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1 - 10ZiG Manager

10ZiG Manager is an enterprise level remote management solution for 10ZiG thin clients facilitating centralized device configuration and image management.

- **10ZiG Manager Server** is the core of the solution consisting of a Windows service that coordinates various components including a SQL database for thin client configuration management, a network boot server for PXE-booting supported clients, and various other network communications modules.
- **10ZiG Manager Console**, an [MMC Snap-in](#), provides the user interface for the Manager Server, giving administrators the ability to monitor thin client status, perform remote configuration administration, and remotely boot, reboot or shutdown their thin clients.

These individual components offer a scalable architecture and allow delegated administration, requiring only one central Manager Server. Multiple remote Manager Consoles can be configured to communicate with the central server.

1.1 - Configuring and Managing the Server

Configuring and managing the **10ZiG Manager Server** service is accomplished with the **10ZiG Manager Service Controller** application, which provides a notification icon that appears in the system tray to indicate if the Manager Server service is running. Right-clicking on the tray icon provides a context menu to start and stop the service as well as to update the Manager Server settings .



Service Controller tray icon

The Service Controller is set to start automatically when a user logs onto the Manager server, however, it can also be launched using

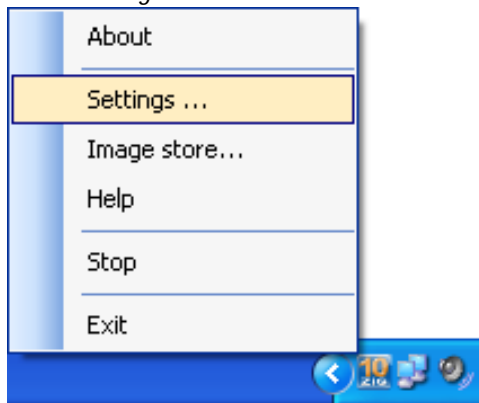
the *Start* menu shortcut.

1.1.1 - Server Settings

Server settings are changed via the *Settings* dialog. These settings include the *Default Network Adapter* used for communication between the Manager Server and thin clients and the *Remoting Port* used for Manager Console access to the server.

To start the settings dialog:

1. Right-click on the Manager Service Controller icon
2. Click *Settings...*



1.1.2 - Network Settings

Network Adapter - Specify the adapter connected the network where your 10ZiG

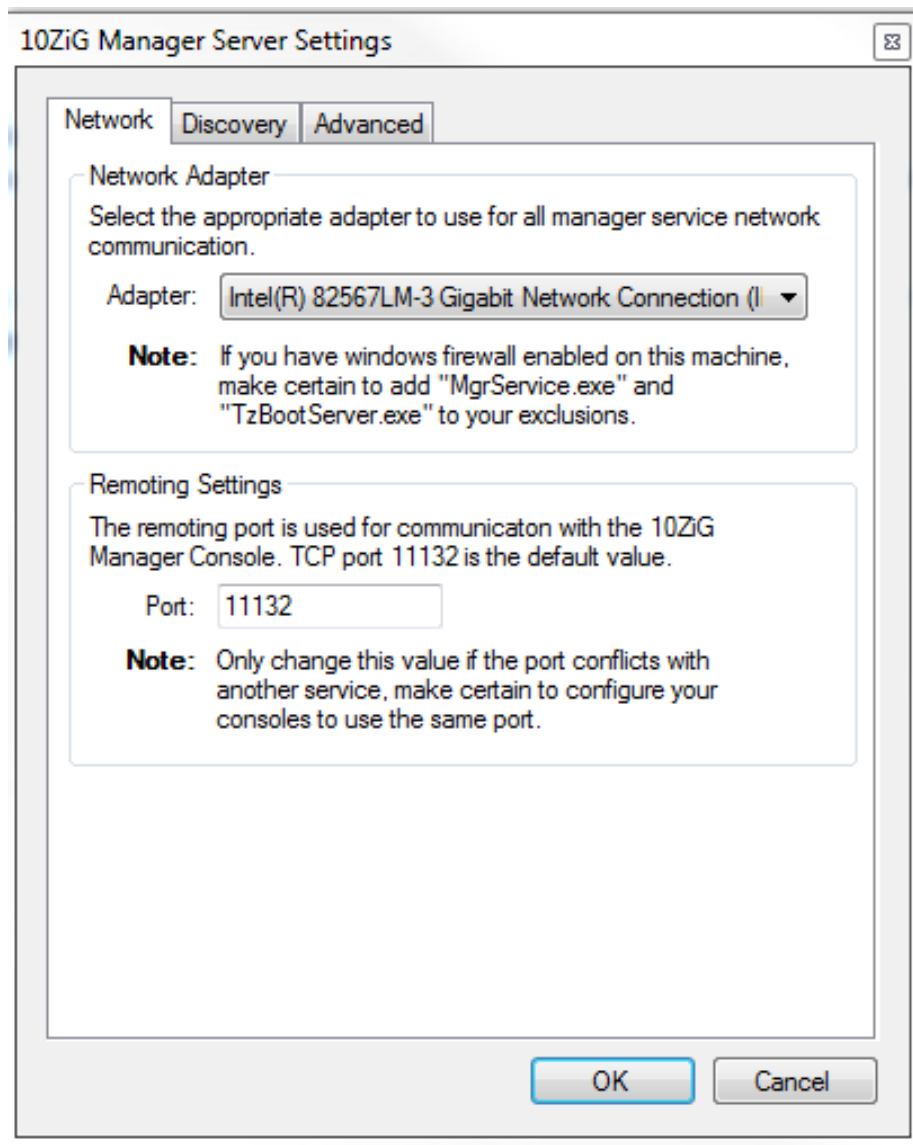
Note: It is also important to remember if Windows Firewall is enabled, "MgrService.exe" MUST be added to the exclusions.

1.1.3 - Ports Used

The 10ZiG Manager communicates with the thin clients using remote procedure call (RPC) and Active Directory relies on remote procedure call (RPC) for replication between domain controllers thus resulting in a conflict if on the same server.

- Network Ports and Purpose
 - TCP 3306 - Used by the local MySQL service hosting the Manager database.
 - TCP 11132 - The Manager Console retrieves information from the Server via this port.
 - TCP 11133-11147 - A Manager Console will register one of the ports in this range, usually 11133, with the Server to receive various notifications.
- Client Discovery and Communication Ports
 - UDP 52500 - Broadcast discovery port for Windows (XTC Agent) and Linux 9 thin clients.
 - TCP 52510 - This RPC port is used by Manager Server to perform remote operations and queries on Windows (XTC Agent) clients.
 - TCP 52511 - This RPC port is used Windows (XTC Agent) clients to notify the manager server when they come online or are going offline.
 - TCP 80/443 (HTTP/HTTPS) -These Web ports are used by Manager Server to query information from and perform operations on Linux 9 (LTC Agent) clients.
 - UDP 1680 or TCP 1680 - Depending on whether TCP discovery is enabled, one of these ports is used to discover of Linux 8 and Windows CE thin clients.
 - TCP 21(FTP) - The port is used by Manager Server to query information from and perform operations on Linux 8 (Browsed Agent) clients.
 - TCP 8001 - The Manager Server publishes firmware update packages for Linux clients on this port.
- PXE Boot Ports
 - UDP 68 (DHCP/BOOTP) - The Manager Server responds to DHCP/BOOTP requests from this port for PXE-Booting clients for image deployment/recovery.
 - UDP 69 (TFTP) - When PXE-Booting, the PXE configuration and boot image are transferred to the client via TFTP
- *Remoting Port* - Defines the TCP communications port on which Manager Consoles should communicate with the Manager Server. The default value, **11132** should be used unless this conflicts with other services.

NOTE: If the port must be changed, make certain to configure all related Manager Consoles to use the same port.

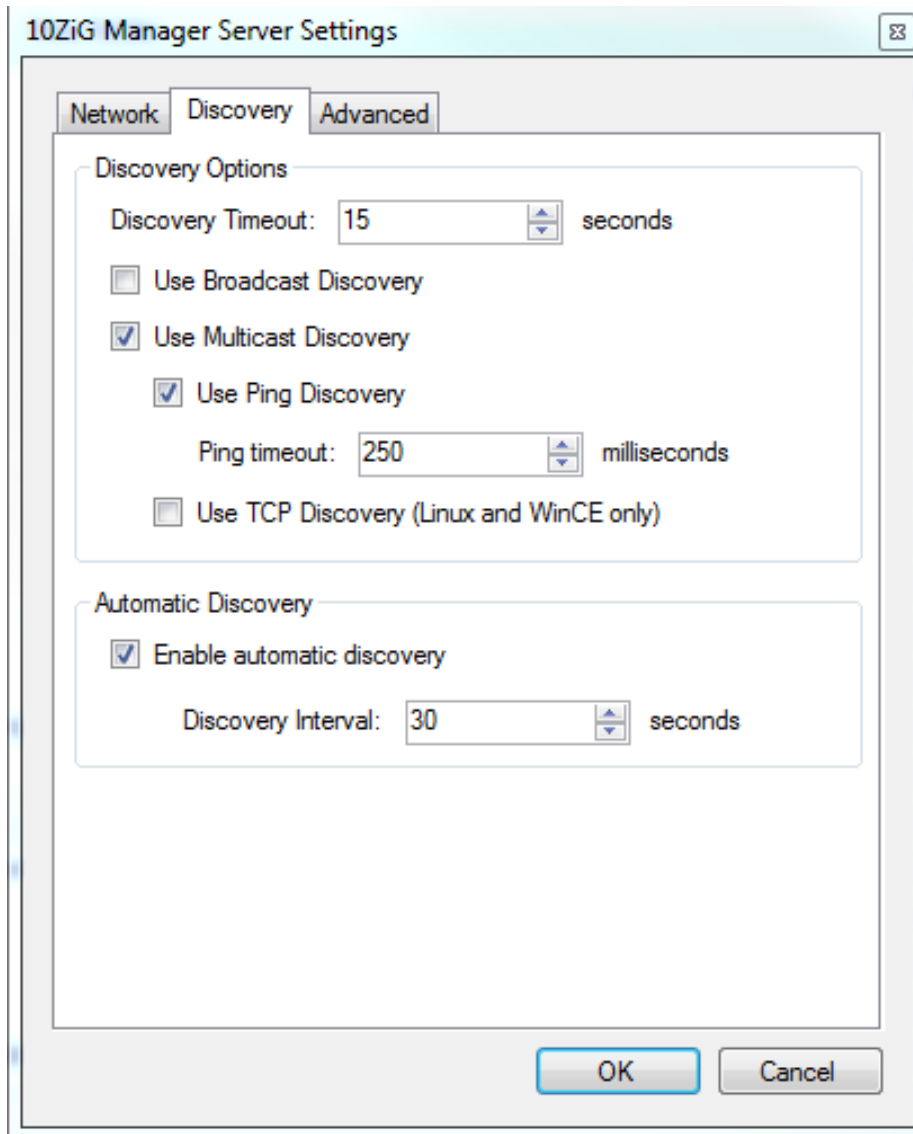


1.1.4 - Discovery Settings

- *Automatic Discovery*
 1. *Enable automatic discovery* - When enabled, the manager server automatically attempts to discover new 10ZiG thin clients and check existing clients' status at the configured interval. (Enabled by default.)
 2. *Discovery Interval* - The number of seconds between automatic discovery jobs. (Default: 30 seconds)
 3. *Discovery Timeout* - The number of seconds before a client discovery connection attempt times out. (Default: 15 seconds)

NOTE: If you find the 10ZiG Manager is not picking up your thin clients try changing the Discovery Timeout to 30 seconds

- *Discovery Options*
 1. *Use Broadcast Discovery* - (Enabled by default) - Enable/disable broadcasting UDP packets to discover thin clients.
 2. *Use Multicast Discovery* - Enable/disable polling individual addresses within specified multicast IP ranges for the thin client.
 3. *Use Ping Discovery* - When enabled, the manager server pings an IP address to determine if a device is online prior to attempting a connection for client discovery. (Enabled by default)
 4. *Use TCP Discovery (Linux and WinCE only)* - By default, the manager server performs a connectionless query (Disabled by default)
- Click **OK** to save the settings and exit the dialog.



1.1.5 - Advanced Settings

- Windows Client Connectivity

- RPC Timeout - Timeout period for remote management calls to Windows Thin Clients. Increase this value if certain tasks are failing due to high latency. Default: 45 seconds

- Wake-On-LAN

- Wake-on-LAN (WOL) is an Ethernet computer networking standard that allows a computer to be turned on or woken up by a network message. Default: port 9

- Boot Server

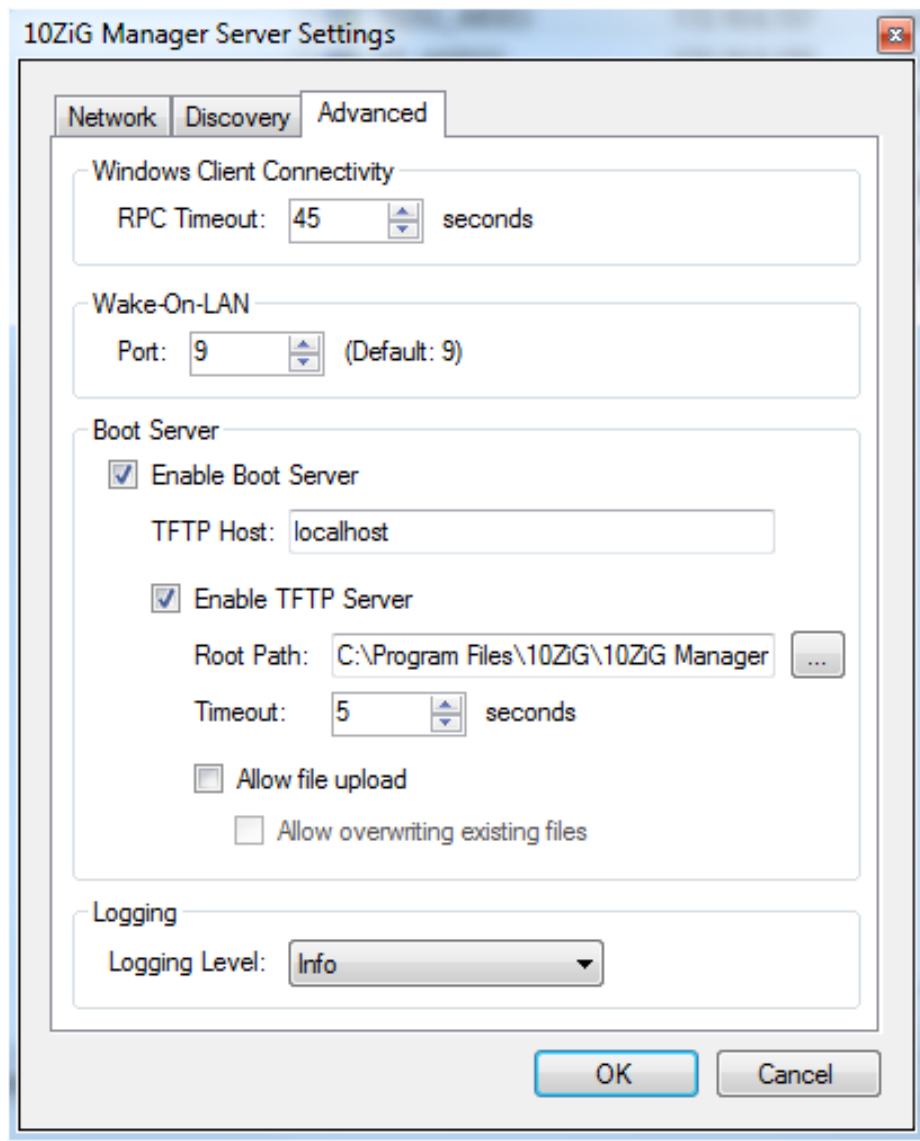
- Enable Boot Server - Enable/Disable integrated PXE boot server functionality. Specify localhost if the integrated TFTP server is to be used or the IP address of an existing TFTP server to use. Default: Enable

To use an existing PXE server already on the network, copy the files in the TFTP folder under the 10ZiG Manager install directory and place them on the existing PXE server where the PXE server is publishing files. The image file(s) need to be placed in the general repository directory on the existing PXE server. In the Manager Server Settings - Advanced Tab - uncheck Enable TFTP server and under the TFTP Host put the IP of the existing PXE server on the network. Boot the thin client in PXE mode and restore the image from the existing PXE server.

- Enable TFTP Server - Enable/Disable integrated TFTP server. Default: Enabled
 - Root Path: Path to the tftp folder/directory on the 10ZiG Manager server
 - Timeout: Timeout period before TFTP transfers are cancelled if no acknowledgement is received from the client. Default: 5 seconds
 - Allow file upload: Enable/Disable uploading files to the TFTP server. Default: Disabled
 - Allow overwriting existing files: Enable/Disable overwriting files of the same name when uploading. Default: Disabled

- Logging

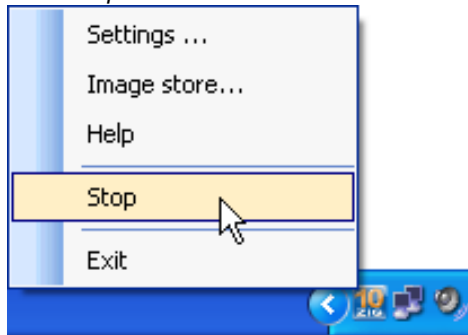
- Logging Level: Specify the logging verbosity level. Messages are filtered based on criticality. Default: Info



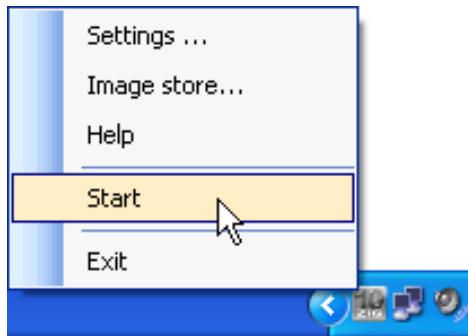
1.1.6 - Starting and Stopping the Server

Aside from using the Windows Services console, the Manager Server service can be started and stopped via the Service Controller context menu. Since the service is configured, at installation time, to start automatically when the server computer boots, it is generally unnecessary to manually start the server. However, if the server settings are updated, the service should be restarted either by rebooting the server or by performing the following:

1. Right-click on the Manager Service Controller icon
2. Click *Stop*



3. When the service has stopped, the tray icon will be grayed.
4. Right-click on the grayed Manager Service Controller icon
5. Click *Start*



6. When the service has started, the tray icon will be blue.

1.2 - Configuring and Starting the Console

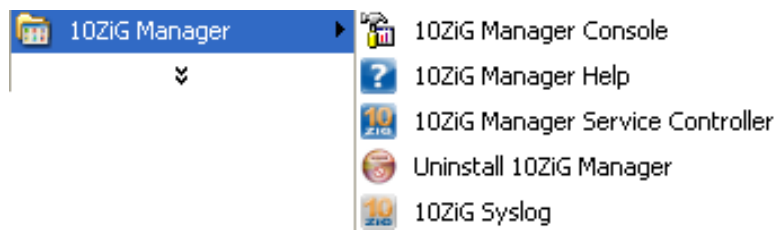
The 10ZiG Manager Console is an [MMC Snap-in](#), and during installation, a pre-configured MMC console, *MgrConsole.msc* is created.

