

XtendLan TC-M101 Zero Client Desktop Solution Administrator Manual

This document introduces how to use XtendLan TC-M101 Zero Client and the specific functions of 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>

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Using MultiPoint Manager

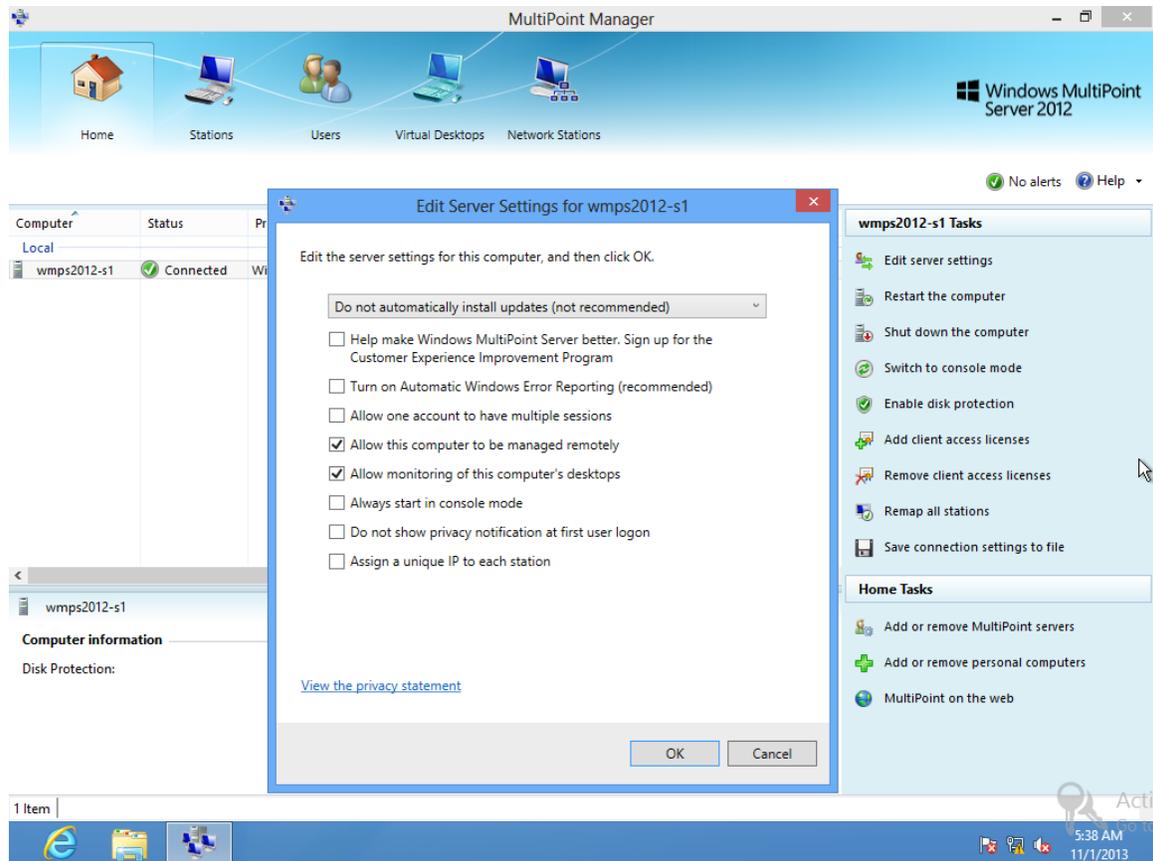
Allowing centralized management, MultiPoint Manager is a management tool for IT administrators, and running MultiPoint Manager requires administrator permissions.

It's recommended to create a desktop shortcut to "C:\Program Files\Windows MultiPoint Server\WmsManager.exe" in order to facilitate your future use.

Run WmsManager and you will find the following modules of MultiPoint Manager: "Home", "Stations", "Users", "Virtual Desktops" and "Network Stations".

Home		
Functional Module	Function	Description
Function 1	Edit server settings	Combination of a group of functions
Function 2	Restart the computer	
Function 3	Shut down the computer	
Function 4	Switch to console mode	
Function 5	Enable disk protection	Important function
Function 6	Add client access licenses	Important function
Function 7	Remove client access licenses	Important function
Function 8	Remap all stations	
Function 9	Save connection settings to file	
Function 10	Add or remove MultiPoint servers	Important function
Function 11	Add or remove personal computers	
Function 12	MultiPoint on the web	

Functions in the "Home" Tab:



Function 1: Edit server settings

This function is a combination of a group of functions, including:

- Specify the mode for installing patches or updates
- Help make Windows MultiPoint Sever better (H). Sign up for Customer Experience Improvement Program.
- Allow one account to have multiple sessions (M)
- Allow this computer to be managed remotely (R)
- Allow monitoring of this computer's desktops (D)
- Always start in console mode (S)
- Do not show privacy notification at first user logon
- Assign a unique IP to each station (U)

 **Important**

The scenario in which each station is assigned with a unique IP address: By default, each of all stations uses one network adapter for external communication. When certain third-party C/S or B/S based applications are used and the server-side program doesn't permit multiple same IP addresses, this feature must be enabled.

To enable this feature, Windows Multipoint Server 2012 host computer can only use one network adapter and needs to enable DHCP service.

After enabling this feature, for the network applications initiated by different stations, the server-side program will consider such applications as initiated from different IP addresses from multiple different devices.

Function 2: Restart the computer

You may restart the local host computer with this feature, or remotely restart other managed host computers. In order to remotely restart other managed host computers, you will first need to use Function 10 to add multiple MultiPoint servers to one MultiPoint Manager for centralized management.

Function 3: Shut down the computer

You may shut down the local host computer with this feature, or remotely shut down other managed host computers. In order to remotely shut down other managed host computers, you will first need to use Function 10 to add multiple MultiPoint servers to one MultiPoint Manager for centralized management.

Function 4: Switch to console mode

On the physical host computer, there are two ways for the administrator to log on Windows MultiPoint Server 2012: console mode and station mode.

