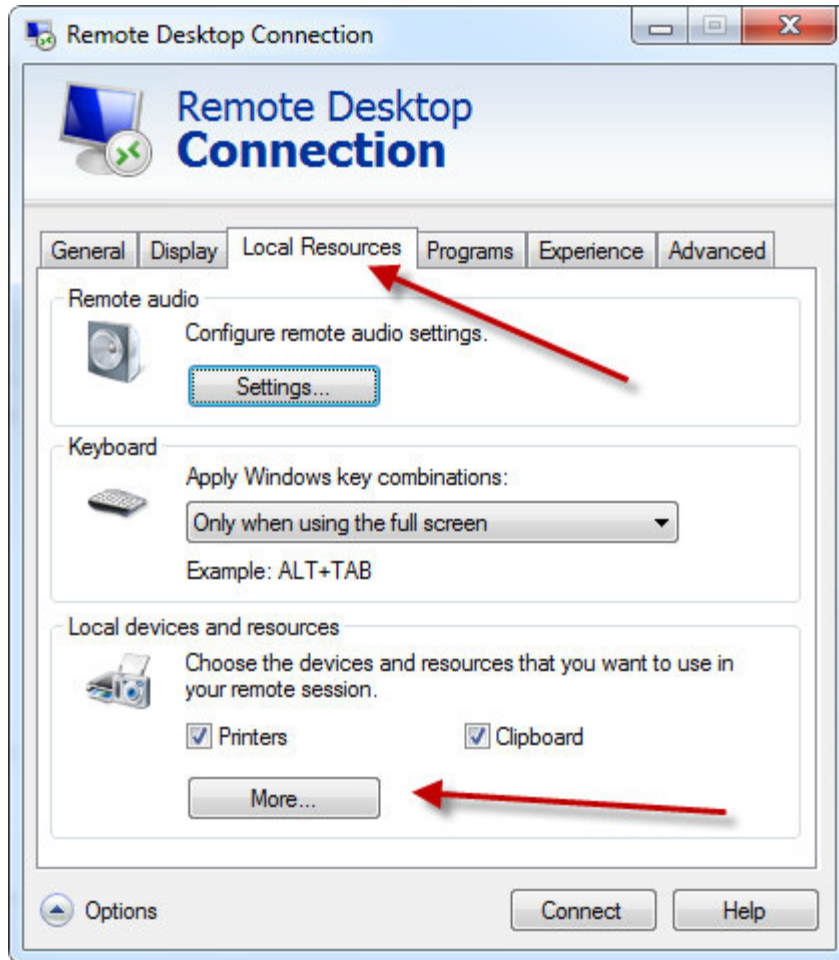
18. Click the Display tab. If you wish to have a full screen Remote Desktop Session, the default value will be sufficient. You can set a custom resolution if you do not want to have a full screen session. 1024 x 768 and 1280 x 1024 work well for server management. **DO NOT CLICK CONNECT.**



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19. Ensure a check mark is placed next to Printers and Clipboard. Click the Local Resources tab and click the More button. **DO NOT CLICK CONNECT.**

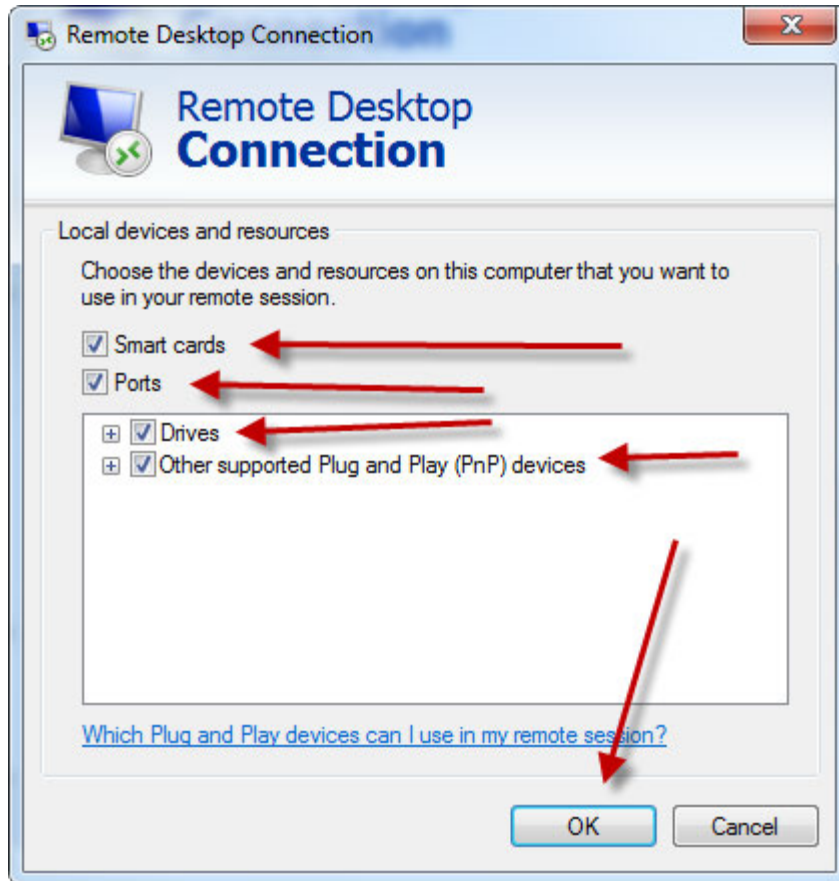


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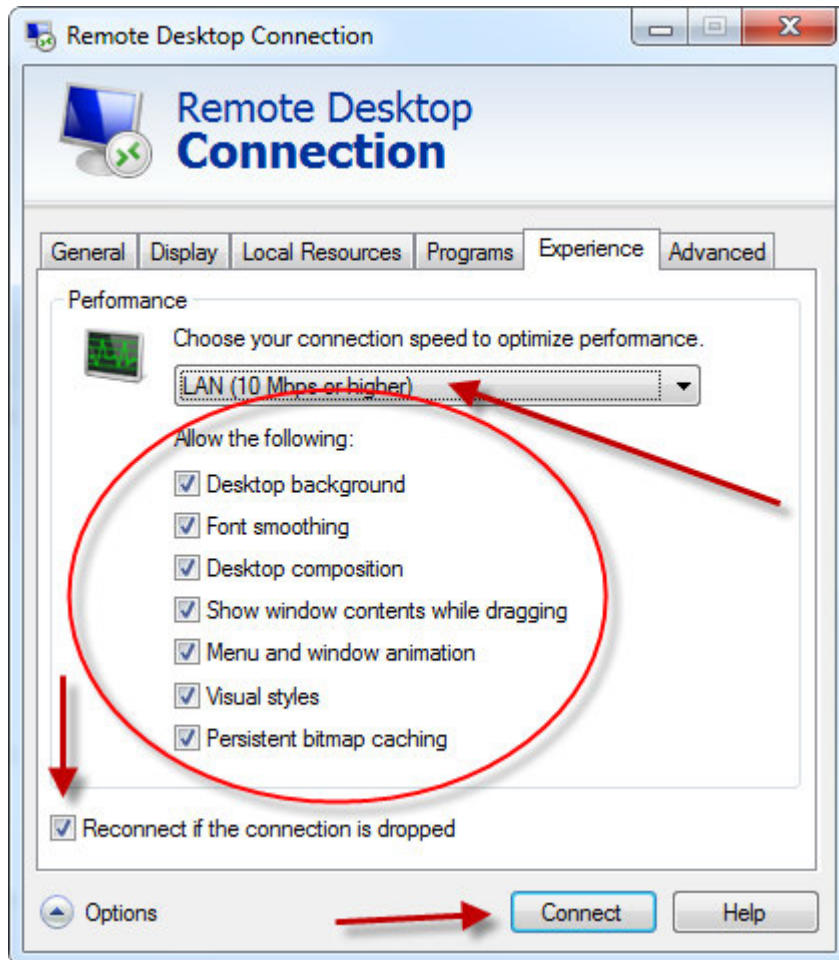
20. Ensure checkmarks are placed next to Smart Cards, Ports, Drives, and Other supported Plug and Play (PnP) devices). Click the OK button.



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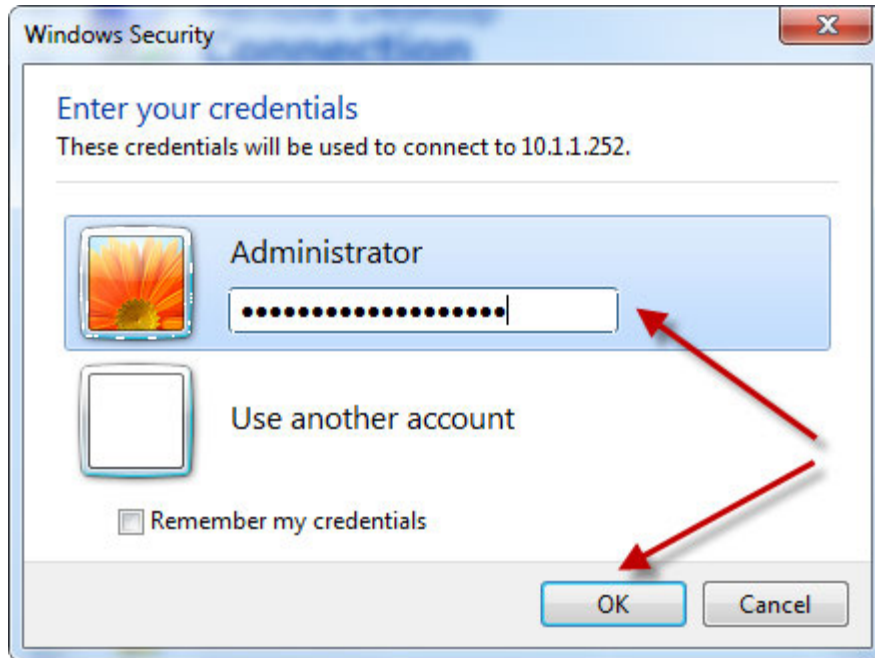
21. Click the Experience tab. From the drop down menu select LAN (10 Mbps or higher). Ensure a checkmark is placed next to all of the options, including Reconnect if the connection is dropped. **Click the Connect button.**



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22. Enter your password and click the OK button. Your Remote Desktop session will now begin. You can now manage the server just as if you working at the console.

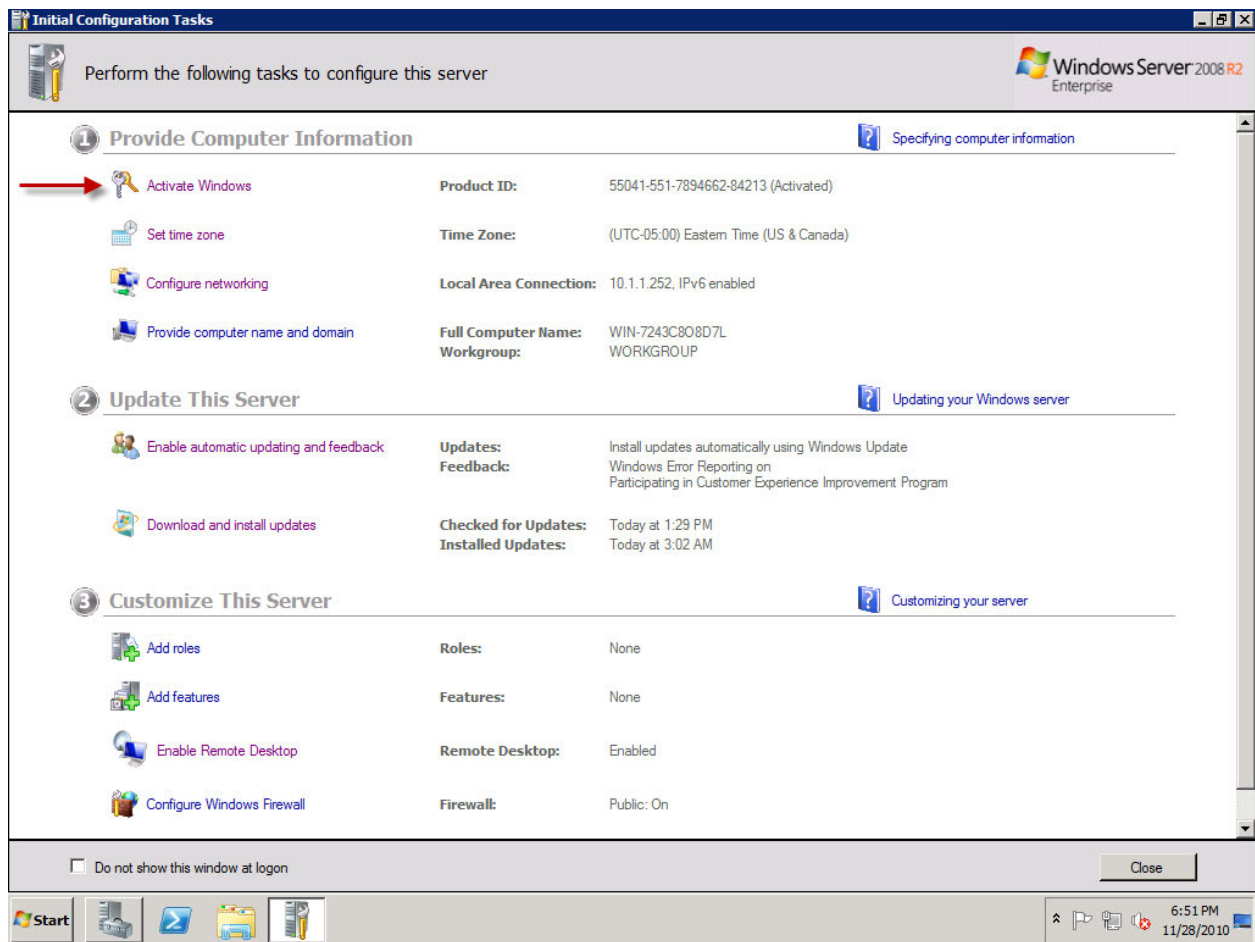


NOTES: If you did not enter a Username when setting up the remote connection, you will be required to enter one at this screen.

