XtendLan TC-M101 Zero Client Desktop Solution

Quick Deployment Guide for Users

This document introduces how to use XtendLan TC-M101 Zero Client Solution and Windows MultiPoint Server 2012.

If you need to learn more about windows MultiPoint Server 2012 or expect to get more information after reading this document, you may visit the product homepage of Microsoft Windows MultiPoint Server at:

http://www.microsoft.com/windows/multipoint/default.aspx (English)

XtendLan Information Co., Ltd.

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Preparations of XtendLan TC-M101 Zero Client Desktop Solution

Prepare the Appropriate Version of Windows MultiPoint Server 2012

Windows MultiPoint Server 2012 is available in multiple languages, including English, Simplified Chinese, Traditional Chinese, Korean, Japanese, German, French, Spanish, etc. Firstly, you need to select and download the corresponding ISO file and burn it to DVD for later installation.

Windows MultiPoint Server 2012 Evaluation Version will need you to enter a product key during the installation. You may get a product key from Microsoft at:

http://www.microsoft.com/en-us/download/details.aspx?id=35821

Install

Start the computer on which you are installing MultiPoint Server using the DVD, and then install WMS 2012 as you would install Windows Server 2012, selecting the appropriate partition on which to install and answering typical installation questions. When you are prompted for a product key, type the following:

YNPVP-2H2HY-HP227-C2KRB-VQTCJ

Make Sure the Hardware Configurations of Host Computer Meet the Requirements of Windows MultiPoint Server

If you are installing Windows MultiPoint Server 2012 only for evaluating XtendLan TC-M101 Zero Client solution (1-2 users), the host computer is only required to have a dual-core CPU and 2G RAM.

The following hardware configurations are recommended for deploying Windows MultiPoint Server 2012:

Application Scenario	Up to 4 stations	5-6 stations	7-10 stations	11-14 stations	15-20 stations
Productivity Office, web browsing or LOB applications	CPU: 2C RAM: 2 GB	CPU: 2C RAM: 4 GB	CPU: 4C RAM: 6 GB	CPU: 4C RAM: 8 GB	CPU: 4C+MT or 6C RAM: 8 GB
Mixed	CPU: 2C	CPU: 2C	CPU: 4C	CPU: 4C+MT or	CPU: 4C+MT or

Application Scenario	Up to 4 stations	5-6 stations	7-10 stations	11-14 stations	15-20 stations
Office, web browsing, LOB applications and occasional video applications by certain users	RAM: 2 GB	RAM: 4 GB	RAM: 6 GB	6C RAM: 8 GB	6C RAM: 8 GB
Video intensive Office, web browsing, LOB applications and frequent video applications by all users **Note** Video testing was performed using 360p H.264 video at native resolution.	CPU: 2C RAM: 2 GB	CPU: 4C RAM: 4 GB	CPU: 4C+MT or 6C RAM: 6 GB	CPU: 4C+MT or 6C RAM: 8 GB	CPU: 4C+MT or 6C RAM: 8 GB □ Thin client: RemoteFX □ USB video applications are not recommended

Important

Other than performance requirements, your host computer and installation environment must meet the following important hardware requirements:

- Windows MultiPoint Server 2012 installation DVD;
- DVD drive on the host computer (or USB DVD drive);
- The video card of the host computer must have the compatible driver for Windows MultiPoint Server 2012 (namely WIN8 X64 based driver);
- Other hardware components (such as network adapter) of the host computer must have the compatible drivers for Windows MultiPoint Server 2012 (namely WIN8 X64 based driver);
- The video card of a majority of rack-mount servers may fail to meet the post-deployment operating requirements of Windows MultiPoint Server 2012. You will need to install a supported external video card.
- The host computer must be provided with PS/2 mouse and PS/2 keyboard instead of USB+PS/2 mouse/keyboard or USB+USB mouse/keyboard.

To use USB mouse/keyboard normally, you will need to connect one USB-HUB to a USB2.0 port of the host computer.

- The host computer must be connected to a monitor or VGA dummy plug, with the resolution of monitor reaching 1024*768 or above.
- Failing to detect a monitor (boot without monitor) during and after start-up will compromise the normal application of Zero Client solution based on Windows MultiPoint Server 2012.

Understand Varied Stations Defined by Windows MultiPoint Server

Windows MultiPoint Server 2012 can support the connection of varied devices, each providing the user with an independent Windows desktop. All these devices are called stations, including direct-video-connected stations, USB-zero-client-connected stations, network-zero-client-connected stations, and thin-client or cloud-client-connected stations.

Direct-video-connected stations:

The host computer may have multiple physical video cards and multiple USB keyboards and mice, which are then allocated to different users. This mode may have critical limitations, such as the power supply for video cards, heat emission, length of VGA cable, etc.

USB-zero-client-connected stations:

USB zero client consists of USB video chip, USB sound chip and USB-HUB control chip. Windows MultiPoint Server 2012 can recognize and manage one USB-zero-client-connected station.

This biggest problem with this mode is that each USB zero client is connected to the host computer through a USB cable. Given the limitation in cable length, it's difficult for mass deployment.

Network-zero-client-connected stations:

Network-zero-client-connected stations are a variation of USB-zero-client-connected stations. A special chip is added into the traditional USB zero client for processing IP-USB signals. By installing the special management software, Windows MultiPoint Server 2012 can then manage the network-zero-client-connected stations.

This mode has no apparent defect, and is advantageous in costs. XtendLan TC-M101 falls into this category of station.

Thin-client or cloud-client-connected stations:

Windows MultiPoint Server 2012 is capable of providing RDP service.

Traditional thin clients or could clients can connect to Windows MultiPoint Server 2012 through Remote Desktop Protocol (RDP) and use the remote desktop.

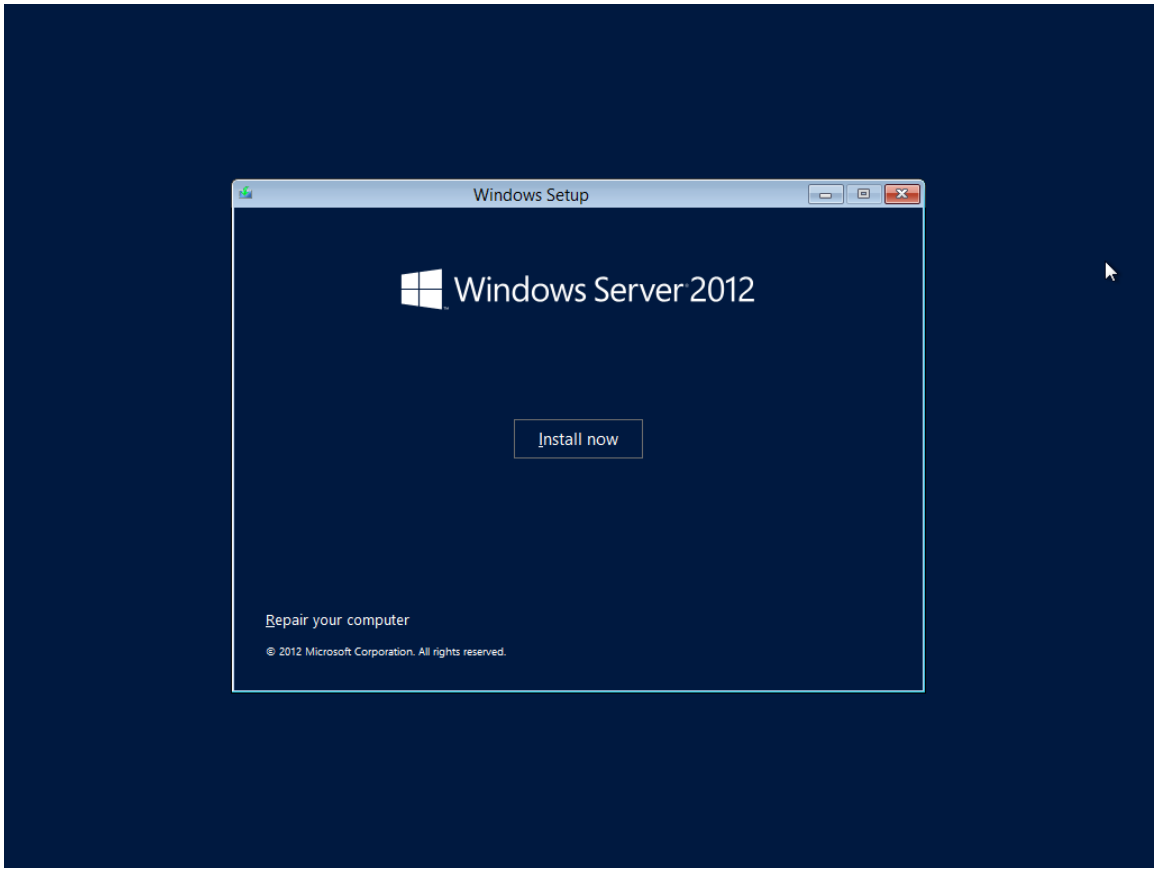
The main problem with this mode is that thin clients or cloud clients are more expensive than network zero clients or USB zero clients.

Install Windows MultiPoint Server 2012

Installation Details

You may install the system through DVD drive or external USB DVD drive. If you expect to learn more information about installation, you may search for relevant documents on Internet or Microsoft website.

- This document introduces how to install the system with the installation DVD

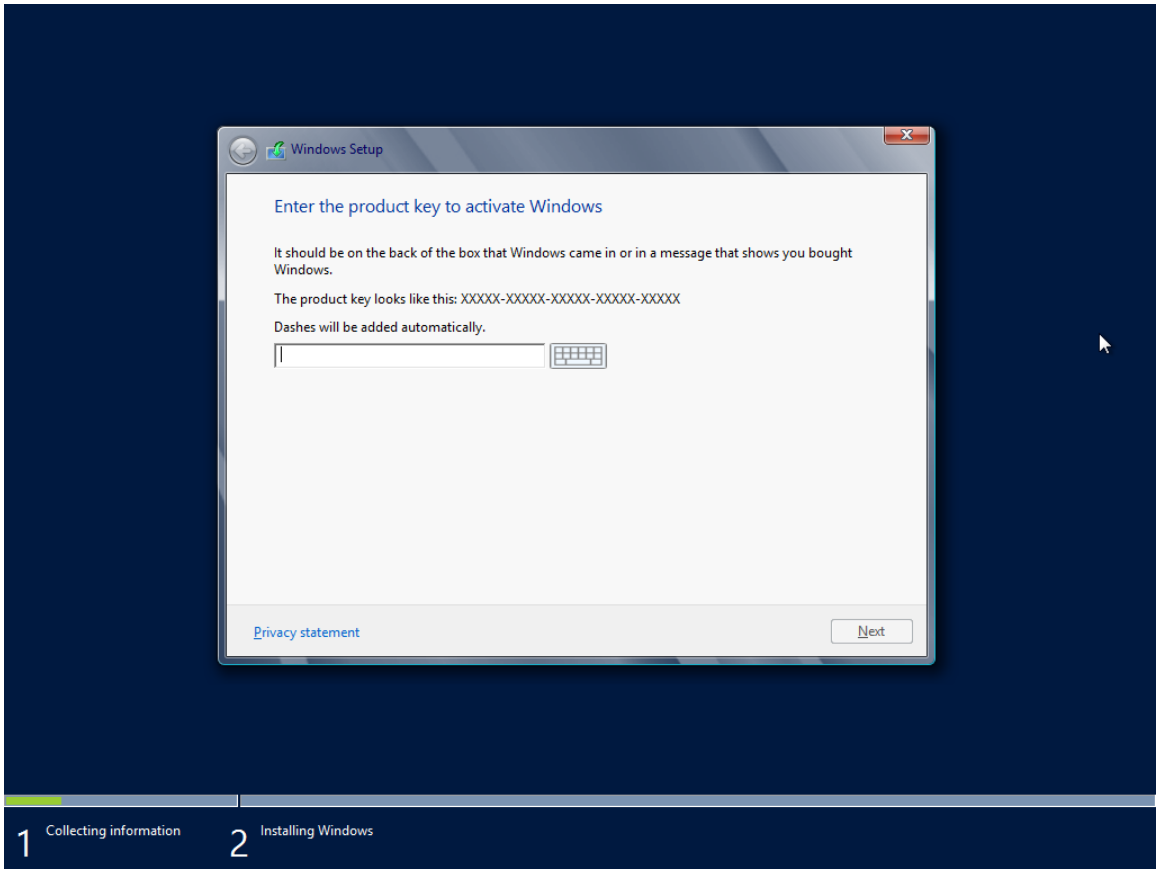


Important

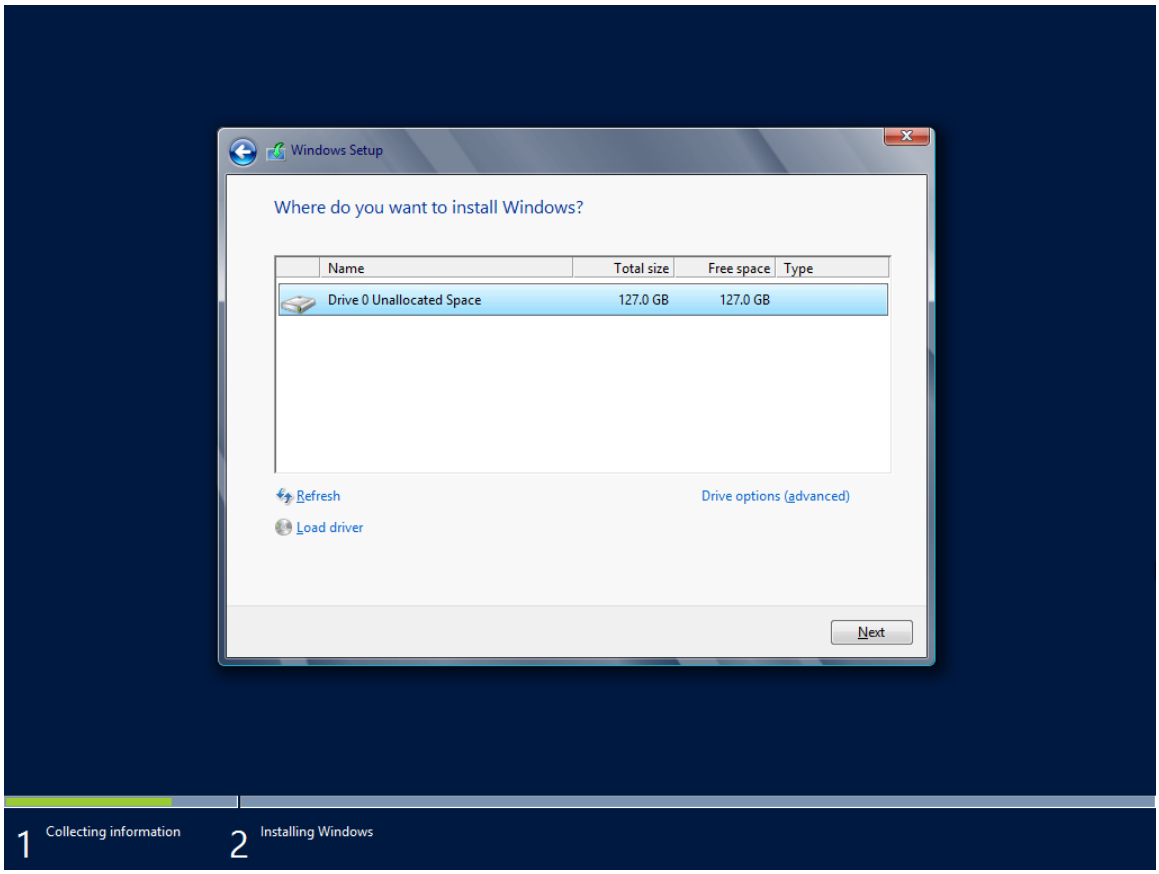
- Windows MultiPoint Server 2012 is a release branch of Windows Server 2012, and thus shares the installation mode of Windows Server 2012.

Enter the genuine product key. If there is no genuine product key, enter the trial key provided by Microsoft.