Console mode is a kind of host maintenance mode. In the console mode, no zero client will be able to communicate with the host computer.

Function 5: Enable disk protection

This feature allows restoring the system to the status point when disk protection was enabled after you restart the host computer, thus protecting the host computer from viruses and malicious programs and saving your time on the resulting maintenance.

Enabling disk protection will need to restart the computer and add a virtual disk named "DpReserved".



Important

- Before enabling this feature, make sure the C: drive still has 50% free space + 10G free space on any other drive.

Function 6: Add client access licenses

To access the host computer, each zero client desktop needs one client access license (CAL). Each server can support up to 20 clients. You can select from three different kinds of client access licenses: product key, open license and other volume licensing programs.

If you select "Open license" or "Other volume licensing programs", you can also seamlessly expand the licenses. For example, if you add 10 CALs for the first time and now you need to expand to 15 CALs, you may add new CALs directly and Windows MultiPoint Server 2012 will automatically accumulate the effective CALs for you.

After the total number of CALs reaches the upper limit of 24, the system won't allow you to add more licenses.



Important

CALs are permanent licenses.

You can only add 20 ACLs to the system at a time instead of 24 ACLs. This is because Microsoft sells such licenses in quintuplets.

Function 7: Remove client access licenses

Unless your existing CALs have expired or become unusable, before removing CALs, make sure you still have the paper/electronic license label of such CALs or you have the system backup containing such CALs.



Important

Please use this feature with caution, or else you may encounter the loss of software assets.

Function 8: Remap all stations

This function is not important.

This function is useful for other types of client connection modes used by Windows MultiPoint Server 2012. For example, in the scenario of USB-zero-client-connected stations or multiple direct-video-connected stations, it's easily to encounter the wrong mapping of mice and keyboards. In such a case, you will need to remap all stations and operate the mouse and keyboard once at each station to recognize the correct mouse and keyboards.

XtendLan TC-M101 Zero Client is a self-adaptive network zero client supporting the self-adaptation of USB keyboard and USB mouse. There is no need to remap all stations.

Function 9: Save connection settings to file

You can save settings to three kinds of connection files:

- Create a MultiPoint Manager connection file (M)
- Create a MultiPoint Dashboard connection file (D)
- Create a remote station connection file (S)

After creating the connection files, you can save these files to another PC or laptop computer and then directly run these files on such PC or laptop computer to access varied remote applications. This mode allows the user to log on Windows MultiPoint Server 2012 through the Remote Desktop Protocol (RDP) and perform management task and applications.

"Create a MultiPoint Manager connection file (M)" and "Create a MultiPoint Dashboard connection file (D)" are the applications of Microsoft RemoteApp technology.

"Create a remote station connection file (S)" is the application of Microsoft standard remote desktop technology.

Important

It shall be noted that:

- RemoteApp technology displays applications running on a remote desktop, while standard remote desktop technology displays the entire remote desktop.
- The teacher may access remote applications with local PC or laptop computer, but one CAL will still be needed.
- RemoteApp technology requires RDP7.0 or above versions.
- A local PC or laptop computer running Win7 operating system can support RemoteApp directly; a local PC or laptop computer running Windows XP SP3 will need to install RDP7.0 client update patch in order to support RemoteApp.

Download URL: <http://support.microsoft.com/kb/969084>

If this link fails, please search for patch KB969084 and download manually.

Function 10: Add or remove MultiPoint servers

You can add physical or virtual MultiPoint servers on the same subnet to the MultiPoint Manager of one MultiPoint server for centralized management.



Important

- To allow centralized management of MultiPoint servers, make sure all servers are running the same version of MultiPoint Manager. If you need to install or upgrade the Network Stations, make sure other host computers are running the same version of MultiPoint Server (or having the same functions).
- It's recommended to have multiple administrators implementing the centralized management of MultiPoint servers at the same time, so as to avoid the conflicts in management.

Function 11: Add or remove personal computers

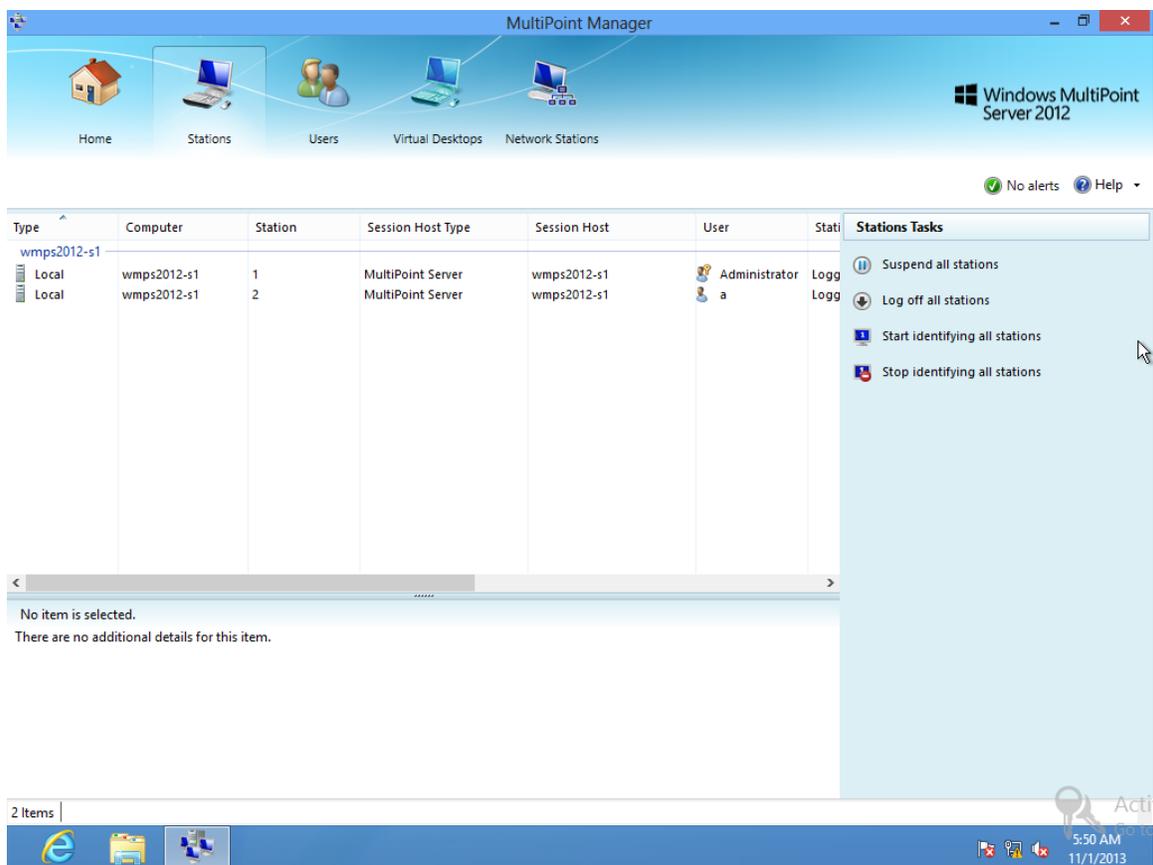
You can add physical or virtual computers running Win7 or Win8 Enterprise Edition on the same subnet to the MultiPoint Manager of one MultiPoint server for centralized management.