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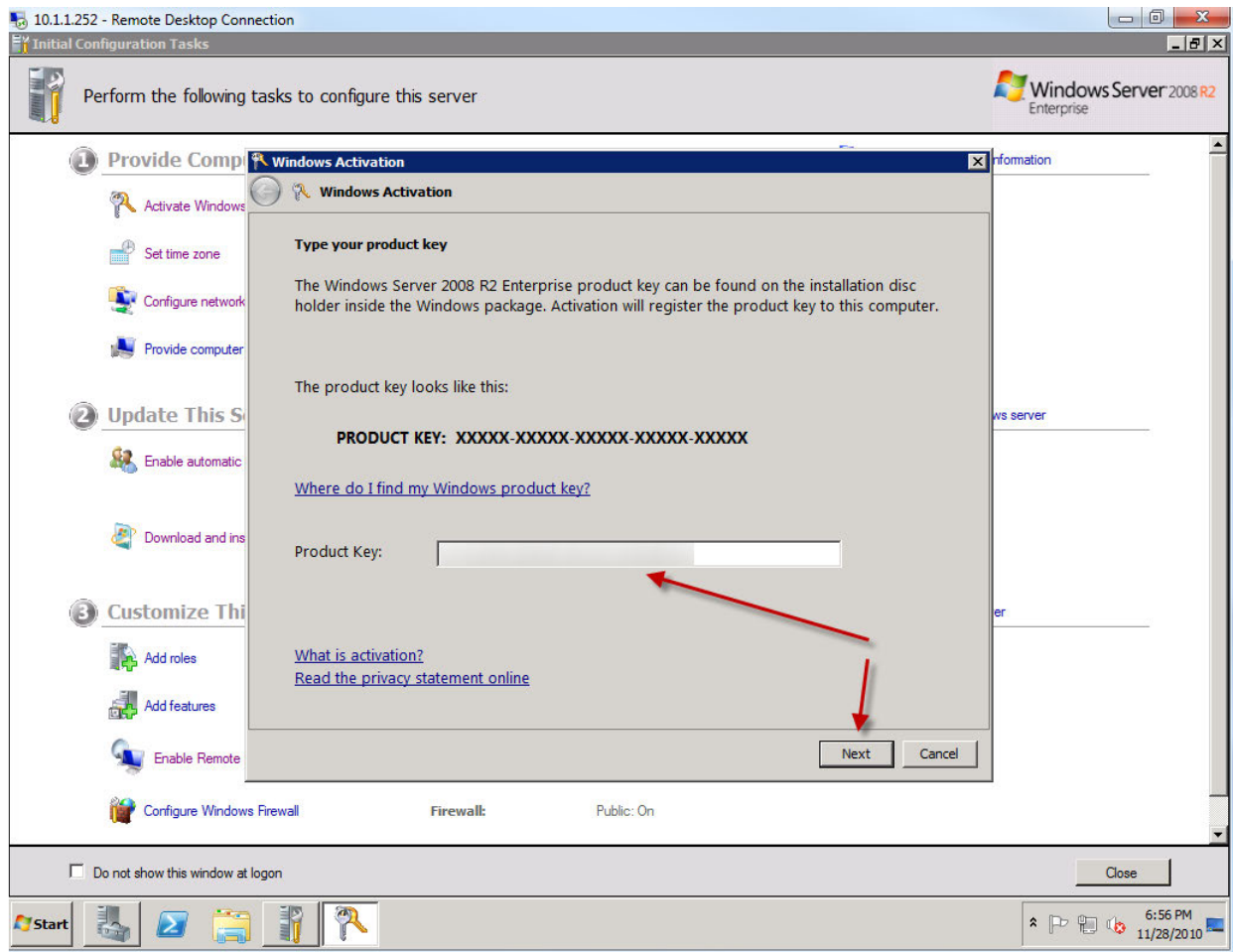
Activate Windows

23. You will be taken to the Initial Configuration Tasks Screen. **Start by clicking Activate Windows.**



NOTES: *If you ever need to return to this screen, open the Start menu, enter "OOBE" into the search bar, and click the "oobe" icon which appears.*

24. Enter your product key and click the Next button.

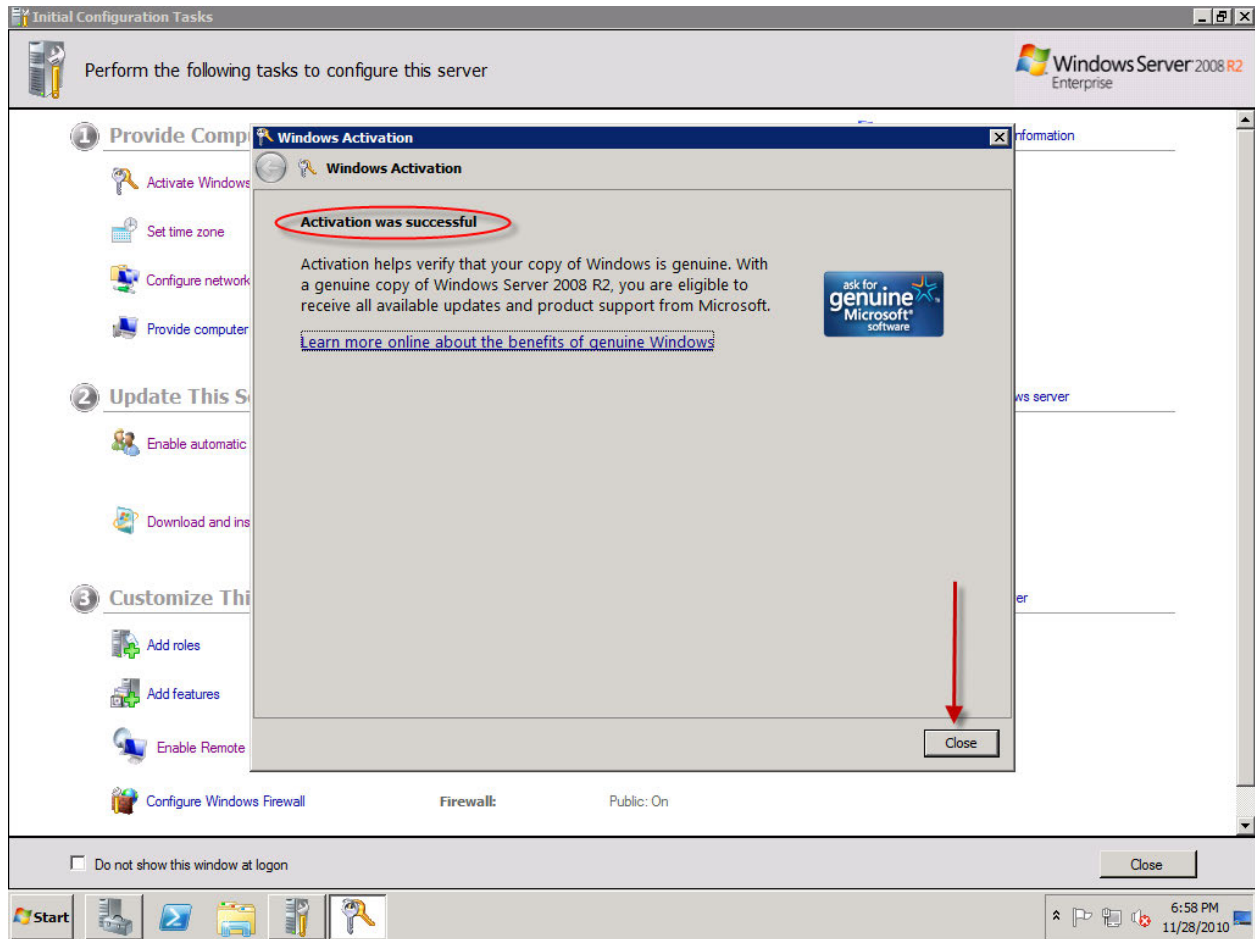


NOTES: The product key for this tutorial has been blanked out. **You must have internet connectivity for this to work.** If you do not have internet connectivity, your product key will be installed, but your copy of Windows Server 2008 R2 will not be activated. You will continue to receive activation messages until you activate Windows Server 2008 R2.

The clipboard is shared between the PC you are using and the remote desktop session to the server. If you have your license key written down, such as in a text file, you can copy-paste it into this form.

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25. The product key will be verified. **Once you have successfully activated Windows Server 2008 R2, click the Close button.**

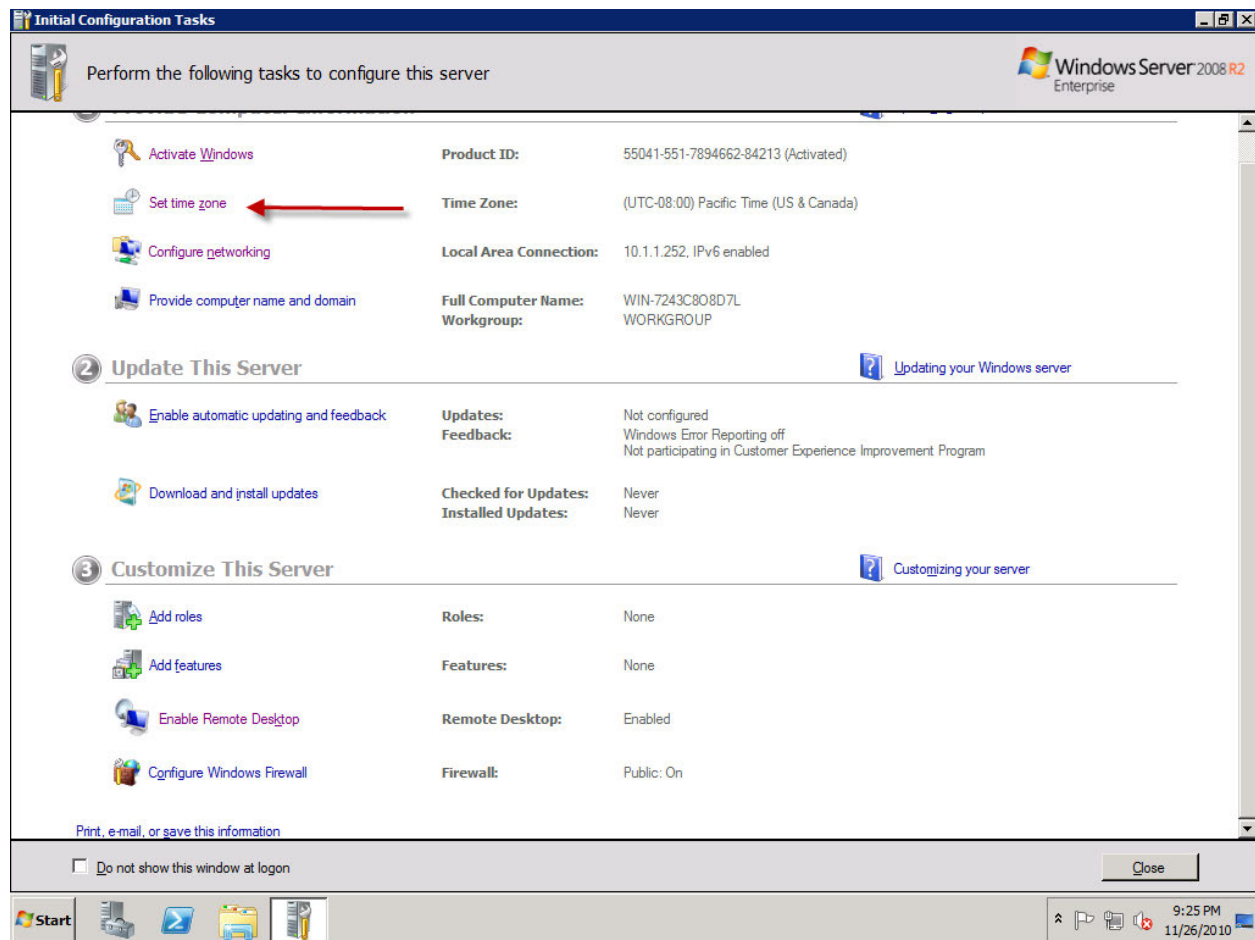


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Set the Time Zone and Time

26. Click Set time zone.

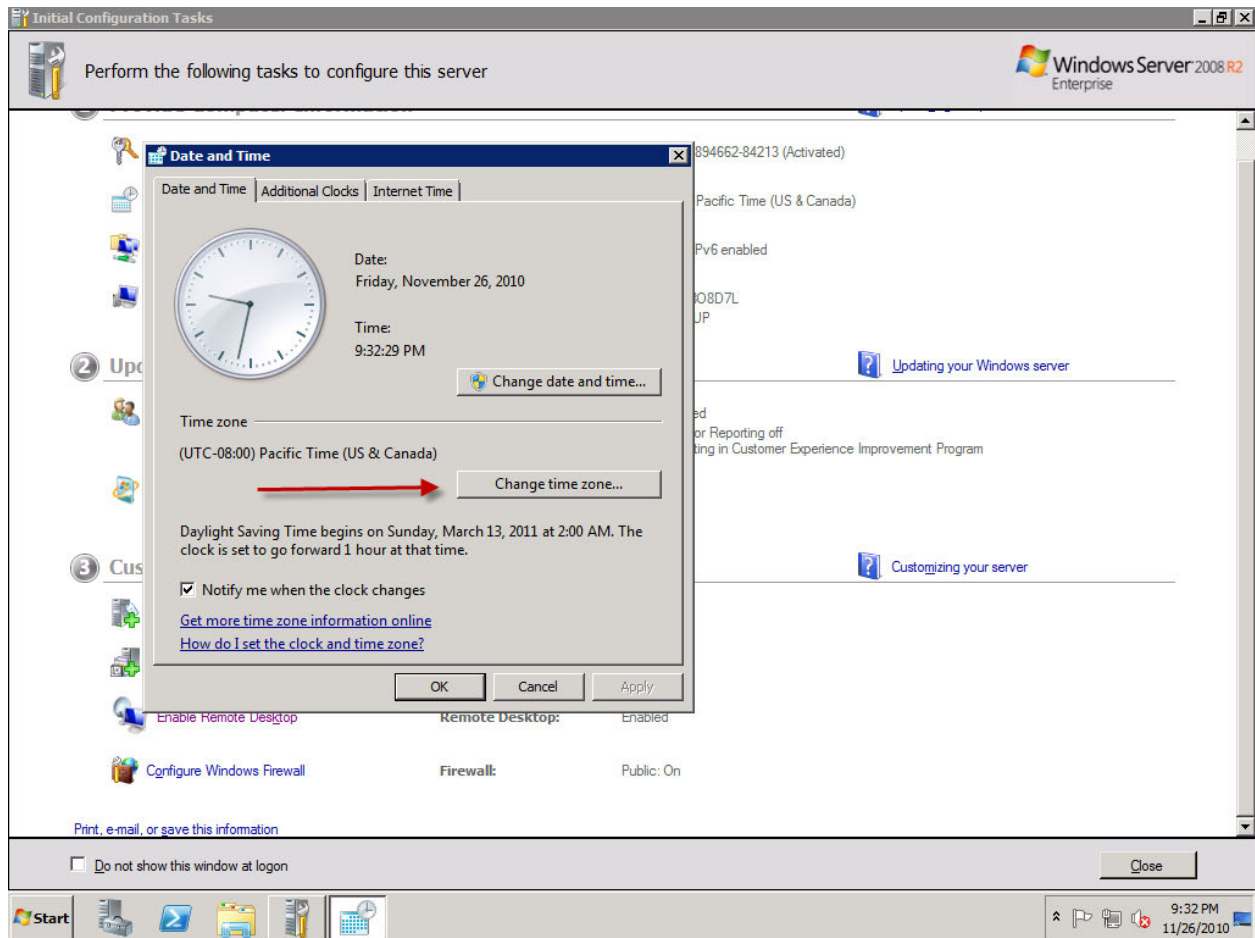


NOTES: Setting the proper time, in both Windows 2008 R2 is one of the most important things you can do. It is also imperative that you set the BIOS time right on the machine running Windows Server 2008 R2 as the BIOS is where the system time is cued from. Windows Server 2008 R2 will allow a default time skew of 5 minutes. This means that in order to login to a domain controller, your client PC must have its time synchronized to within 5 minutes of the time on the domain controller. The Windows Server 2008 R2 virtual machine will inherit its time settings from the virtual BIOS, which inherits its time settings from the ESXi hypervisor itself. This is why it is important to set all of these time values correctly and synchronize them. The best option for synchronizing time is to contact an external time server, such as those provided by the Chicago board of trade. This will be covered in later tutorials for both Windows Server 2008 R2 and the ESXi hypervisor. An ESXi virtual BIOS cannot synchronize with an external time server, just as a physical server cannot synchronize with an external time server.