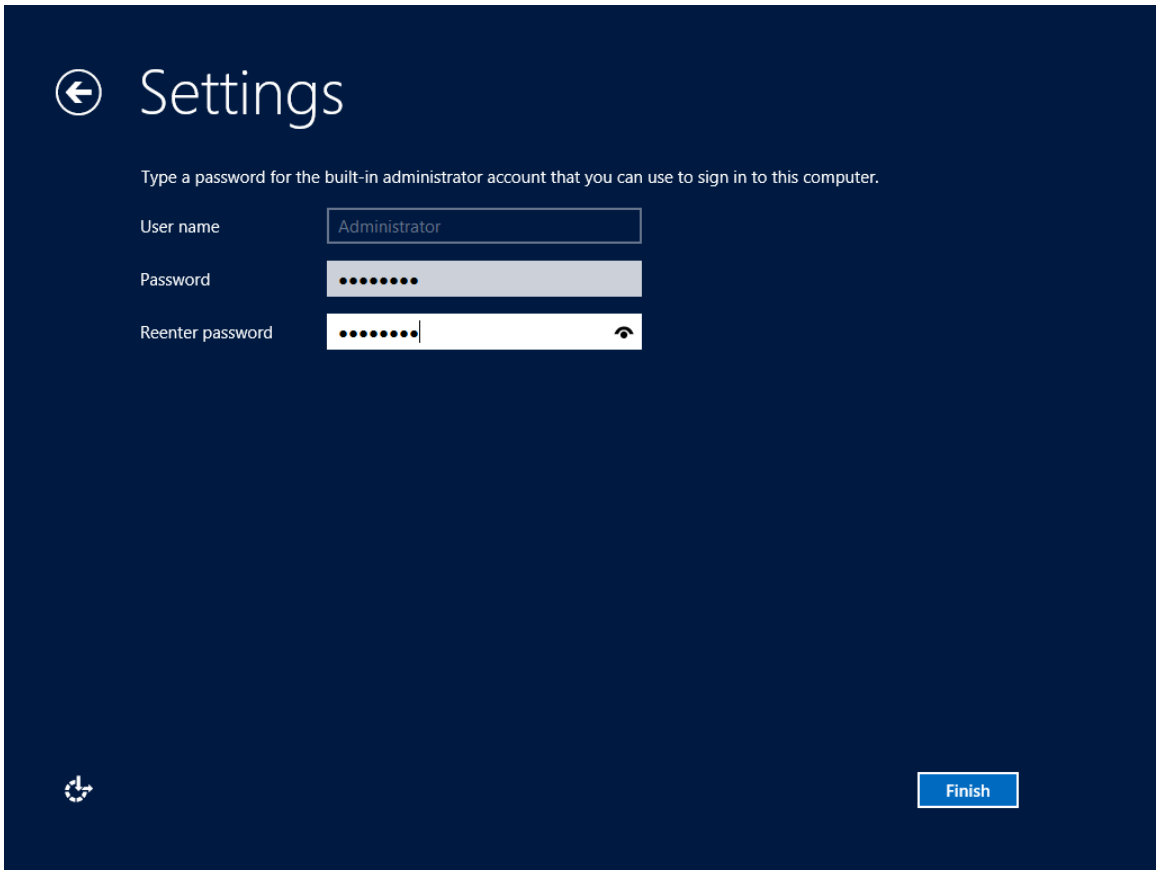
YNPVP-2H2HY-HP227-C2KRB-VQTCJ



Select the target physical hard disk for installing Windows MultiPoint Server 2012.



After installation, you will need to configure Windows Settings.



Install Hardware Drivers for the Host Computer

Hardware drivers are provided by the hardware manufacturer in the disc enclosed with the product. If the hardware device was manufactured earlier and doesn't provide a compatible driver for Windows MultiPoint Server 2012 (namely the driver for Windows 8 X64), you will need to consult the host computer manufacturer for the corresponding drivers.

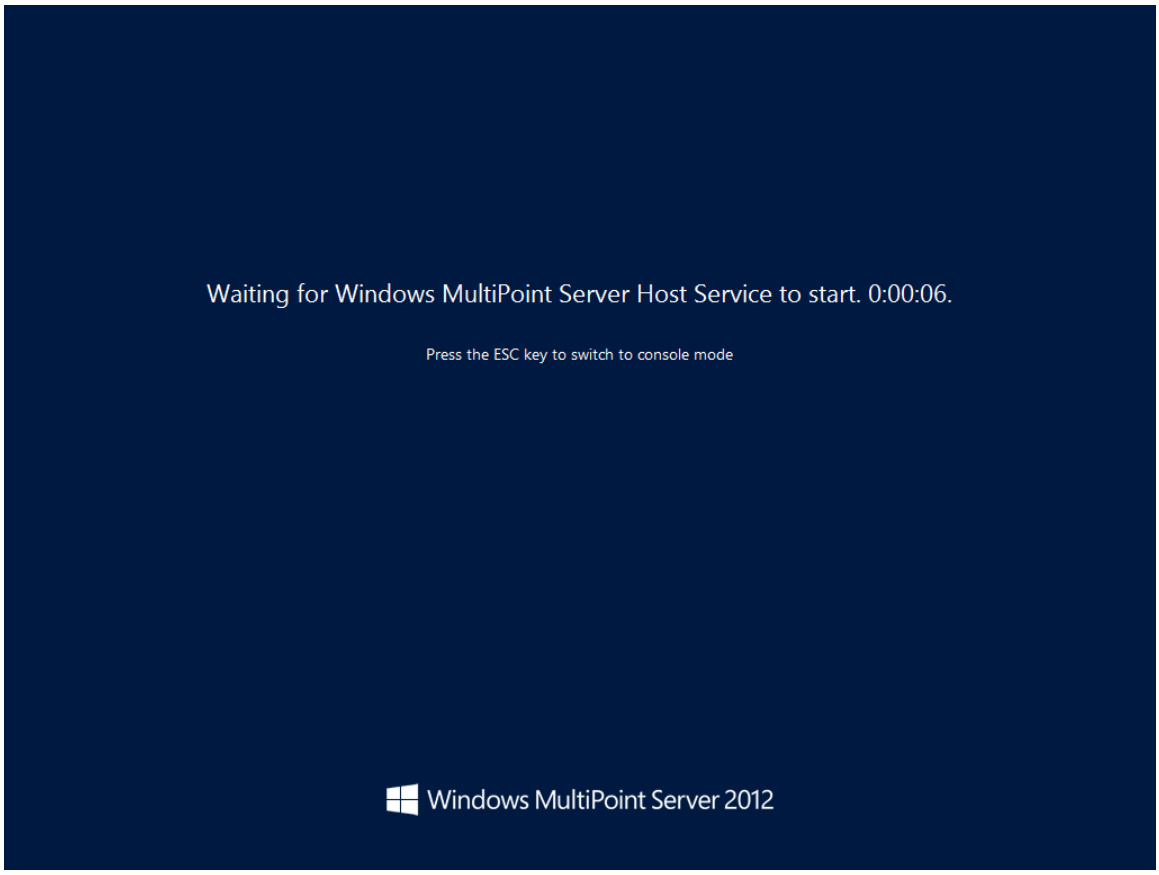
Important

- While installing drivers, please install the mainboard driver, network adapter driver and soundcard driver first before installing the video card driver.

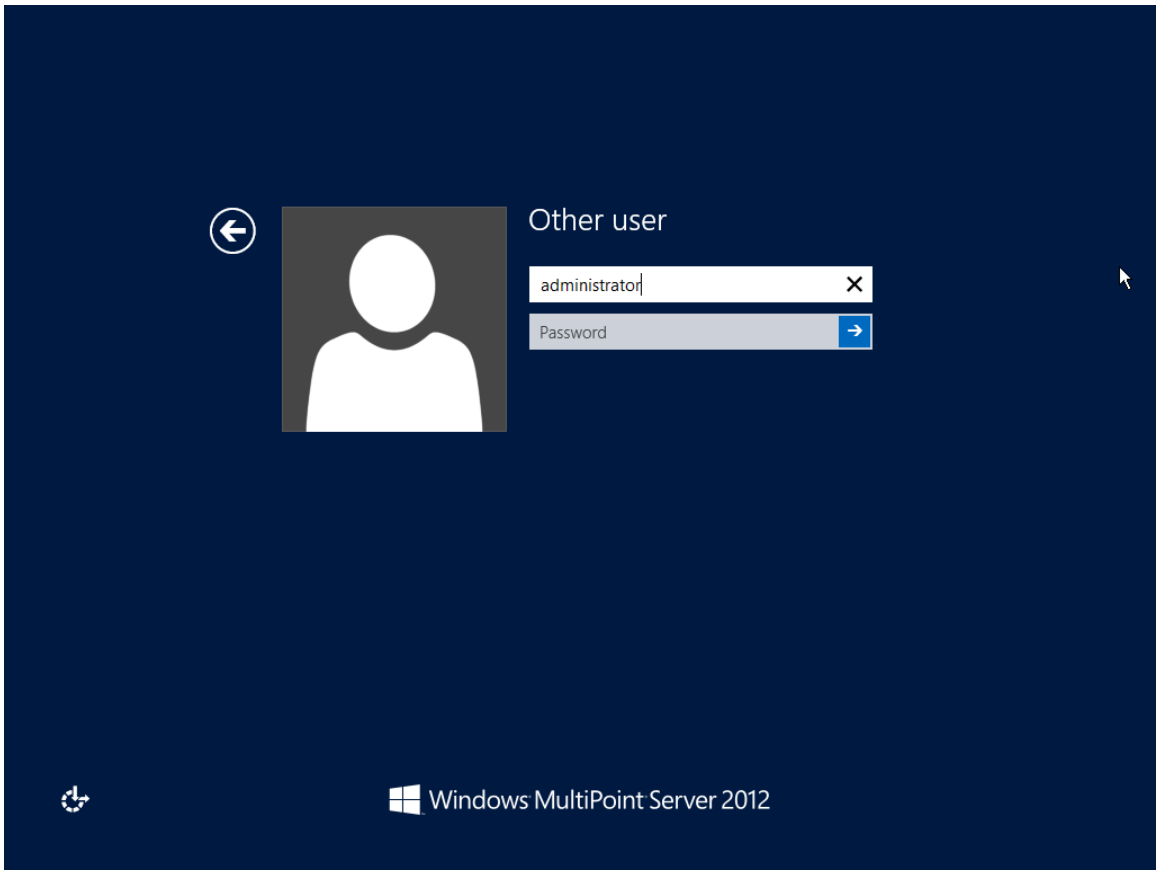
First Boot after Installing Hardware Drivers

After installing all hardware drivers, reboot to enter the operating mode of Windows MultiPoint Server 2012 station (primary station mode). Press letter "B" on the keyboard to enter the station operating mode.

If the host computer is poor in hardware performance, or if the following prompt (Waiting for Windows MultiPoint Server Host Service to Start) pops up, DO NOT press ESC key or any other key.



After starting Windows MultiPoint Server Host Service, the system will enter Windows logon interface. Enter the administrator account and password to enter the desktop of Windows MultiPoint Server 2012 station mode.



Important

- The station mode is different from the traditional desktop mode. If the host computer is not running in station mode (namely Windows MultiPoint Server Host Service is not running), then zero clients cannot operate normally.

Use XtendLan TC-M101 Zero Client Desktop Solution

XtendLan provides the tool disc for TC-M101 Zero Client Desktop Solution, including:

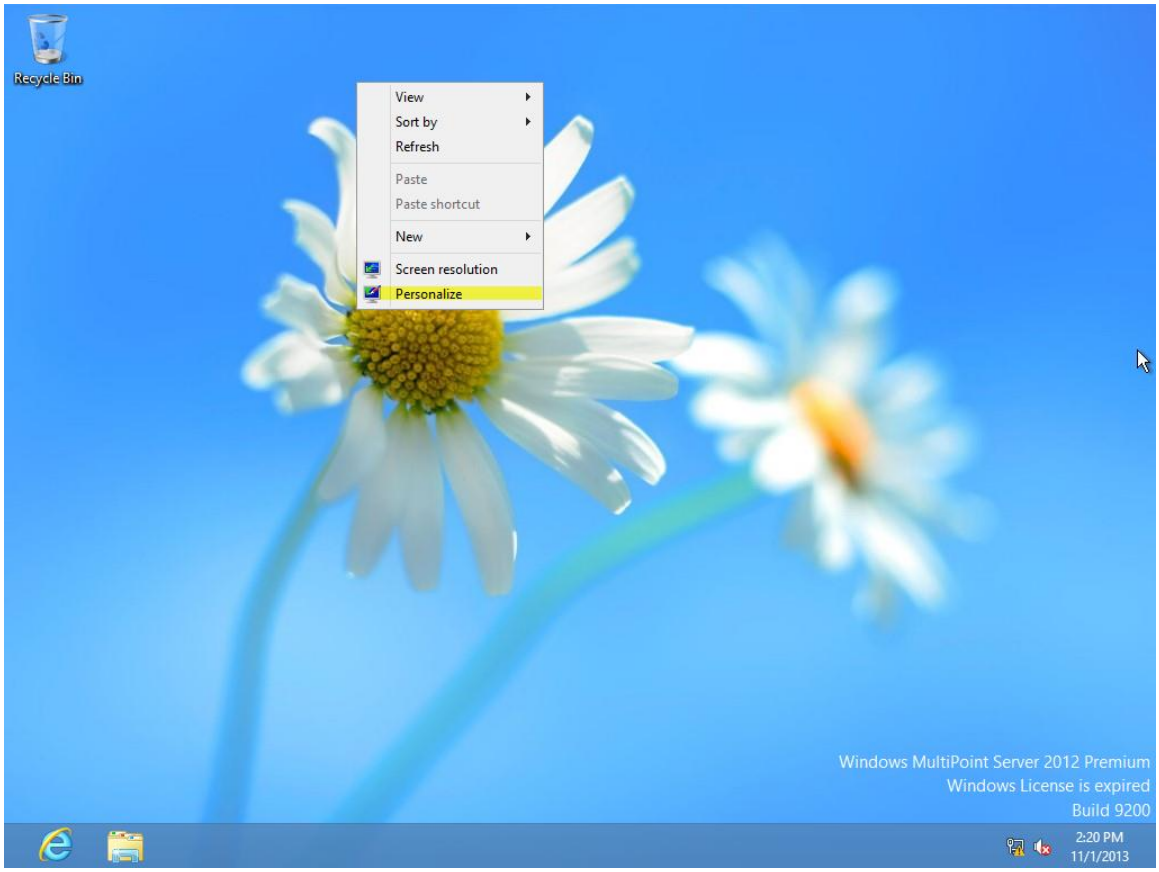
- Key patches for Windows MultiPoint Server 2012
- XtendLan TC-M101 Zero Client drivers
- XtendLan TC-M101 Zero Client management software
- Adobe PDF Reader
- "User Quick Guide" for XtendLan TC-M101 Zero Client Desktop Solution
- "Administrator Manual" for XtendLan TC-M101 Zero Client Desktop Solution
- URL of XtendLan Website

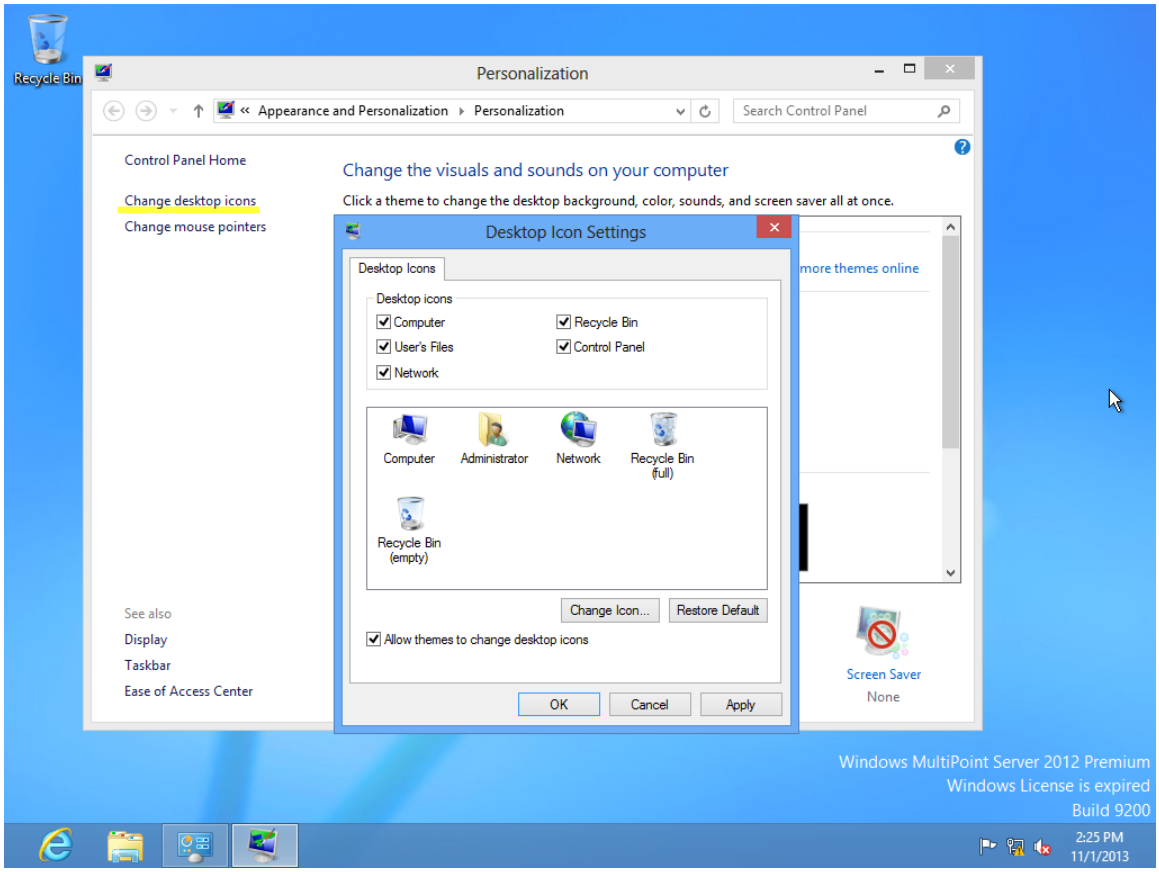
Configure the IP Address of Host Computer and the DHCP Address Pool for XtendLan Network Zero Clients

Windows MultiPoint Server 2012 host computer and XtendLan network zero clients can only be used after being configured with the correct IP address. It's recommended to configure a static IP address for the host computer and deploy XtendLan zero clients in DHCP mode, yet you may configure static IP addresses for zero clients under certain circumstances.