The Win7 or Win8 computer to be managed must have started WinRM (Windows Remote Management) service and the user must be the local/domain administrator of that desktop.

Function 12: MultiPoint on the web

If your network environment supports Internet access, click this feature will connect to the official website of Microsoft Windows MultiPoint Server.

Functions in the "Stations" Tab



To use the features of this module, you will need to utilize the "Network Stations" module to log the zero client into Windows MultiPoint Server 2012.

Stations		
Note: You need to utilize the "Network Stations" module to log the zero client into Windows MultiPoint Server 2012.		
Functional Module	Function	Description
Function 13	Identify station	Important function
Function 14	Suspend	The feature appearing after selecting the non-first station
Function 15	Log off	The feature appearing after selecting the non-first station

Function 16	Rename station	Important function
Function 17	Configure station	Important function
Function 19	Split station	
Function 19	Suspend all stations	
Function 20	Log off all stations	
Function 21	Start identifying all stations	
Function 22	Stop identifying all stations	

Function 13: Identify station

To better identify the zero clients connected, we can identify stations. After identifying the station, the desktop of zero client will indicate the station name and the host computer to which the station is connected.

Function 14: Suspend

Select one station to suspend this station. This operation won't jeopardize user's desktop and desktop data within 5 minutes. The user may restart XtendLan TC-M101 Zero Client and reconnect to the host computer.

Function 15: Log off

Select one station to log off this station. This operation will forcibly terminate the application programs being run by the user and jeopardize the data that haven't been saved.

Function 16: Rename station

To better manage the connected zero clients, you can rename those connected zero client stations, such as "Group 2, Class 3, Grade 3" or other names that are easy to identify and manage.



Important

- Renaming stations in the "Stations" module is a system-embedded feature. The corresponding name data are stored with the system. If you have changed the host computer, you will have to

rename the stations again.

Function 17: Configure station

In most cases, to quickly display the operation interface to the user, there is no need to enter username and password. You can utilize the feature of "Configure station" to configure the auto-logon of user account.

Important

- Renaming stations in the "Stations" module is a system-embedded feature. The corresponding name data are stored with the system. If you have changed the host computer, you will have to rename the stations again.

Function 18: Split station

This function is not important, and is special feature targeting direct-video-connected stations. It's not applicable to XtendLan TC-M101 zero clients.

Important

- In certain education-related scenarios, due to the reason of insufficient budgets, it's impossible to provide one monitor for each student. Through this feature, we can split a large-sized monitor into two Windows desktops to be used by two students.
- The size of your monitor shall be 21" at the least, or else the station cannot be split.

Function 19: Suspend all stations

This feature will suspend the user desktop of all stations, and then users can only proceed with the subsequent logoff operation.

Function 20: Log off all stations

This feature will log off the user desktop of all stations. It will forcibly terminate the application programs being run by the user and jeopardize the data that haven't been saved.

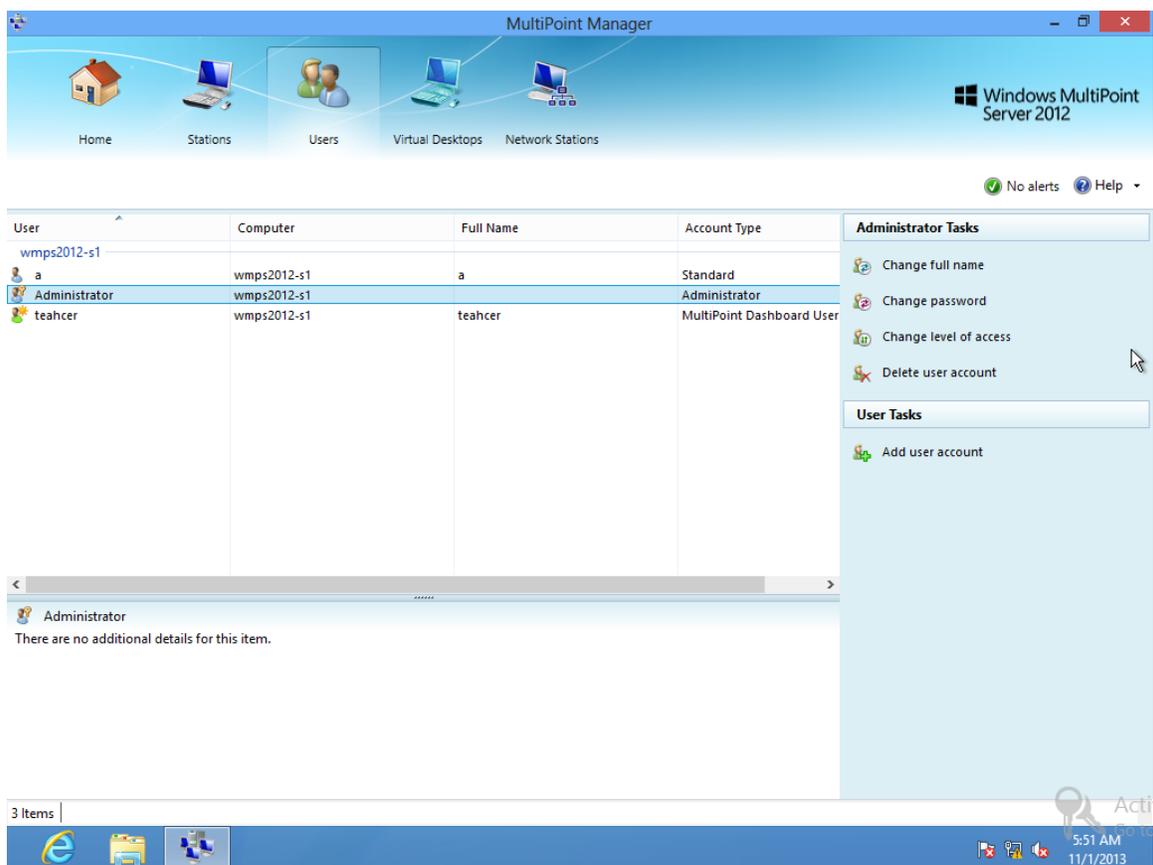
Function 21: Start identifying all stations