If you ever need to return to this screen, open the Start menu, enter "OOBE" into the search bar, and click the "oobe" icon which appears.

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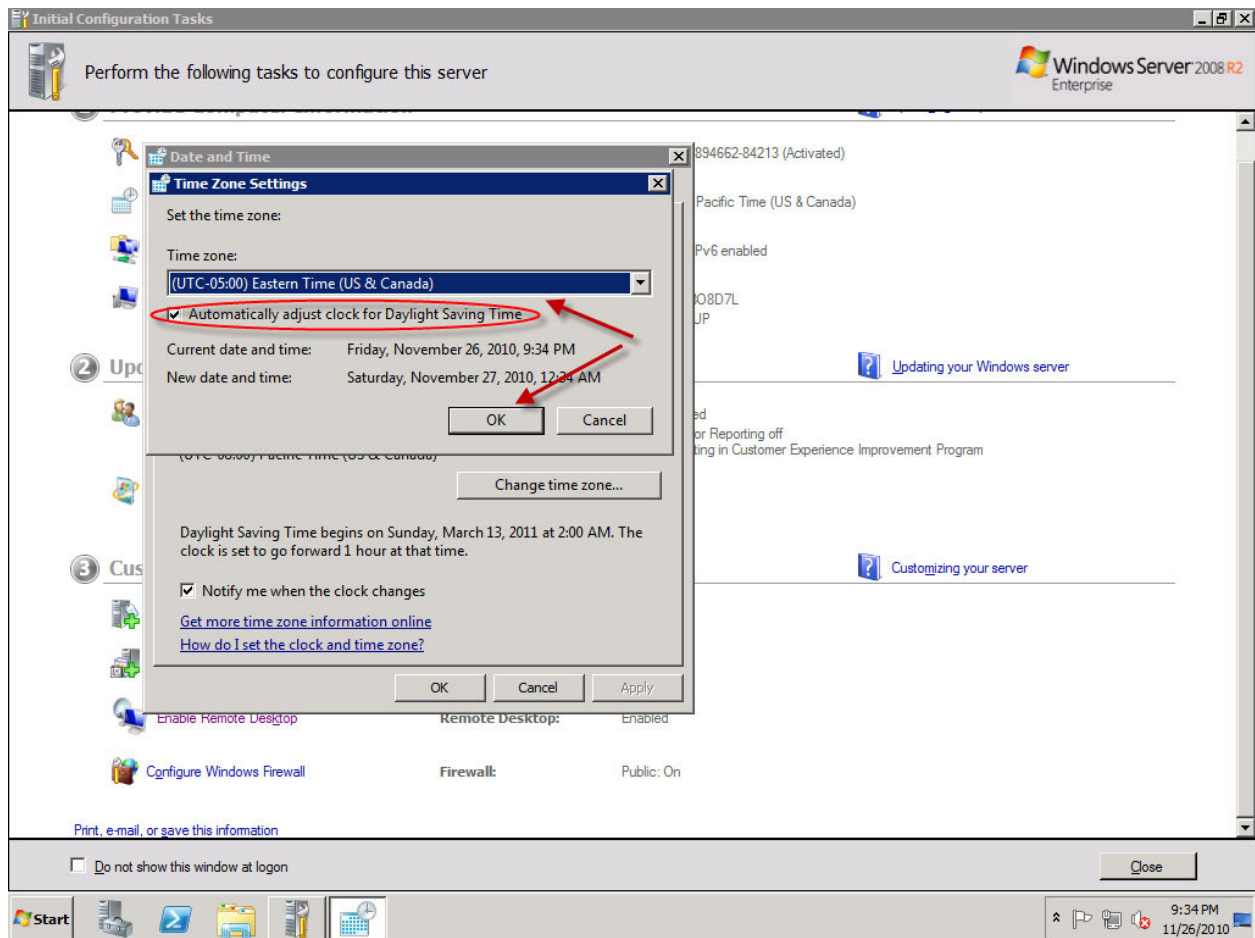
27. Click the Change time zone button.



NOTES: It is important to change the time zone first. If you set the time first and then change the time zone, the time zone change may skew the original time set. **Always set the time zone first.**

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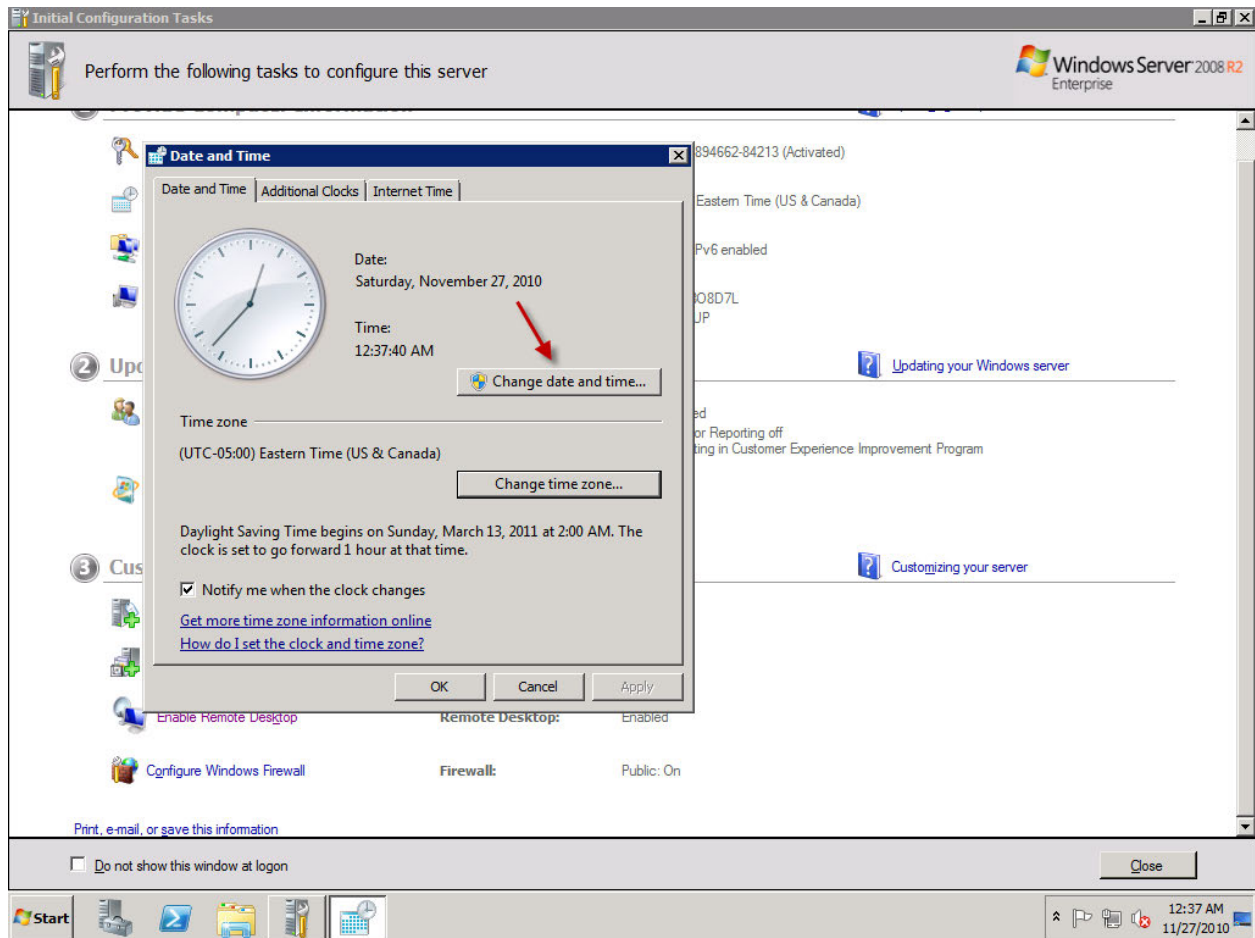
28. Select your respective time zone and click the OK button. If you are in an area that observes Daylight Saving Time, make sure to place a checkmark in the box next to, "Automatically adjust clock for Daylight Saving Time".



NOTES:

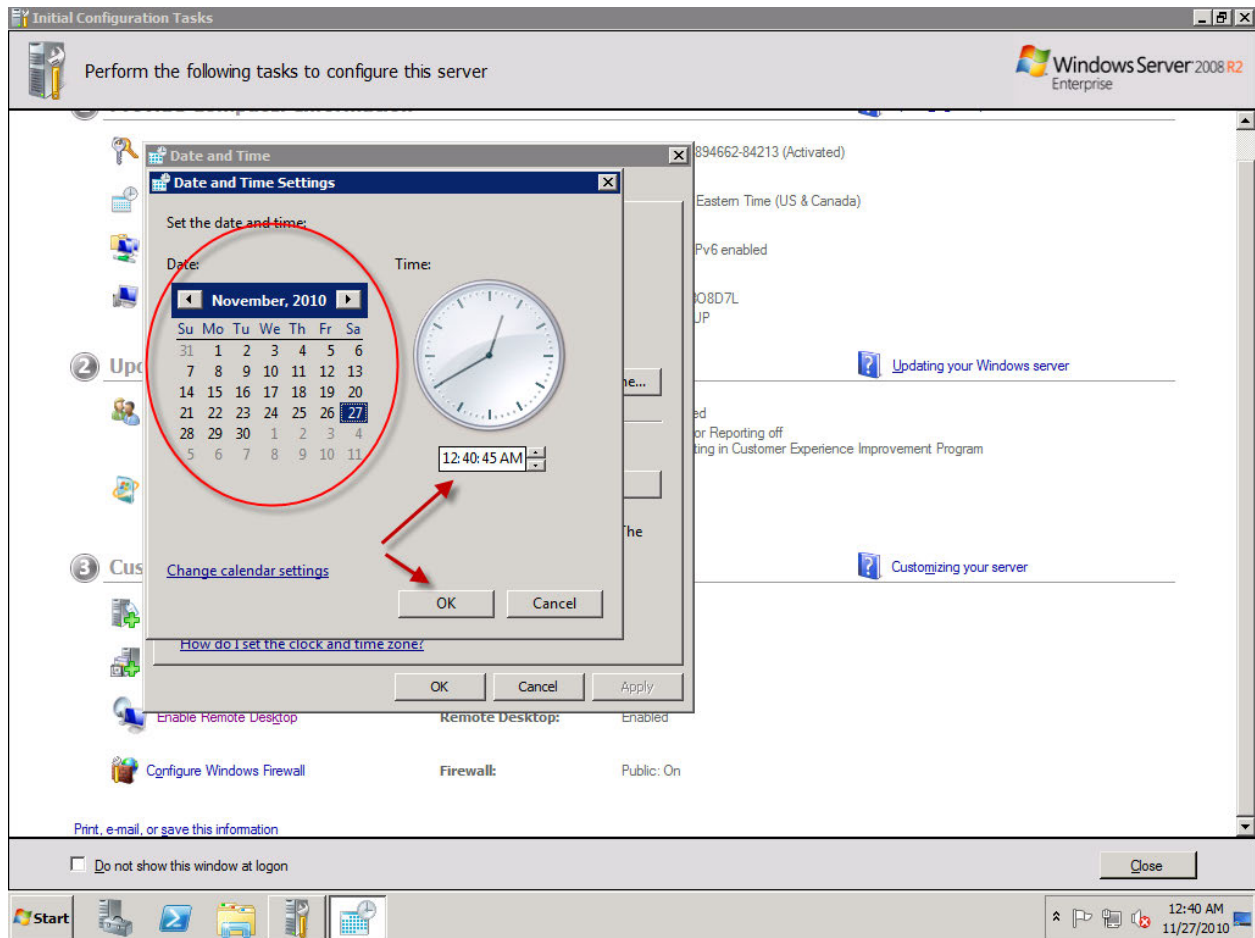
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29. Click the Change date and time button.



NOTES: It is important to change the time zone first. If you set the time first and then change the time zone, the time zone change may skew the original time set. **Always set the time zone first.**

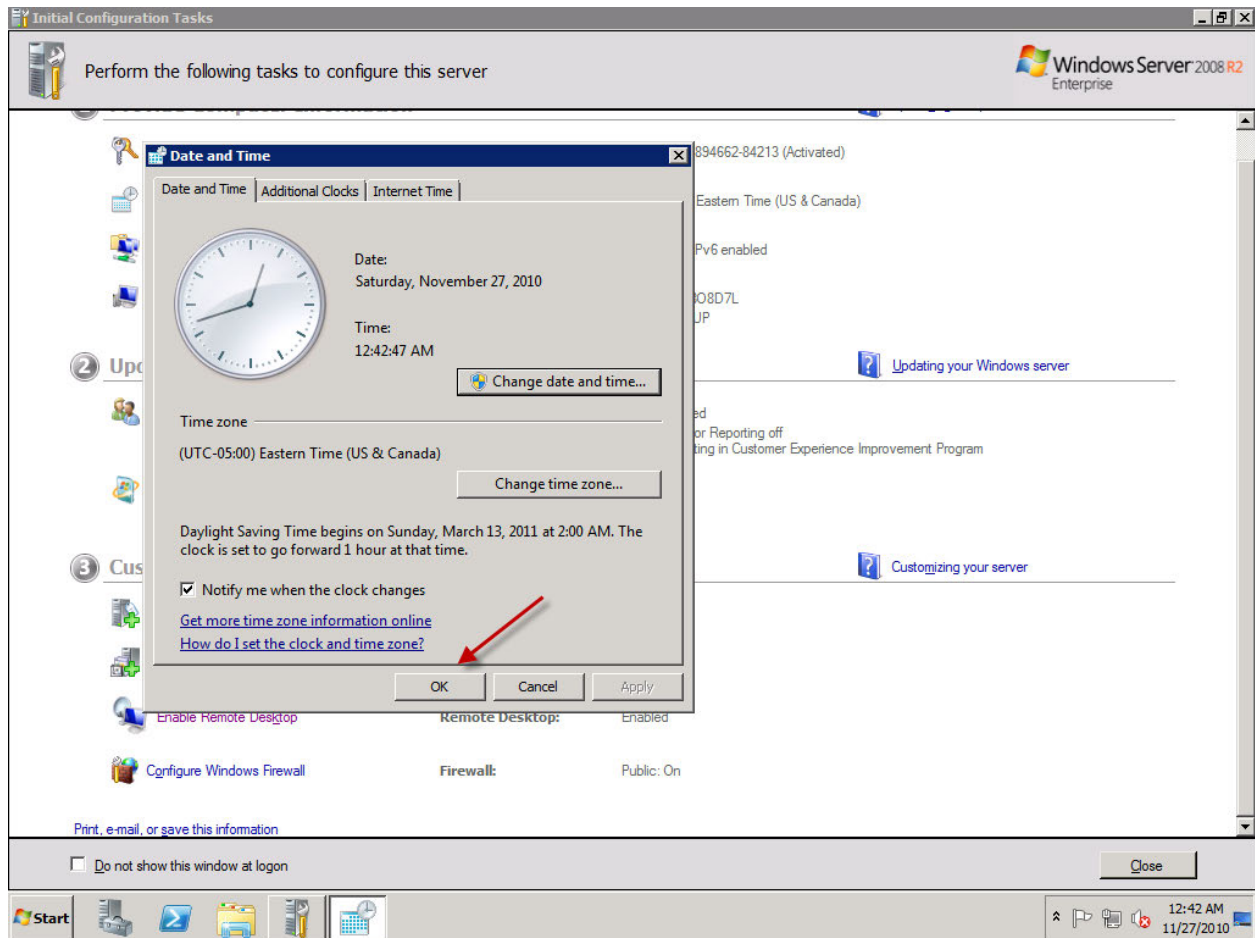
30. Set the date and time and click the OK button.