- Create Windows desktop icon

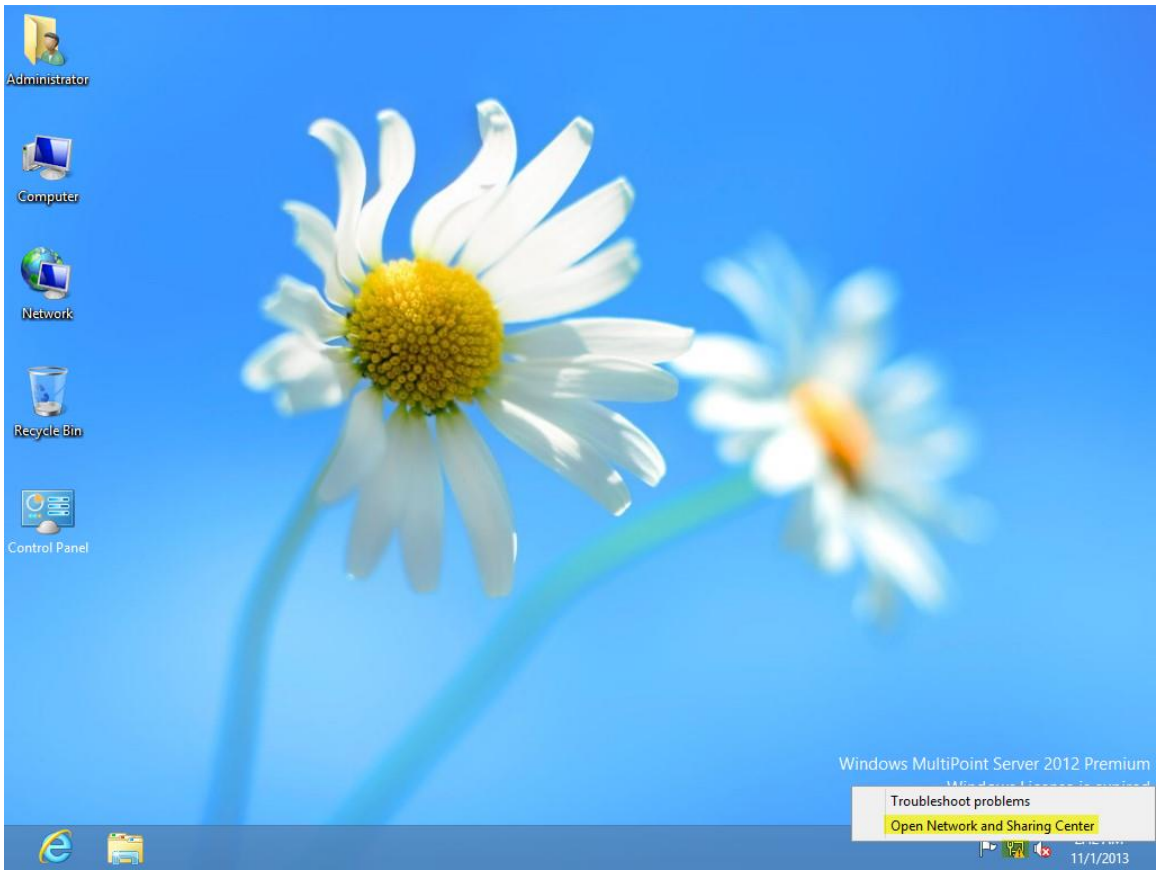
  Right-click on the desktop and select "Personalize" from the context menu. Click "Change desktop icon" to select the desired desktop icons.



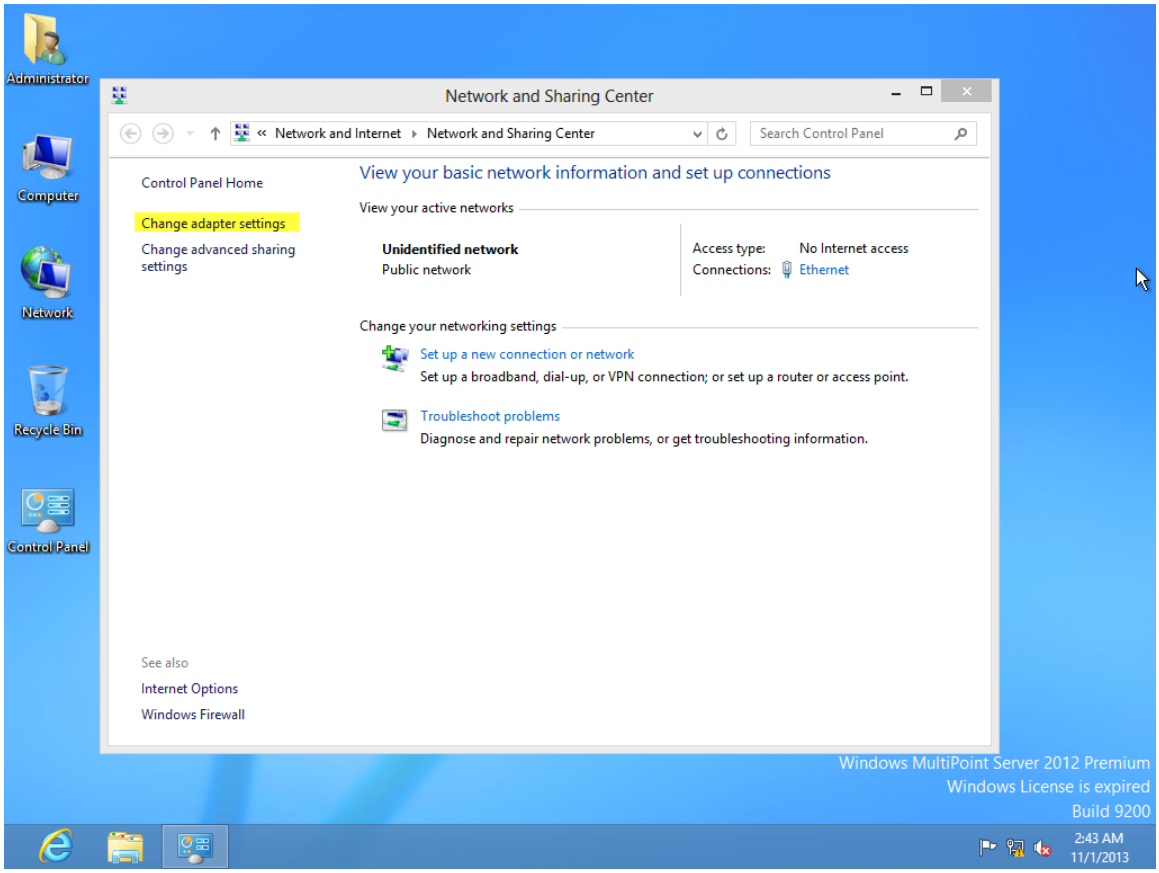

Recycle Bin
Personalization
Appearance and Personalization ▸ Personalization
Search Control Panel
Control Panel Home
Change desktop icons
Change mouse pointers
Change the visuals and sounds on your computer
Click a theme to change the desktop background, color, sounds, and screen saver all at once.
Desktop Icon Settings
Desktop Icons
Desktop icons
Computer
Recycle Bin
User's Files
Control Panel
Network
Computer
Administrator
Network
Recycle Bin (full)
Recycle Bin (empty)
Change Icon...
Restore Default
Allow themes to change desktop icons
OK
Cancel
Apply
more themes online
Screen Saver
None
See also
Display
Taskbar
Ease of Access Center
Windows MultiPoint Server 2012 Premium
Windows License is expired
Build 9200
2:25 PM
11/1/2013

- Configure a static IP address for Windows MultiPoint Server 2012 host computer

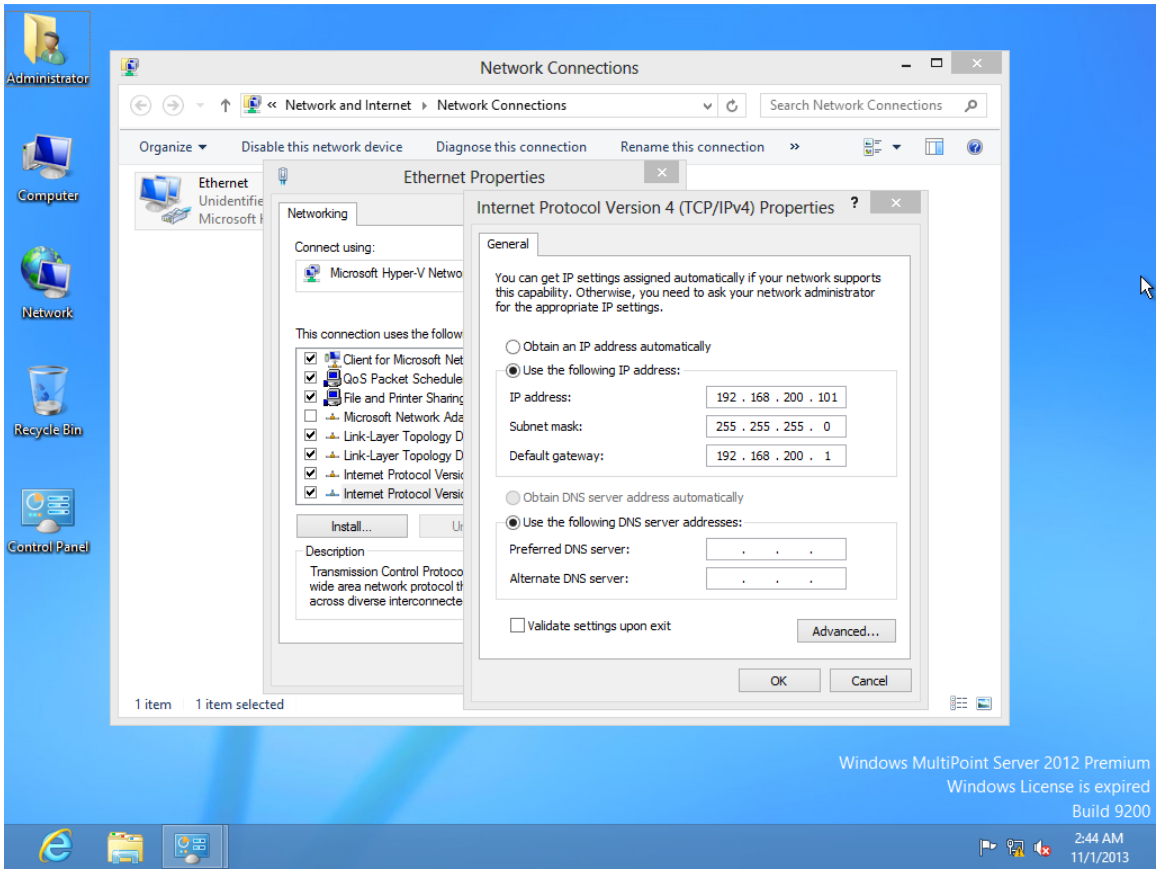
  Right-click the network icon in the system tray and select "Open Network and Sharing Center".



Click “Change adapter settings”.

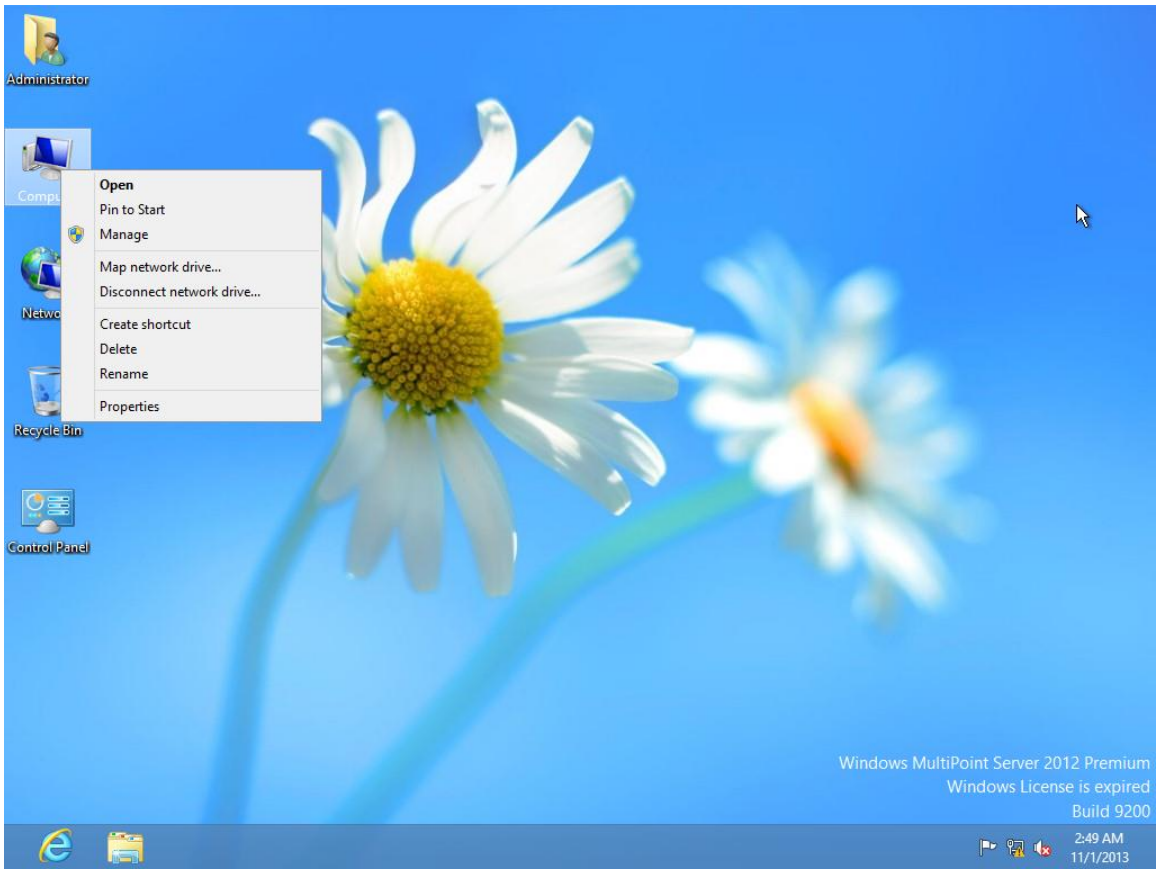


Configure a static IP address for Windows MultiPoint Server 2012 host computer.