This feature will globally identify all stations connected to the host computer.

Function 22: Stop identifying all stations

After executing Function 21, you can use this feature to return to the normal Windows desktop.

Functions in the "Users" Tab



Users		
Functional Module	Function	Description

Function 23	Change full name	
Function 24	Change password	
Function 25	Change level of access	Important function
Function 26	Delete user account	Important function
Function 27	Add user account	Important function

Function 23: Change full name

You can rename the existing user with a descriptive name. For example, you can rename account "S01" with the full name of "Xiao Ming" in order to easily identify this user.

Function 24: Change password

Change the password for the selected user.

Function 25: Change level of access

You can configure three user access levels:

- "Standard user (S)": A standard user can log on from any station. It's generally given to students.
- MultiPoint Manager user (M): A MultiPoint Manager user can log on from any station and use the MultiPoint Manager to manage standard users' sessions. It's generally given to teachers.
- Administrative user (A): Administrators have complete access to the MultiPoint Server and can make any changes on the computer. It's generally given to IT administrators.

Function 26: Delete user account

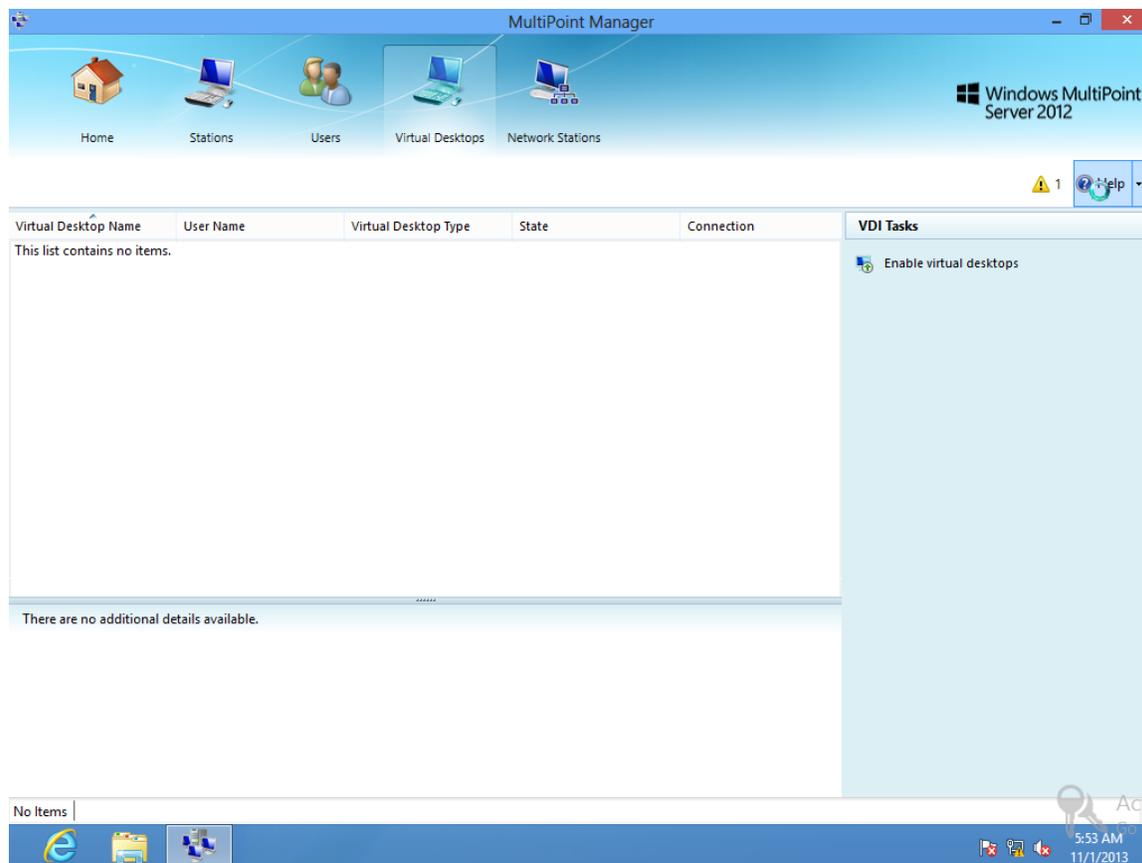
This feature will delete the existing user account(s) of Windows MultiPoint Server 2012.

Function 27: Add user account

This feature will add new user account(s) to Windows MultiPoint Server 2012. You need to select the server on which the new account will be created and assign the level of access.

Functions in the "Virtual Desktops" Tab

This module provides management functions combining the Hyper-V technology of Windows MultiPoint Server 2012 and the traditional thin clients (or cloud clients). It won't be introduced herein.