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31. Click the OK button to exit the Date and Time menu.

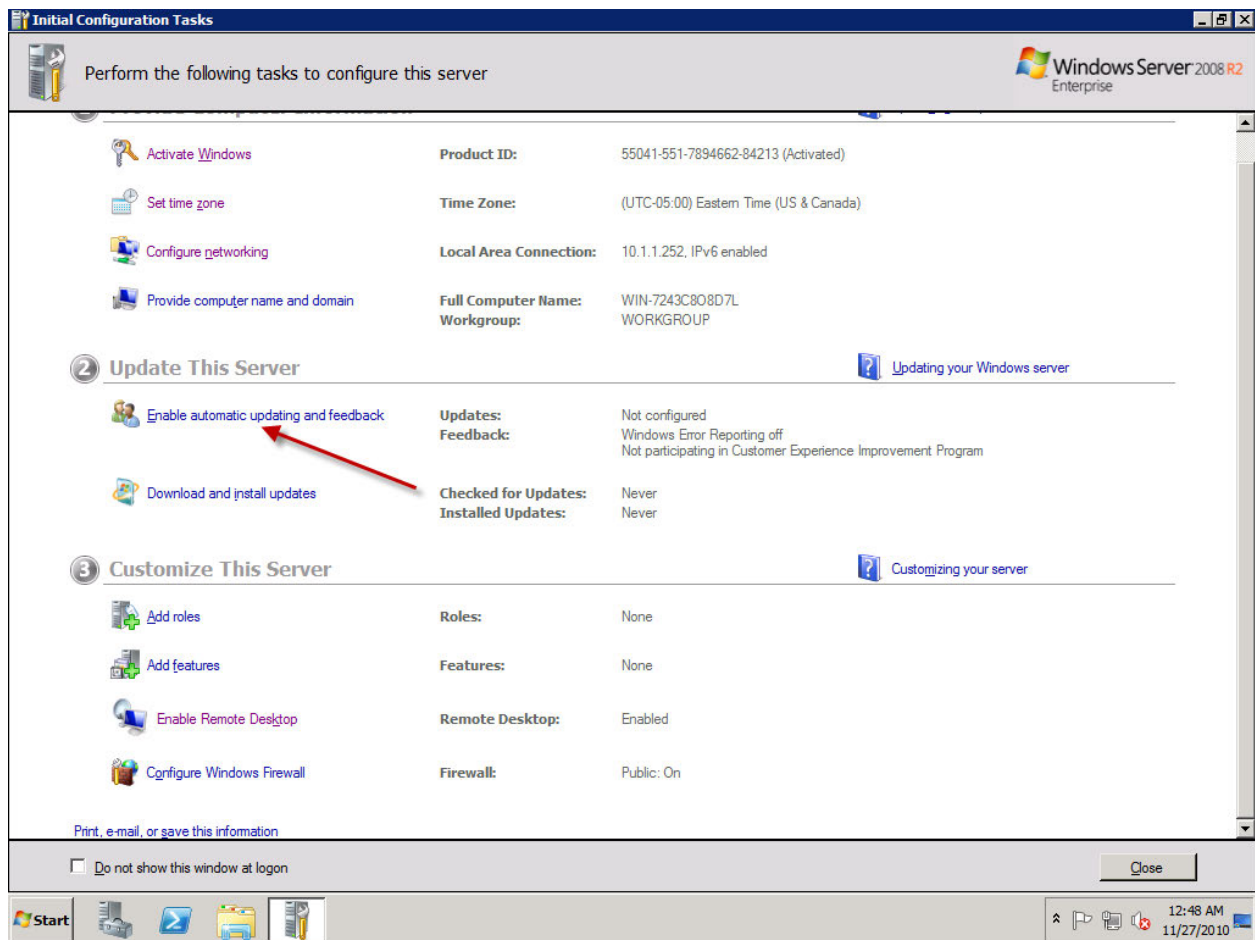


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Enable Automatic Updates and Feedback

32. Click Enable automatic updating and feedback.

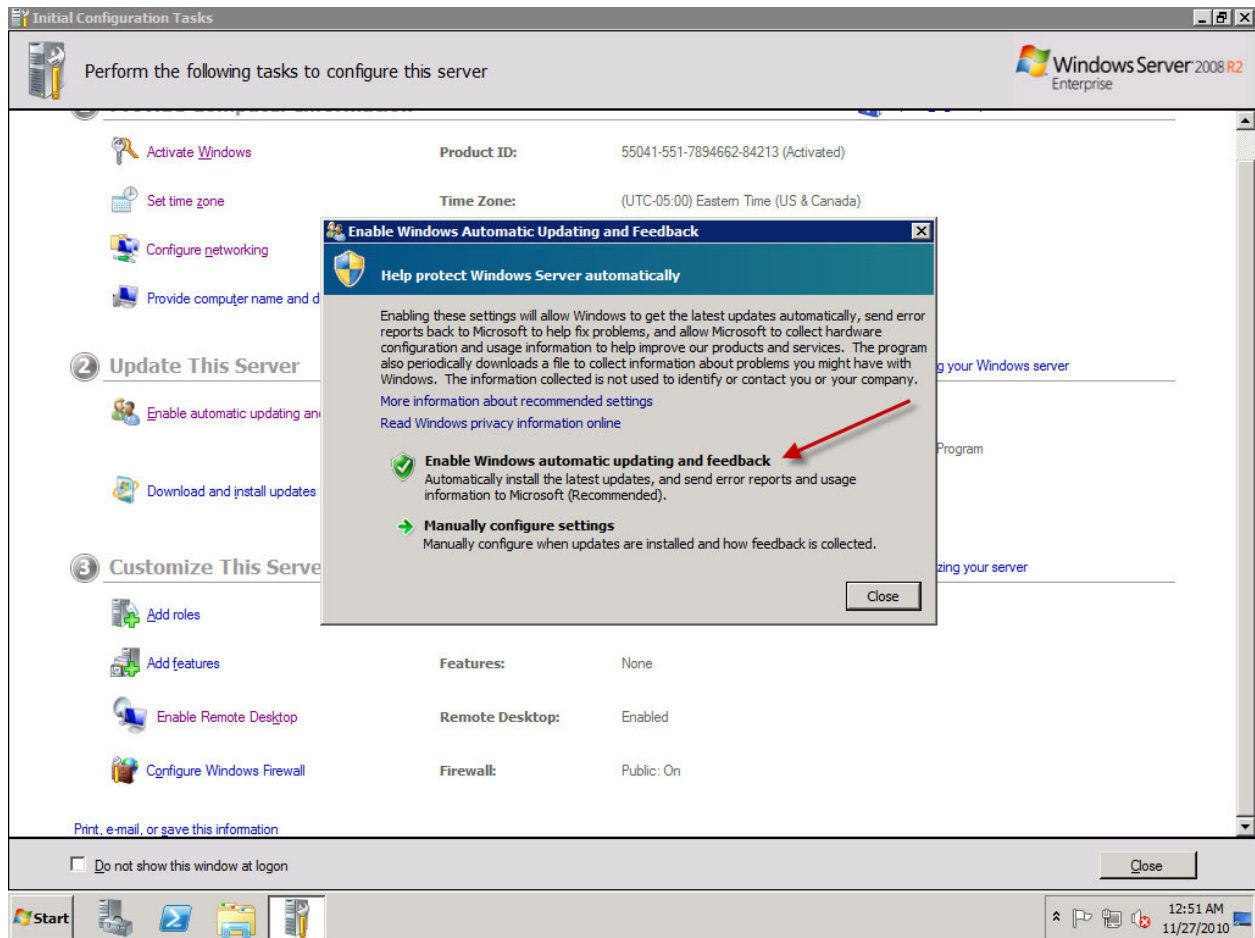


NOTES: If you are running a WSUS infrastructure, this step may not be needed.

If you ever need to return to this screen, open the Start menu, enter "OOBE" into the search bar, and click the "oobe" icon which appears.

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33. Click Enable Windows automatic updating and feedback.

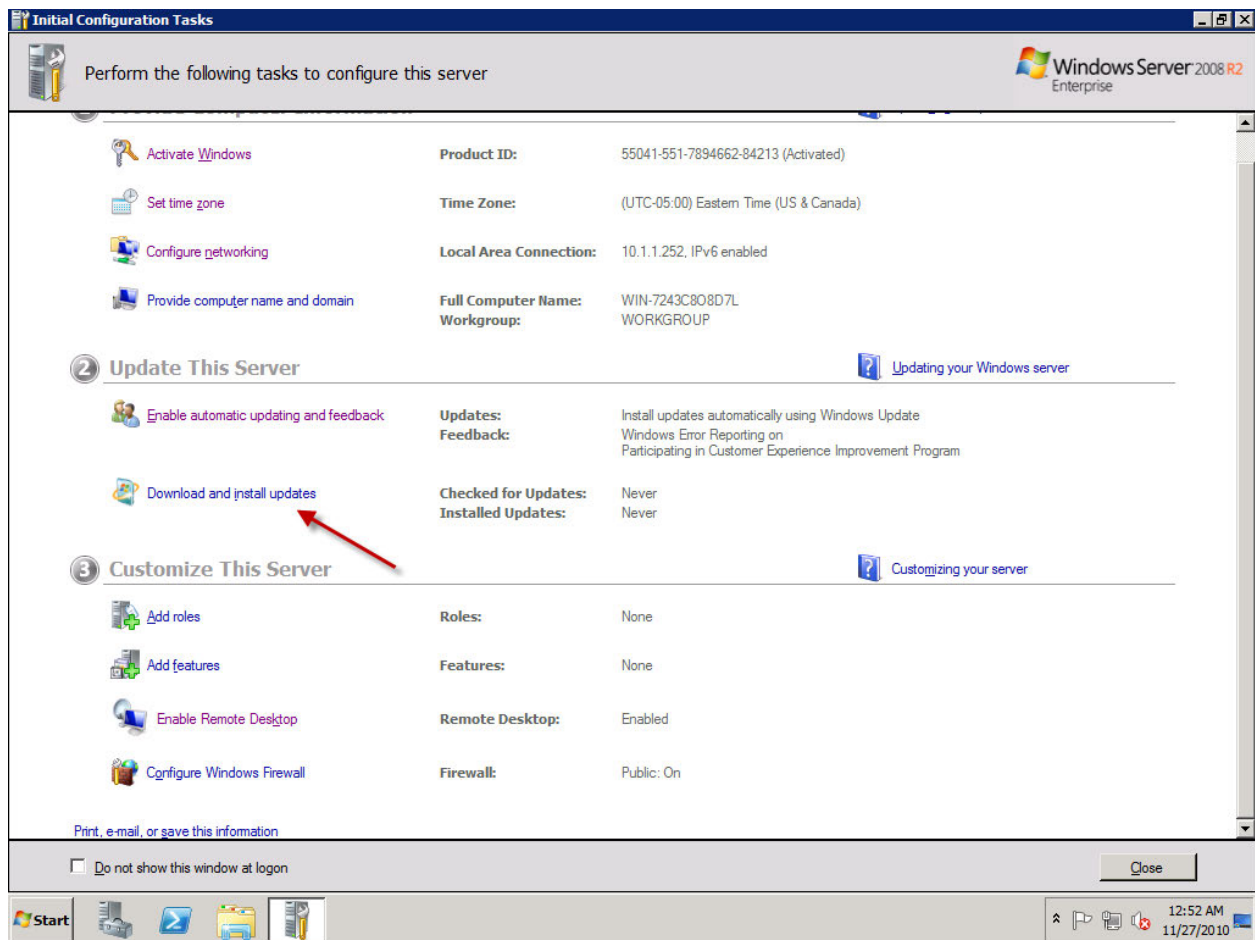


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Download and Install Updates

34. Click Download and install updates.

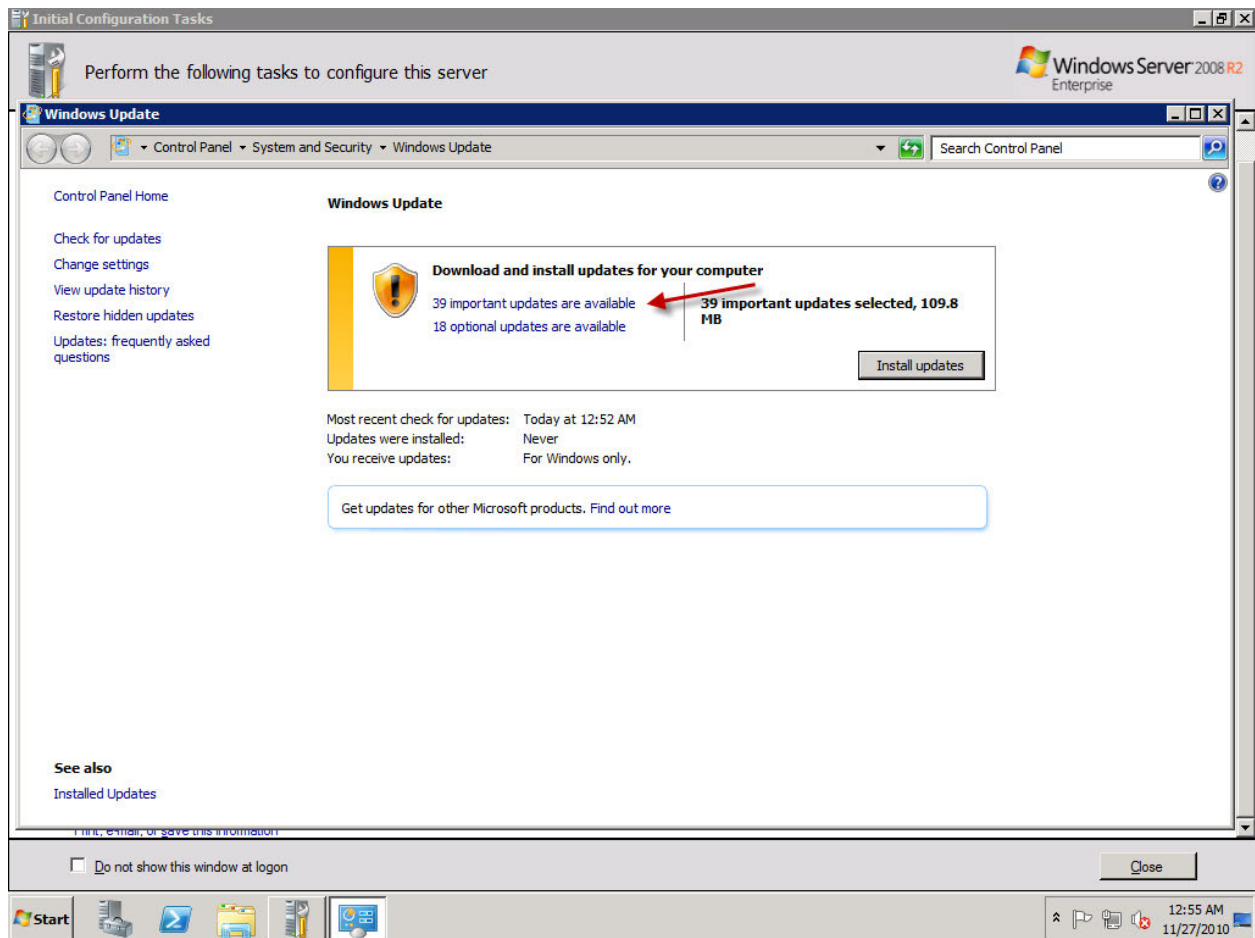


NOTES: This step may need to be repeated in order to install all updates. Some updates need to be installed before other updates, with a restart in between the application of each update. For instance, update A may need to be installed, then the server will need to be restarted. After the restart, update B will need to be installed.