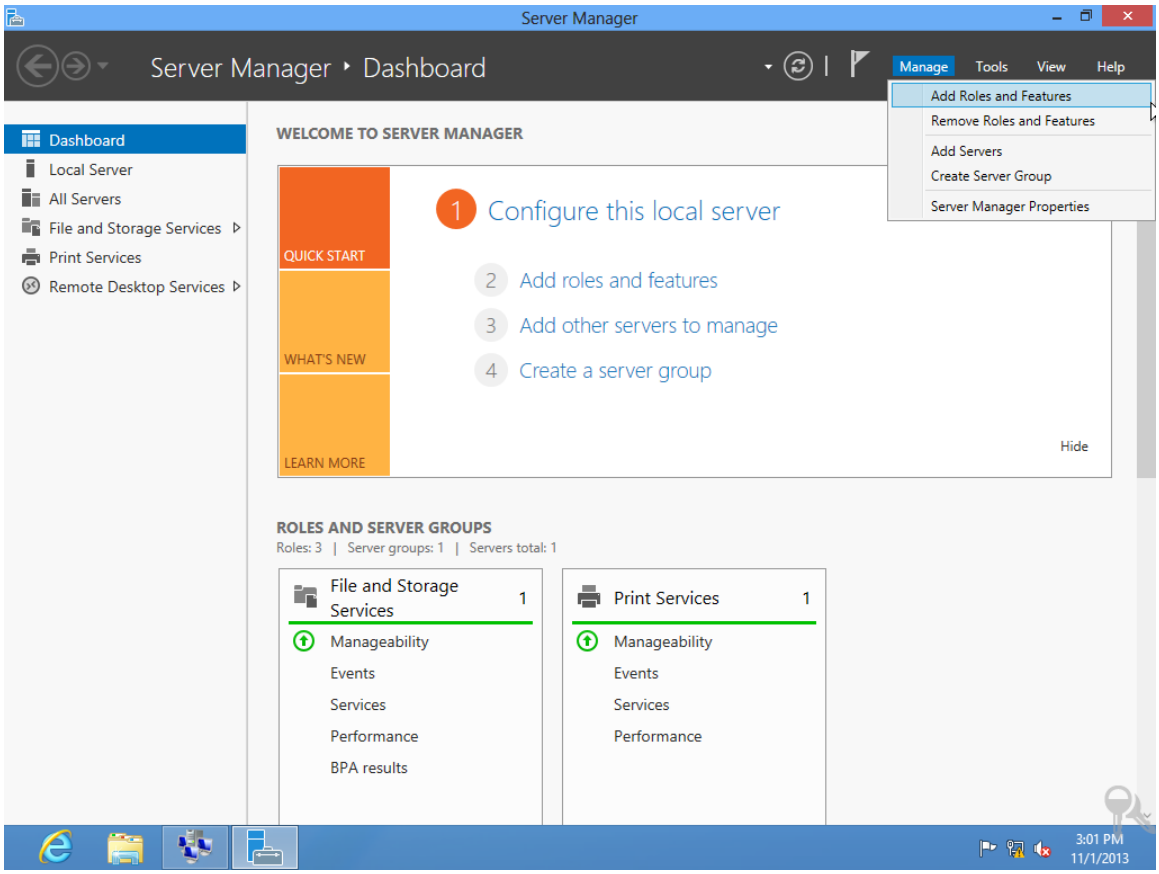


- Windows MultiPoint Server 2012 DHCP

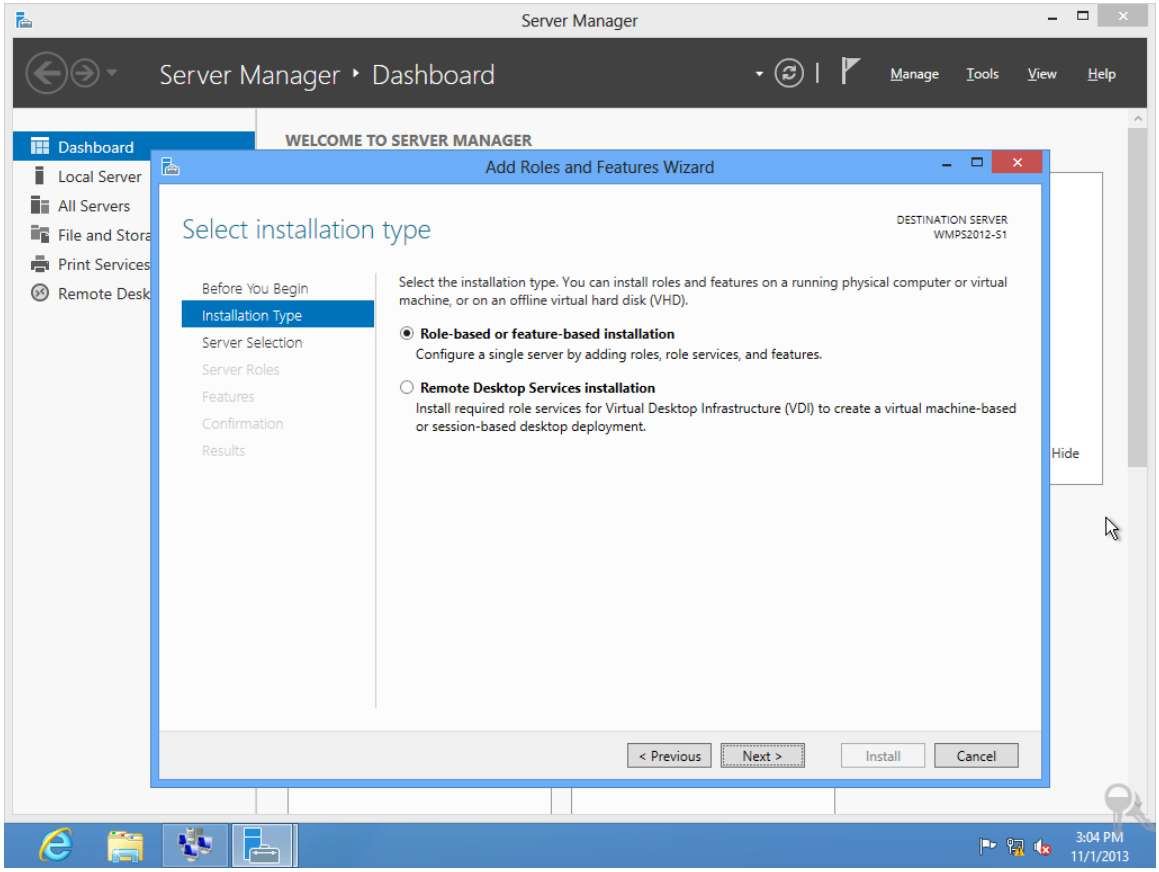
  Right-click the "Computer" icon on the desktop and then select "Manage" from the context menu.



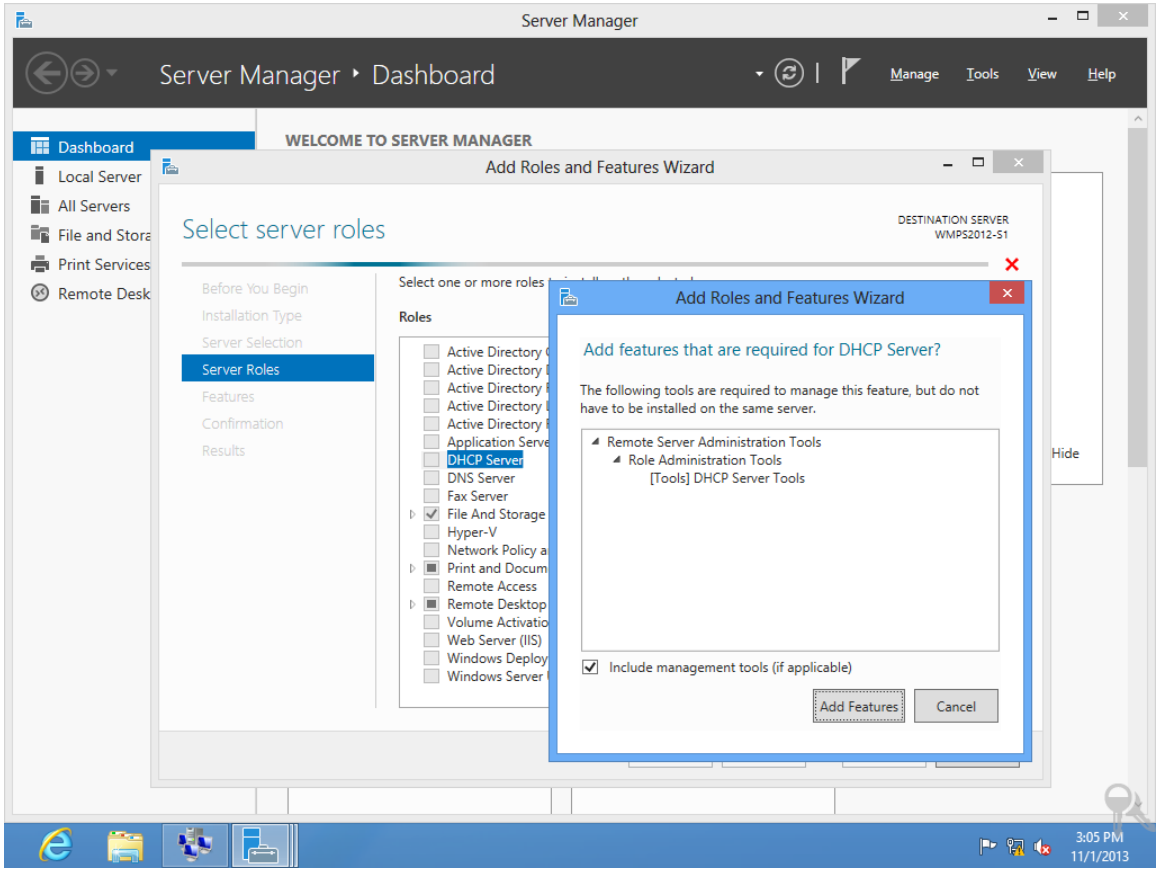
Click “Add Roles and Features”.



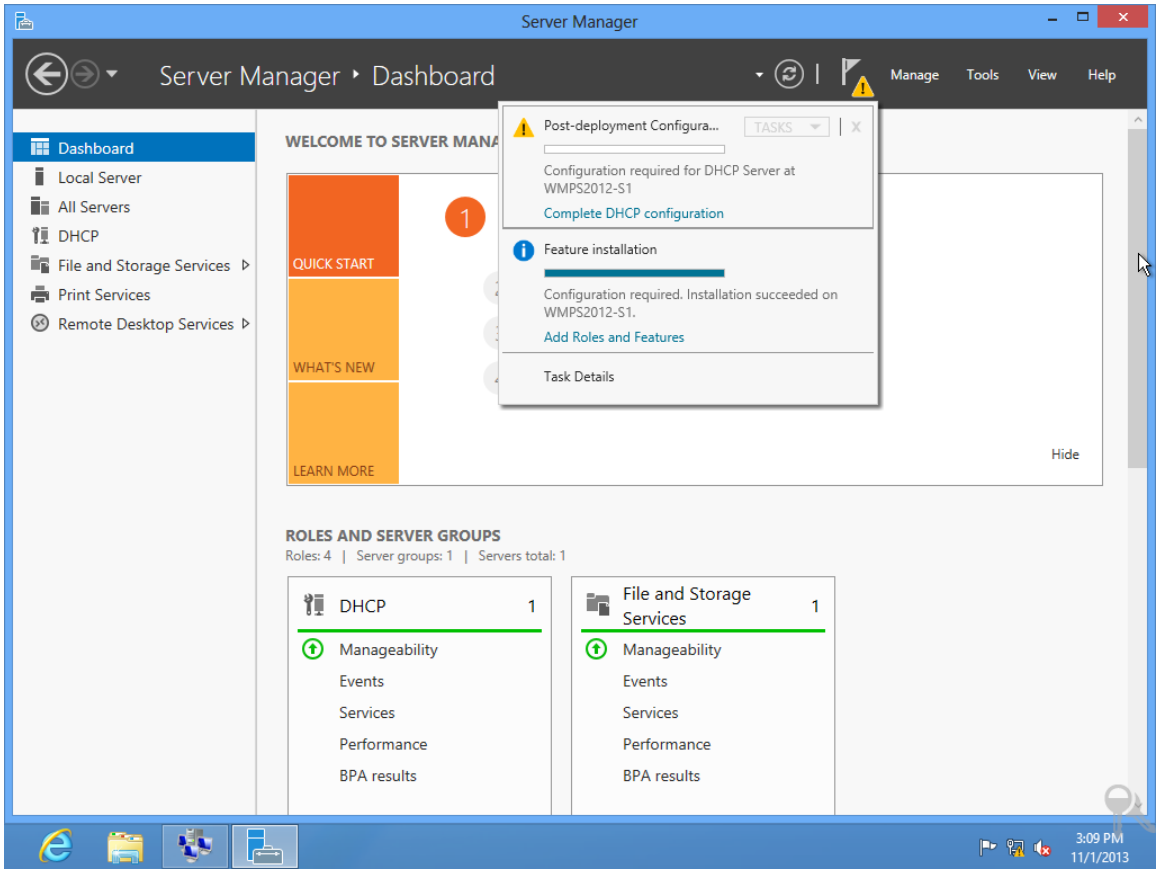
Follow the instructions.



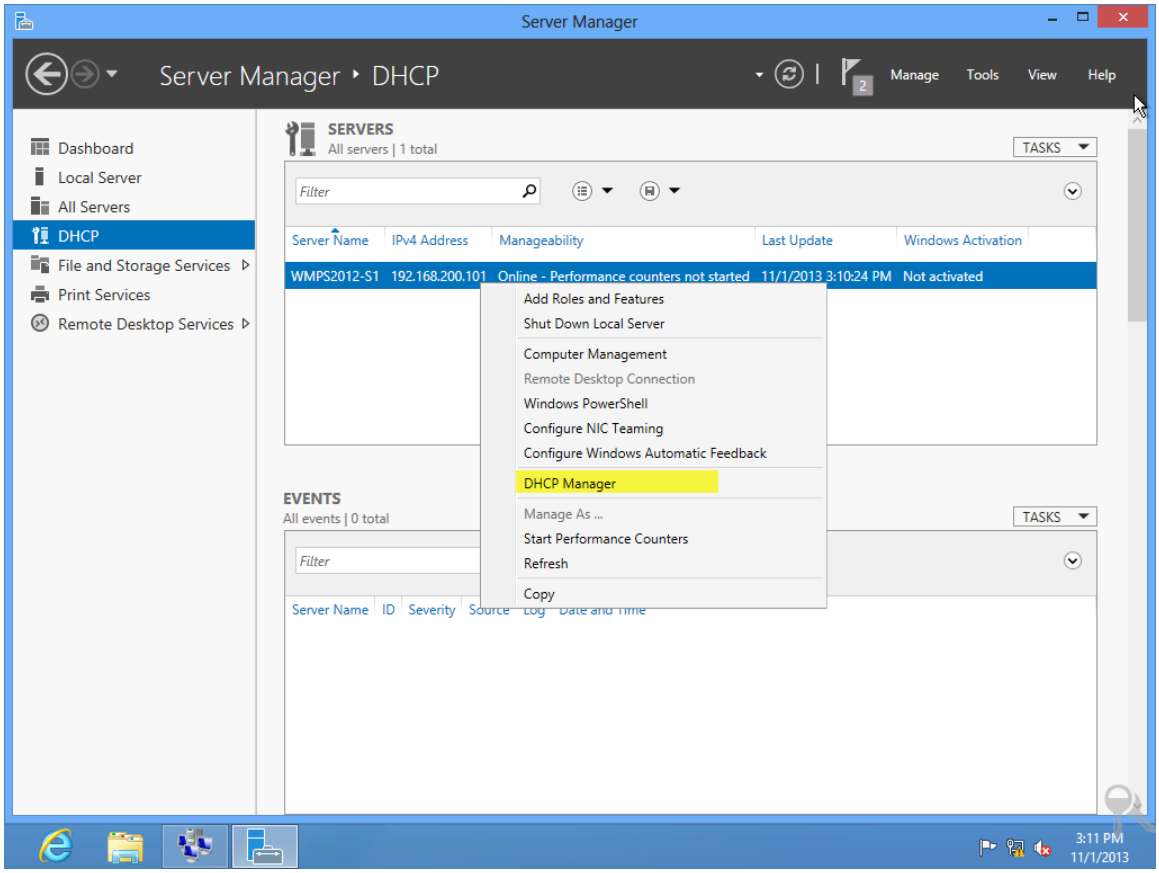
Select “DHCP Server”.

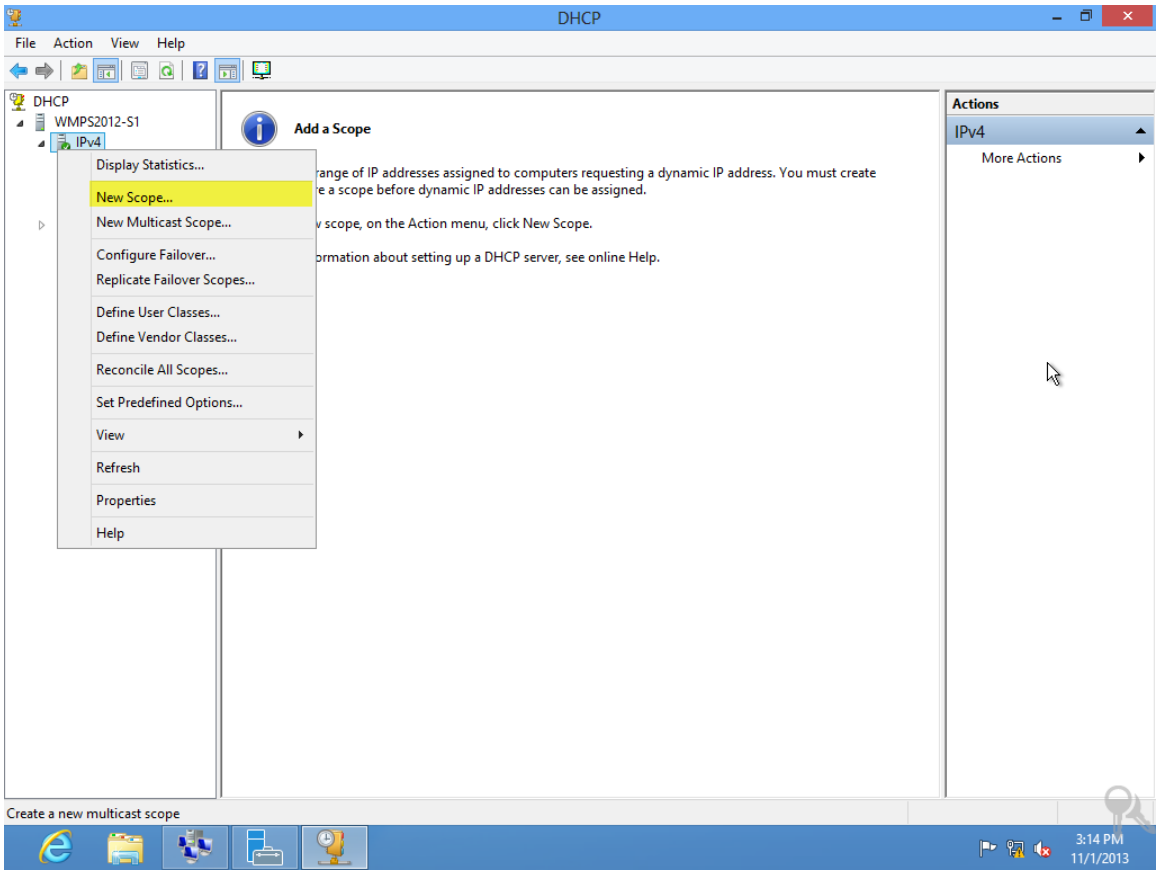


After installation, a yellow "!" icon will appear at the top-left corner. Click "Complete DHCP configuration".