Virtual Desktops		
Functional Module	Function	Description
Function 28	Enable virtual desktops	
Function 29	Create virtual desktop template	The feature appearing after enabling virtual desktops
Function 30	Import virtual desktop template	The feature appearing after enabling virtual desktops
Function 31	Disable virtual desktops	The feature appearing after enabling virtual desktops
	Restart	The feature appearing after selecting the virtual desktop name
	Shut down	The feature appearing after selecting the virtual desktop name
	Customize virtual desktop template	The feature appearing after selecting the virtual desktop name
	Create virtual desktop stations	The feature appearing after selecting the virtual desktop name

Functions in the "Network Stations" Tab

"Network Stations" module is an important functional module.

The screenshot displays the MultiPoint Manager interface for Windows MultiPoint Server 2012, specifically the "Network Stations" tab. The interface is organized into several sections:

- Navigation Bar:** Located at the top, it includes icons for Home, Stations, Users, Virtual Desktops, and Network Stations. The "Network Stations" icon is currently selected.
- Hosts Table:** A table with two columns: "Computer" and "HotKey". It lists two hosts: "WMPS2012-S1" (HotKey: N/A) and "WMPS2012-S2" (HotKey: N/A).
- Clients Table:** A table with four columns: "Client Name", "Status", "Assignment", and "Location". It shows one client: "Zero Client" (Status: Not Connected, Assignment: N/A, Location: N/A).
- General Task Item Panel:** A vertical panel on the right side containing several task items: "HotKey setting", "Failover by host", "Failover by station", "Start scan", "Select all", and "Unselect all".
- Assigned Clients Section:** A section titled "Assigned Clients: WMPS2012-S1" with a table containing columns for "Client Name", "Status", "Assignment", "Location", and "MAC". The table is currently empty, displaying the message "There are no items in this view".
- Status Bar:** At the bottom left, it shows "0 Item". At the bottom right, it displays the system clock: "5:55 AM 11/1/2013".

Network Stations		
Functional Module	Function	Description
Function 32	HotKey setting	General task item The feature appearing after selecting no client
Function 33	Failover by host	General task item The feature appearing after selecting no client
Function 34	Failover by station	General task item The feature appearing after selecting no client
Function 35	Start scan	General task item The feature appearing after selecting no client
Function 36	Select all	General task item The feature appearing after selecting no client
Function 37	Unselect all	General task item The feature appearing after selecting no client
Function 38	Assign to this server	Device task item The feature appearing after selecting a unconnected client
Function 39	Change location name	Device task item The feature appearing after selecting a unconnected client
Function 40	Network setting	Device task item The feature appearing after selecting a unconnected client
Function 41	Rename client name	Device task item The feature appearing after selecting a unconnected client
Function	Restart device	Device task item

42		The feature appearing after selecting a unconnected client
Function 43	Update firmware	Device task item The feature appearing after selecting a unconnected client
Function 44	Release station	Device task item The feature appearing after selecting a connected client
Function 45	Select all	Device task item The feature appearing after selecting a connected client
Function 46	Unselect all	Device task item The feature appearing after selecting a connected client

Function 32: HotKey setting

While using Function 10 to add multiple host computers into one MultiPoint Manager, multiple hosts subject to centralized management will appear in the left pane of "Network Stations" tab.

This feature allows you to quickly locate the target hosts with hotkeys.

Function 33: Failover by host

After adding multiple host computers into one MultiPoint Manager, you can configure the failover redundant host for one selected host.

Important

- To properly use this feature, the second redundant server must have the same performance and access license.
- If the first host computer fails, the zero clients connected to this host computer will be automatically diverted to the specified redundant server. The users will have one new Windows desktop.
- If the users need to have the same desktop as the previous one, you will need the feature of user configuration file roaming. In such a case, there must be one Windows Server based domain server to one separate file server.

Function 34: Failover by station

After adding multiple host computers into one MultiPoint Manager, you can specify the failover redundant host for one selected zero client.

Function 35: Start scan

To scan XtendLan zero clients on the network. Clients found can be managed through the features provided in the "Network Stations" tab of MultiPoint Manager.



Important

- Make sure the host computer and the clients are on the same physical subnet.
- Make sure there is a DHCP server available for clients.
- If the host computer and a client are on the same physical subnet but the client cannot communicate with the host computer with its IP address, and this client still appears in the client list after 2-3 minutes, you can then utilize Function 40 to configure the correct IP address for this client.

Function 36: Select all

Select all unconnected zero clients.

Function 37: Unselect all

Unselect all unconnected zero clients.

Function 38: Assign to this server

Assign the selected zero client to the designated server.

Function 39: Change location name

This feature allows you to describe the location of zero client, such as "F/3, Lab Bldg. 1".

Function 40: Network setting

Select the client to change its network setting.

- Select to use DHCP mode or static IP mode.
- If choosing not to use DHCP, configure the IP address and subnet of XtendLan zero client.



Important

- The change to network setting will be saved on XtendLan zero client.

Function 41: Rename client name

To better manage the connected zero clients, you can rename those connected zero client stations, such as "Group 2, Class 3, Grade 3" or other names that are easy to identify and manage.

Function 42: Restart device

To forcibly restart the client device.

Function 43: Update firmware

To ensure the stability of zero clients or to support new features, you need to update the firmware of XtendLan TC-M101 zero clients. This feature is only used under particular circumstances.

Function 44: Release station

To turn the status of zero client from "connected" to "unconnected".

Function 45: Select all

Select all successfully connected zero clients.