If you ever need to return to this screen, open the Start menu, enter "OOBE" into the search bar, and click the "oobe" icon which appears.

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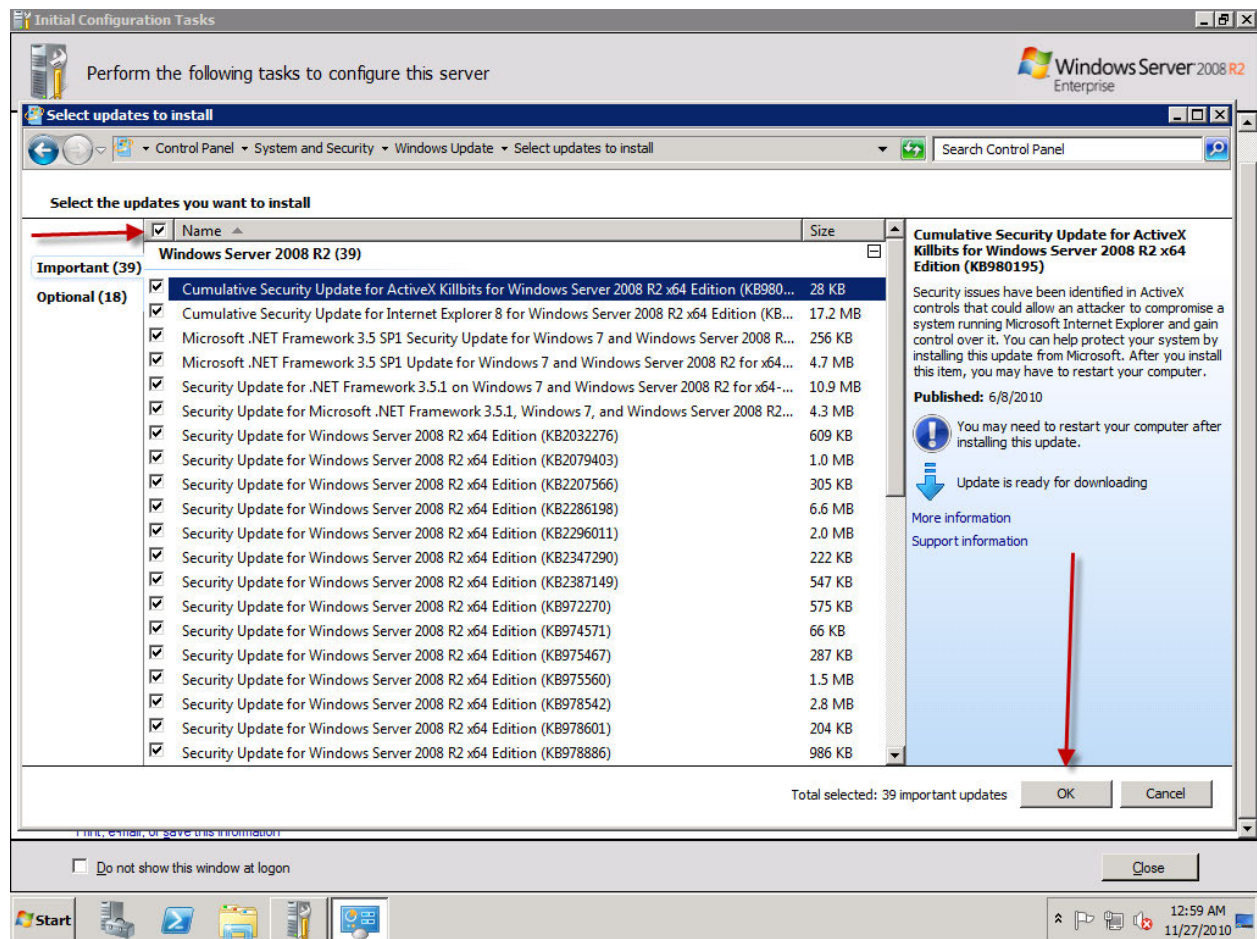
35. You will see a screen stating how many important and optional updates are needed. **Click the line which states, "X important updates are available"**. In this example 'X' is the number of important updates that are available.



NOTES: The goal of this step is to ensure that all available important updates are selected.

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36. Ensure the checkbox next to Name has a checkmark in it. This checkbox signifies that all individual updates are selected. **Click the OK button once all updates are selected.**



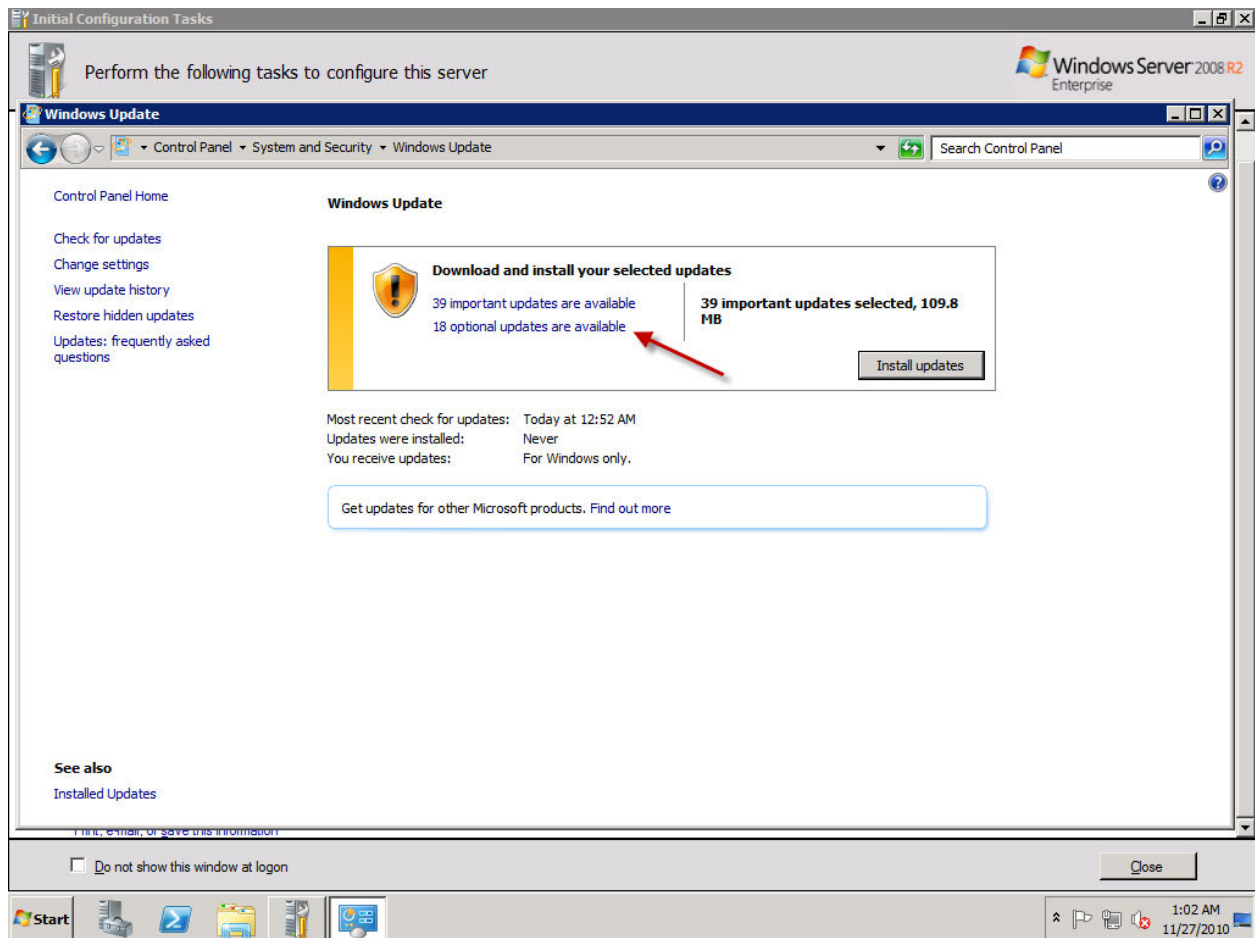
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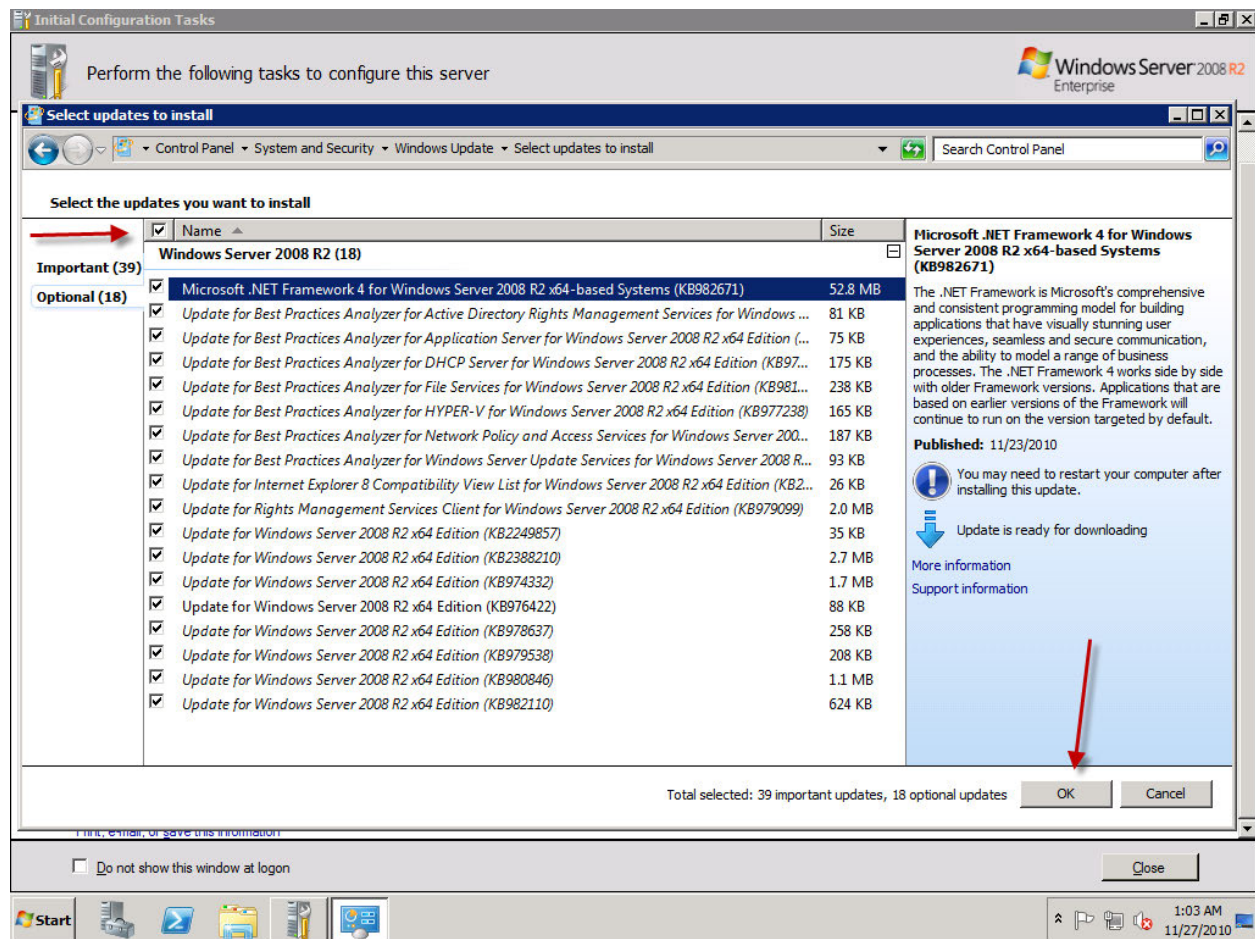
37. You will return to the screen stating how many important and optional updates are needed. **Click the line which states, " 'X' optional updates are available".** In this example 'X' is the number of optional updates that are available.