Shortcuts to the console are also created in the **10ZiG Manager** *Start* menu group and on the desktop.

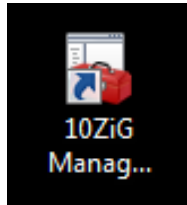
1.2.1 - Launching the Manager Console

Ensure the Manager Server has been started before launching the Manager Console.

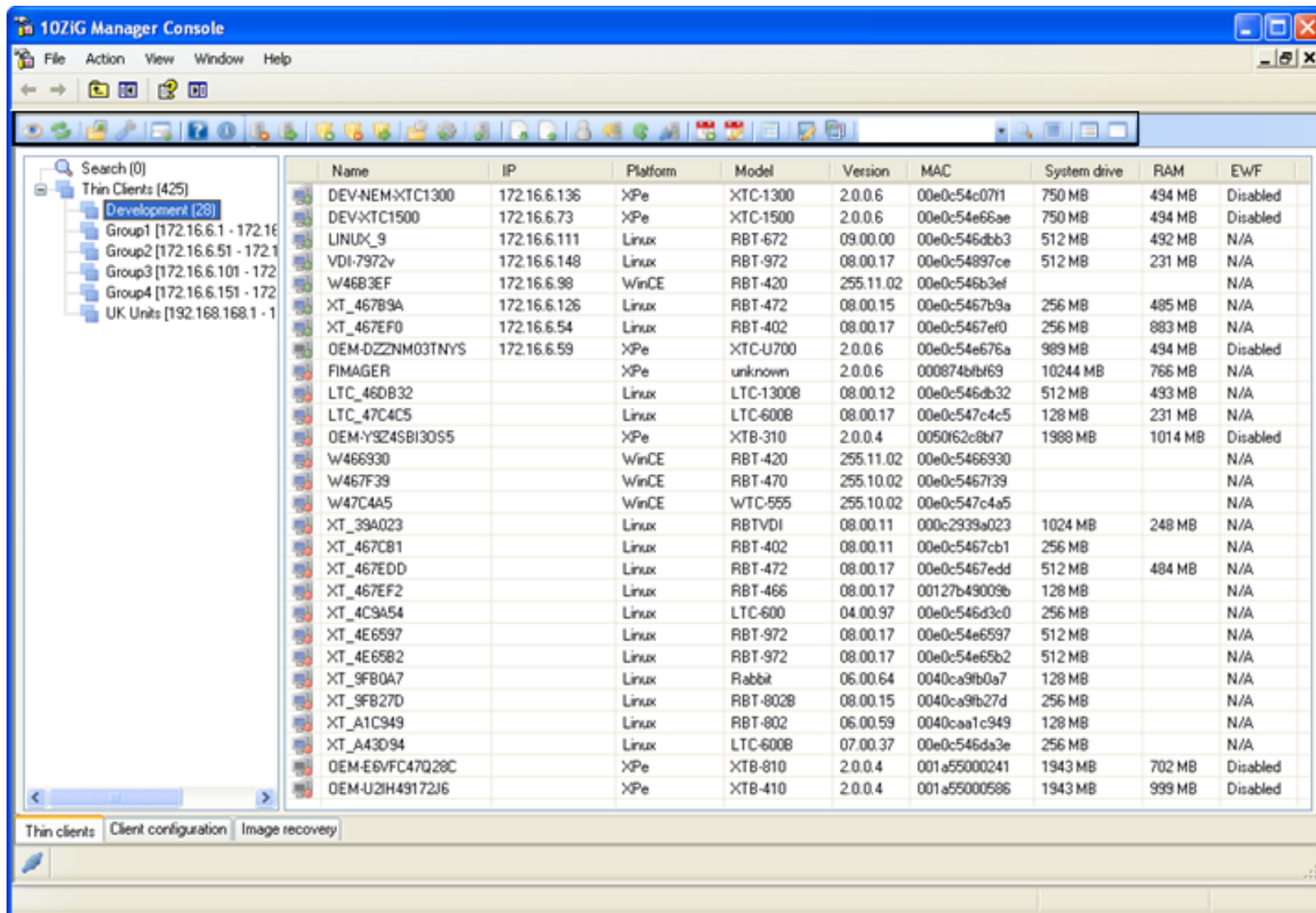
- Select *10ZiG Manager Console* from the *Start* menu group to launch



- or double-click the desktop shortcut



Tip: On the Manager Server computer, double-clicking on the server controller tray icon  will also launch the Manager Console.




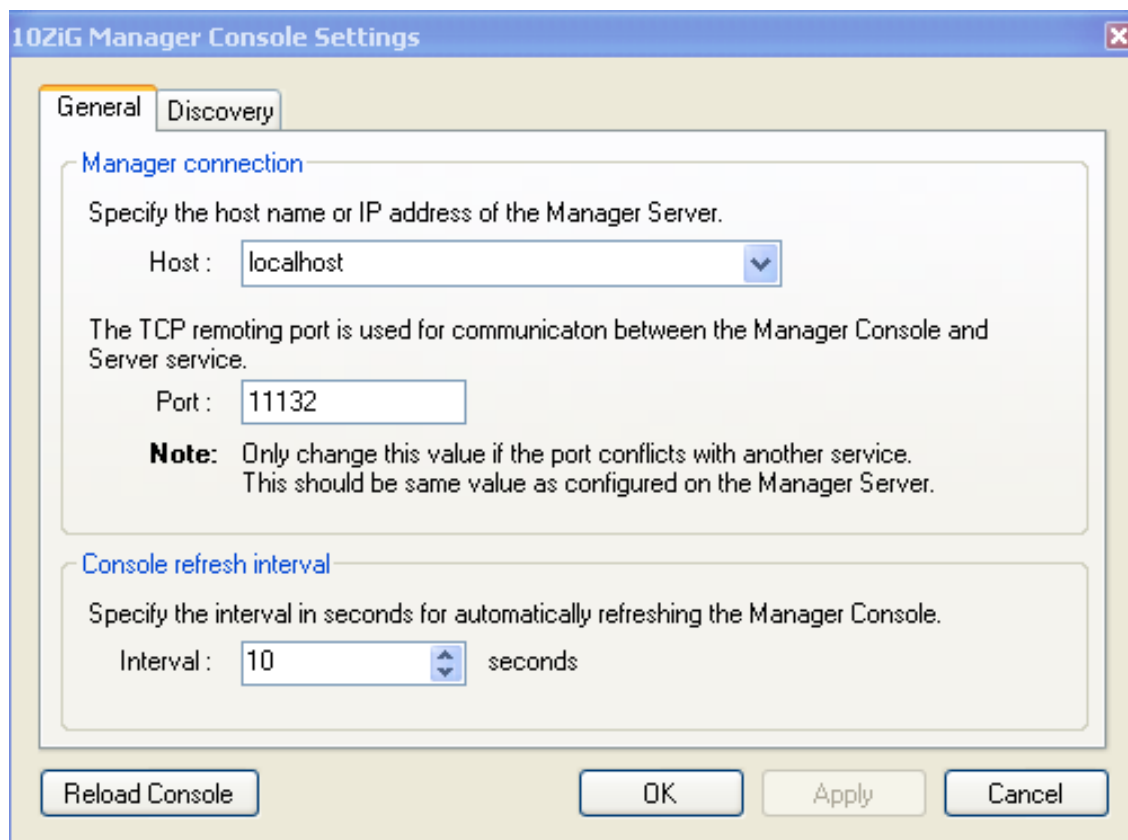
The 10ZiG Manager Console consists of various toolbars and a tabbed window with three tabs, *Thin clients*, *Client configuration*, and *Image recovery*.

1.2.2 - Console Settings

The Manager Console settings include the host address and port to which the Console uses to Communicate with the Manager Server. By the default, the Console is configured to contact the Manager Server using the *localhost* or loopback address (127.0.0.1). However, if a console has been installed on a computer other than the main Manager Server, the appropriate address must be specified in the settings.

As well, if the Manager Server has been configured to use a different port, the console must be configured with the same port.

1. From the Manager Console, select the *Settings* toolbar button  to start the *Console settings* dialog.
2. In the *Host* field, specify the IP address or host name of the Manager Server. (Default: localhost or 127.0.0.1)
3. In the *Port* field, specify the same port as the *Remoting Settings* port configured in the Manager Server settings. (Default: 11132)
4. In the *Console refresh interval* select the interval in seconds for automatically refreshing the Manager Console (Default is 10 seconds).



The image shows the '10ZiG Manager Console Settings' dialog box. It has two tabs: 'General' (selected) and 'Discovery'. Under the 'General' tab, there are two sections. The first section, 'Manager connection', contains a text box for 'Host' with 'localhost' selected in a dropdown menu, and a text box for 'Port' with '11132'. Below these is a note: 'Note: Only change this value if the port conflicts with another service. This should be same value as configured on the Manager Server.' The second section, 'Console refresh interval', contains a text box for 'Interval' with '10' and a unit of 'seconds'. At the bottom of the dialog are four buttons: 'Reload Console', 'OK', 'Apply', and 'Cancel'.

5. Click *OK* to save the settings and exit the dialog.

Reload Console

6. For any setting changes to take affect, the Console must closed and restarted or select Reload Console

Note: Discovery Tab information can be found under the Thin Client Management section [2.2.1](#)

1.2.3 - Adding the 10ZiG Manager Console Snap-in to a custom MMC console

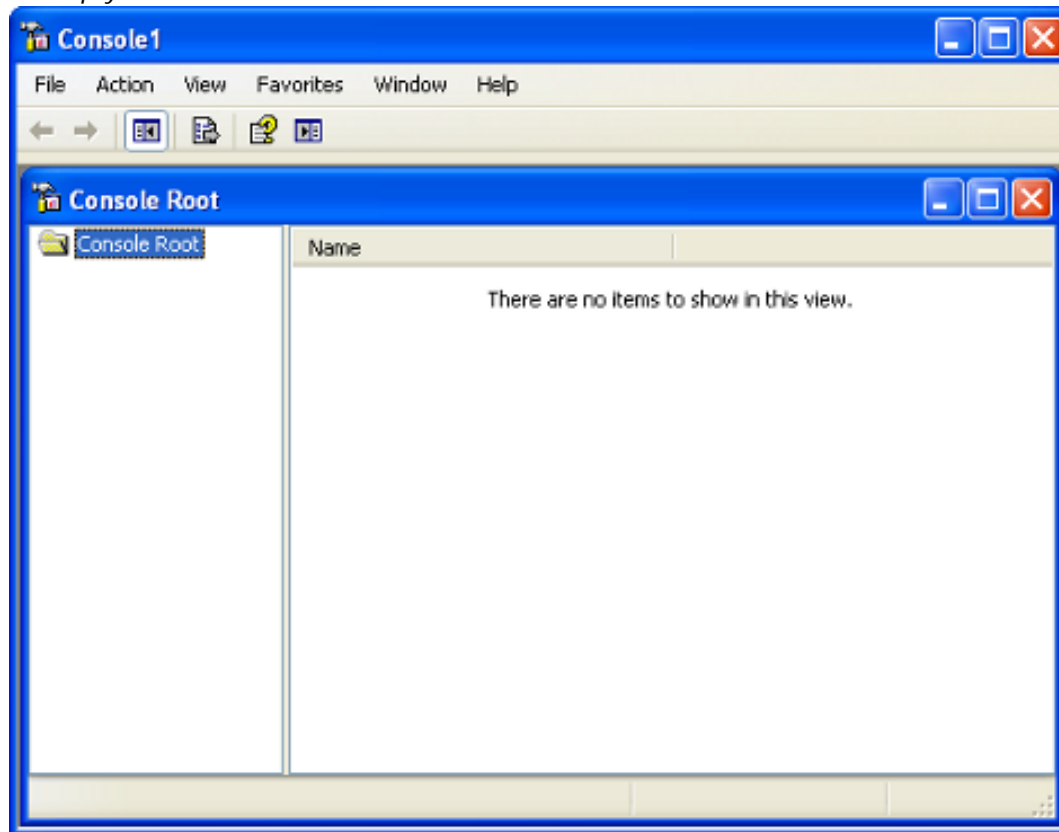
You may wish to create a custom MMC console, grouping commonly used MMC tools together and adding an instance of the 10ZiG

console snap-in. Consult [Microsoft MMC documentation](#) for further details.

Create a custom MMC console:

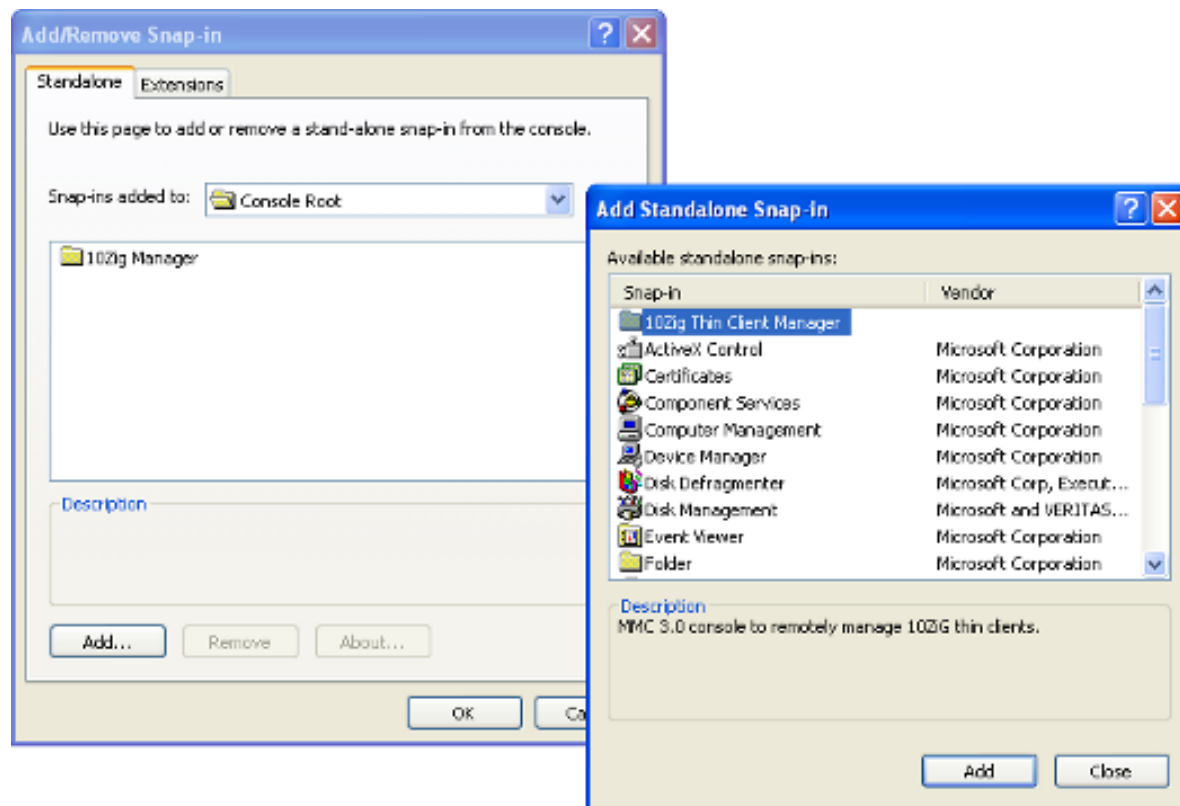
1. From the *Start* menu
2. select *Run...*
3. type *mmc*, and press enter

An empty MMC console

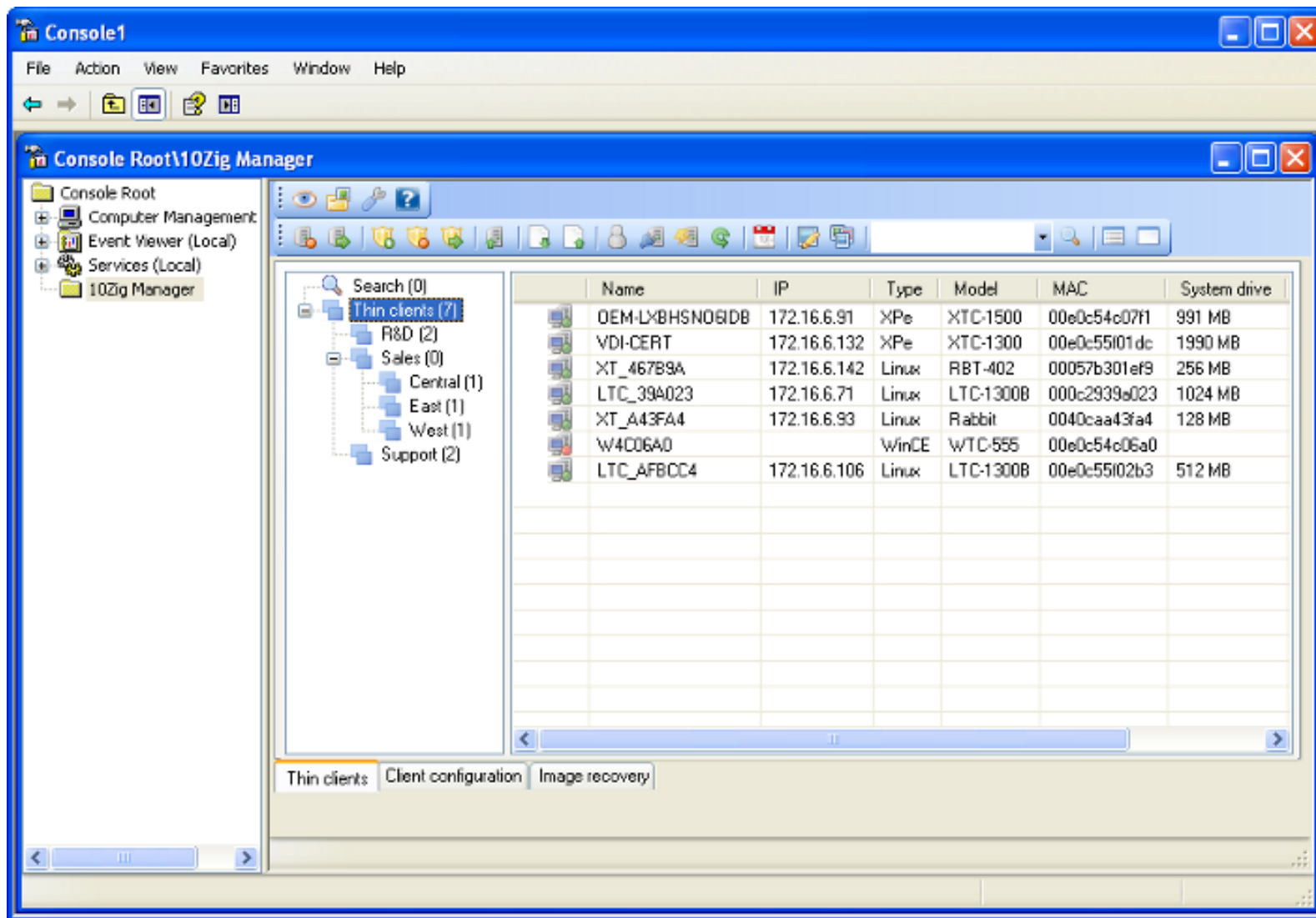


Add Snap-ins:

1. From the *File* menu, select *Add/Remove Snap-in...* to launch the *Add/Remove Snap-in* dialog.
2. Click the *Add* button on the *Standalone* tab to display the *Add Standalone Snap-in* dialog.
3. Choose the desired snap-in(s) to include and click the *Add* button.
4. Click the *Close* button when done.
5. Click the *OK* button on the *Add/Remove Snap-in* dialog.