Function 46: Unselect all

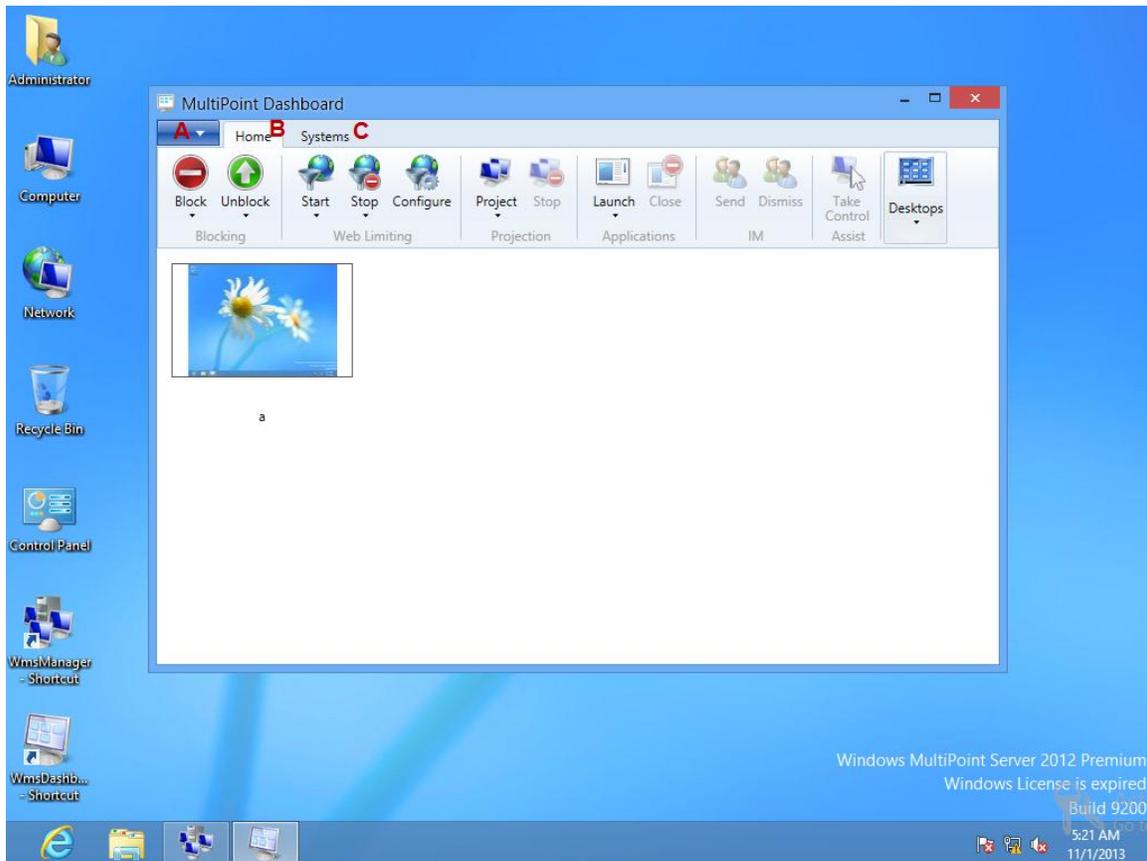
Unselect all successfully connected zero clients.

Using MultiPoint Dashboard

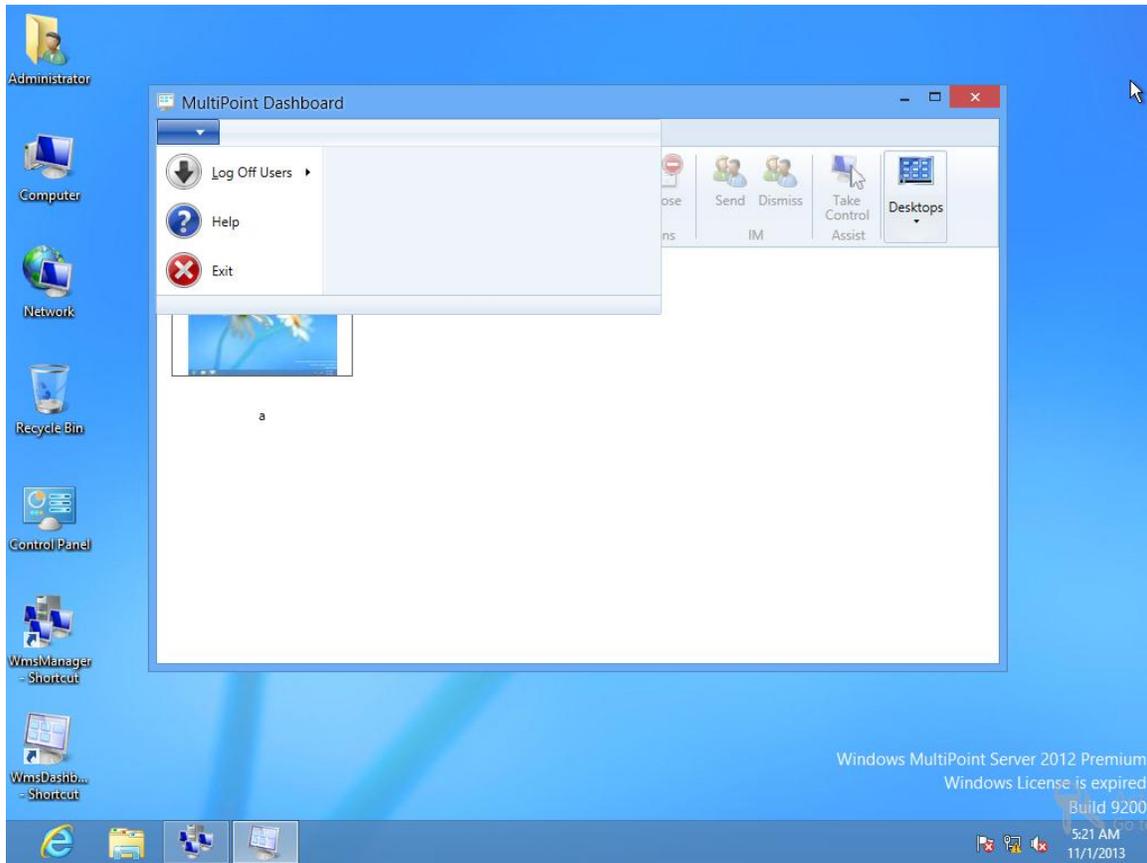
MultiPoint Dashboard is management tool for teachers and conference moderators. It allows the management of student desktops.