NOTES:

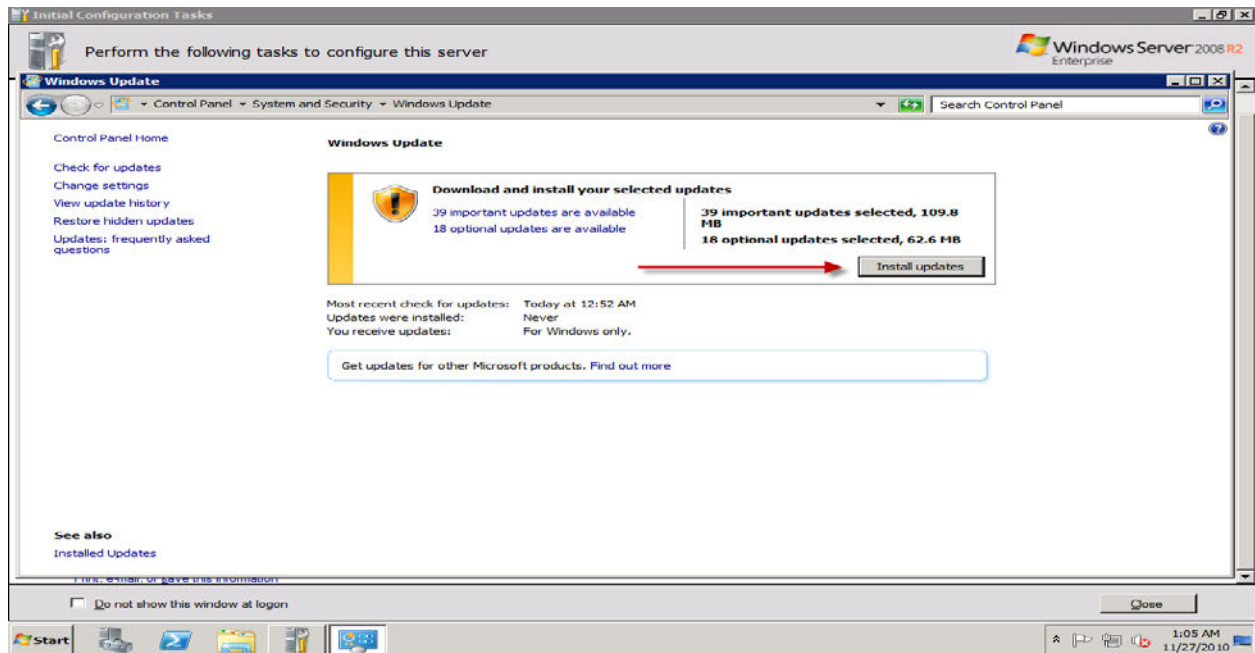
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38. Ensure the checkbox next to Name has a checkmark in it. This checkbox signifies that all individual updates are selected. **Click the OK button once all updates are selected.**

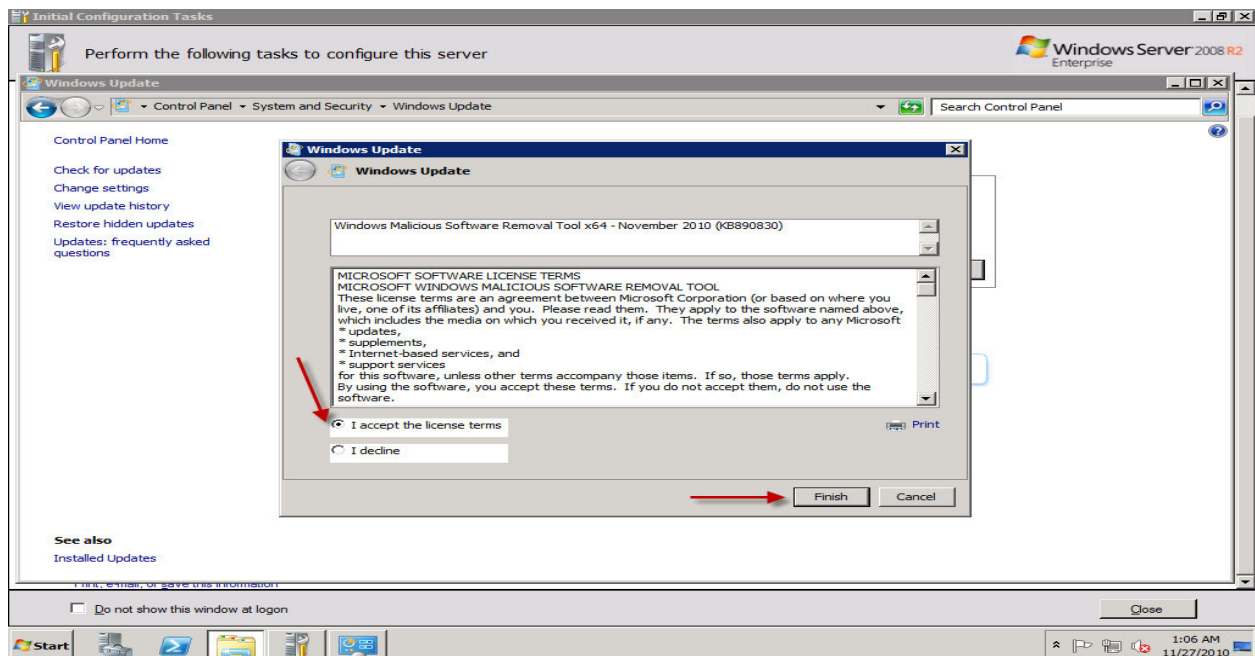


NOTES:

39. Click the Install updates button.



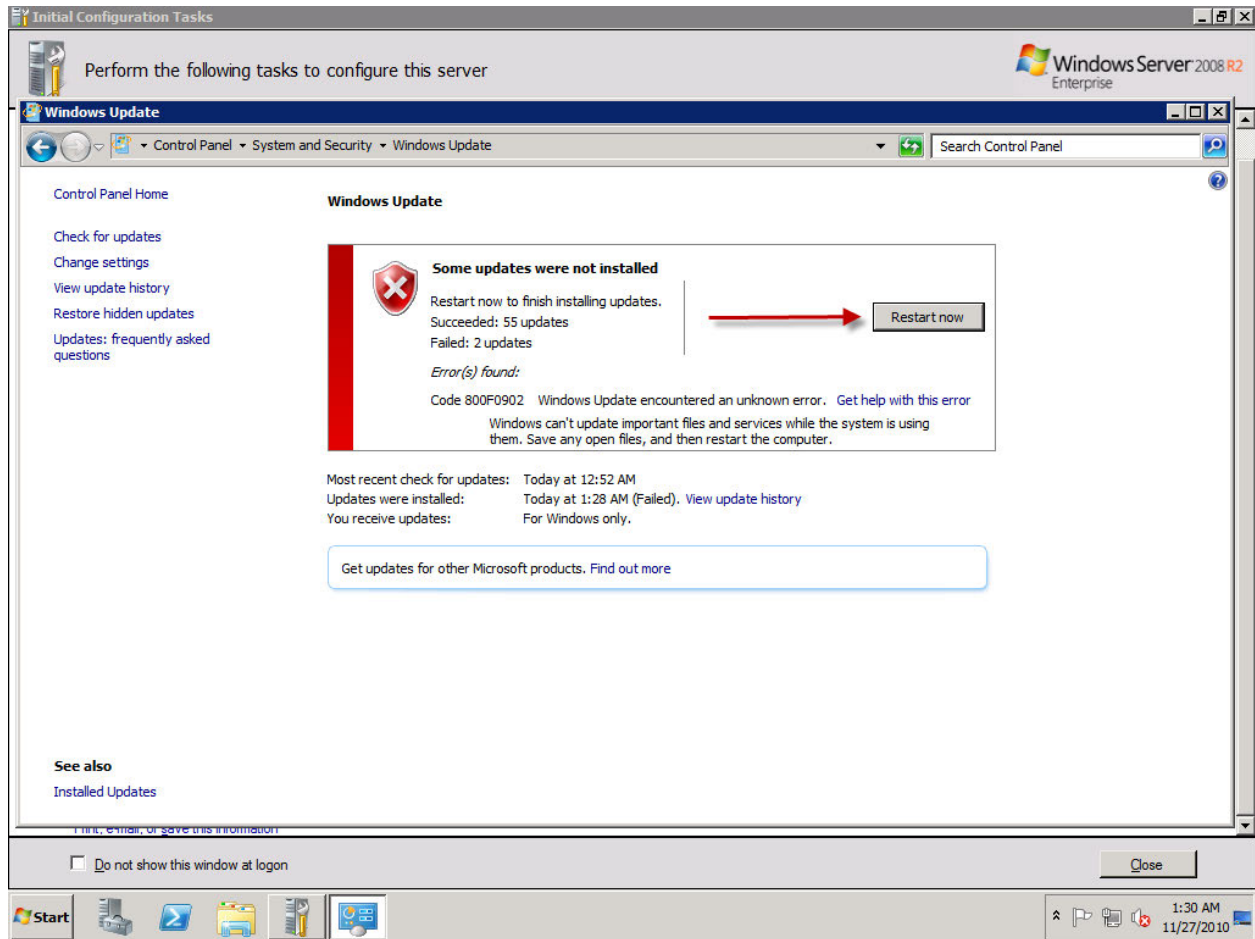
NOTES: If a license agreement, or many, are presented, select the radio button next to, "I accept the license terms", and click, "Finish".



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40. Windows Server 2008 R2 will now download and install all of the selected updates. **If you are prompted to reboot the server after updates have been installed, do so.**

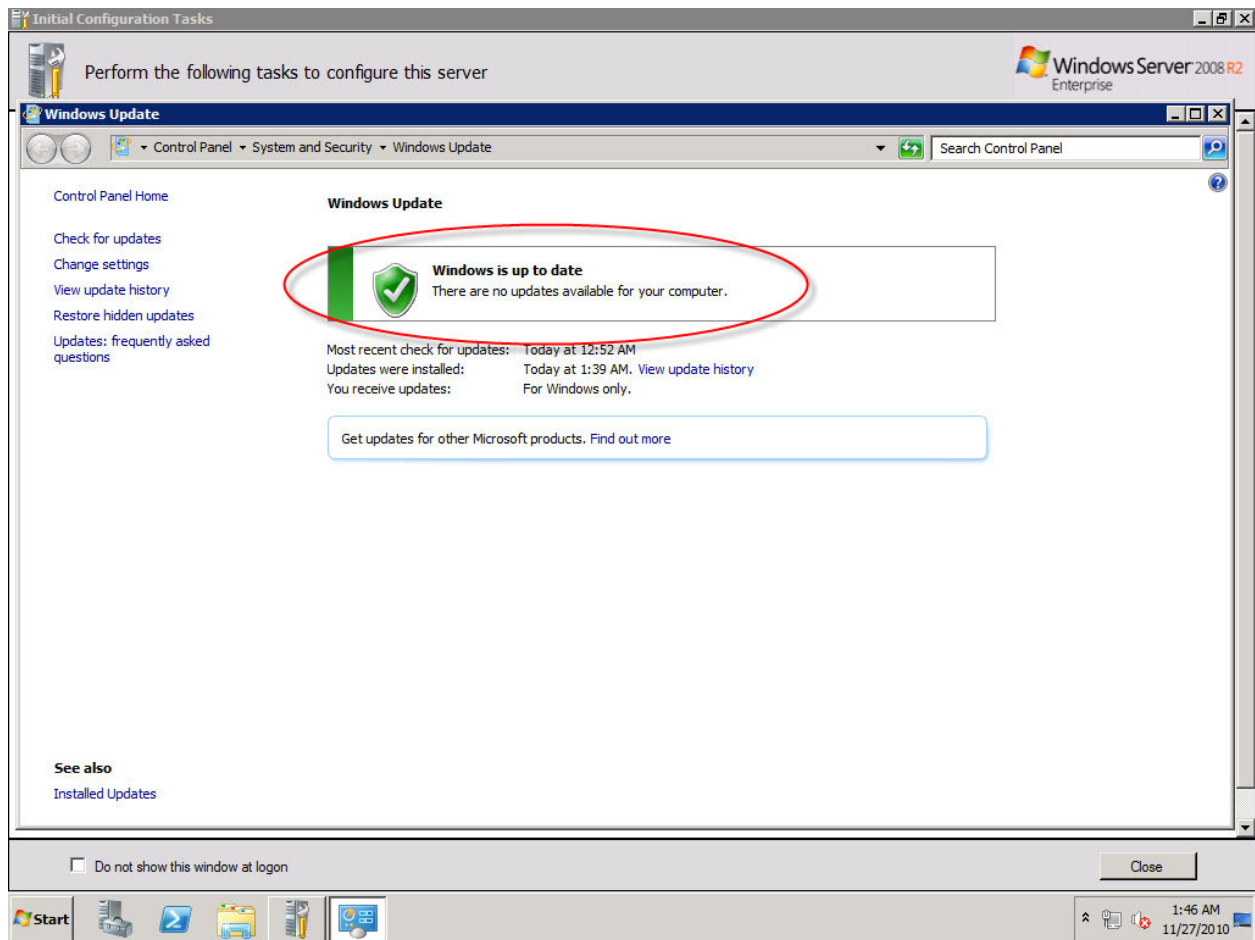


NOTES: Two updates were not installed. These will have to be installed on a second pass through the update process.

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41. Repeat steps 33 through 39 until all updates are installed. You will know that the update process is complete when you receive the message, "Windows is up to date". Close the Windows Update window when you are finished and return to the Initial Configuration tasks window.