A new custom MMC console



1.3 - Image Storage Configuration

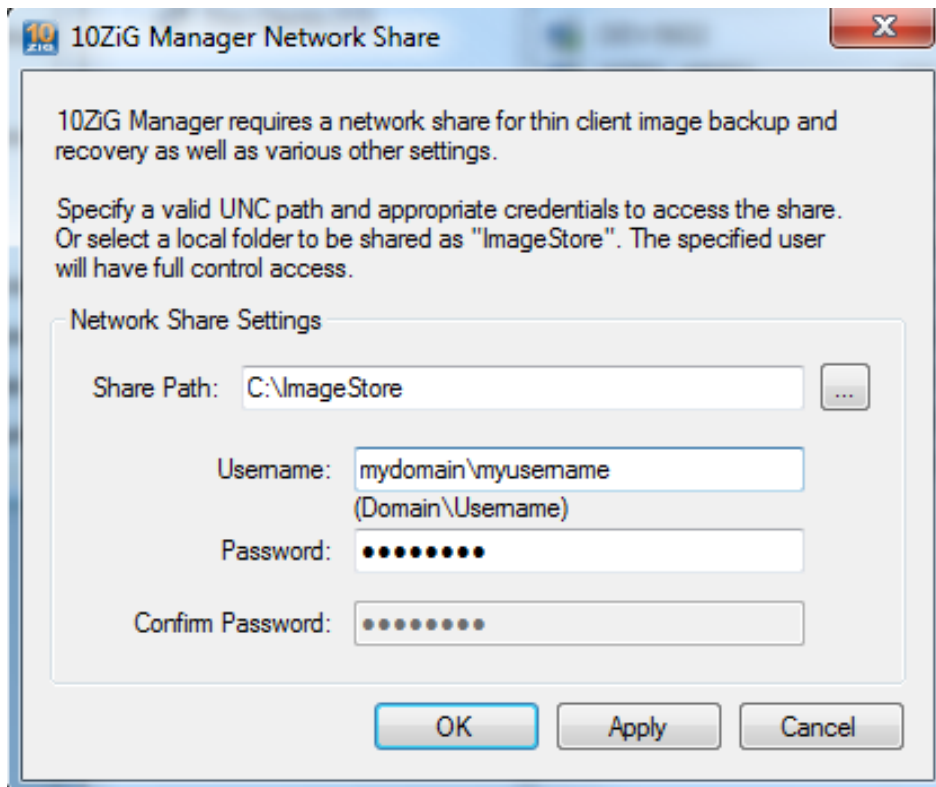
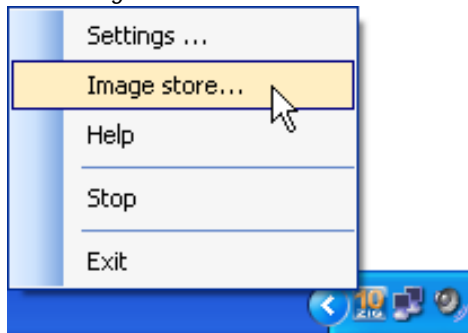
10ZiG Manager provides the ability to backup and restore entire thin client drives, and the resultant files are referred to as *Images*.

The 10ZiG Manager requires a network share for thin client image back and recovery as well as various other settings.

Specify a valid UNC path and appropriate credentials to access the share or select a local folder to be shared as "*Image Store*". The specified user will have full control access.

Set up the Image Store:

1. Right-click on the Manager Service Controller icon
2. Click *Image Store...*



3. In the *Share Path* field, the default will be the local file path C:\ImageStore or click the browse button  to choose the folder to share. During the install, the program will check to see if C:\ImageStore exists and if it does not the program prompt for permission to create the folder and set the share properties.

When 10ZiG thin clients are in recovery mode, they need to map the shared "*Image Store*" in order to read from or write to the folder. Therefore, one must specify user account credentials with read/write access to the store folder to be used by the thin clients

when mapping the share.

4. In the *Username* field, enter the user name preceded by the computer name for a local user or the domain for a domain user.
*i.e. **thiscomputer\localuser** or **somedomain\username***
5. Enter the user's password into the *Password* field
6. Confirm the password by entering it again into the *Confirm Password* field.
7. Click *OK* to save the settings and exit the dialog.

1.4 - Troubleshooting

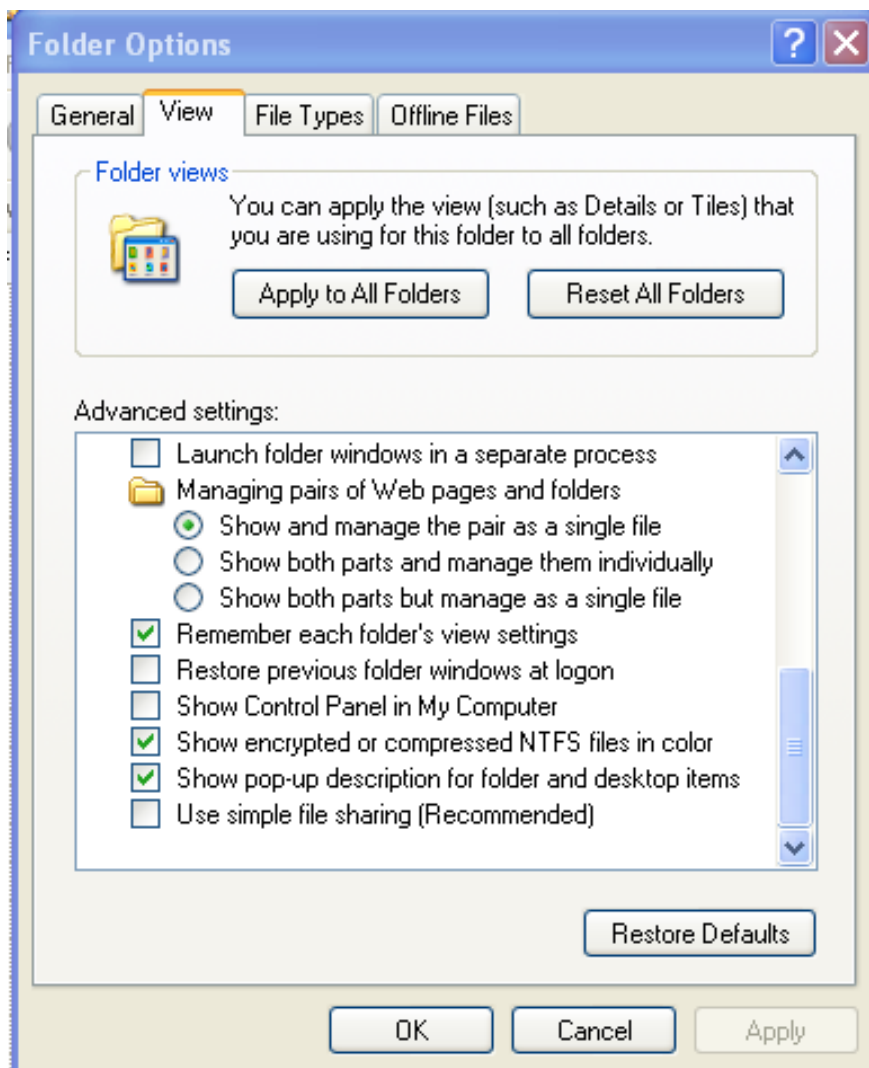
Why won't my 10ZiG Manager Console connect to the Manager Server?

Ensure the Manager Console settings have been configured with the correct host and port for the Manager server. Refer to [Manager Console Settings](#) for further details.

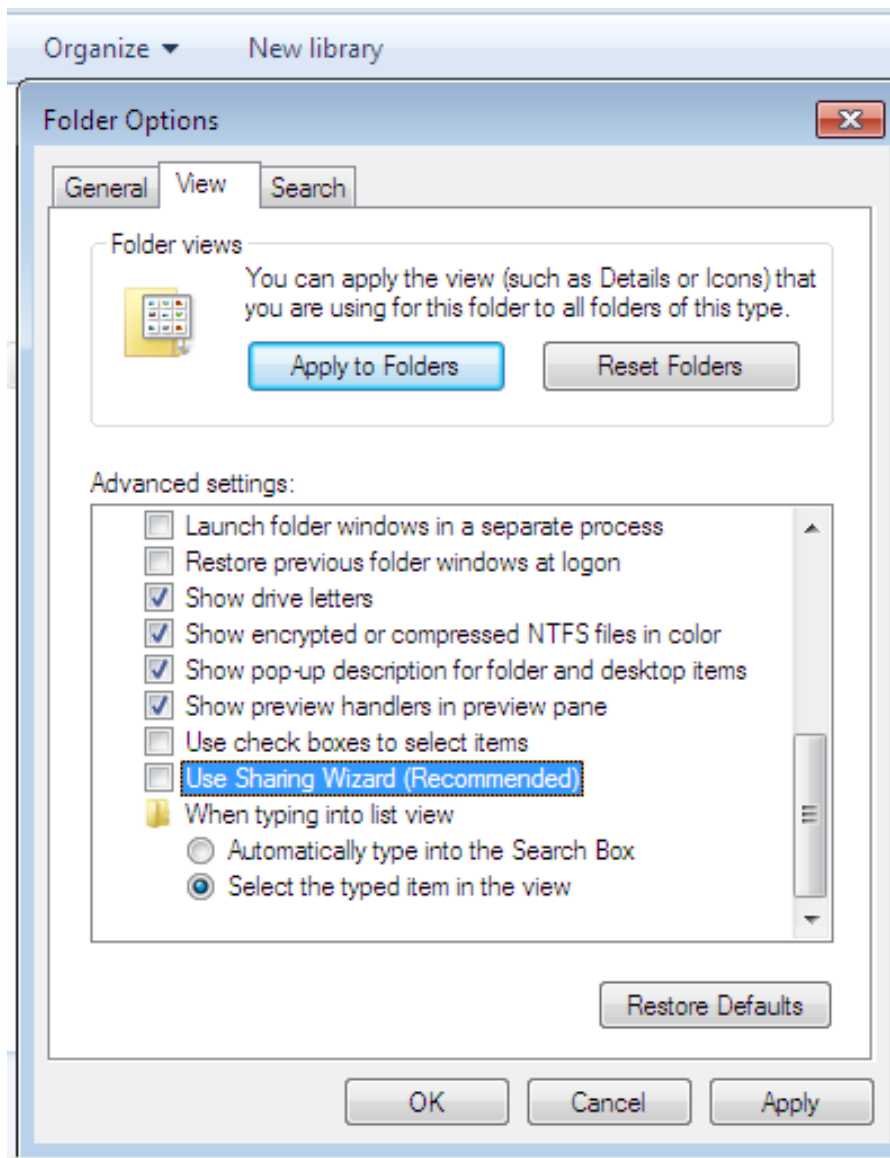
Why can't I select OK or Apply after I entered my credentials in the share path?

Turn off Simple File Sharing in folder options:

Windows XP - Uncheck Use simple file sharing (Recommended) in folder options



Windows 7 - Uncheck Use Sharing Wizard (Recommended) in folder options

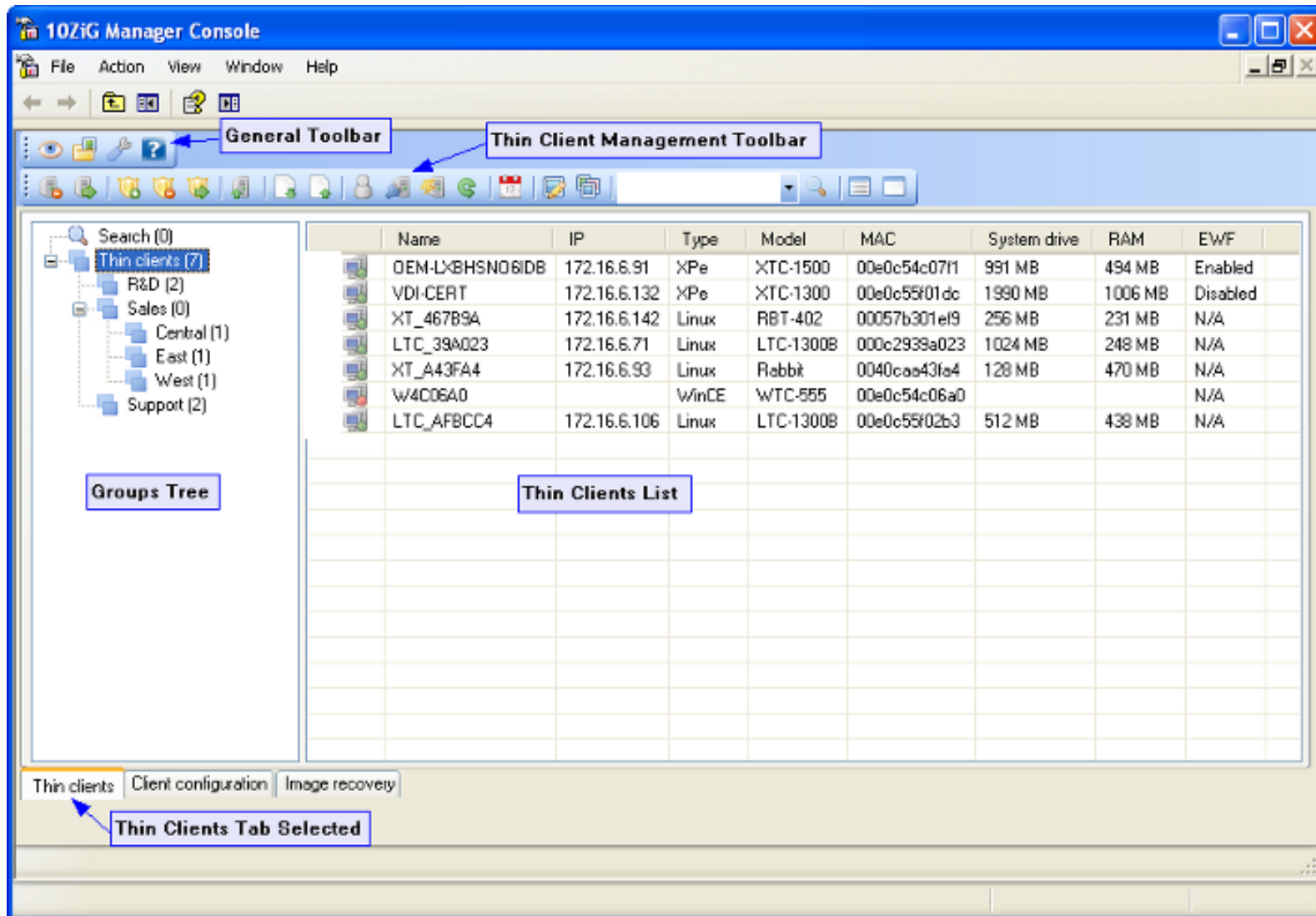


2 - Thin Client Management

Using the 10ZiG Manager Console user interface, administrators can determine the status of 10ZiG thin clients, remotely boot, reboot or shutdown clients, and execute various other remote management functions. These remote tasks can be manually initiated on individual or multiple clients. The boot, reboot and shutdown tasks can be scheduled for automated one-time or recurrent execution. Additionally, thin clients can be organized into logical groups to ease management of large numbers of related units.

2.1 - Thin Clients View

When the Manager Console starts, the *Thin clients* tab is shown by default. This view includes a general toolbar common to all tab views, a thin client management specific toolbar, a group tree in the left pane, and a client list in the right pane.



- The thin client management toolbar contains buttons to execute various remote operations. At least one client entry must be selected before performing any of these tasks.



- The group tree view contains two base groups or roots, the [Search](#) results, the global *Thin clients* root where all clients are first added/displayed, along with any custom [logical groups](#). Like Windows Explorer, groups are expanded and collapsed using the expand or collapse buttons respectively.
- The thin clients list provides a summary of useful details of all discovered 10ZiG clients.

	Name	IP	Platform	Model	Version	MAC	System drive	RAM	EWf
	XT_7A76EA	192.168.1.100	Linux	TBT-1000	8.0.44	0021977a76ea	512 MB	216 MB	N/A
	BULLS	172.16.6.61	XPe	unknown	2.0.0.0	000874c00869	157057 MB	2046 MB	N/A
	DEV_XTC-1300	192.168.1.103	XPe	XTC-1300	2.0.0.8	00e0c54c07f1	750 MB	494 MB	Disabled
	DEV_XTC-6000	192.168.1.102	XPe	XTC-6000	2.0.0.8	00e0c5400196	991 MB	446 MB	Enabled
	IBM-CONSOLE	172.16.6.118	XPe	XTC-1300	2.0.0.8	00e0c55f655b	986 MB	1006 MB	Disabled
	LTC_3D81A4		Linux	LTC-1300B	8.0.23	0025113d81a4	1024 MB	469 MB	N/A
	LTC_4003E9		Linux	LTC-6000	8.0.44	00e0c54003e9	512 MB	883 MB	N/A

The list columns:

- The first column contains:

- Client status icons as follows:



indicates the client is on.



indicates the client is off.



indicates the client is on, but the Manager server does not have [ownership](#) of it.



indicates the client is off, but the Manager server does not have [ownership](#) of it.