Running MultiPoint Dashboard requires Dashboard user permissions or administrator permissions.

MultiPoint Dashboard contains three functional tabs, namely the drop-down button, "Home" tab and "Systems" tab.

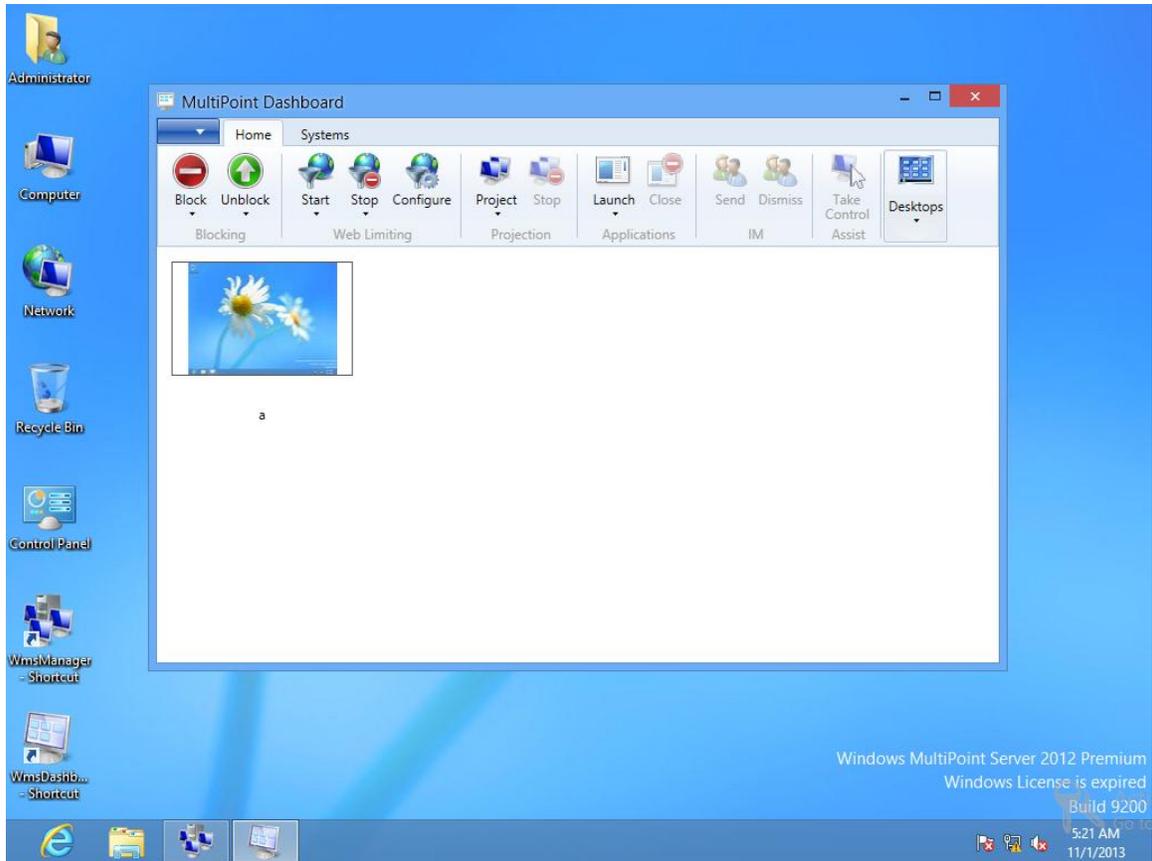


Introduction to Tab A:



Tab A		
Functional Module	Function	Description
Function A1	Log off users	You can log off the user if the user desktop encounters abnormalities of application programs.
Function A2	Help	Help file (English)
Function A3	Exit	Exit MultiPoint Dashboard

Introduction to Tab B (Home):



Home		
Functional Module	Function	Description
Function B1	Block/Unblock	
Function B2	Set message for the "Block" feature	
Function B3	Start/Stop/Configure	Web limiting
Function B4	Project/Stop	Projection
Function B5	Launch/Close	

Function B6	Send/Dismiss	Instant messaging
Function B7	Take Control	Assist
Function B8	Enlarge Selected/Change Size/Show	

Function B1: Block/Unblock

Use the "Block" feature to block student's desktop environment and the "Unblock" feature to unblock student's desktop environment.

Function B2: Set message for the "Block" feature

Blocked student desktops will show the message you have set.

The default block message is: "Blocked station".

Function B3: Start/Stop/Configure

These features allow the management and limiting of student's web access.

- To limit web access by the selected desktop/all desktops: In the actual application, it can be configured to allow accessing a specific education website only, thus limiting the web access by students.

If you are using this feature for the first time, you will be prompted to configure web limiting settings.

- Stop limiting web access by the selected desktop/all desktops.
- Configure web limiting: to only permit using specific sites (you can supplement the permitted sites, including partial URL match), or to only block these sites.

Function B4: Project/Stop

- To project your desktop to the selected desktop.
Namely the teacher broadcasts to specified desktop

- To project your desktop to the all desktops.
Namely the teacher broadcasts to all desktops.
- To project the selected desktop to all desktops.
Namely to broadcast student's operations.

Function B5: Launch/Close

- To launch one application program on the selected/all desktop(s).
By default, you can only access system-related application programs;
Shortcuts to the application programs in the folder of "C:\ProgramData\Microsoft\Windows\Start Menu\Programs" will be displayed.
If you need to use this feature in class:
 1. Firstly you need to install teaching related application programs;
 2. From the installation directory of the application program, get the shortcut of the application program.
 3. Copy the shortcut to "C:\ProgramData\Microsoft\Windows\Start Menu\Programs".
 4. Close MultiPoint Dashboard and use this feature again.
- Close this feature.