Select "DHCP" and then click "DHCP Manager" from the context menu to proceed with specific DHCP configurations.

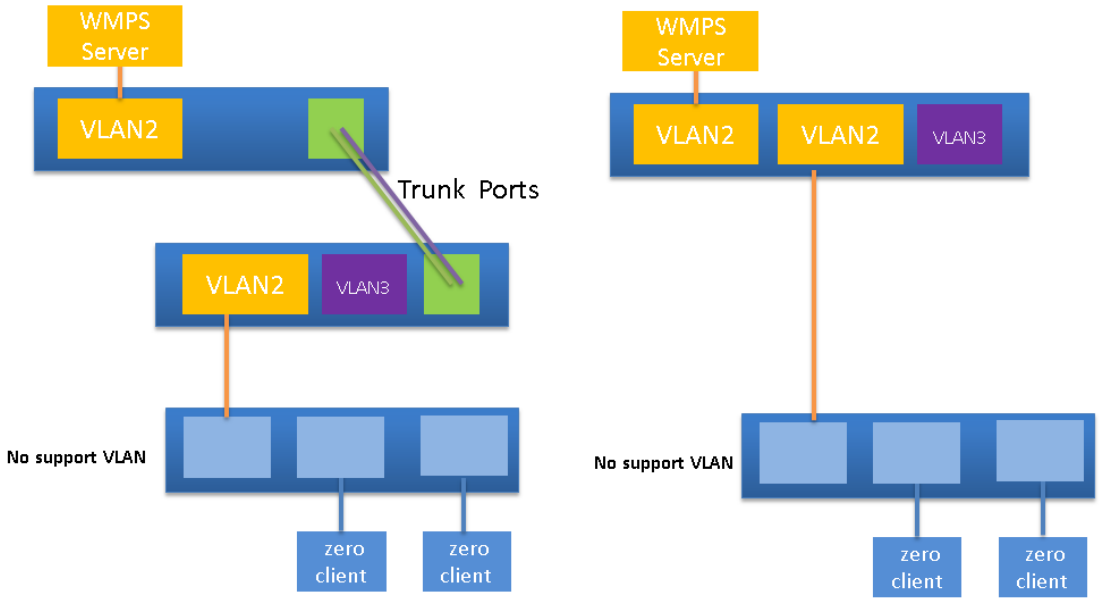




Important

The IP addresses of Windows MultiPoint Server 2012 host computer and XtendLan zero clients must belong to the same network segment (the same subnet may be on different switches).

- Multiple DHCP services on the same network segment may compromise the use of IP addresses. In such a case, you will need to configure VLANs on the switch to avoid the impacts caused by multiple DHCP services.
- XtendLan zero clients and Windows MultiPoint Server 2012 host computer must be on the same subnet (namely the same broadcast domain), and this very subnet is independently on one VLAN.
- If Windows MultiPoint Server 2012 host computer must be deployed in the data center and connected to a switch different from that used by XtendLan zero clients, you will need to configure a cross-switch VLAN to ensure that the host computer and XtendLan zero clients are on the same VLAN, and the trunks between switches must be set up.
- Configuring the same VLAN over multiple switches requires the support of switches. It's recommended to use switches supplied by the same manufacturer.


WMPS Server
VLAN2
Trunk Ports
VLAN2
VLAN3
No support VLAN
zero client
zero client
WMPS Server
VLAN2
VLAN2
VLAN3
No support VLAN
zero client
zero client

Introduction to the Management Functions of Windows MultiPoint Server 2012

The management programs of Windows MultiPoint Server 2012 do not have desktop shortcuts. To allow convenient use, you will need to create shortcuts for these programs.

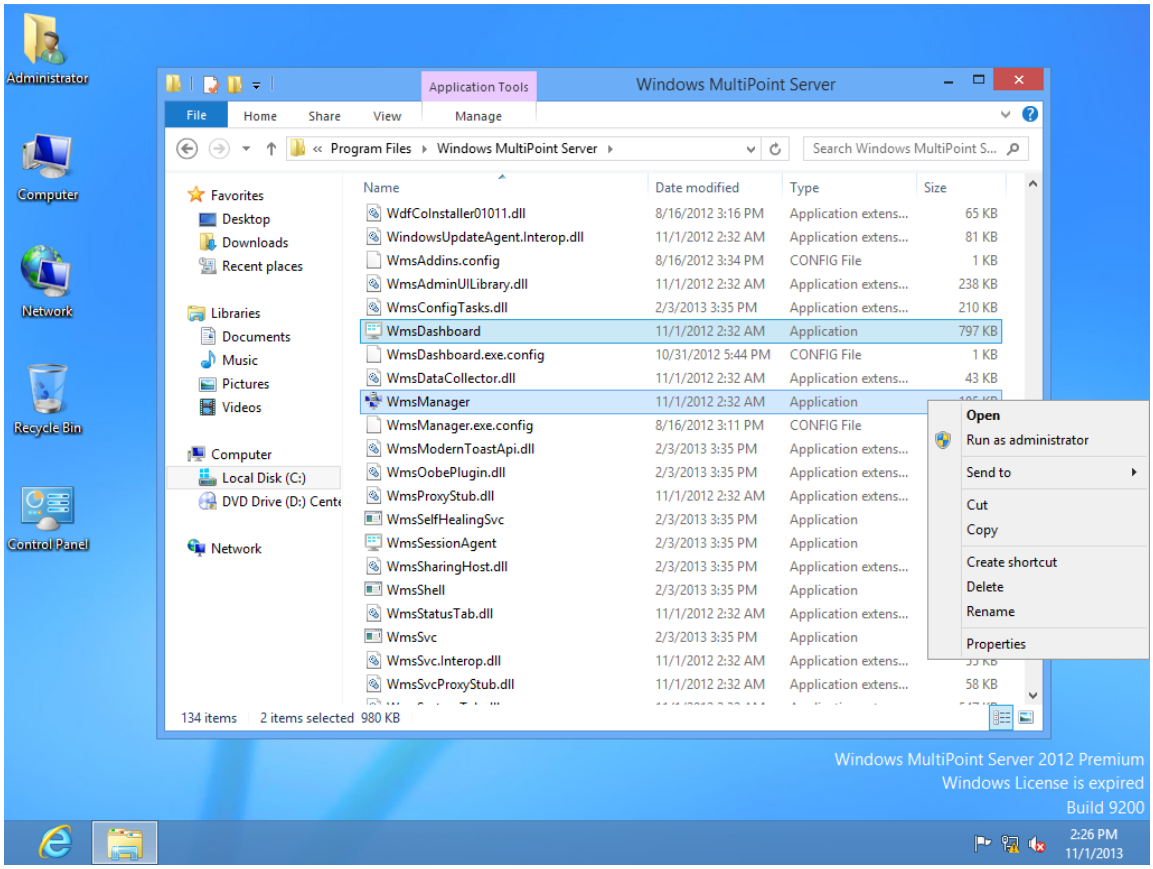
Windows MultiPoint Server 2012 has two management programs:

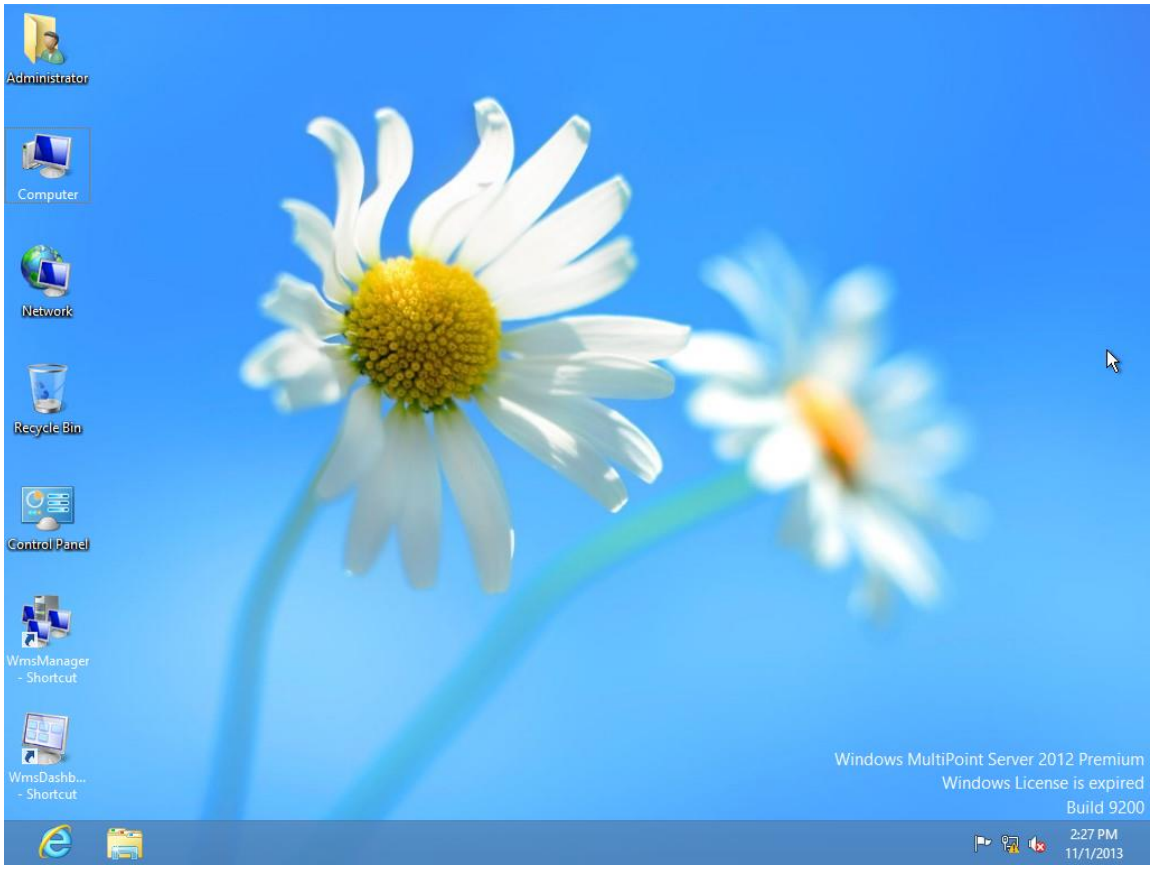
- WmsManager.exe
- WmsDashboard.exe

Both are located at “C:\Program Files\Windows MultiPoint Server\”.

WmsManager.exe allows the management of zero client application environment, while WmsDashboard.exe allows the management of specific zero client desktop.

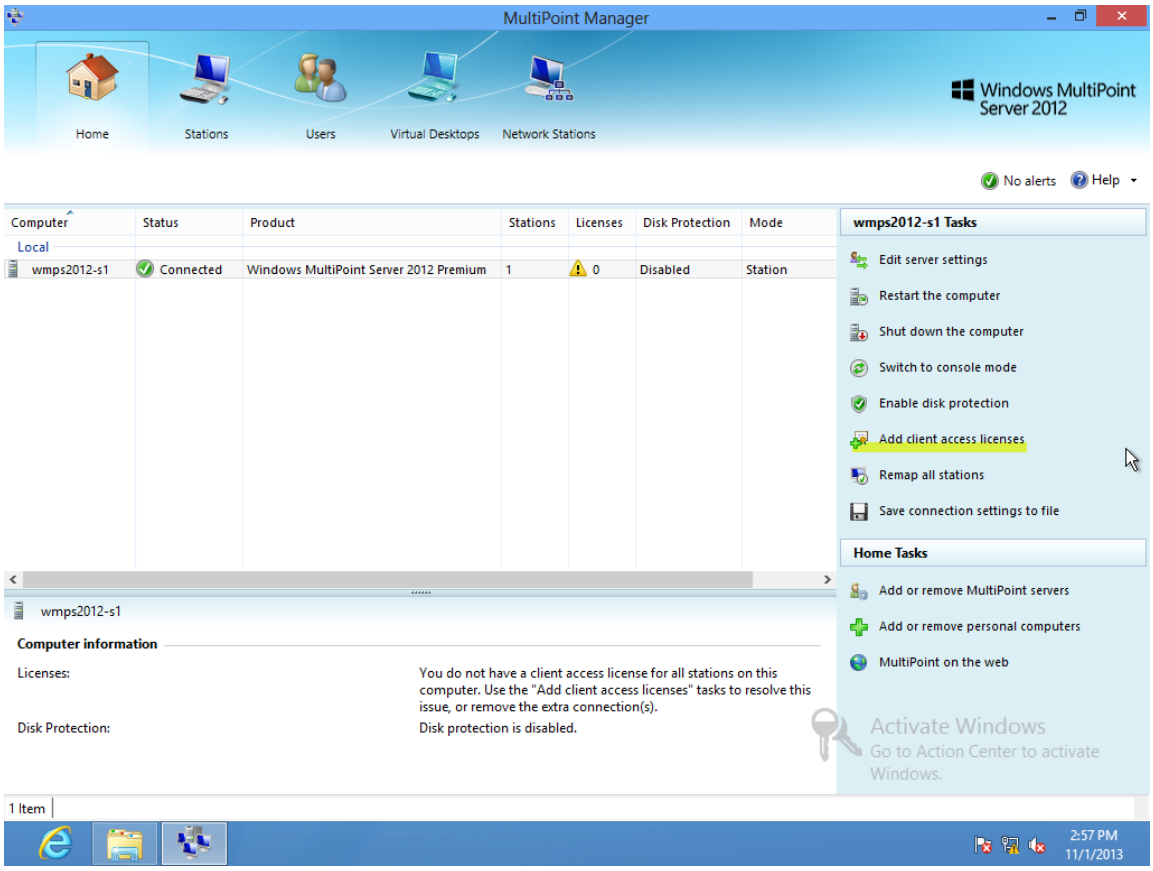
Select WmsDashboard.exe and WmsDashboard.exe, right-click and then select "Send to -> Desktop (create shortcut)" from the context menu. 。




Administrator
Computer
Network
Recycle Bin
Control Panel
WmsManager - Shortcut
WmsDashb... - Shortcut
Windows MultiPoint Server 2012 Premium
Windows License is expired
Build 9200
2:27 PM
11/1/2013

Use the Management Functions of MultiPoint Manager

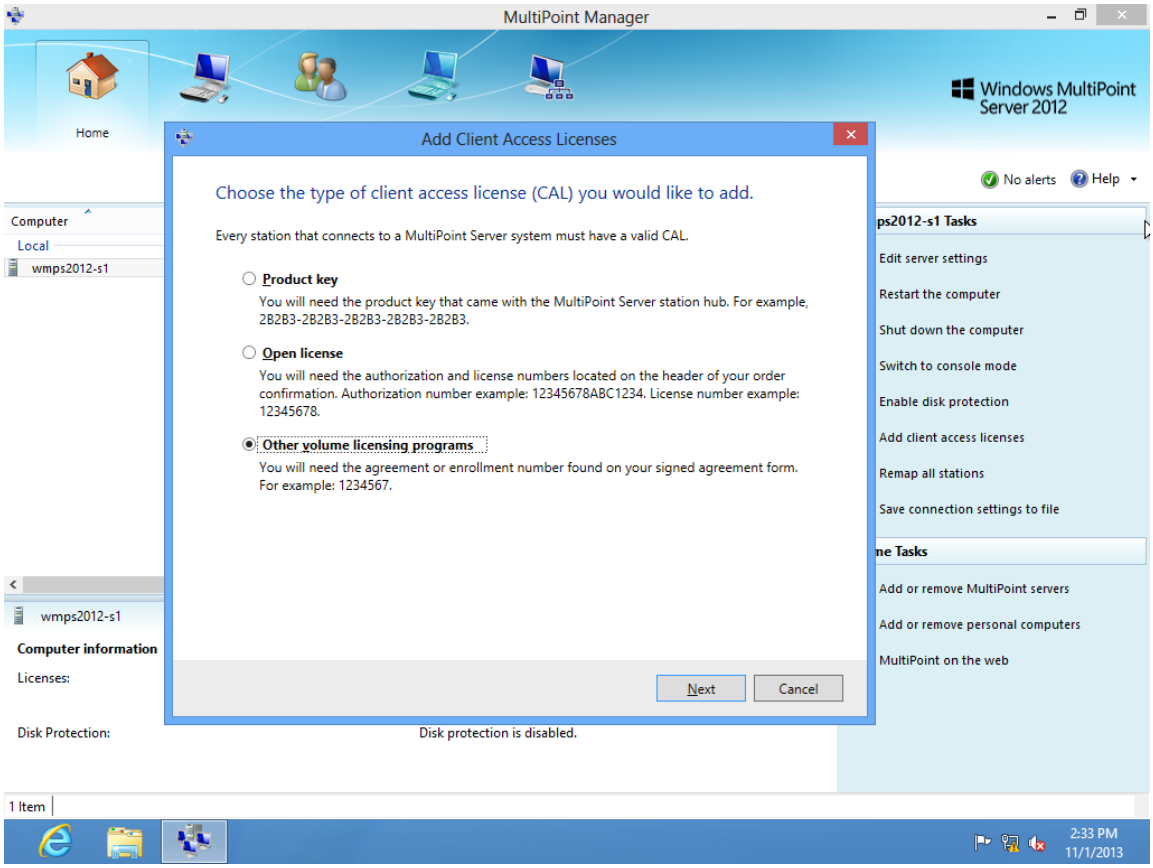
Double-click the shortcut of WmsManager to run MultiPoint Manager. "Home", "Stations", "Users" and "Virtual Desktops" are system embedded modules, while "Network Stations" is a functional module for managing XtendLan TC-M101 Zero Clients.