- The *Name* column displays the host or Netbios name of the client.
- The *IP* column contains the IP address of the client.
- The *Platform* column displays the thin client's Operating System type.
- The *Model* column shows the 10ZiG client model.
- The *Version* column shows the version of firmware installed on the thin client
- The *MAC* column displays the thin client's network MAC address.
- The *System drive* column shows the client's system drive capacity.
- The *RAM* column displays the client's total RAM amount.
- The *EWf* column displays the system drive EWf write protection status for Windows XPe clients.
- The *Last Responded* column displays the last date and time the 10ZiG Manager recorded a response from the thin client..


2.2 - Thin Client Discovery

The Manager Server must initially discover and register 10ZiG thin clients to obtain their status and gather relevant information.

The following occurs during discovery:

- The Manager Server queries and updates the status of clients that have been previously registered with the server.
- The server broadcasts a request for any undiscovered clients to initiate registration.
- The server tries to contact clients at each address within configured [IP ranges](#).


This discovery process begins when the Manager Server starts and repeats every 30 seconds to update client status. However,

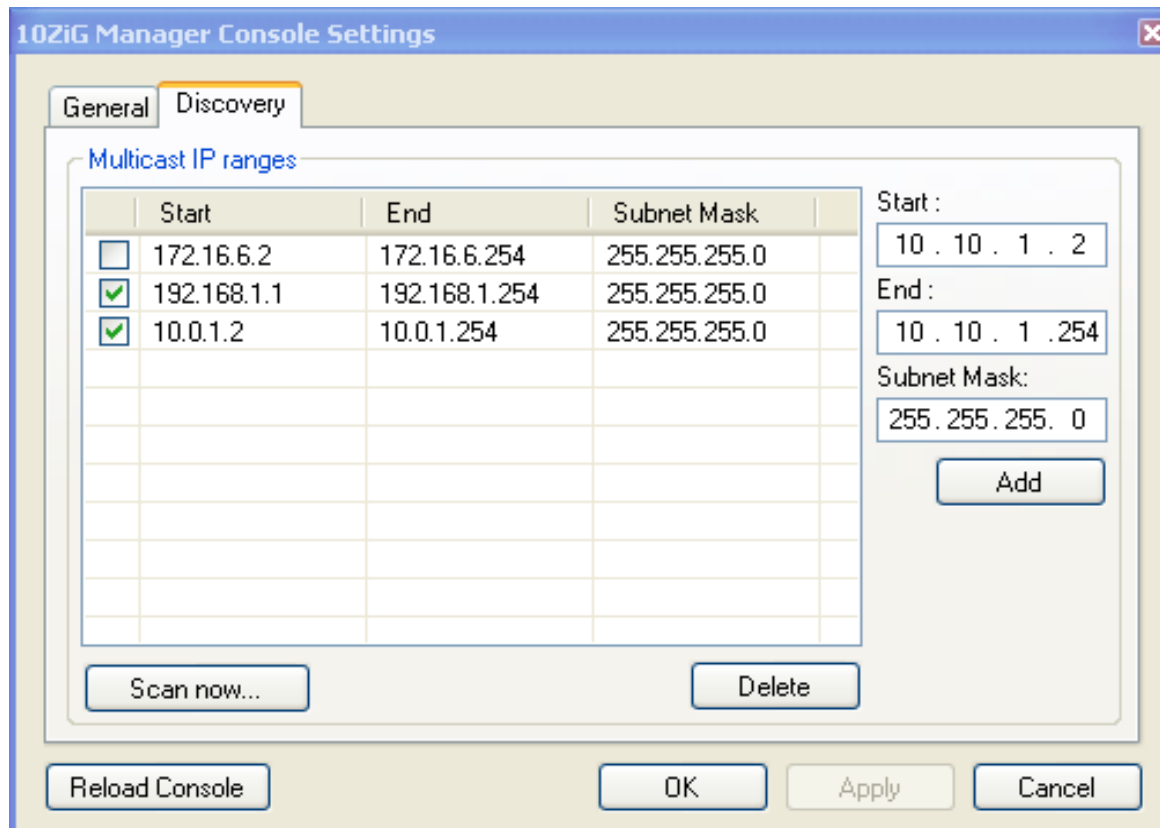
the administrator can refresh client status information by clicking the *Manual discovery* button .

2.2.1 - Multicast IP Ranges

Multicast IP Ranges define ranges of IP addresses or sub networks in which the Manager Server should attempt to contact 10ZiG thin clients. During discovery, each address a range is polled for client response. If no address range is defined, the Manager Server polls the entire network to which the [Default Network Adapter](#) is connected.

To add an IP Range:

1. Launch the *Console settings* dialog by clicking the *Settings* toolbar button .
2. Select the *Discovery* tab.



- Enter the first IP address of the range into the *Start* field.
Note: The default gateway address, usually something like xxx.xxx.xxx.1, should not be included within the range.
- Enter the last IP address within the range into the *End* field.
Note: The broadcast address, usually something like xxx.xxx.xxx.255, should not be included within the range.
- After the desired IP range values have been enter, click *Add*.
- The new range will appear in the range list.
- To remove any previously added ranges, check the desired range(s) in the list and click the *Delete* button.

2.2.2 - Thin Client Ownership









When a 10ZiG **Windows Embedded** thin client is discovered for the first time, the discovering Manager Server receives *Ownership* of that client. That is to say the server will maintain the client's configuration information and will be authorized to perform any and all remote management functions on the client. Only one Manager server has ownership of a thin client at time, and ownership *only* applies to



Generally, only one instance of the 10ZiG Manager Server should be installed on a network, however, if multiple Manager Servers exist on the same network, some clients may be owned by one server and others owned by another. As well, if a Manager Server is

uninstalled removing all of its saved data, and a new Manager Server is installed, the new server will not have ownership of the XPe clients. Therefore, it may be necessary at times to take ownership of these clients.

Taking Ownership:

1. In the Manager Console Thin clients list, right-click on an XPe client entry that the Manager Server does not have ownership.

	Name	IP	Platform	Model
	BULLS	172.16.6.61	XPe	unknown
	DEV_RBT616	Power on (WOL)		RBT-616
	OEM-TIC60XTEC			RBT-616
	DEV_RBT420	Take ownership		RBT-420
	TBT1000-BJR	Add scheduled task...		TBT-1000
	XT_46F80A	Edit scheduled task...		RBT-602
	XT_46F0BB			RBT-672
	DEV_RBT402	EWF Write Protection		RBT-402

2. Select the *Take ownership* menu item.
3. A progress bar will appear briefly while the process completes.
4. The client's status icon will change from  to  when ownership has been assumed.

2.3 - Thin Client Management Tasks

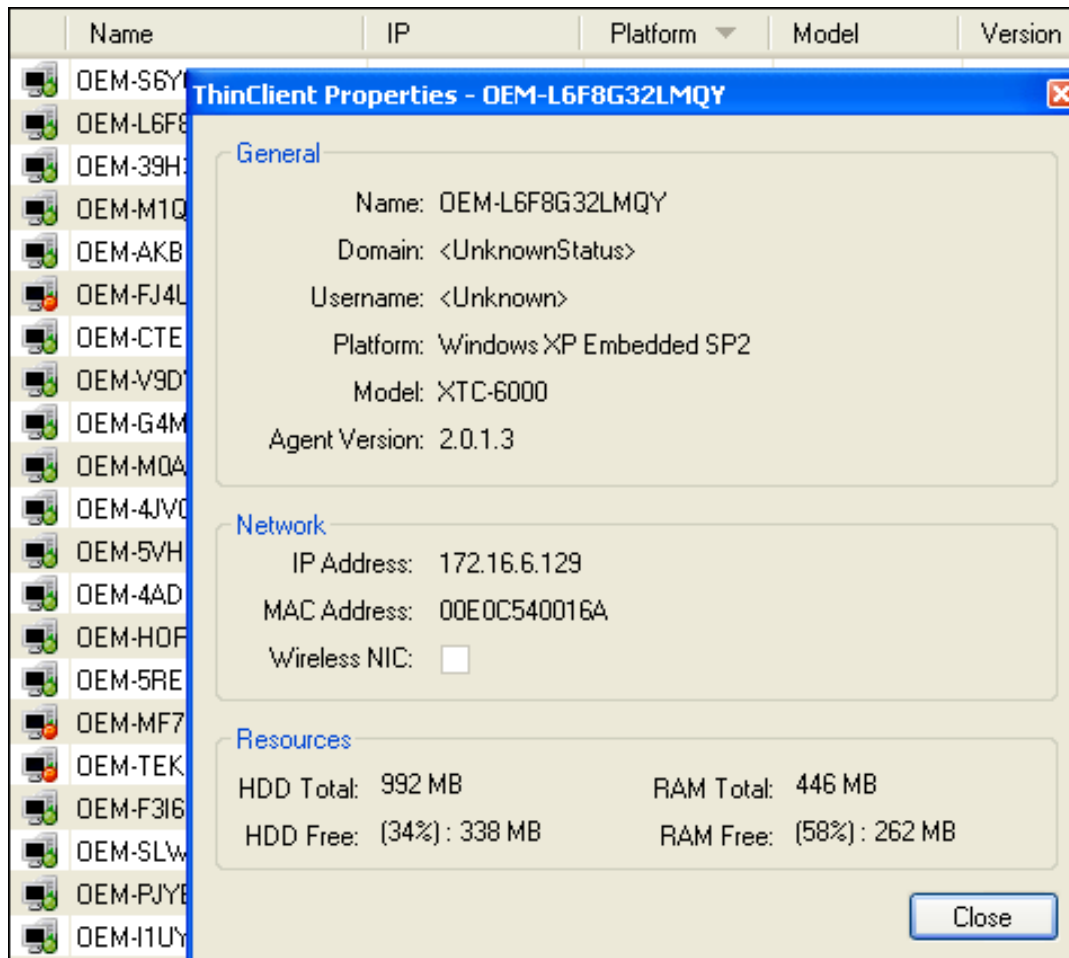
The 10ZiG Manager supports all 10ZiG thin client operating systems including Windows XP Embedded, Linux, and Windows CE. Many remote management tasks are common to all the types of thin clients, however, as platforms vary in capability, some tasks are specific to each.

2.3.1 - Common Tasks

Many management tasks are universal to all 10ZiG thin clients regardless of OS; these tasks are detailed as follows.

2.3.1.1 - Properties

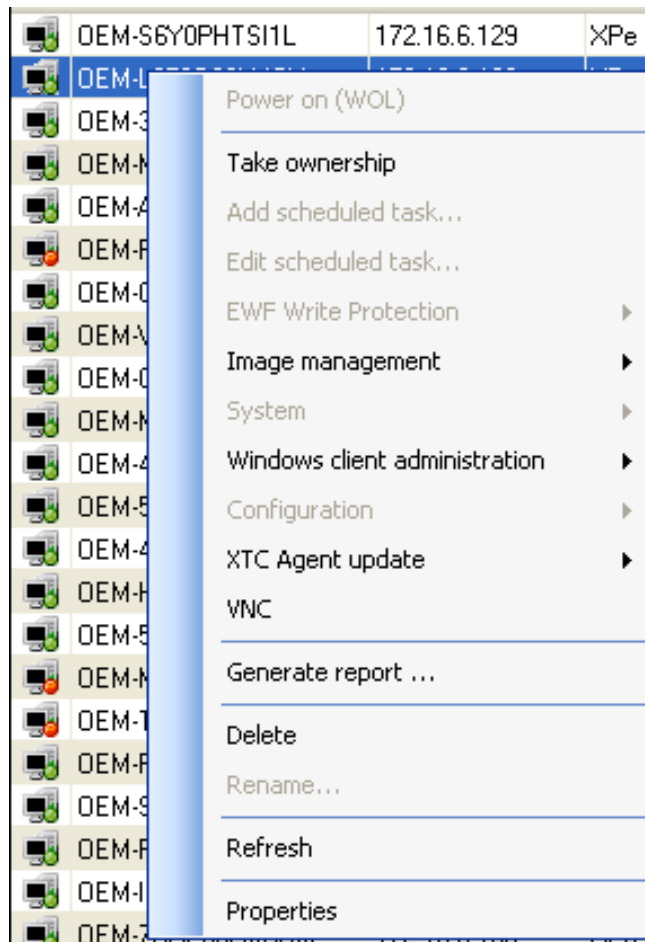
To display some basic information about a thin client including the client model, computer name, agent software version, and hard drive and RAM resources, right-click on the client entry and select the *Properties* menu item.



2.3.1.2 - Thin Client Entry Maintenance



At times some thin client entries may need to be removed from the Manager Console clients list either because thin clients have been removed from the network so the entry is no longer required or because it is necessary to have the thin client be rediscovered and registered with the Manager. There are several ways to remove these entries.

1. To Right-click on an entry and select the *Delete* menu item.



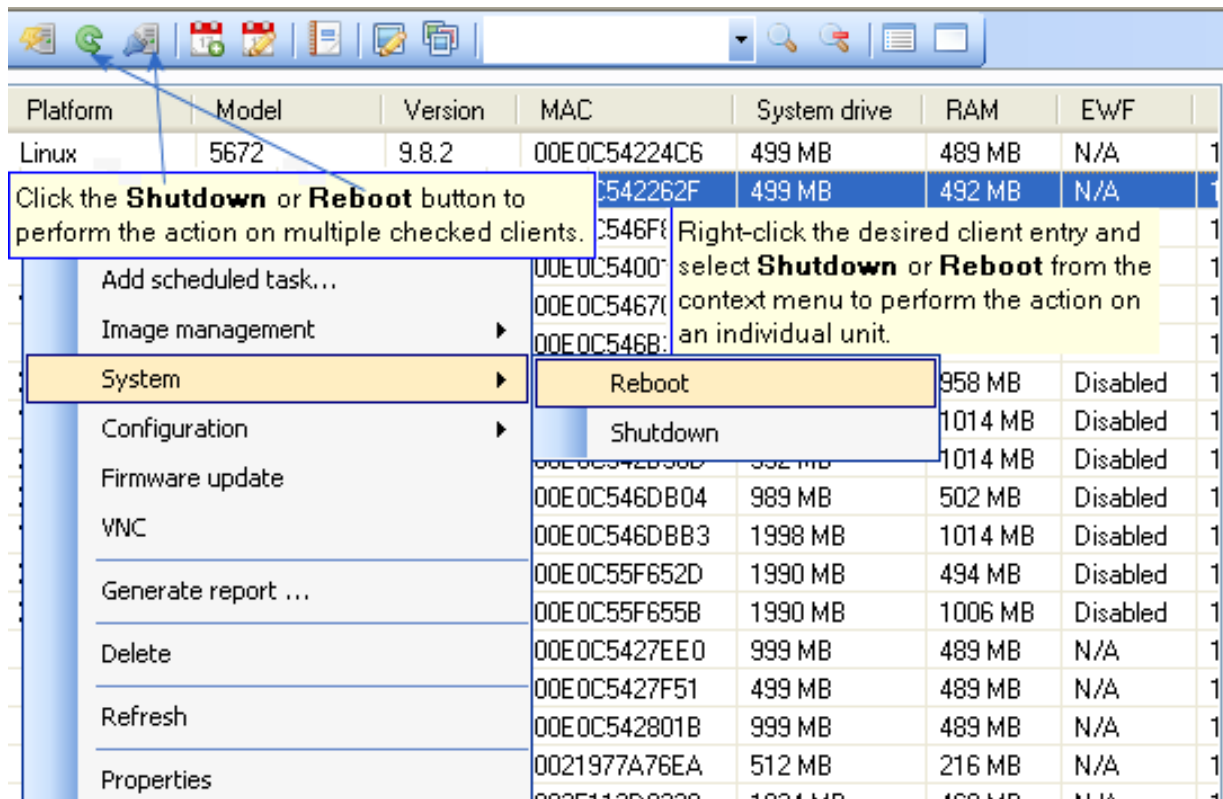
- Highlight each thin client entry to remove, use control or shift keys to select multiples. Right click then click select *Delete* or press the Delete key on the keyboard.

	Name	IP	Platform
	BULLS	172.16.6.61	XPe
	OEM-SIFE7XEOT13	172.16.6.136	XPe
	DEV_RBT616	172.16.6.93	XPe
	OEM-TIC6QXTEC6Q		XPe
	OEM-CR XR7LAF4T3	172.16.6.137	XPe
	OEM-5H0NZNYXXFY	172.16.6.139	XPe
	OEM-32FJL3TLU2S	172.16.6.59	XPe
	OEM-NPJFB9FANZL	172.16.6.64	XPe



- All clients can be selected by clicking the *Select all*  or deselected by clicking the *Deselect all*  toolbar buttons and then either press the Delete key or right click on the manager console an select **Delete**.

2.3.1.3 - System Tasks

Remote system tasks include shutting-down, rebooting and powering-on clients. To Shut down or reboot a single client, right-click the client entry and select *Shutdown* or *Reboot* from the *System* submenu.



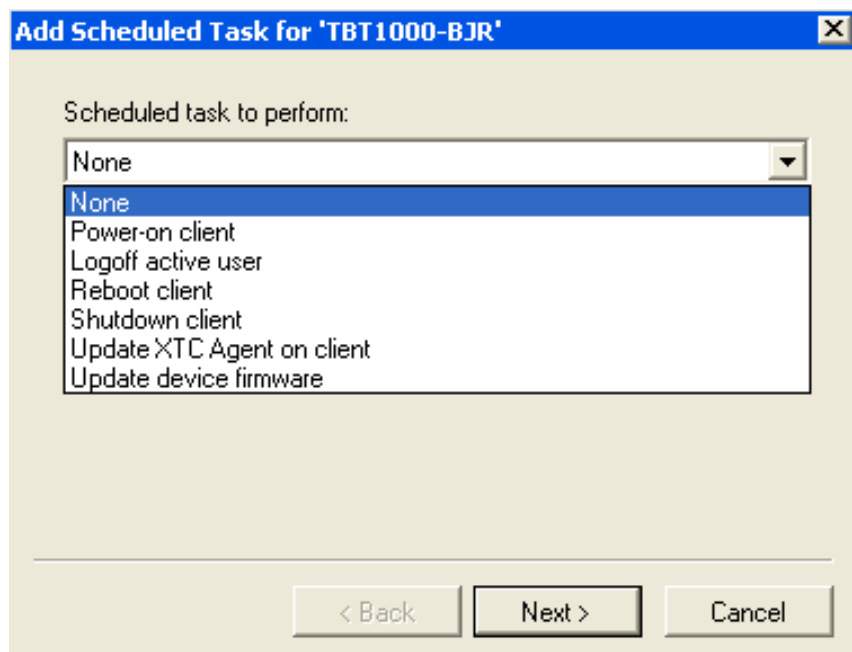
2.3.1.4 - Scheduled System Tasks

Schedule system tasks such as shutting-down, rebooting and powering-on clients  or edit scheduled tasks 

2.3.1.5- VNC

VNC allows shadowing the thin client from the console. For privacy reasons security is set in the VNC parameters when shipped.