Function B6: Send/Dismiss

- Send: The teacher may send instant messages to the selected student desktop, on which the text messages sent by the teacher will pop up. When the student responds to teacher's messages through the IM tool, the teacher can not only see the messages sent from this student, but will also find the last message from this student on the picture showing his/her desktop.
- Dismiss: The teacher may use this feature to stop displaying messages on the picture showing student's desktop.

Function B7: Take control

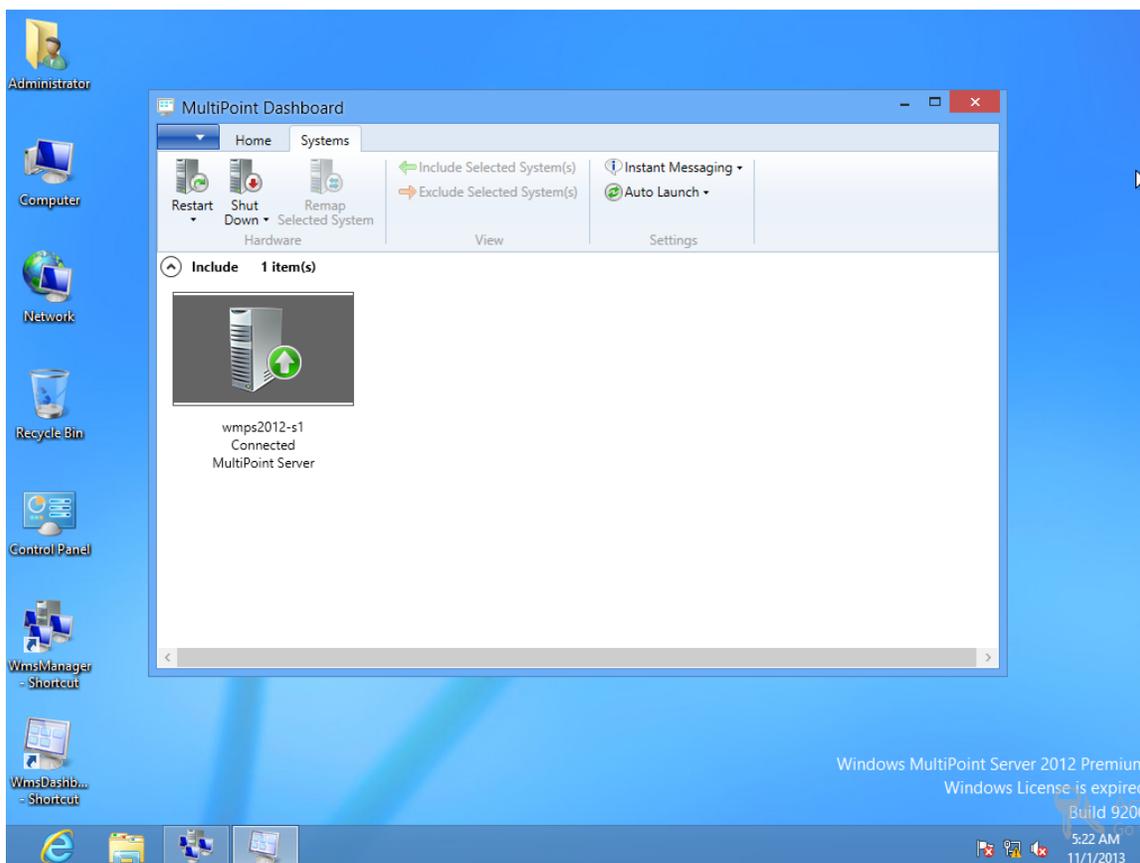
Select a student desktop and click "Take control", after which the teacher can remotely operate student's desktop.

Function B8: Enlarge Selected/Change Size/Show

To configure the appearance of student desktop.

- Enlarge the selected student desktop.
- Resize all desktops (small/medium/large).
- Show all student desktops (namely standard users). Select all to show the information about online users only. You can view administrator's desktop.

Introduction to Tab C (Systems):



Systems		
Functional Module	Function	Description

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Function C1	Restart	Restart the selected host computer
Function C2	Shut down	Shut down the selected host computer
Function C3	Remap selected system	
Function C4	Include selected system(s)/Exclude selected system(s)	The operating host cannot exclude itself.
Function C5	Instant messaging	
Function C6	Auto Launch	

Annex: Troubleshooting and Log Collection

Troubleshooting

During use, you may encounter certain application problems. Some common problems are described below for your reference.

- **1: After turning on XtendLan TC-M101, the "Getting IP ..." prompt message under the logo won't disappear**

The DHCP server fails to assign an IP address to the zero client. You need to check your DHCP server. If you can't resolve the problem with DHCP server, you are suggested to set the zero client to static IP mode.

- **2: After turning on XtendLan TC-M101, the "No Assign Host ..." prompt message under the logo won't disappear**

The host has encountered physical (including network) or software faults, or this zero client is not assigned to use. Please check your network environment and the network communication of zero client, or check if the zero client has been properly deployed.

- **3: After turning on XtendLan TC-M101, the screen displays the logo first and then blacks out after connecting to the host computer**

During the first-time connection of zero client, the screen will black out for 10-15 seconds. This is because the video card driver of the system is giving self-adaptive output.

- **4: After turning on XtendLan TC-M101, the screen blacks out during normal use**

Check if the network cable of zero client is loose or not, and check the operating status of the switch.

Log Collection & Analysis

Certain logs of Windows MultiPoint Server 2012 and Zero Client 2 must be collected.

Relevant logs of Windows MultiPoint Server 2012:

Record the time point of XtendLan F20 host computer and repeat the faulty operation for several times.

Open "C:\Program Files\Windows MultiPoint Server\" and double-click "LogCollector.exe" to run MultiPoint Log Collector. Click "Collect Data" and then click "View Log" after data collection.

Open the directory where logs are saved, copy the log file (zip file) and email it to XtendLan together with the operation time.

Relevant logs of XtendLan Zero Client

Record the time point of XtendLan F20 host computer and repeat the faulty operation for several times.

Open "C:\Program Files\WMS Zero Client Manager\", copy "WMSZeroClientService.txt" and email it to XtendLan together with the operation time.