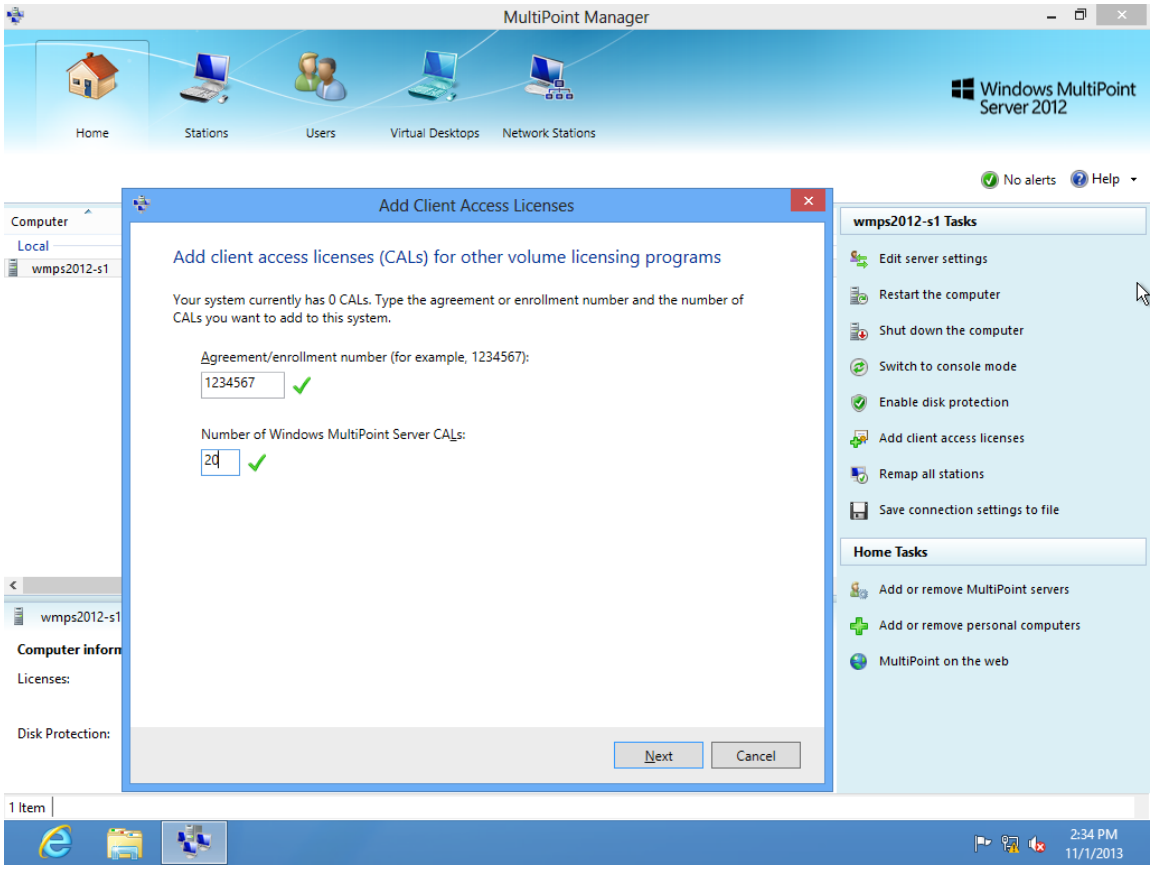
- Add zero client access licenses

  Firstly, select the server and then click "Add client access license" on the right side. According to your licensing mode, enter the correct license number to activate your zero client access license.

  In this document, we use the trial mode and thus choose "Other volume licensing programs".



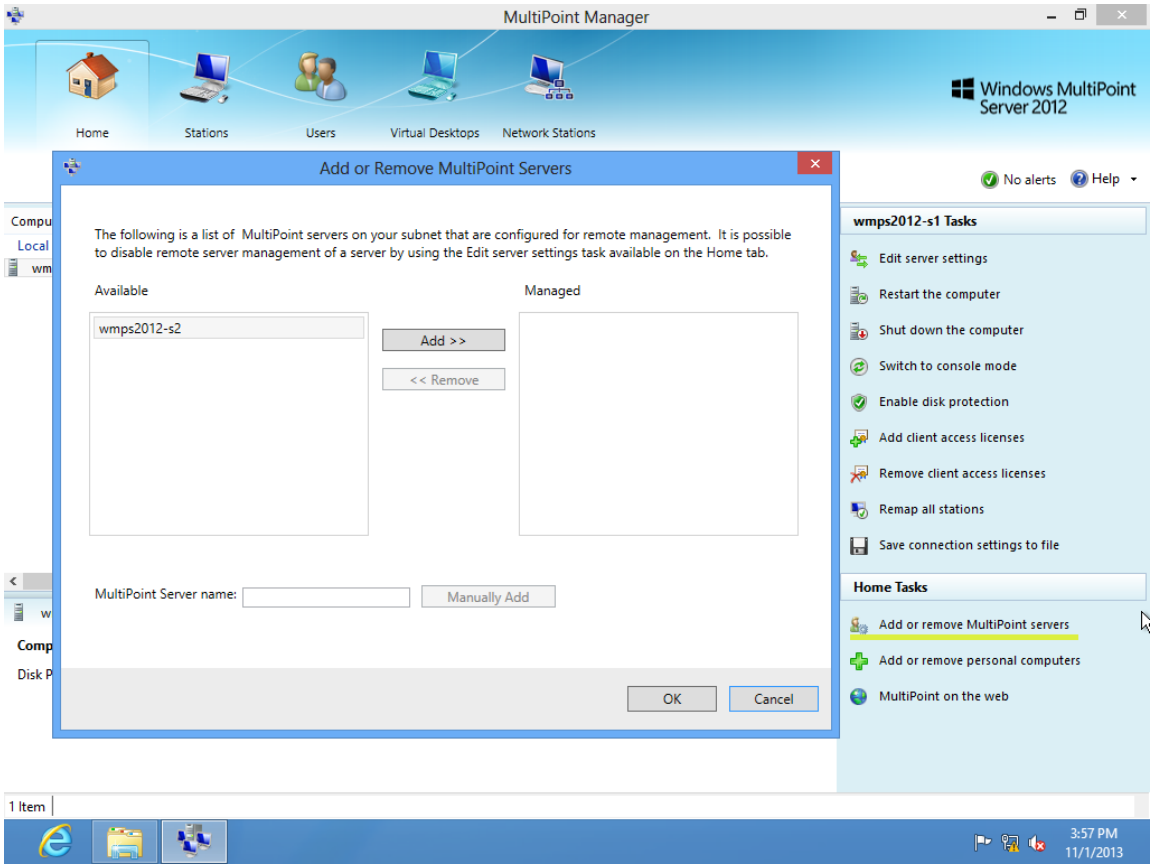
Enter "1234567" and "20" in sequence to get trial access license.

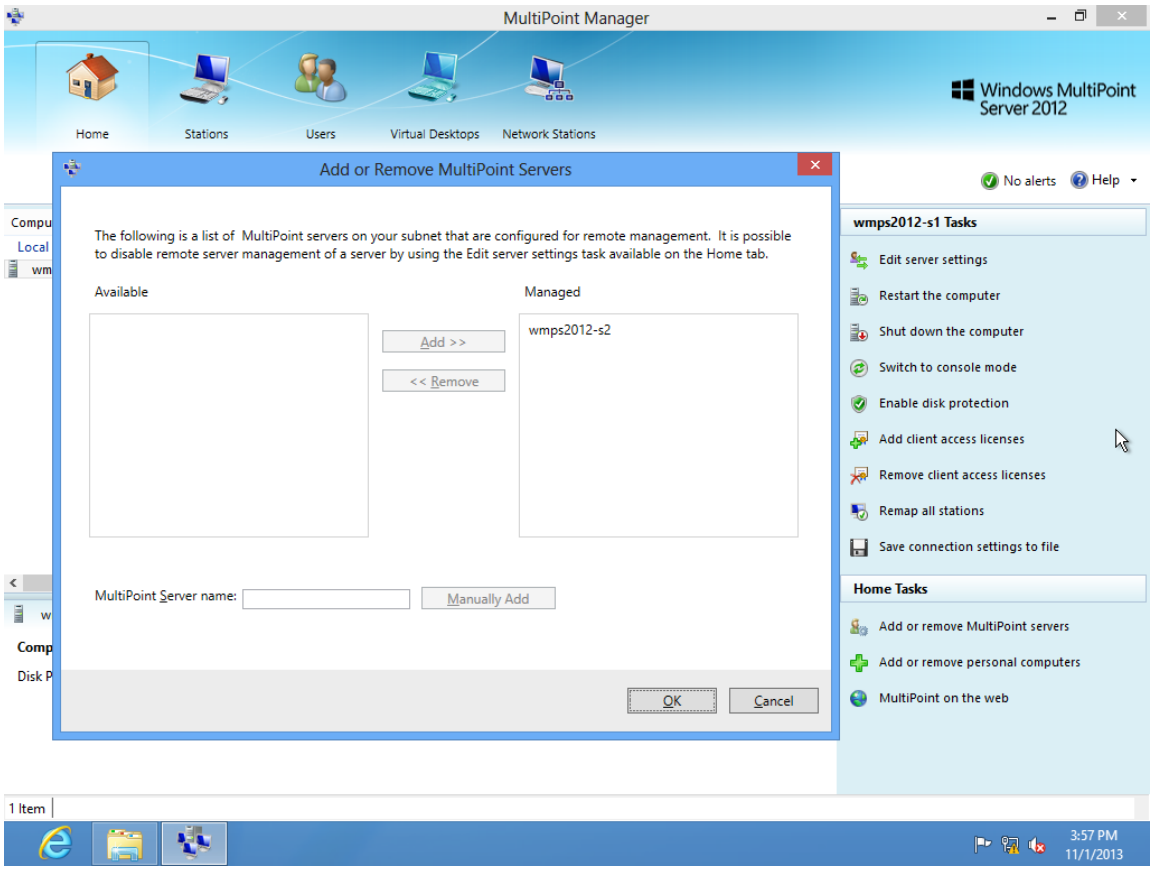


Important

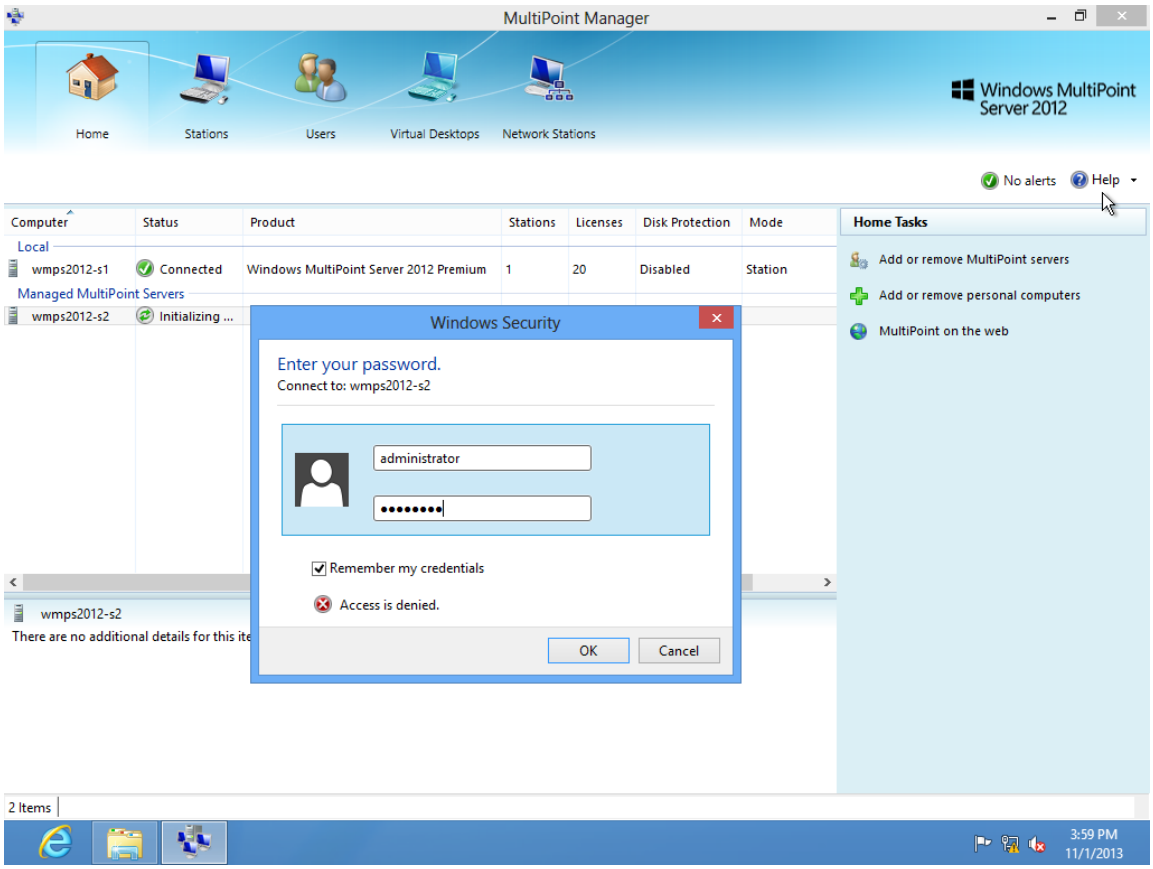
- Windows MultiPoint Server 2012 can support up to 24 zero client access licenses instead of 20.
- If you need to use Windows MultiPoint Server 2012 permanently, please purchase genuine product key for Windows MultiPoint Server 2012 and zero client access licenses from Microsoft or its distributors.
- Enable centralized management of multiple MultiPoint servers

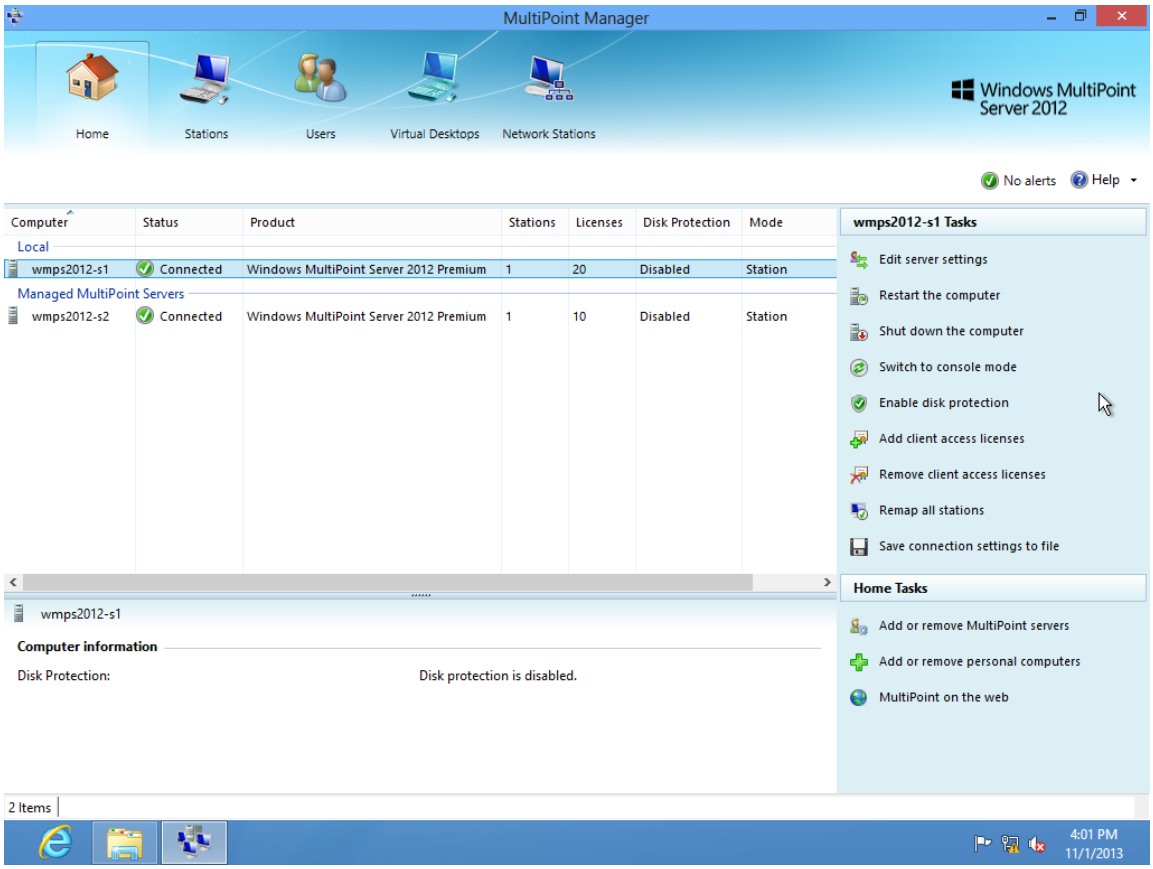
  In the Home functional module, click "Add or remove MultiPoint servers" to discover other MultiPoint Server 2012 host computers on the same subnet.