2.3.1.6 - Add Scheduled Task..



2.3.1.7 - Edit Scheduled Tasks..

Scheduled Tasks

Name	Target	Task	Next Run Time	Frequency	Last Run Time	Status
------	--------	------	---------------	-----------	---------------	--------

Edit

Delete























Refresh

Show All

Close

2.3.2 - Windows XPe, WES 2009 and WIN 7

Windows Embedded-based 10ZiG thin clients

	Name	IP	Platform ▾	Model	Version	MAC
	OEM-S6Y0PHTSI1L	172.16.6.129	XPe	7716-T	2.0.1.3	0025113D7F8D
	OEM-L6F8G32LMQY	172.16.6.129	XPe	XTC-6000	2.0.1.3	00E0C540016A
	OEM-39H31TW59NC	172.16.6.1	<ul style="list-style-type: none"> Power on (WOL) Take ownership Add scheduled task... Edit scheduled task... EFW Write Protection ▶ Image management ▶ System ▶ Windows client administration ▶ Configuration ▶ XTC Agent update ▶ VNC Generate report ... Delete Rename... Refresh Properties 		1.1.3	00E0C5400364
	OEM-VSP69C7CVX4	172.16.6.1			1.1.3	00E0C5403EFA
	OEM-AKBHURRXKFR	172.16.6.1			1.1.1	00E0C54041ED
	OEM-FJ4UF2HZ7NL				1.1.1	00E0C540562B
	OEM-CTED55TZC0P	172.16.6.1			1.1.1	00E0C540564D
	OEM-V9DWGT9XRPT	172.16.6.1			1.1.3	00E0C54062F1
	OEM-G4MS1SIOPB7	172.16.6.1			1.1.3	00E0C5406331
	OEM-M0AQ84S4FU7	172.16.6.1			1.1.3	00E0C540634D
	OEM-4JVOW31EDTN	172.16.6.9			1.1.3	00E0C540637C
	OEM-5VHTMY2JAM1	172.16.6.1			1.1.3	00E0C5406396
	OEM-4AD3Z3K5UQC	172.16.6.1			1.1.3	00E0C5427423
	OEM-HORWFE4LE7E	172.16.6.1			1.1.3	00E0C5427AB5
	OEM-5RE3CNNDC4C	172.16.6.1			1.1.3	00E0C5427CA4
	OEM-MF7HTW7NF17				1.1.3	00E0C542DE18
	OEM-TEK3Z9NN8WA				1.1.3	00E0C542DE42
	OEM-F3I6GHA9S0X	172.16.6.1			1.1.3	00E0C542DE62
	OEM-SLWOKE3GSLC	172.16.6.1			1.1.3	00E0C542DE91
	OEM-PJYEWV66DGP	172.16.6.1			1.1.3	00E0C542DEAC
	OEM-I1UY83R7ISP	172.16.6.6			1.1.3	00E0C542DEAD
	OEM-7HXP53LMCOM	172.16.6.1			1.1.3	00E0C542DEBC

Many options are available to specific client types, if the option is grayed out it does not apply to the thin client selected.

2.3.2.1 - EFW Write Protection

Enhanced Write Filter (EFW) provides the ability to write-protect XPe image. **Write Protection must be turned off or disabled before cloning an image - newer versions of the 10ZiG Manager will disable EFW off automatically when cloning an image.**

2.3.2.2 - XPe and WES 09 Image Management

Image management (Clone and Deploy System Image) this process does an fbresal before creating an image to be used for cloning. Once the image has been resealed, the thin client must be PXE booted to the 10ZiG Manager to maintain the resealed image where it can

be backed up as a binary or compressed image. The cloned image can then be pushed out to other XPe thin clients. When the cloned image boots for the first time a unique security ID (SID) and computer name are assigned to the system. [See Section 4](#)

2.3.2.3 - WIN 7 Image Management

Image management (Clone and Deploy System Image) this process does a sysprep before creating an image to be used for cloning. Once the sysprep settings are set and sysprep is complete the image is ready to be cloned, the thin client must be PXE booted to the 10ZiG Manager to maintain the syspreped image where it can be backed up as a binary or compressed image. The cloned image can then be deployed to other like thin clients. When the cloned image boots for the first time a unique security ID (SID), computer name and sysprep settings are assigned to the system. [See Section 5](#)

2.3.3 - Linux

Linux Functions

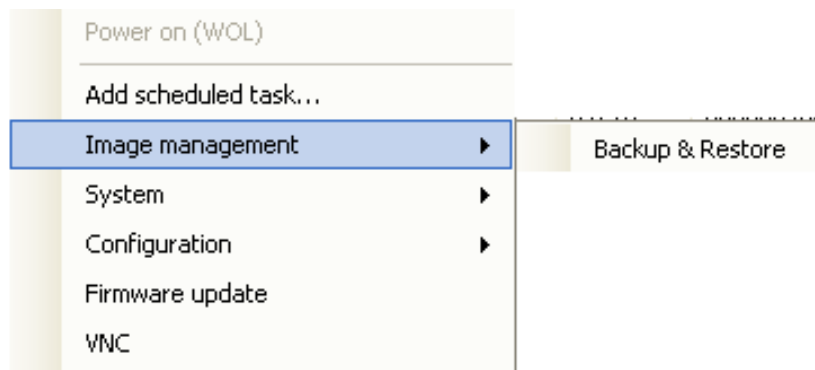
	Name	IP	Platform	Model
	10ZIG_4001AE	172.16.6.168	Linux	6602
	10ZIG_4003e9	172.16.6.135	Linux	6672
	10ZIG_42b58d	172.16.6.133	Linux	5672
	10ZIG_46f1			5602
	10ZIG_46f8			5672
	10ZIG_REC			5672
	DEV_LTC-6			LTC-6000
	DEV_TBT10			TBT-1000
	DEV_WES7			RBT-616
	IBM-CONSC			XTC-1300
	OEM-N4QR			RBT-616
	OEM-ZHIT7			XTC-6000

- Power on (WOL)
- Add scheduled task...
- Edit scheduled task...
- Image management ▶
- System ▶
- Configuration ▶
- Firmware update
- VNC
- Generate report ...
- Delete
- Refresh
- Properties

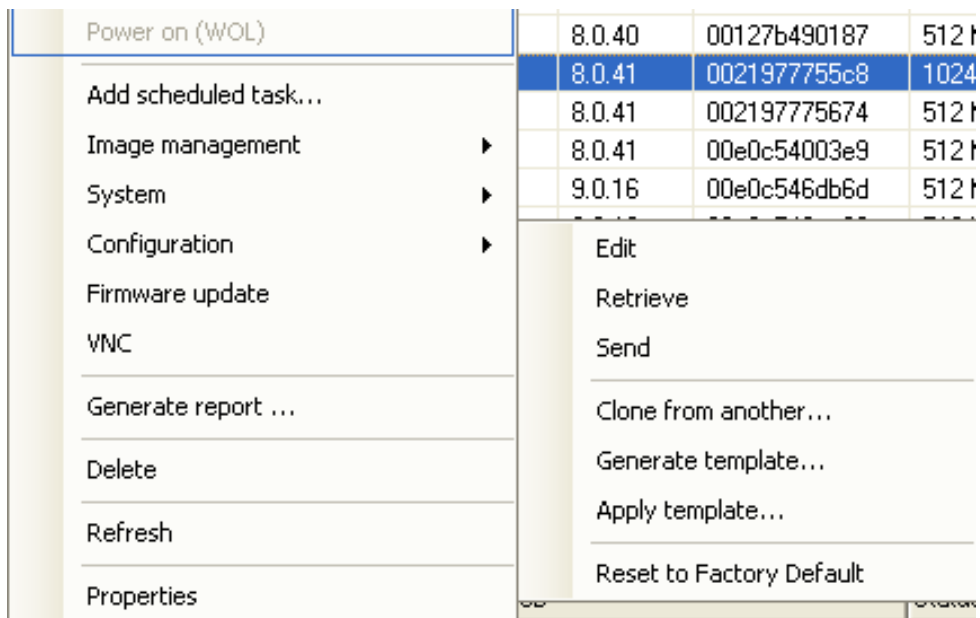
Thin Client Int

2.3.3.1 - Image Management

See Section 6

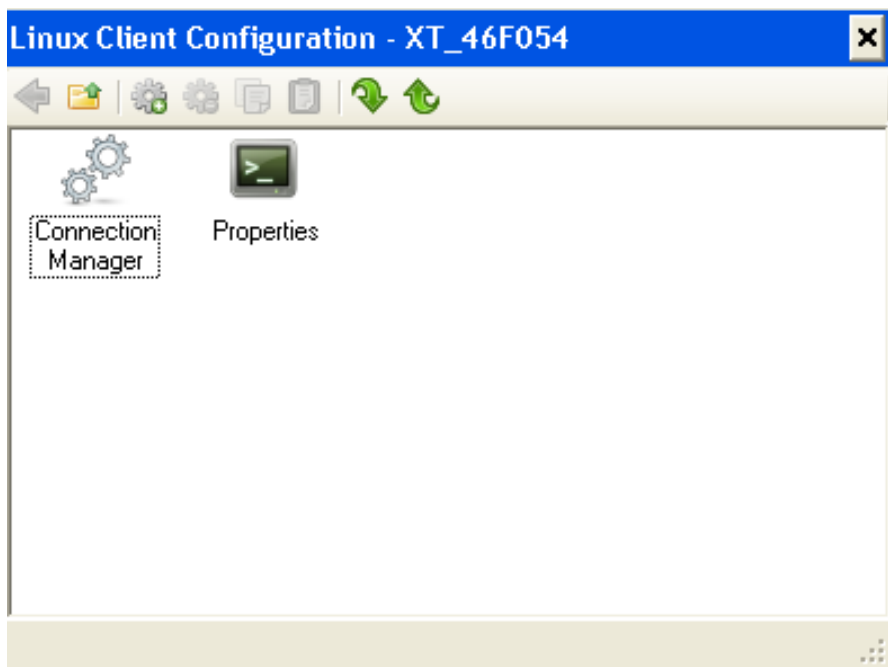



2.3.3.2 - Configuration

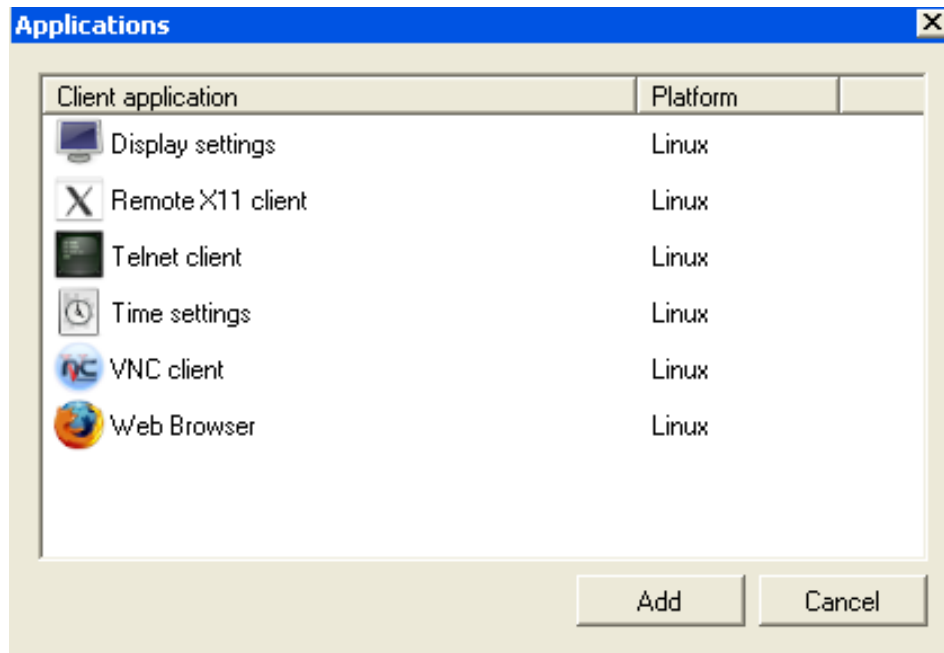


NOTE: Before editing the configuration take the option to Retrieve. Retrieve will pull in the current configuration of the thin client.

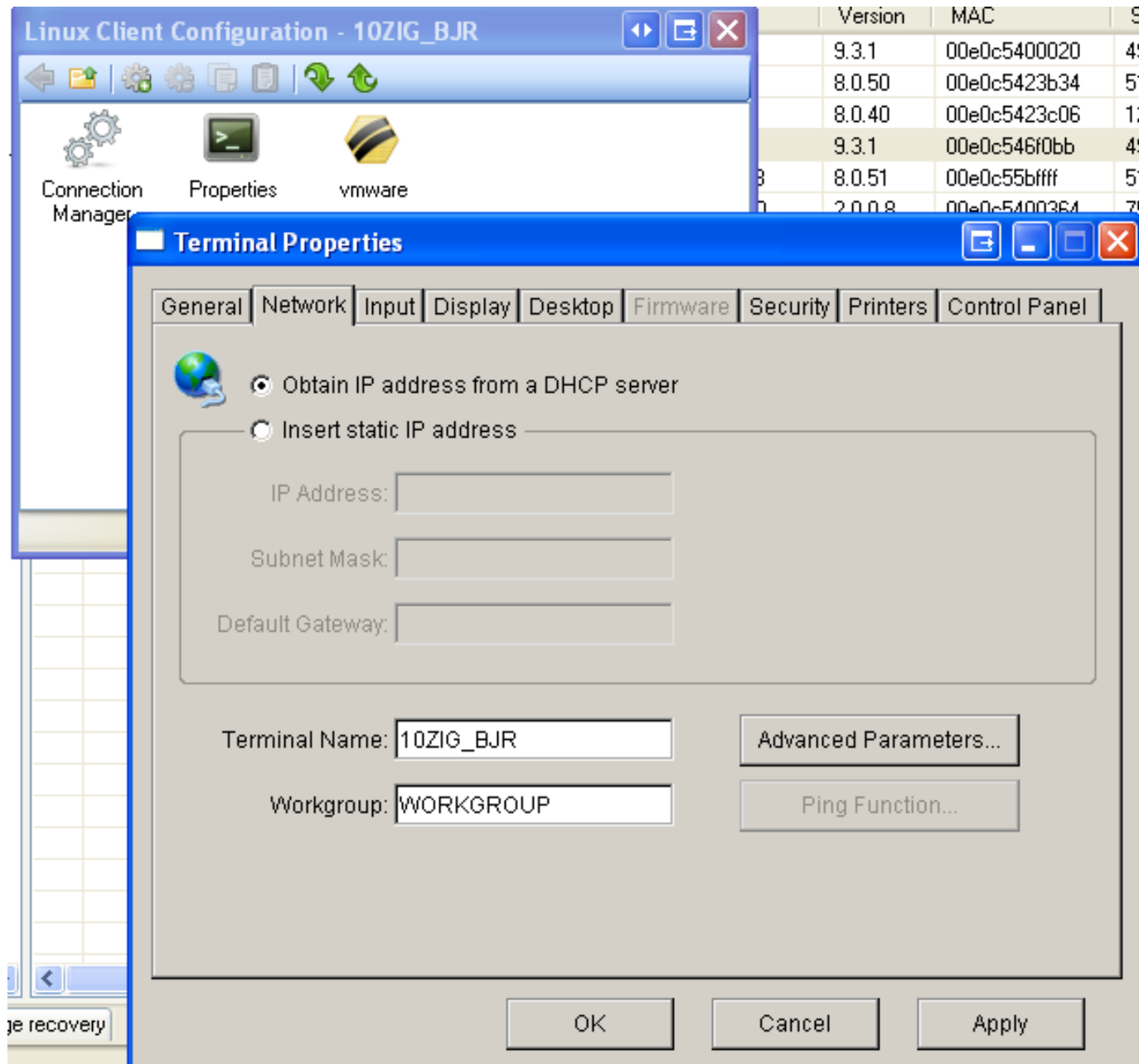
Edit



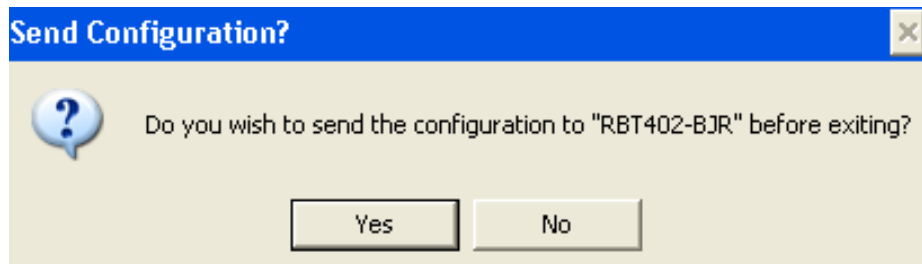
From here you can edit the connection manager, create new sessions,  and edit the terminal properties.



To change the name of the thin client double click on properties - select the network tab - enter the desired Terminal Name - select OK



After making changes you will be prompted to send the configuration to the thin client. Changes will not take effect until they have been sent to the thin client. When changes are sent to the thin client, the thin client will reboot.