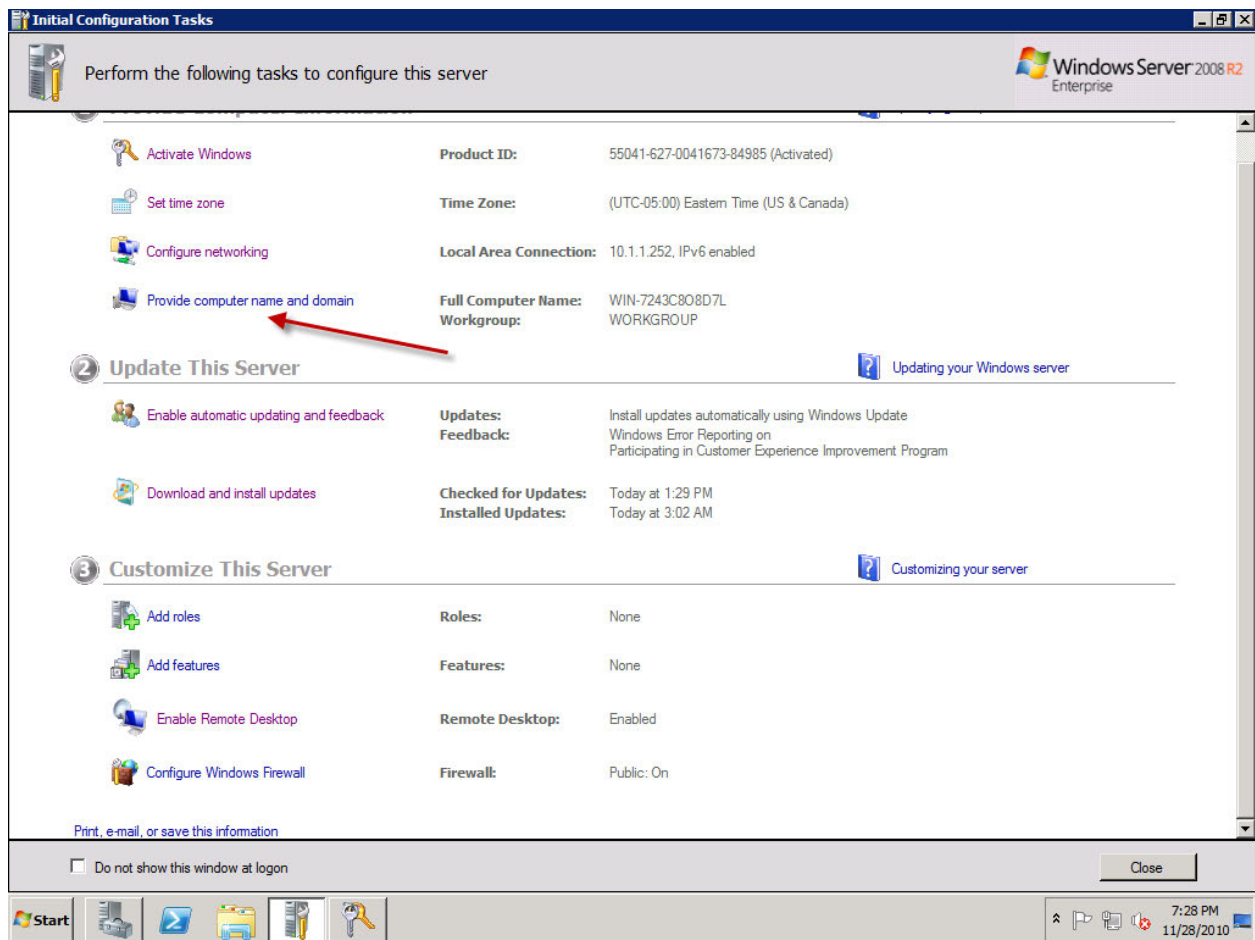


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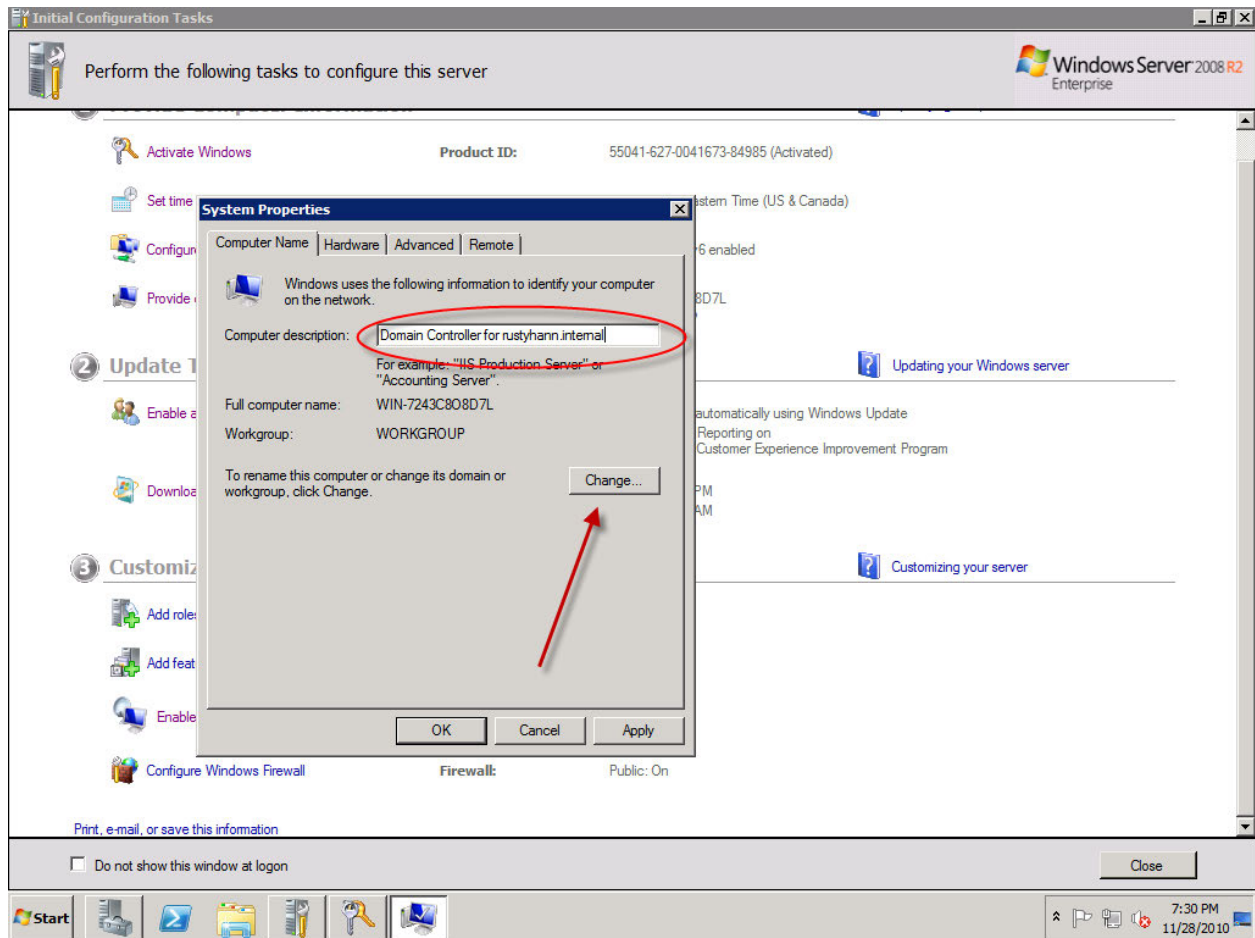
Provide Computer Name and Domain

42. Click Provide computer name and domain.



NOTES: *If you ever need to return to this screen, open the Start menu, enter "OOBE" into the search bar, and click the "oobe" icon which appears.*

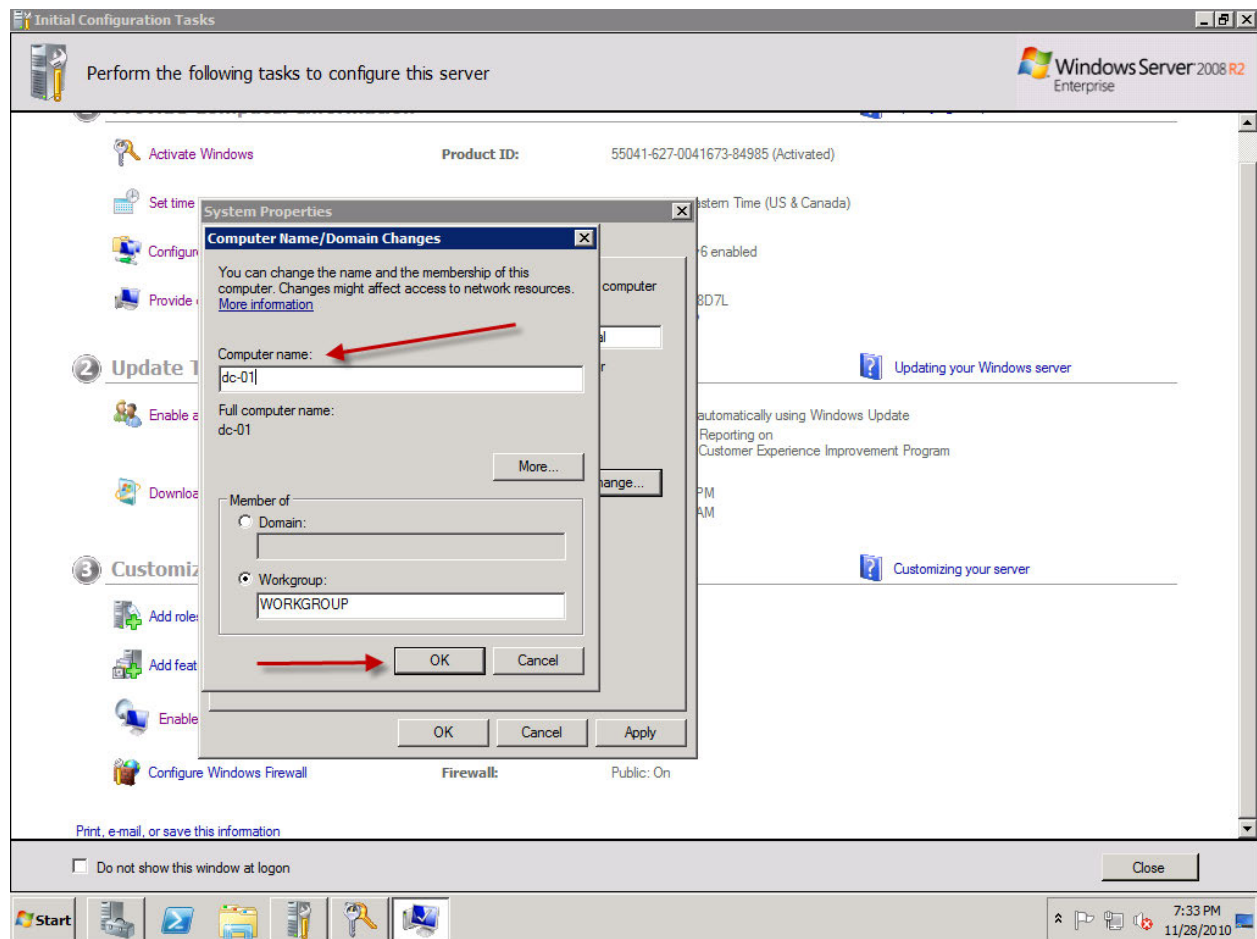
43. Enter a computer description and then click the Change button.



NOTES: The Computer description IS NOT the same as the computer name.

You must click, "Change..." in order to change the computer name.

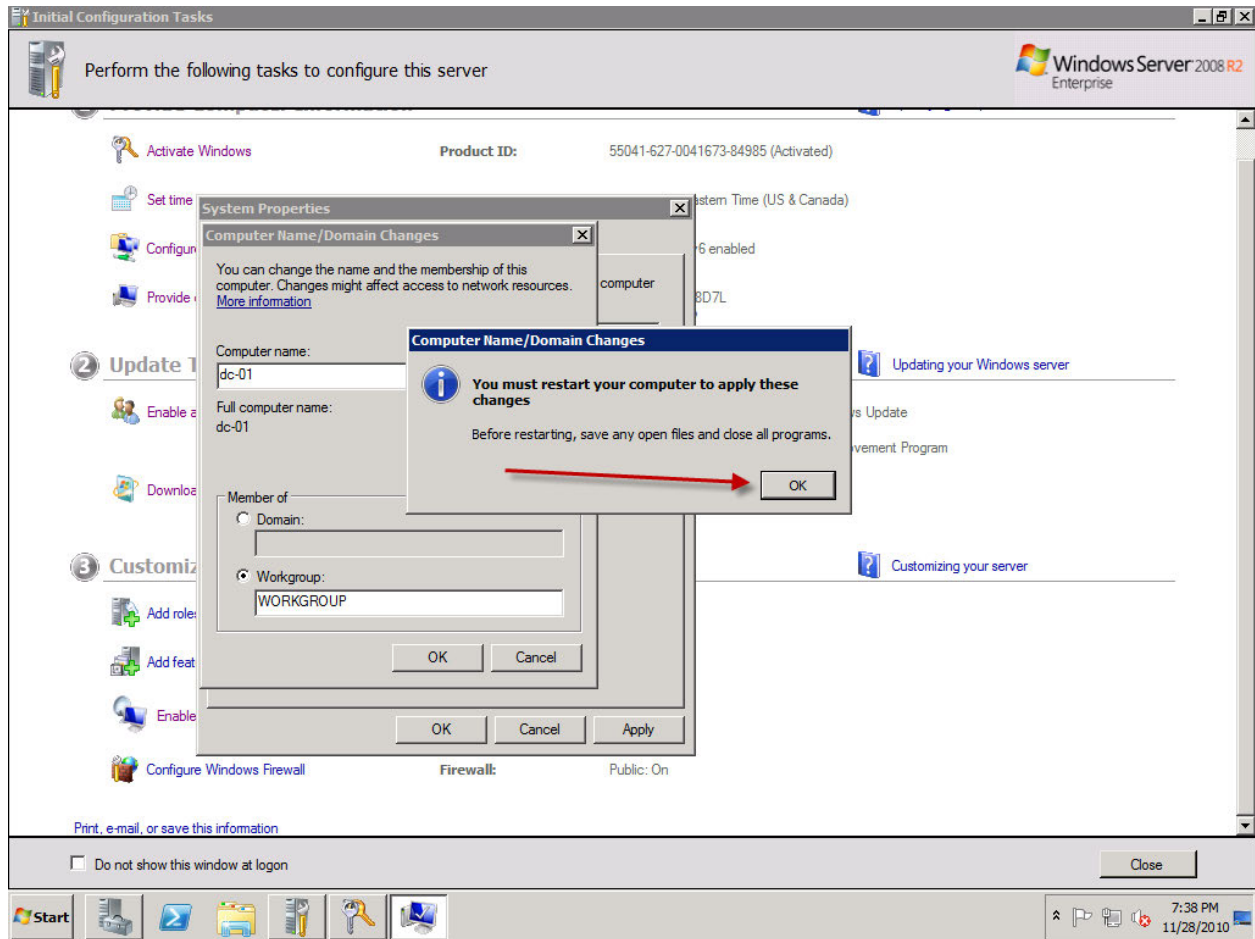
44. Enter a Computer name and click the OK button. If you are joining this server to a domain, you may enter the domain in the, "Member of", section.



NOTES: The server used to create this tutorial will be promoted to a domain controller in a new forest at a later date. For this reason, the, "Member of", section is left at its default value, "WORKGROUP" under the Workgroup radio button. ***If you plan on promoting your server to a domain controller in an existing domain, DO NOT JOIN IT TO THE DOMAIN. DCPROMO.exe will take care of this task.***

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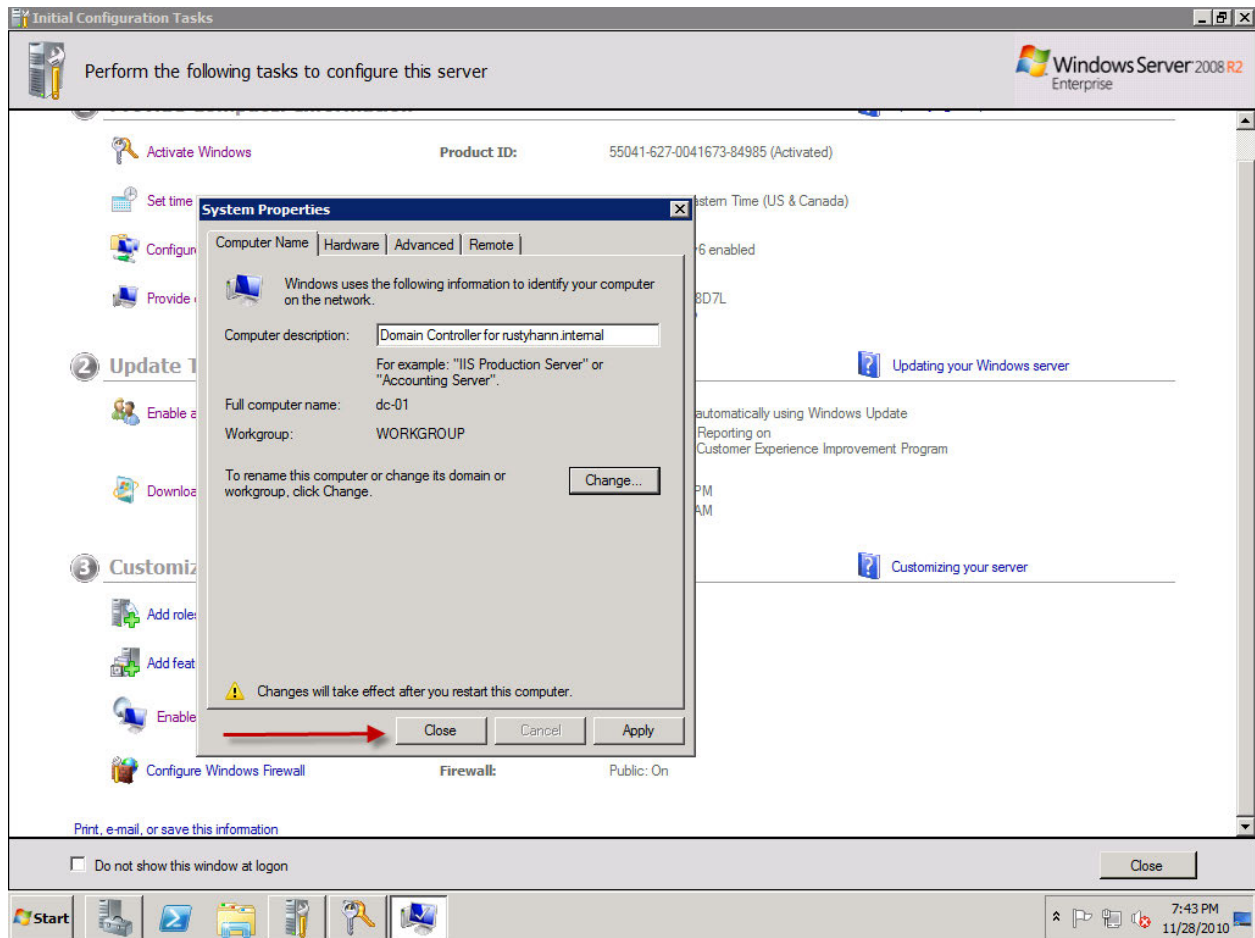
45. A dialog stating, "You must restart your computer to apply these changes", will appear. **Click the OK button.**