MultiPoint Manager
Home
Stations
Users
Virtual Desktops
Network Stations
Windows MultiPoint Server 2012
No alerts
Help
Add or Remove MultiPoint Servers
The following is a list of MultiPoint servers on your subnet that are configured for remote management. It is possible to disable remote server management of a server by using the Edit server settings task available on the Home tab.
Available
Managed
wmps2012-s2
Add >>
<< Remove
MultiPoint Server name:
Manually Add
OK
Cancel
wmps2012-s1 Tasks
Edit server settings
Restart the computer
Shut down the computer
Switch to console mode
Enable disk protection
Add client access licenses
Remove client access licenses
Remap all stations
Save connection settings to file
Home Tasks
Add or remove MultiPoint servers
Add or remove personal computers
MultiPoint on the web
1 Item
3:57 PM
11/1/2013

Enter the administrator password of second MultiPoint server.



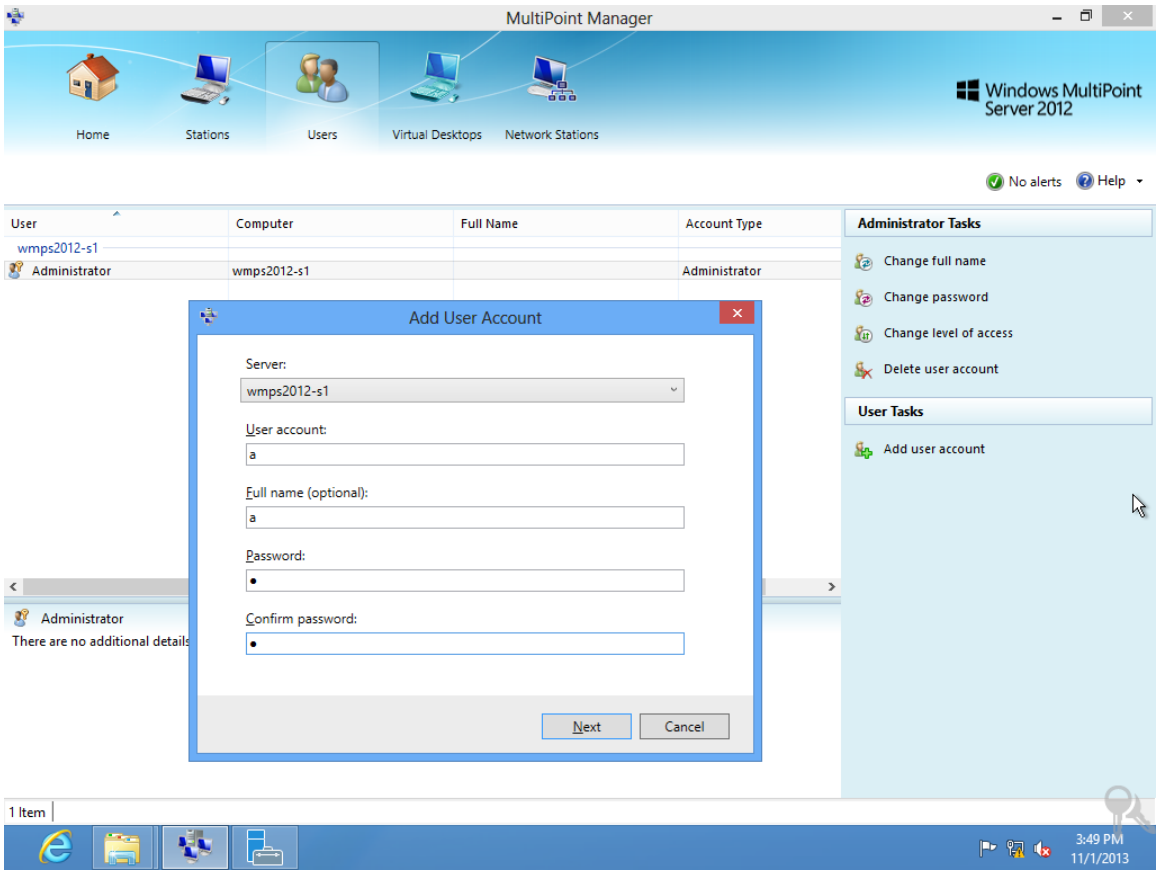

MultiPoint Manager
Home
Stations
Users
Virtual Desktops
Network Stations
Windows MultiPoint Server 2012
No alerts
Help
Computer
Status
Product
Stations
Licenses
Disk Protection
Mode
Local
wmps2012-s1
Connected
Windows MultiPoint Server 2012 Premium
1
20
Disabled
Station
Managed MultiPoint Servers
wmps2012-s2
Connected
Windows MultiPoint Server 2012 Premium
1
10
Disabled
Station
wmps2012-s1 Tasks
Edit server settings
Restart the computer
Shut down the computer
Switch to console mode
Enable disk protection
Add client access licenses
Remove client access licenses
Remap all stations
Save connection settings to file
Home Tasks
Add or remove MultiPoint servers
Add or remove personal computers
MultiPoint on the web
wmps2012-s1
Computer information
Disk Protection:
Disk protection is disabled.
2 Items
4:01 PM
11/1/2013

Important

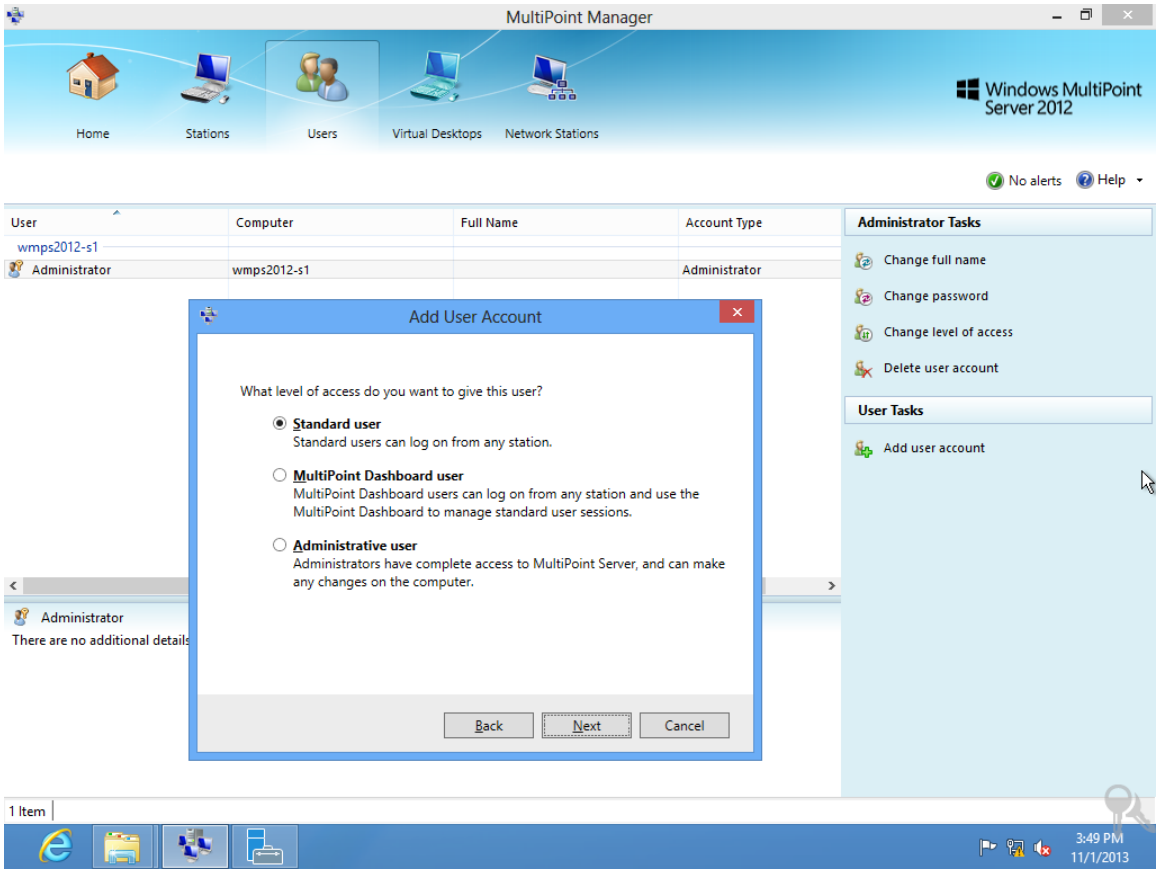
- To allow centralized management, each host computer must be installed with the same version of XtendLan Zero Client TC-M101 Manager software (namely the program version of Network Stations functional module).
- If MultiPoint servers have all joined the domain, and you have logged on the first server with domain administrator account, then you can directly add other MultiPoint servers without the need for entering the administrator account and password.
- Windows MultiPoint Server 2012 (all versions) doesn't support domain role. If you need a domain environment, you will need to have one additional host computer running standard Windows Server 2012 or other Windows Servers to provide the domain role.

- Create user account for accessing zero client desktop

  Select the Users module and click "Add user account" on the right side. Select to create a user on the host computer of "wmps2012-s1". Enter the user account and password.

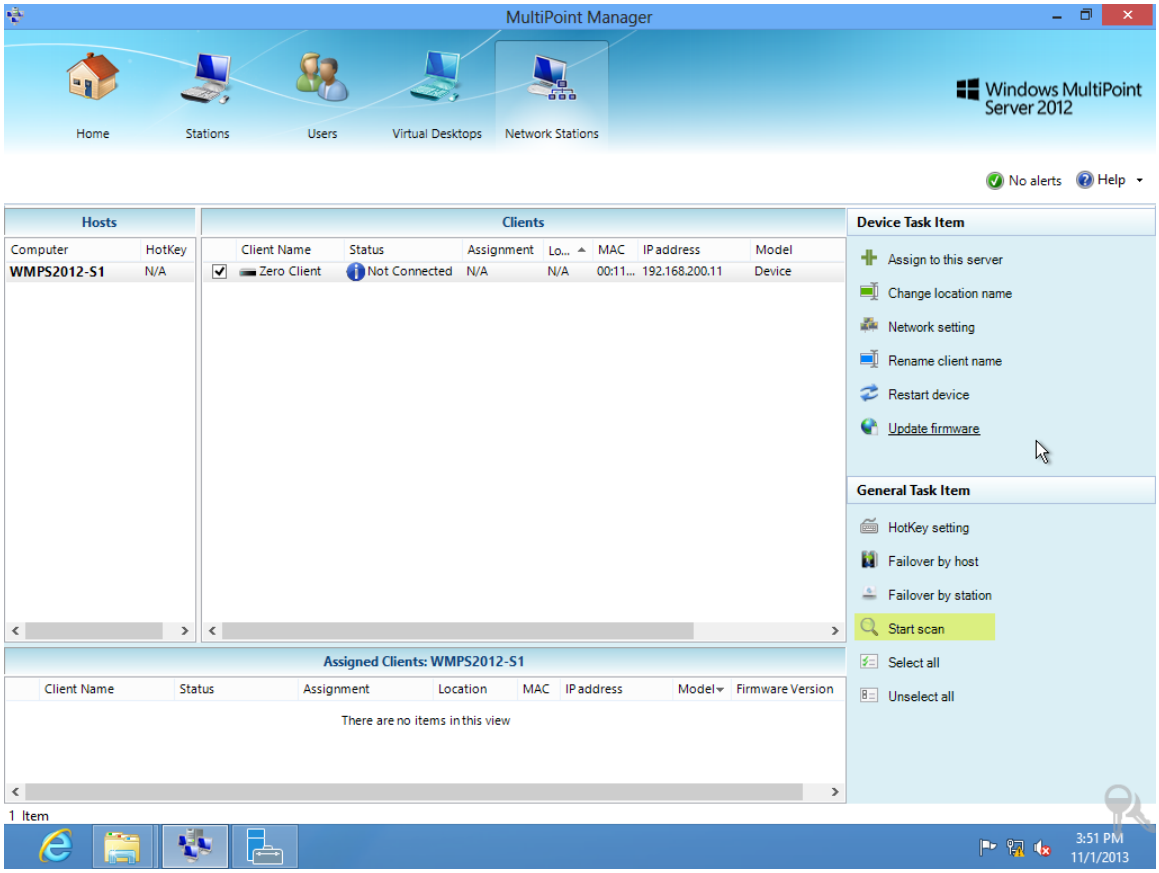


There are three types of users: Standard user, MultiPoint Dashboard user and Administrative user. MultiPoint Dashboard user has the permission to run WmsDashboard.exe.



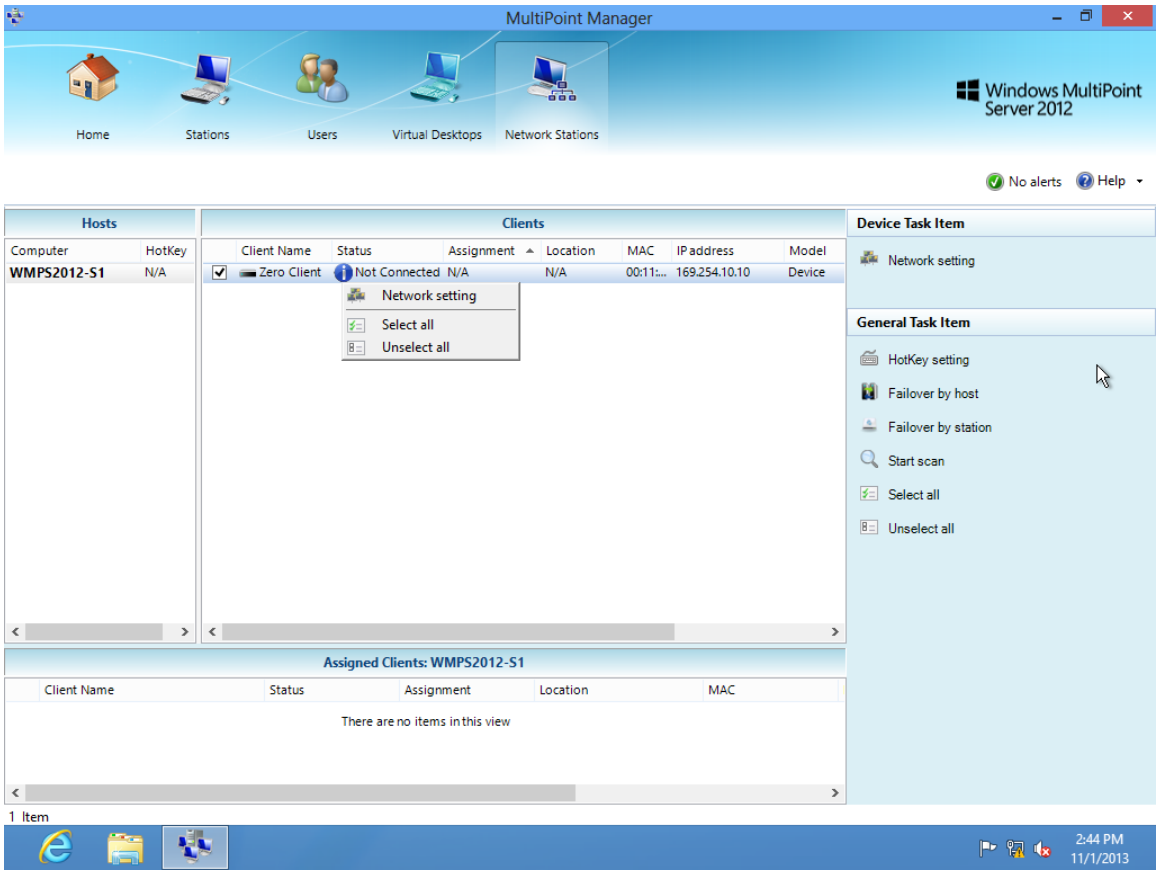
- Discover network zero client and confirm whether or not its IP address is properly configured.

Turn on XtendLan Zero Client TC-M101 and connect to the network. Click the Network Stations module in MultiPoint Manager and then click "Star scan" to search for zero clients on the network.