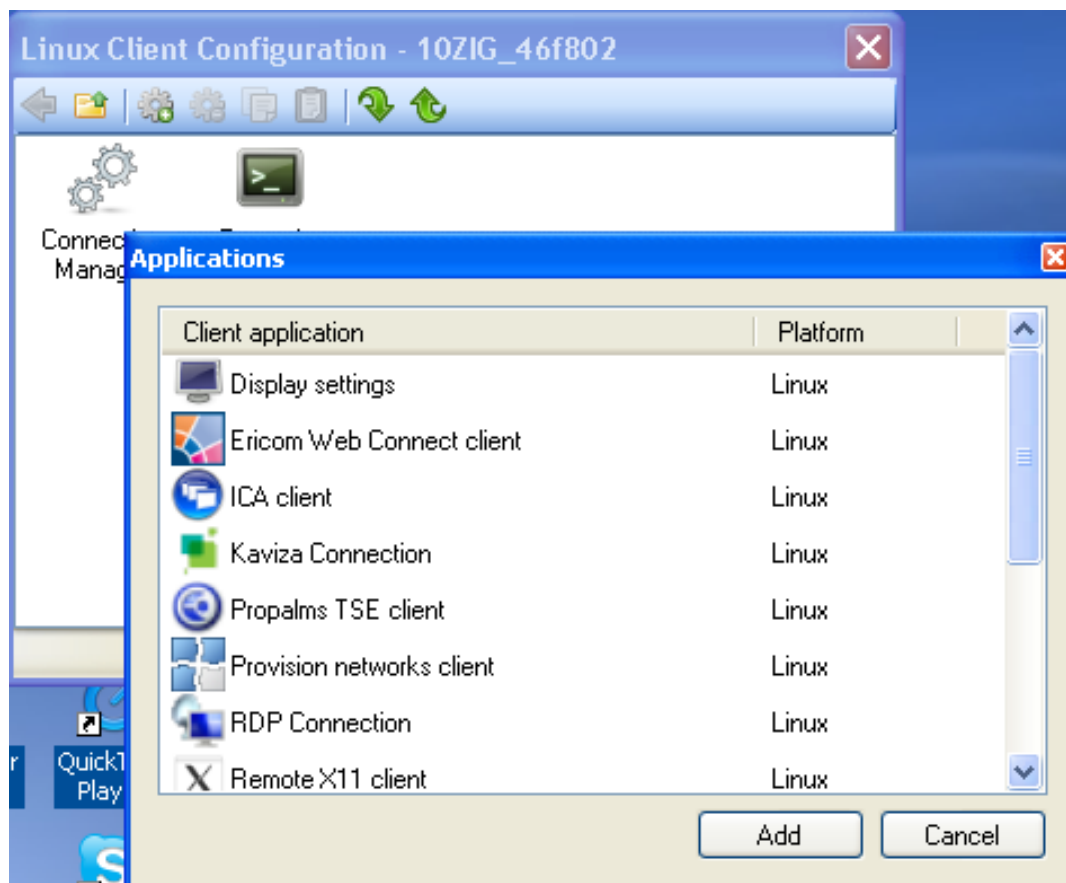


[Click here to see a short video on how to Change Terminal Name](#)

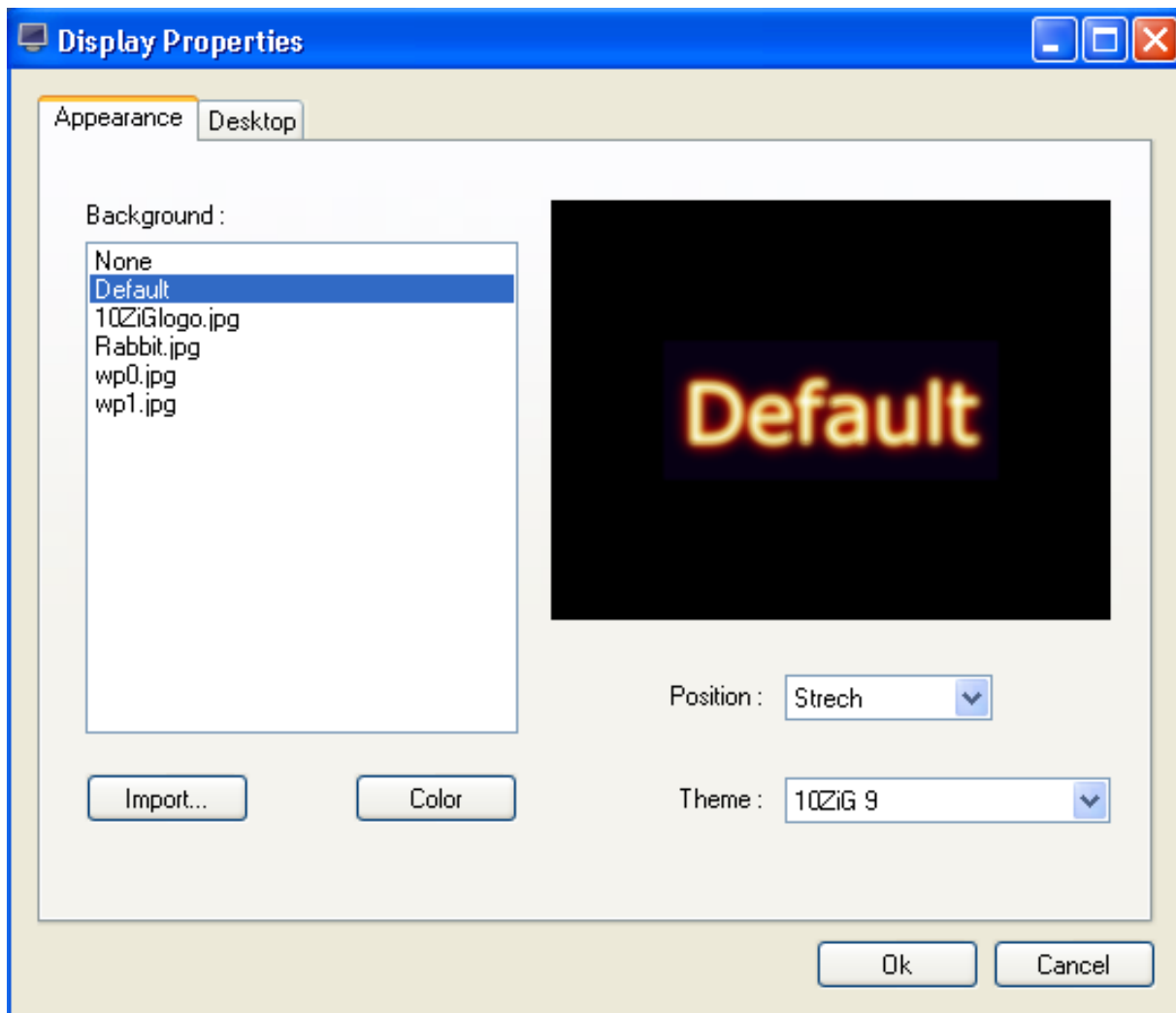
•

Import Wallpaper

Double click on thin client to access Linux Client Configuration. Double click on the gear with green dot ICON.



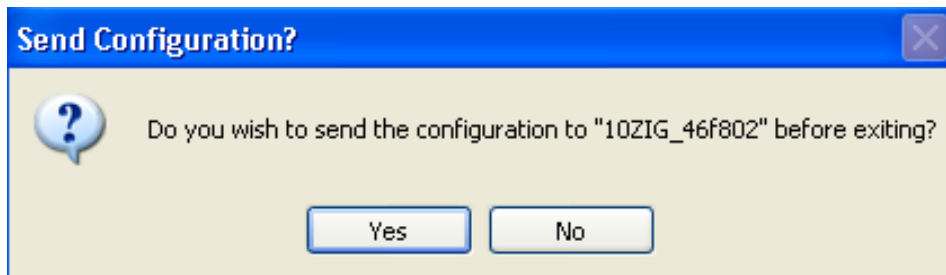
Double click on Display settings



Click on Import and select the .jpg image to use as wallpaper

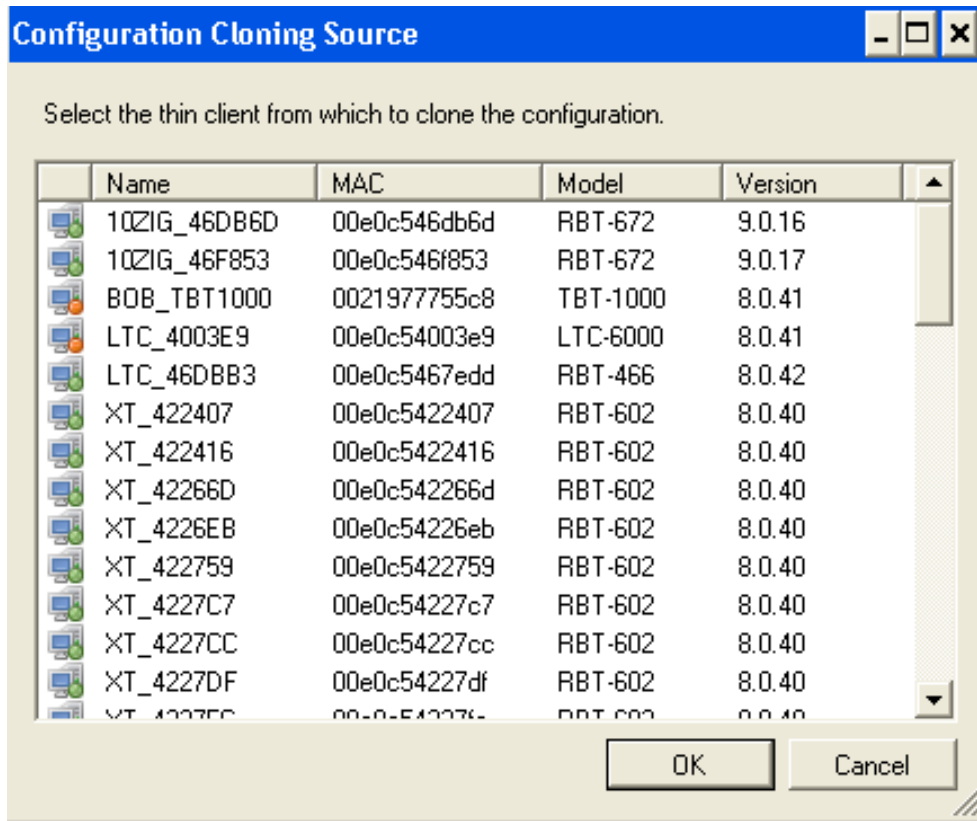
Select OK

Send configuration to thin client



Clone From Another

Select the thin client to clone configuration from another thin client. Select the thin client from which to clone the configuration. This must be the same model of thin client.

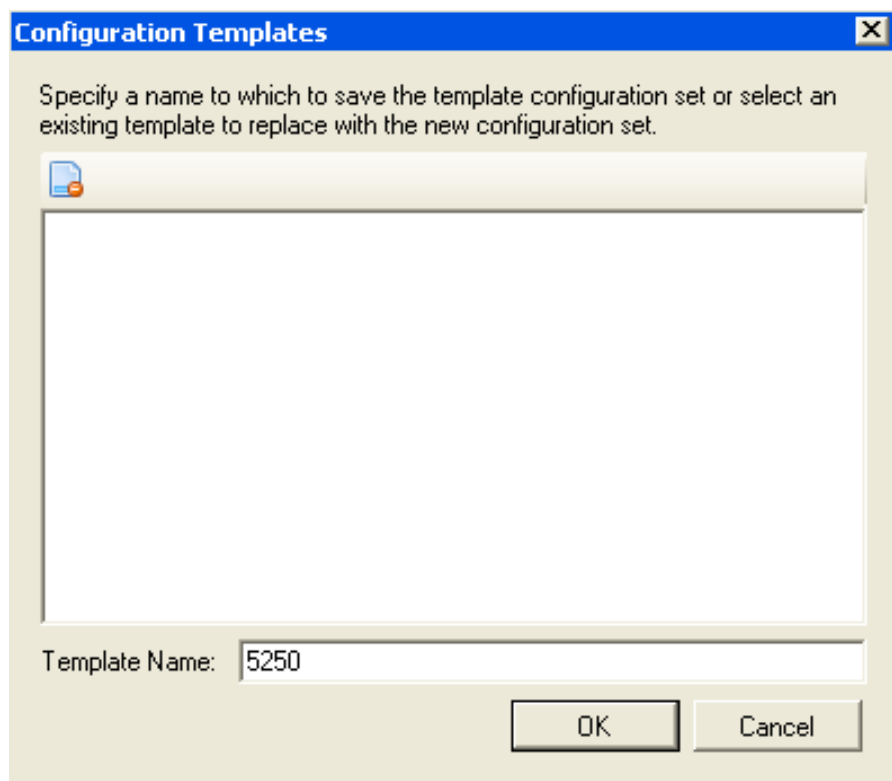




[Click here to view a short video on Linux Cloning](#)

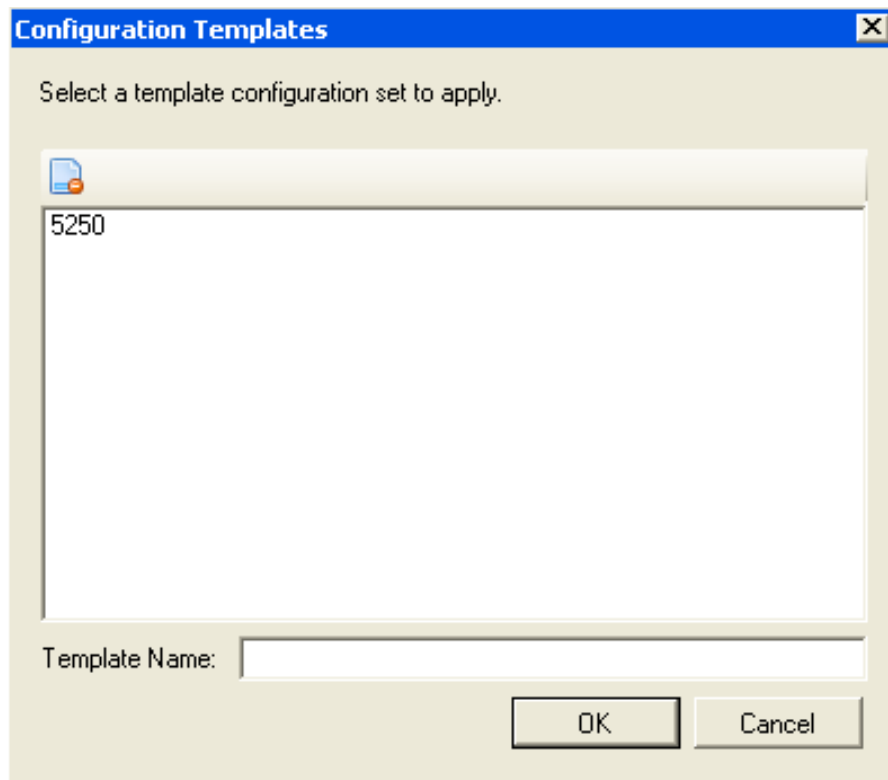
- **Generate Template**

Templates are meant for specific configurations to be applied to other thin clients of the same model. Templates of the same type will overwrite each other such as two 5250 templates. If both are applied the last one applied will be the template used. Multiple templates can be used such as one for a browser, one for a 5250 session(s) and one for RDP, and each applied to one thin client. Templates will add to existing configurations.



- **Apply Template**

Applies a previously created template to a thin client

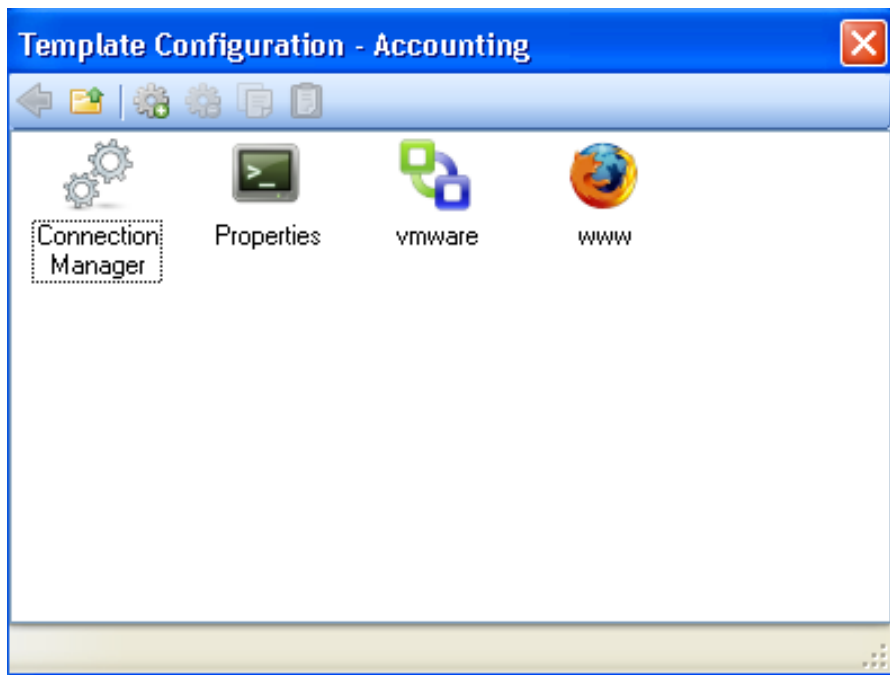
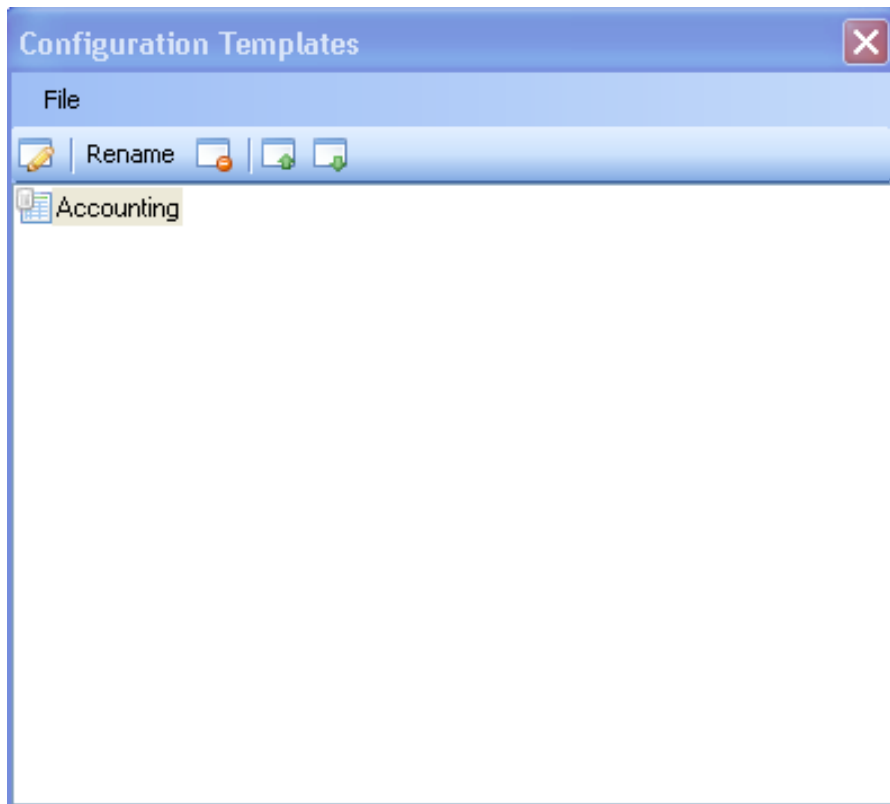


[Click here to view a short video on Templates](#)

• **Manage Templates**

Manages a previously created template - options are to Edit, Rename, Delete, Import and Export templates

Example below of Edit Template:



2.3.3.3 - Reset Factory Default

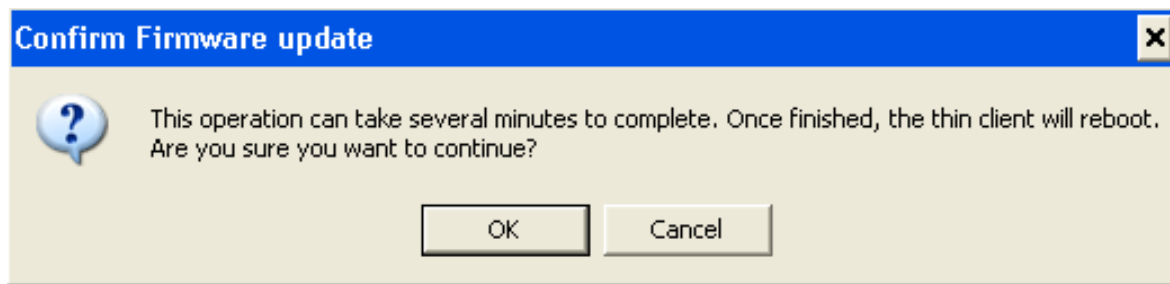
Right click on the intended thin client - select configuration - select Reset To Factory Default



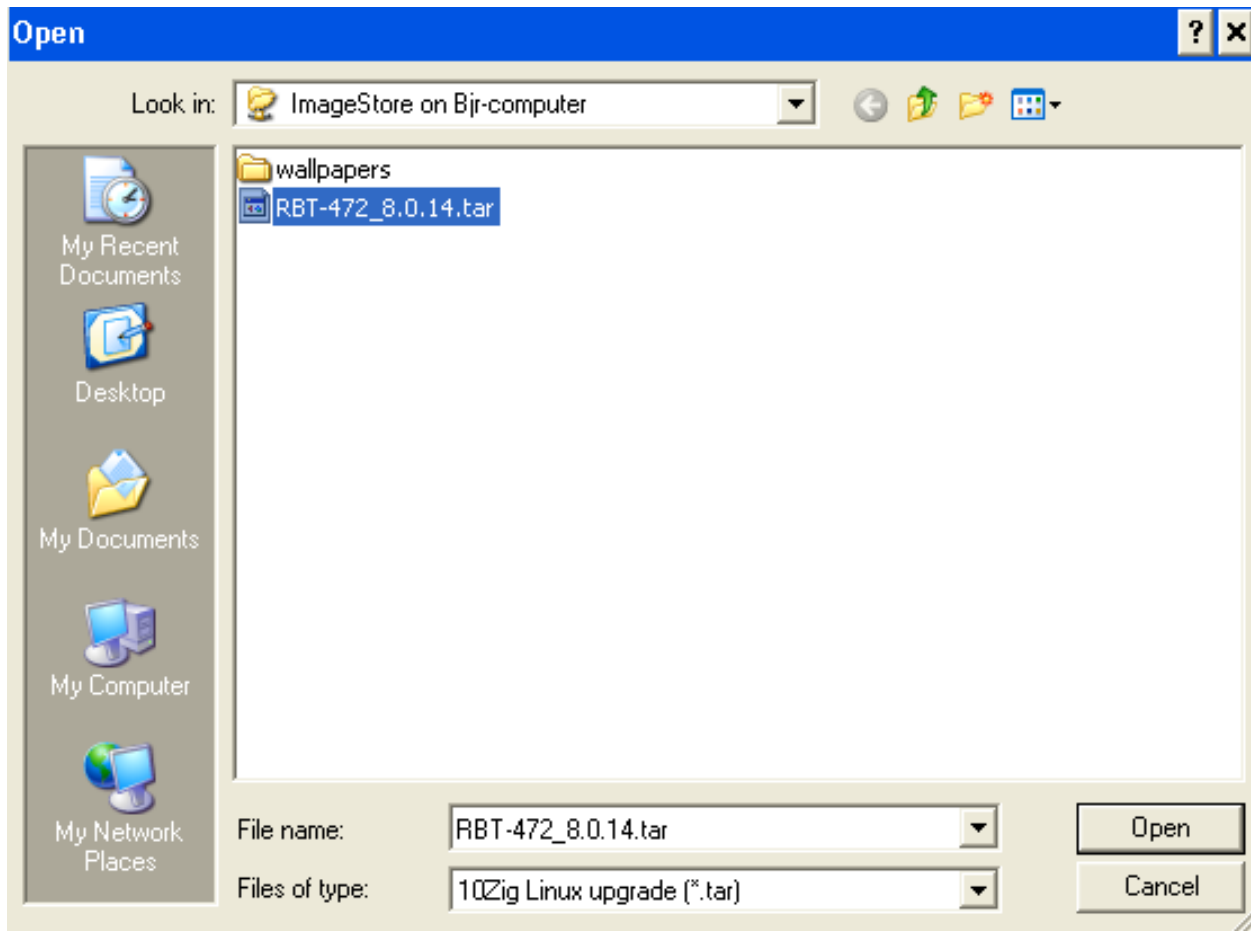
[Click here to view a short video of resetting factory defaults](#)

2.3.3.4 - Firmware Update

Upon selecting Firmware Update you will be prompted to verify the update process.



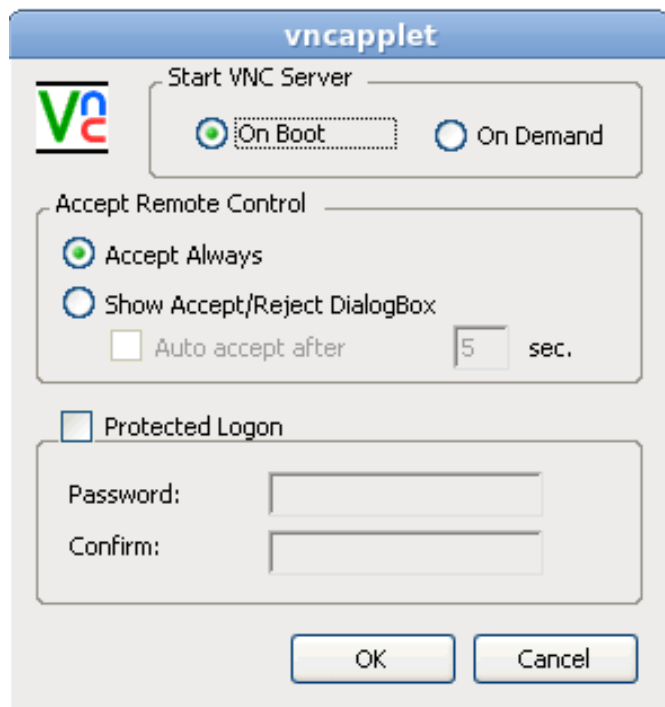
Upon confirming the Firmware Update you will be prompted to select a tar file.



The firmware update will begin. A progress bar will continue until the update has completed at which time the thin client will reboot. The thin client itself will display *Updating Firmware* during the process.

2.3.3.7 - VNC

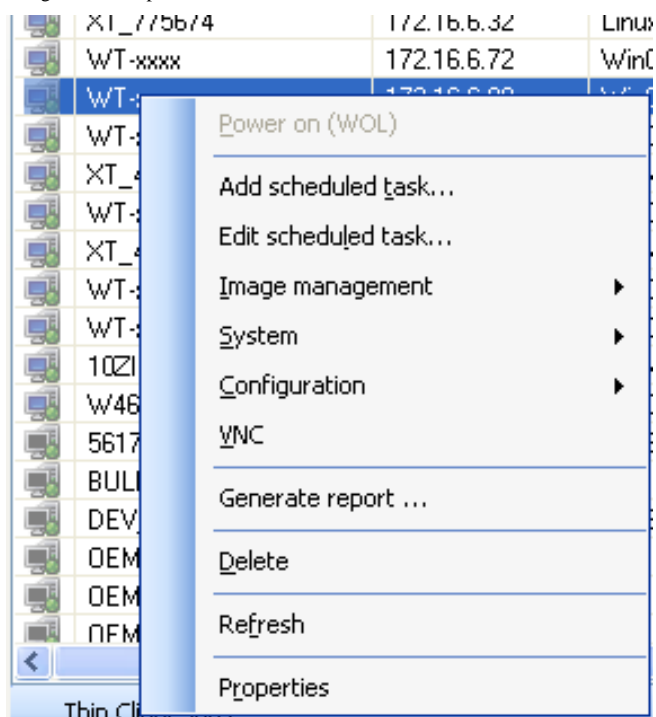
VNC allows shadowing the thin client from the console. To access the thin client via an Ultra VNC Client outside of the 10ZiG Manager, set the VNC options in Terminal Properties - Control Panel - VNC Shadowing to Start VNC Server On Boot.



2.3.4 - Windows CE

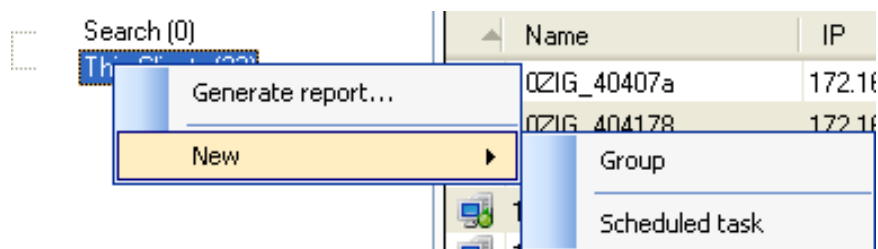
Options for Windows CE thin clients are ***ADD SCHEDULED TASK***, ***SYSTEM*** (reboot and Shutdown), and ***VNC***.

NOTE: Management for CE thin clients is not as inclusive as with Linux or XPe thin clients and options are limited.

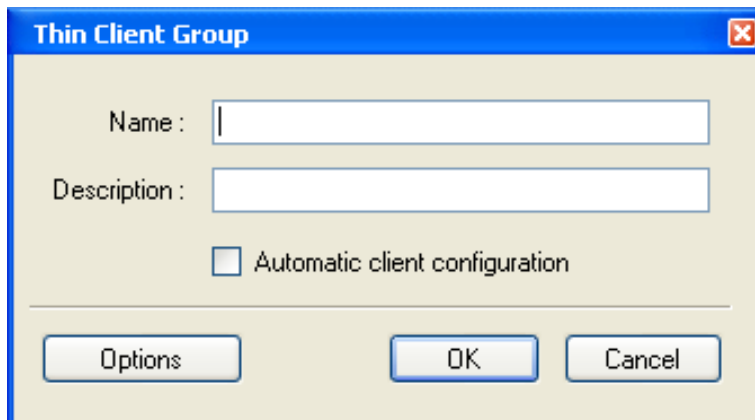


2.4 - Logical Groups

Used to create logical groups of thin clients. Right client on Thin Clients and select New -> Group.

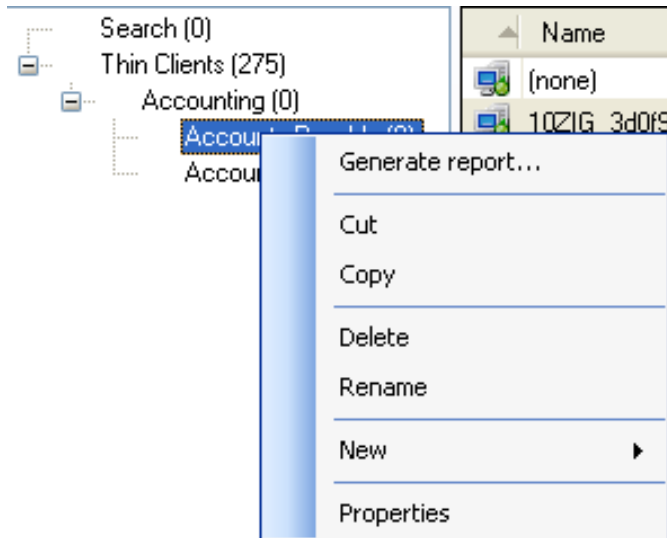


To include an IP range or other filtering options by selection the Options button. Thin clients must be



The 'Thin Client Group' dialog box has a blue title bar with a close button. It contains two text input fields: 'Name' and 'Description'. Below these is a checkbox labeled 'Automatic client configuration'. At the bottom are three buttons: 'Options', 'OK', and 'Cancel'.

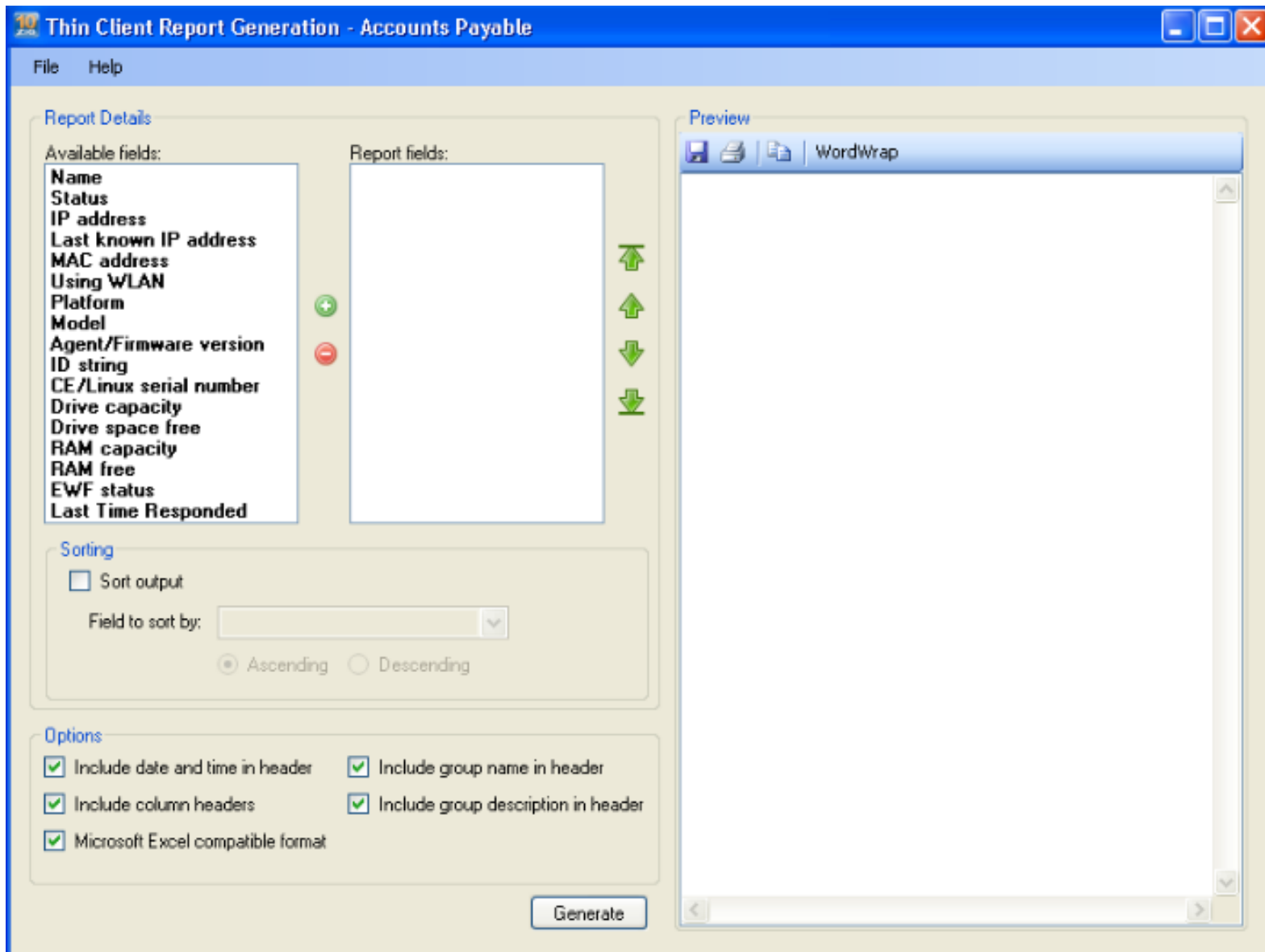
To edit the group properties right click on the group



2.5 - Generate Report

To generate a report right click on a group and select Generate report....

Select which available fields to be reported and move them to the report fields by selecting the green button with a plus sign in it.



Select Generate to generate the report.