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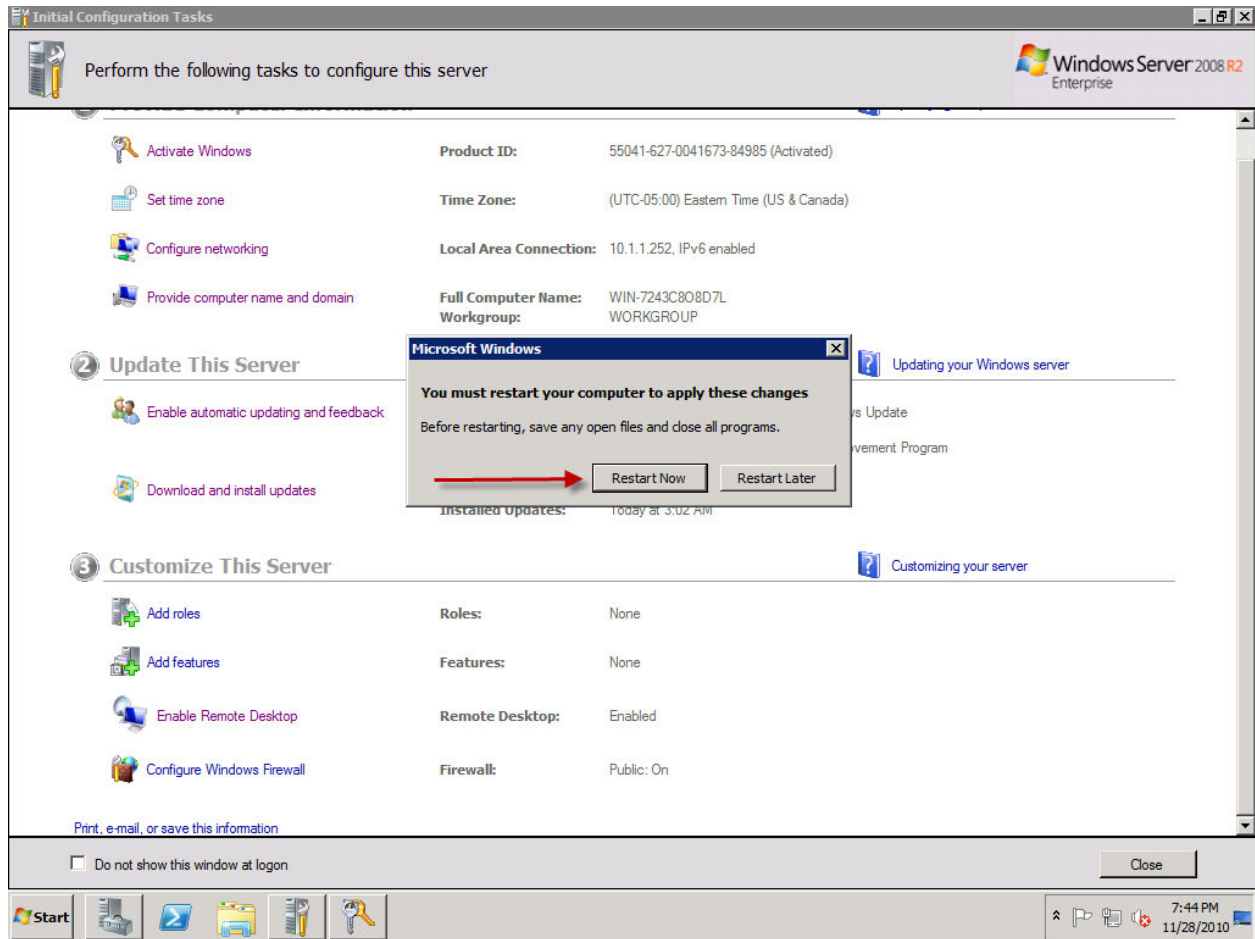
46. Click the Close button.



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47. Click the Restart Now button. Ensure any open programs are closed and all data is saved. Your Server will reboot and you will need to reestablish your Remote Desktop connection.

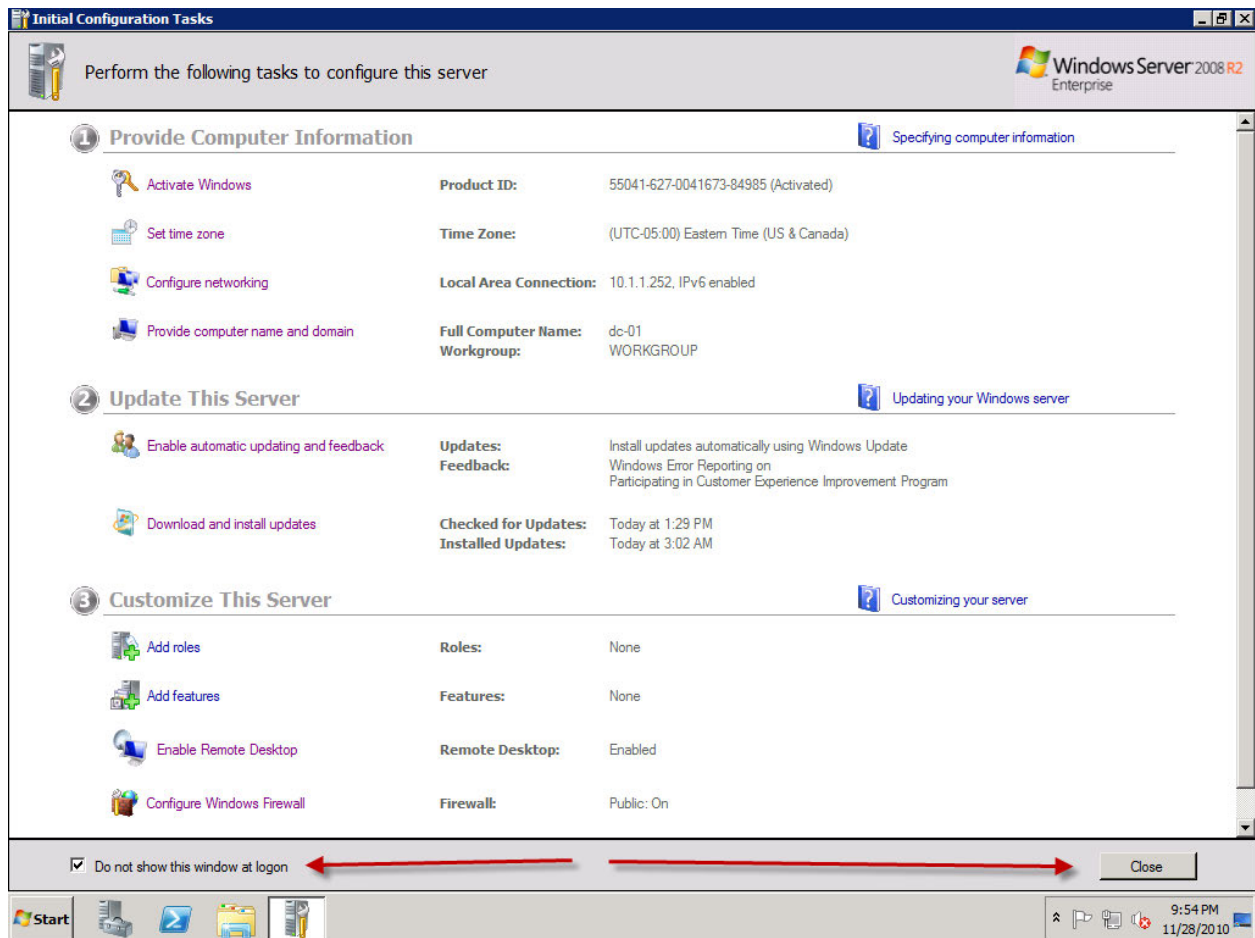


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48. To prevent the Initial Configuration Tasks window from appearing on startup, place a checkmark in the checkbox next to, "Do not show this window at logon", and click the Close button. You can do this after reestablishing your Remote Desktop connection when the server has finished rebooting.

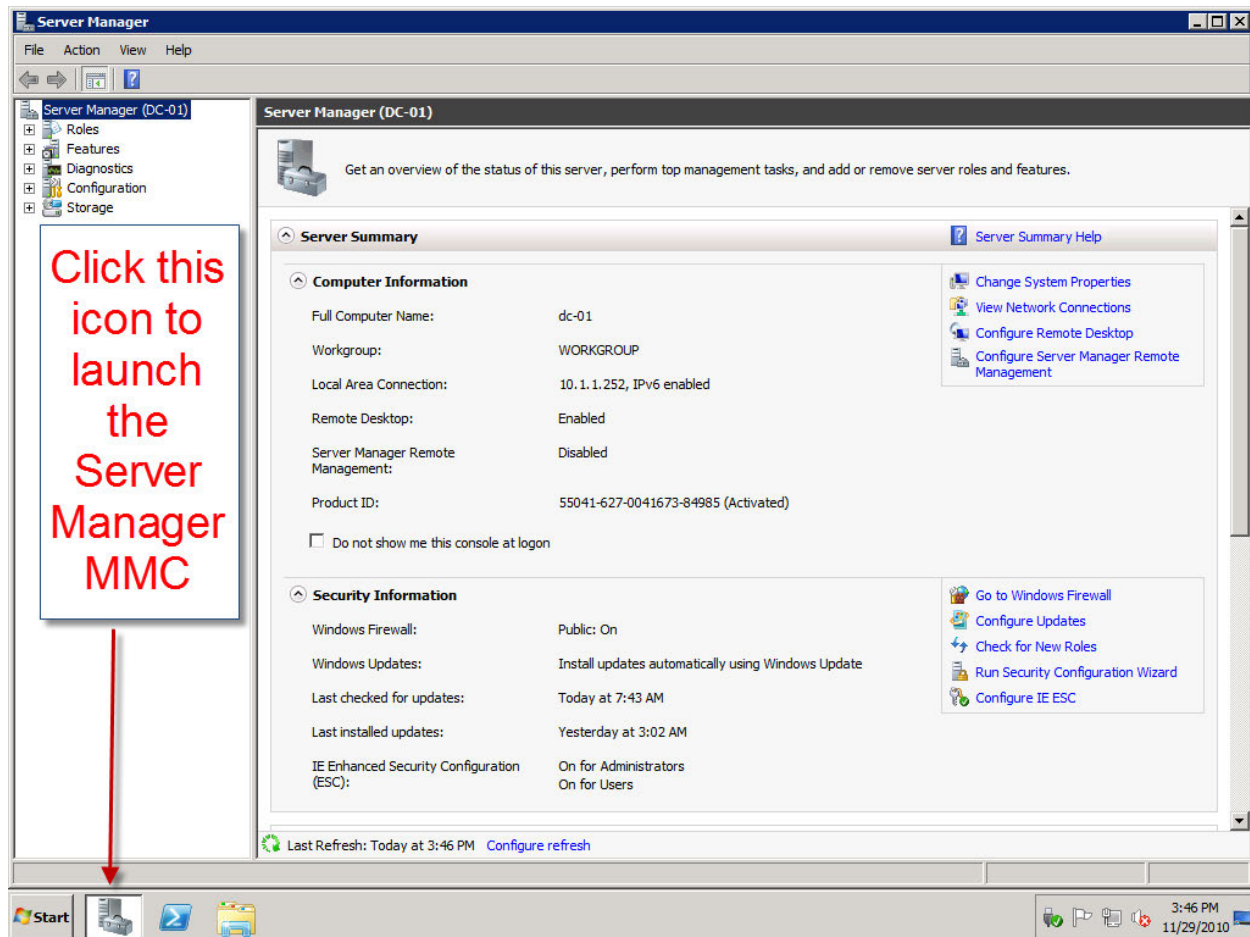


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Wrap Up

49. This is the Server Manager MMC. It will automatically pop up after the Initial Configuration Tasks screen is closed. Most administration tasks will be done through this MMC. This will be the starting point for all tutorials from this point on. **If Server Manager does not appear upon login, you can click the Server Manager icon pinned to the taskbar.**



NOTES: This is the end of this tutorial.

Troubleshooting

- You must correctly set your IP settings for this server to have any connectivity (LAN or outside connectivity).
- For Remote Desktop to work, you must have enabled the firewall exception in the firewall rules. This should have been done automatically for you when setting up Remote Desktop.
- You must add at least one authorized account for a Remote Desktop connection to be established. In this tutorial it was the **LOCAL** Administrator account. You have to login as the account you added to the Remote Desktop Users group.
- You have to have 'ping' connectivity in order to establish a Remote Desktop session.
- Activation of your license may be denied for one of many reasons. You most likely typed the key incorrectly. You may have run out of activations in the case of a MAK key (Multiple Activation Key). You may not be able to contact your KMS server if using KMS. You may not have internet connectivity and cannot contact the Microsoft activation servers. Your key may have already been activated. It is your responsibility to maintain your license keys and their integrity.
- If you are connecting this server to a domain, you need to have the proper credentials to execute the task. **If you plan on promoting your server to a domain controller in an existing domain, DO NOT JOIN IT TO THE DOMAIN. DCPROMO.exe will take care of this task.**
- The time must be set correctly to join a domain. It must also be set correctly to allow users to login into the server if it is to become a domain controller.
- You must have Internet connectivity to download and install Windows updates.

I am not responsible for your actions or their outcomes, in any way, while reading and/or implementing this tutorial. I will not provide support for the information herein. If you do not understand something, figure it out on your own. If you need help figuring it out, use Google to solve your problems.