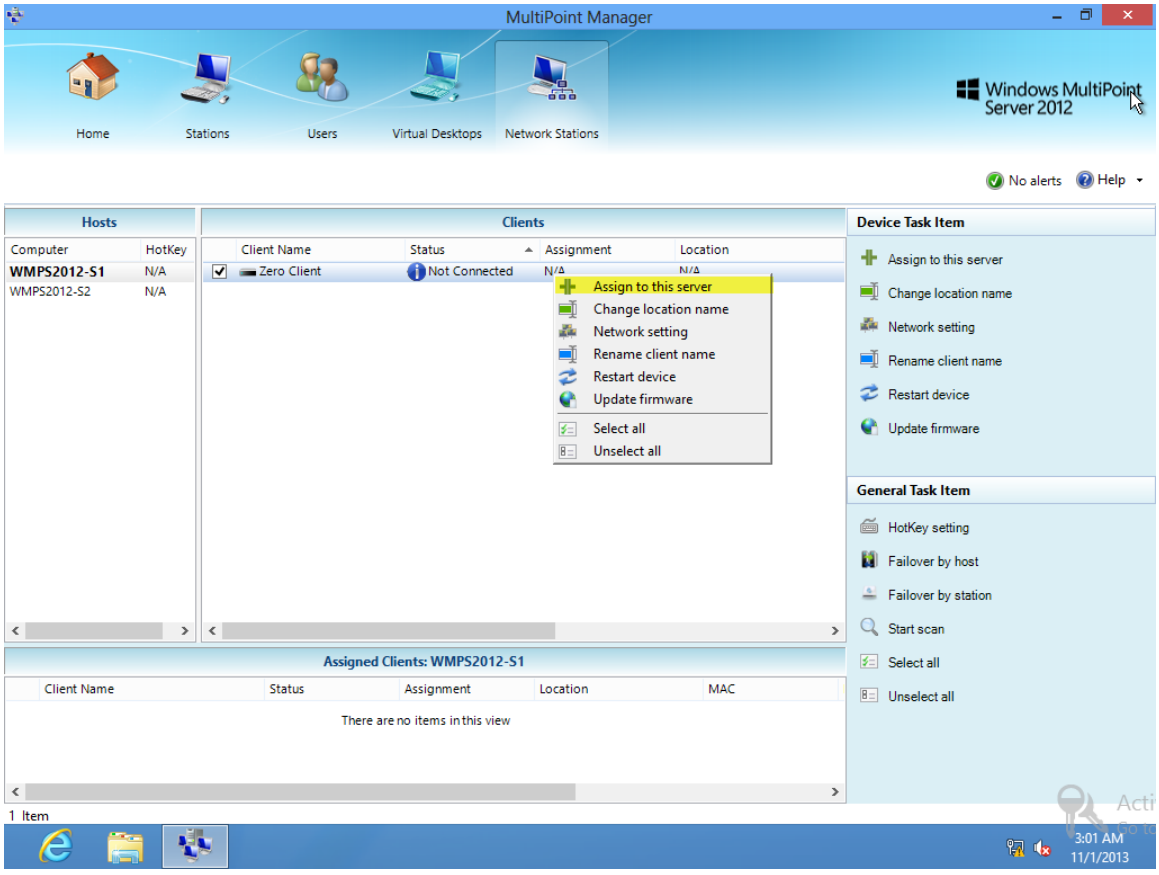
If there is no DHCP server on the network, the zero client will use the temporary subnet of "169" after waiting for 90 seconds. In such a case, you will need to check the DHCP server or manually configure a correct static IP address for the zero client.

Select the zero client list and select "Network setting" from the context menu to configure the static IP address for the zero client.

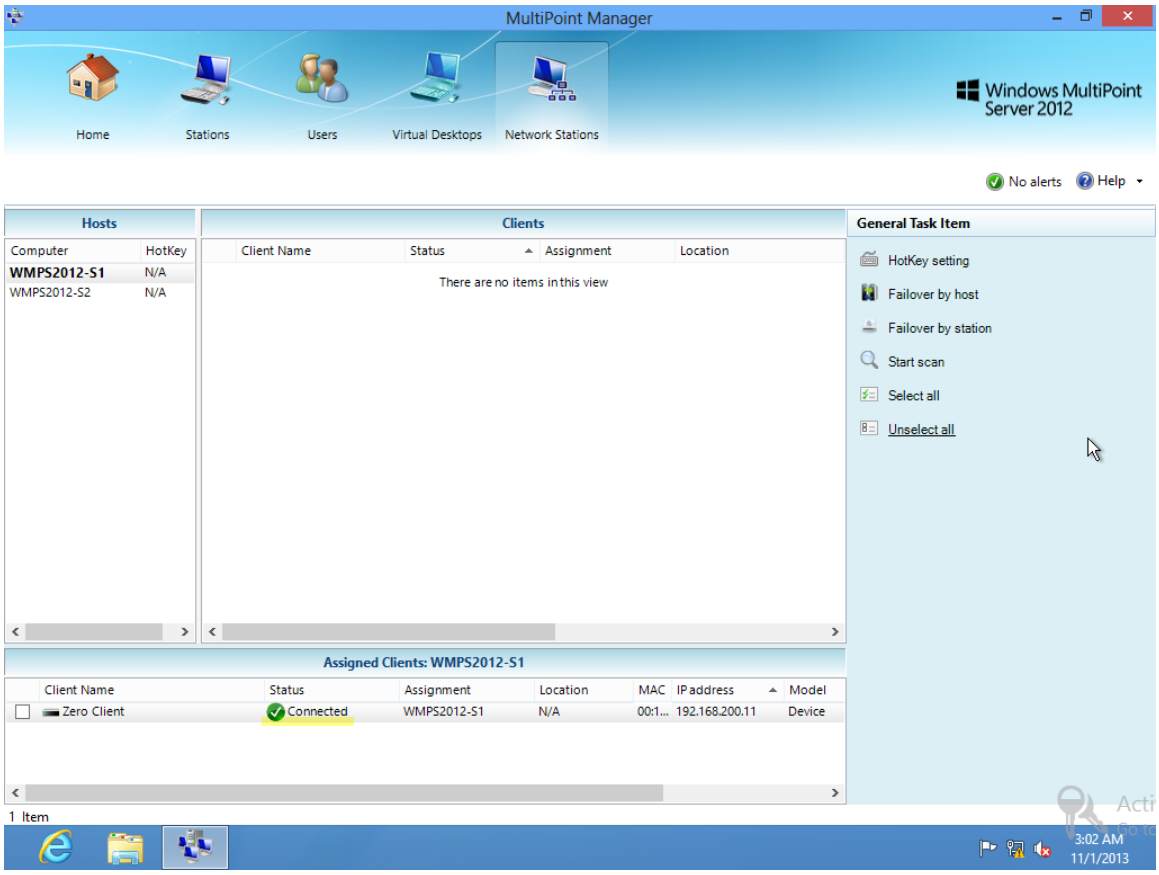


- Assign the network zero client to the MultiPoint server, make sure the WIN desktop of zero client shows the list of selected network zero client, and then click "Assign to this Server".

  If there are multiple Windows MultiPoint Server 2012 host computers under centralized management, you will need to select the host computer in the "Host" pane and then click "Assign to this Server".



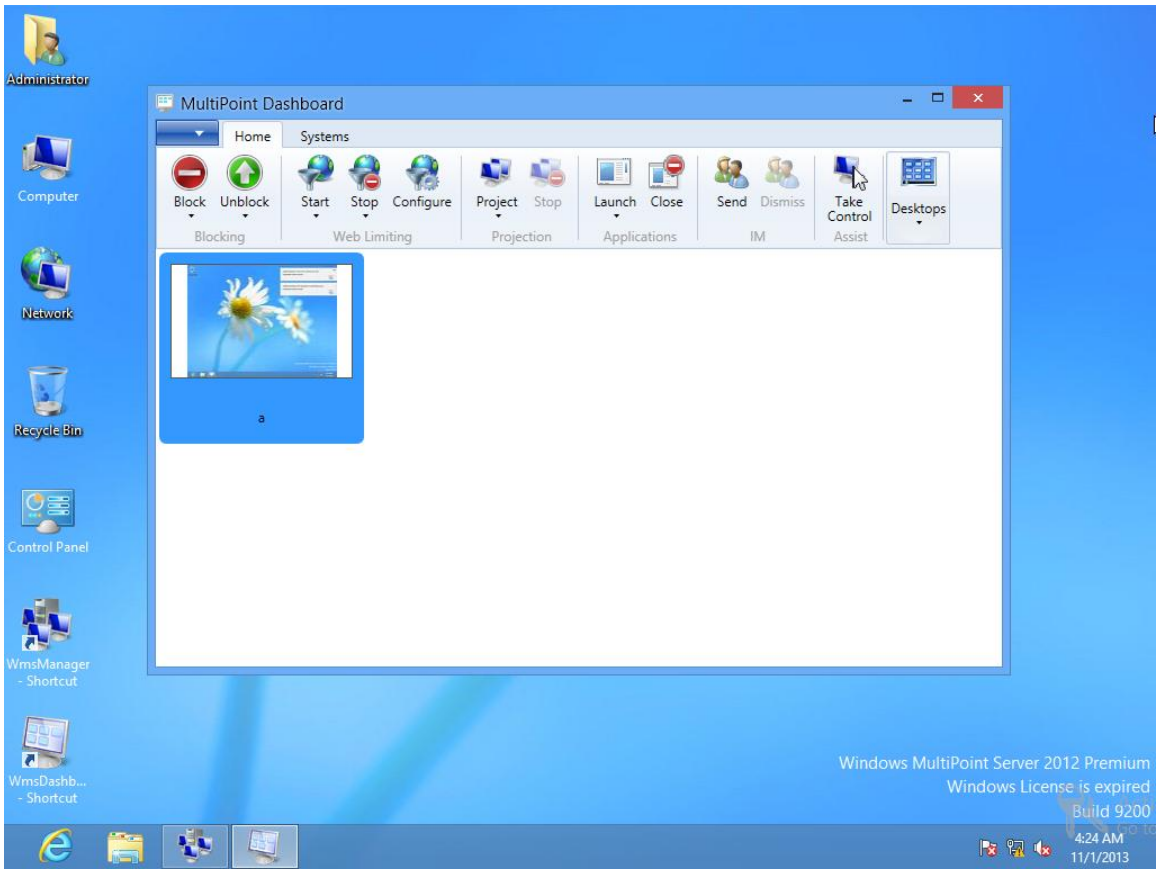
Wait until the "Status" indicates "Connected" and Windows logon interface will appear on the desktop of this zero client.



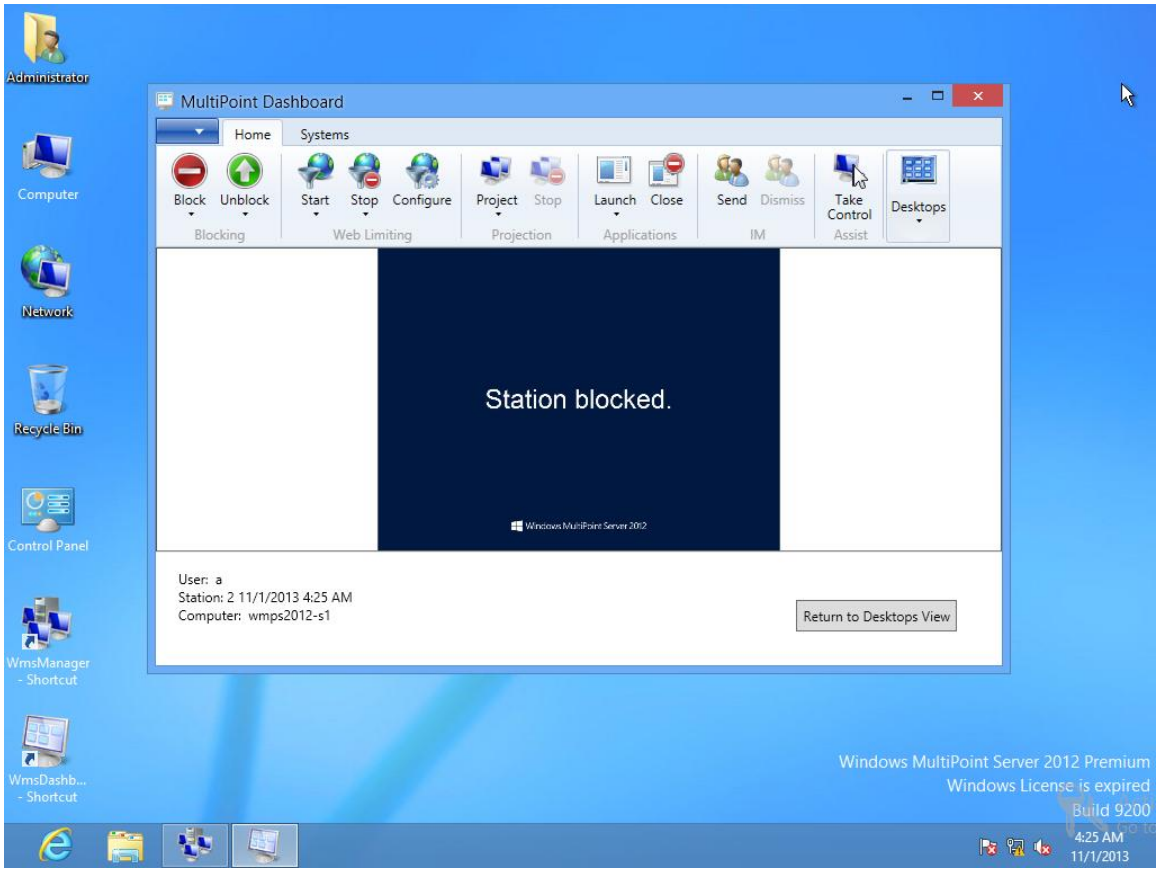
Use the Management Functions of MultiPoint Dashboard

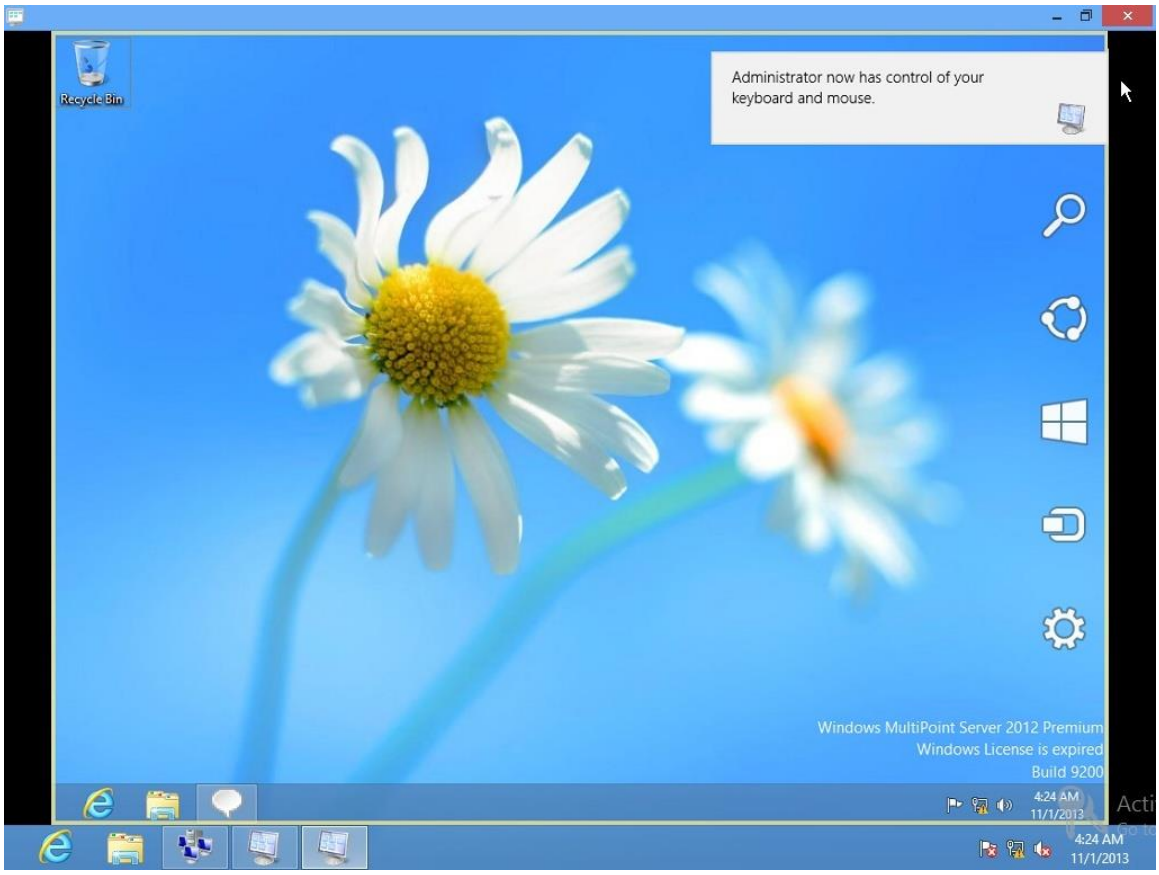
WmsDashboard is used to manage the desktop of zero clients, and can be applied in e-classroom management.

Double-click the shortcut of WmsDashboard program to discover zero client desktops being used.



You may use MultiPoint Dashboard to carry out comprehensive management of the desktop environment of zero client. The following example shows how to block or take control of the desktop environment of a zero client.




Recycle Bin
Administrator now has control of your keyboard and mouse.
Windows MultiPoint Server 2012 Premium
Windows License is expired
Build 9200
4:24 AM
11/1/2013
4:24 AM
11/1/2013