Thin Client Report Generation - All Detected 10ZiG Thin Clients

File Help

Report Details

Available fields:

- Name
- Status
- IP address
- Last known IP address
- MAC address
- Using WLAN
- Platform
- Model
- Agent/Firmware version
- ID string
- CE/Linux serial number
- Drive capacity
- Drive space free
- RAM capacity
- RAM free
- EWf status
- Last Time Responded

Report fields:

- Name
- Platform
- Model

Sorting

☐ Sort output

Field to sort by:

☒ Ascending ☐ Descending

Options

☒ Include date and time in header ☒ Include group name in header

☒ Include column headers ☒ Include group description in header

☒ Microsoft Excel compatible format

Preview

WordWrap

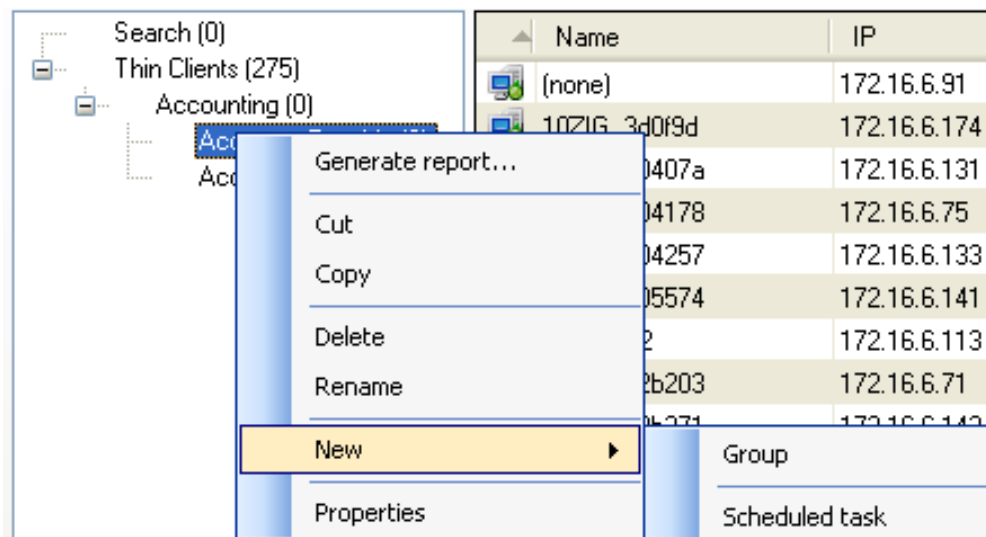
07-19-11 14:51:04
Thin Clients - All Detected 10ZiG Thin Clients
Count: 276

Name	Platform	Model
OEM-CSSQEZJYYM	XP	5416
OEM-F0BY0T1BVGO	XP	XTC-6000
OEM-I9UAI9HU82D	XP	6716
PC	WES	7,6716
OEM-9705COSTGE2	XP	6716
DRV-W7SP1	6716	WES 7,6716
WIN-LGE6CFNR0MD	WES	7,6716
OEM-2RRIIXHFVUO	XP	XTC-5116
OEM-VBJDH56X00I	XP	XTC-5116
OEM-110LXTX76UP	XP	XTC-5116
WIN-8FK4M8PUEG6	WES	7,6716
WIN-BJIRTSG4EC5	XP	6000
OEM-AZASMPITIWF	XP	6716
OEM-9EPOXFOJBZU	XP	6716
OEM-2K2XI8AI29T	XP	6716
OEM-S1B409BCQ76	XP	6716
WIN-U0QSSG68VGF	XP	6000
WIN-F1FRLV3KMBN	XP	6000
WIN-DJFOA2C6T53	WES	7,6000
WIN-1R59FRPFLF7	XP	6000
OEM-UXBI4ZIFC7E	XP	6716
WIN-MC4G9DS25CV	XP	6000
OEM-80ZQH75QLED	XP	6000
WIN-SC97NP5BPAU	XP	6000
WIN-IVVK906KMP3	XP	6000
WIN-EK1VHTT48LB	XP	6000
WIN-ED087KAHVNG	WES	7,6000

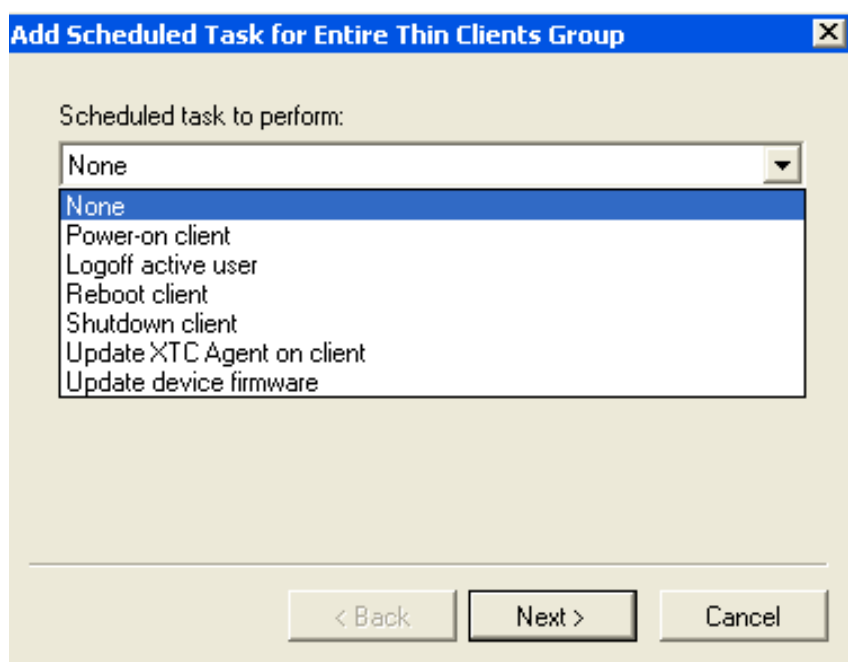
Generate

2.6 - Task Scheduling

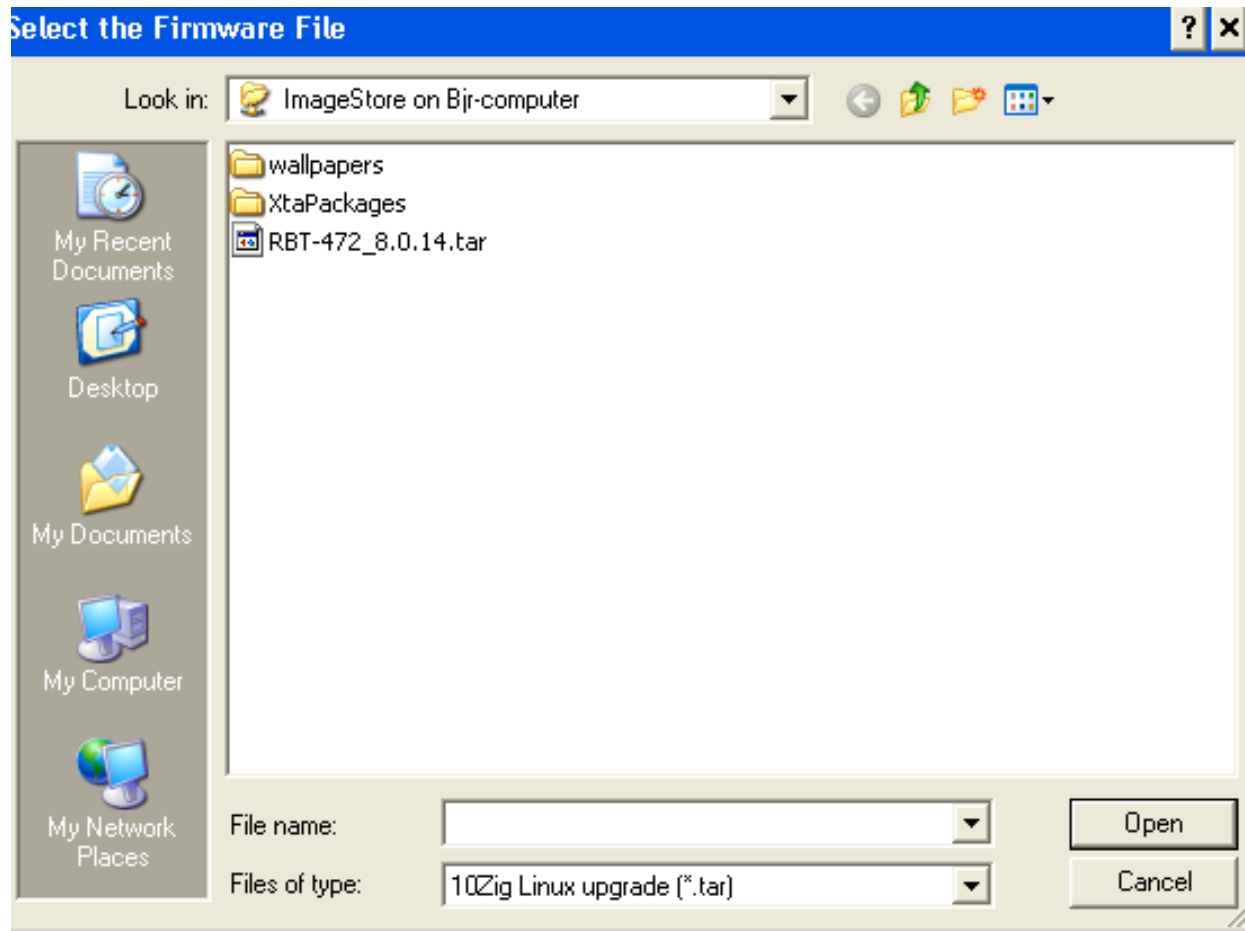
Right click on the Group and select New -> Scheduled task...



Select the desired task to be scheduled



Below is an example of the task Update Device Firmware



Add Scheduled Task for Entire Thin Clients Group [X]

Task name :

Run the task :

☒ Once
☐ Interval
☐ Daily
☐ Weekly
☐ Advanced (Cron syntax)

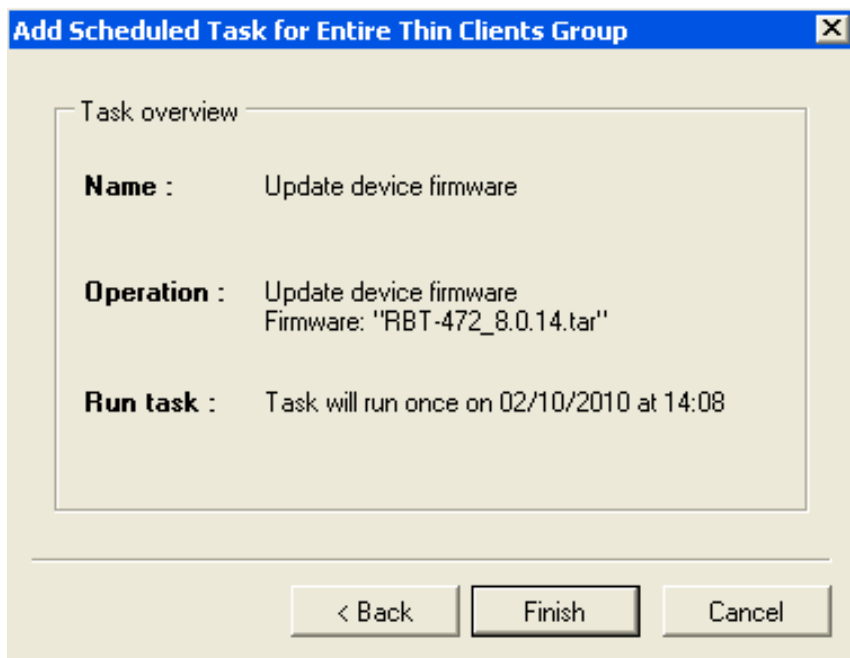
< Back Next > Cancel

Add Scheduled Task for Entire Thin Clients Group [X]

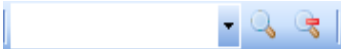
Start Date :

Start Time :

< Back Next > Cancel



2.7 - Searching for Thin Clients

To search for a thin client use the  search option. Click on the red ICON to the right of the magnifying glass (search button) to clear the search results.

3 - Remote Client Configurations

- The 10ZiG Mgr allows the user to build, store and deploy settings for thin clients
- It also provide template management via organizational groups
- The settings are mainly client connection oriented
- The configuration is done in the *Client Configuration* tab of the console

Tip: You can access a thin client configuration by double-clicking the thin-client entry

3.1 - Navigation

How do I navigate ? To navigate through groups one can :

- Use the tree view in the left part
- Double click on the groups

How do I populate groups ? You can populate groups with sub-groups, thin clients or users. To do this you can create new sub-groups or users (for user groups) or **drag and drop** items into groups :

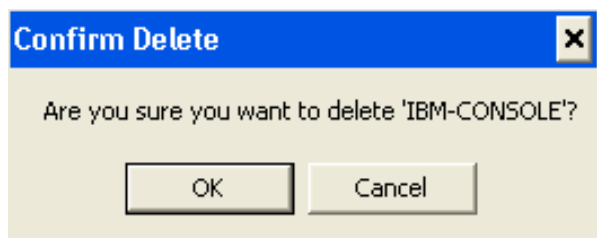
- - One by one in the tree view
- - Single/Multi by selecting the item in the main view

How do I delete items ? - To delete a user or thin client group :

- Select the items (in the tree view or in the main view)
- Right click on an item (in the tree view or in the main view)
- Click *Delete...*

Or

- Select the items (in the tree view or in the main view)
- Press *Delete*



3.2 - Groups

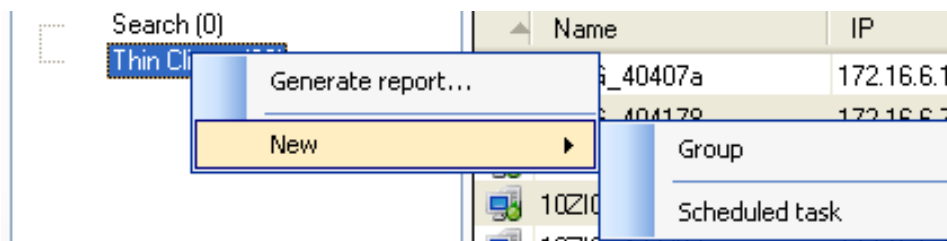
- Organize the units and users into logical containers that are representative of the location or organization
- Provide layered/inherited or customized settings
- Allow specific thin clients to pull their configuration automatically based on preconfigured criteria

- The thin clients groups under the Thin Clients tab

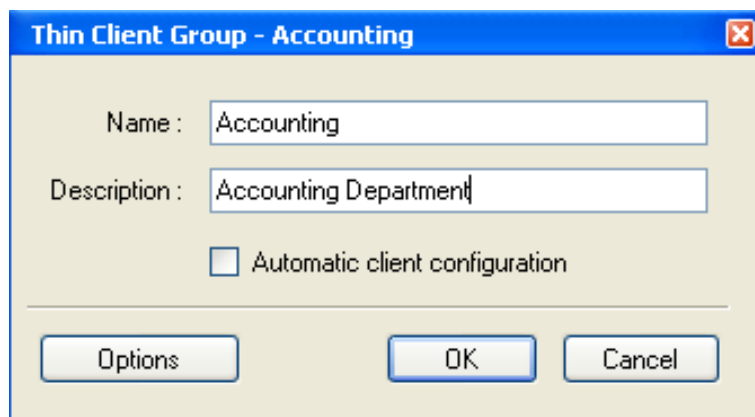
- The users groups under the Client Configuration tab

How do I create a group?

- Right click on a group item (in the tree view or in the main view)
- Click *New...Group...*



- Name the group

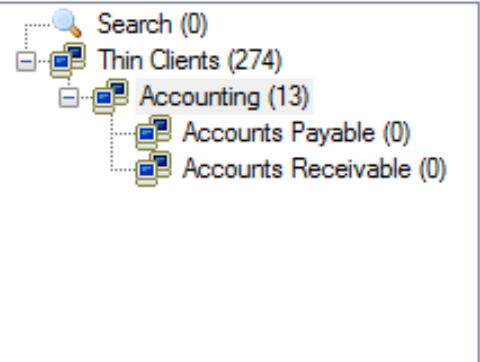


- Click on Options to edit the filtering options

Groups can be populated based on:

- Platform
- Model
- Version
- IP Address
- MAC Address
- Computer Name

Thin client will now be displayed in the group - subgroups can also be utilized as seen in the next section:

	<table> <thead> <tr> <th>Name</th><th>IP</th></tr> </thead> <tbody> <tr> <td>IBM-CONSOLE</td><td>172.16.6.118</td></tr> <tr> <td>10ZIG_40407a</td><td>172.16.6.131</td></tr> <tr> <td>10ZIG_42dea7</td><td></td></tr> <tr> <td>10ZIG_42df34</td><td></td></tr> <tr> <td>10ZIG_42df60</td><td></td></tr> <tr> <td>10ZIG_42e015</td><td></td></tr> <tr> <td>10ZIG_457df7</td><td></td></tr> </tbody> </table>	Name	IP	IBM-CONSOLE	172.16.6.118	10ZIG_40407a	172.16.6.131	10ZIG_42dea7		10ZIG_42df34		10ZIG_42df60		10ZIG_42e015		10ZIG_457df7	
Name	IP																
IBM-CONSOLE	172.16.6.118																
10ZIG_40407a	172.16.6.131																
10ZIG_42dea7																	
10ZIG_42df34																	
10ZIG_42df60																	
10ZIG_42e015																	
10ZIG_457df7																	

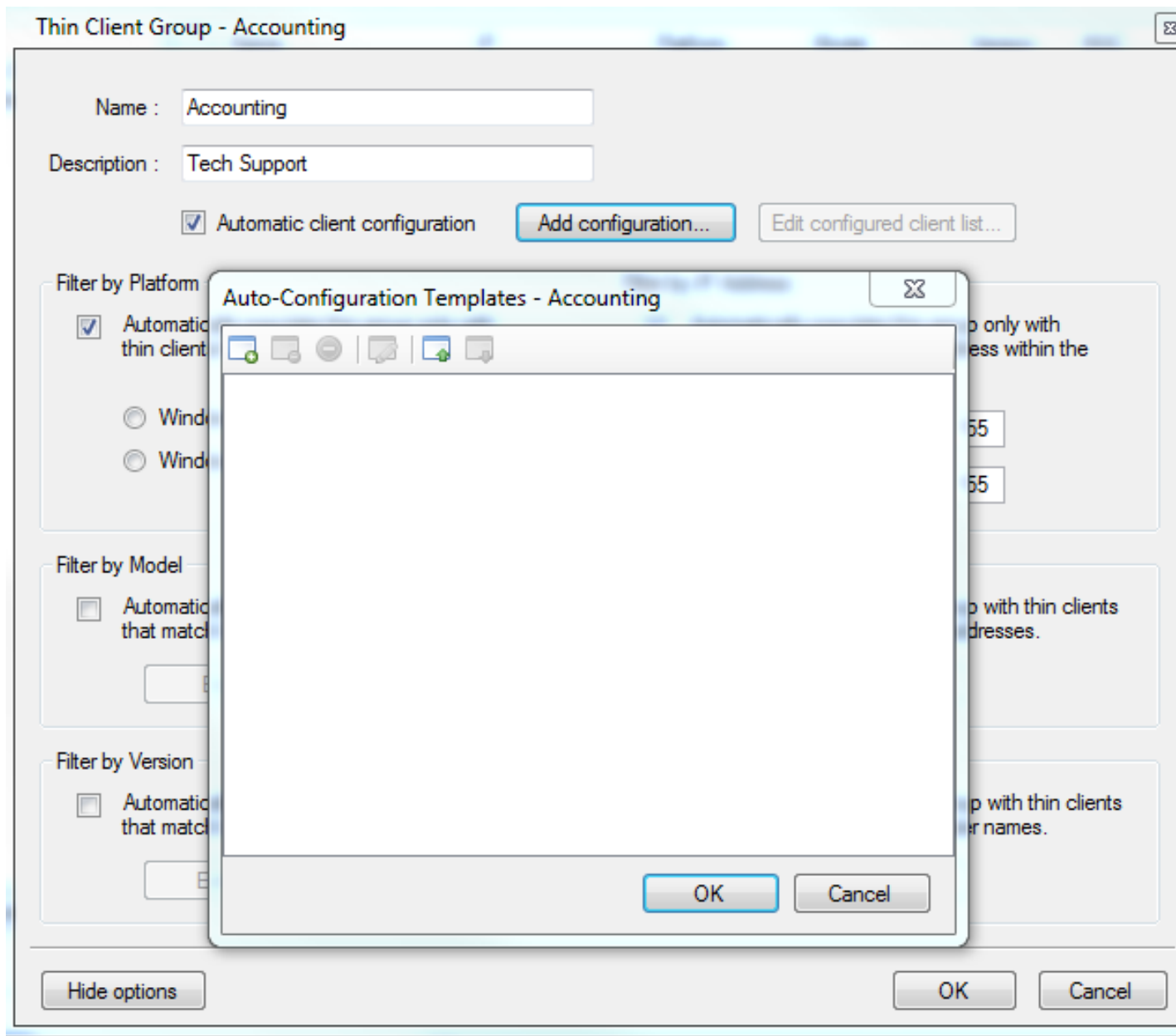
3.2.1 - Automatic Client Configuration

Automatic Client Configuration - check this to enable automatically configuring thin clients that have been discovered and added to this group using the specifications assigned. Configurations can be created by selecting Add configuration...

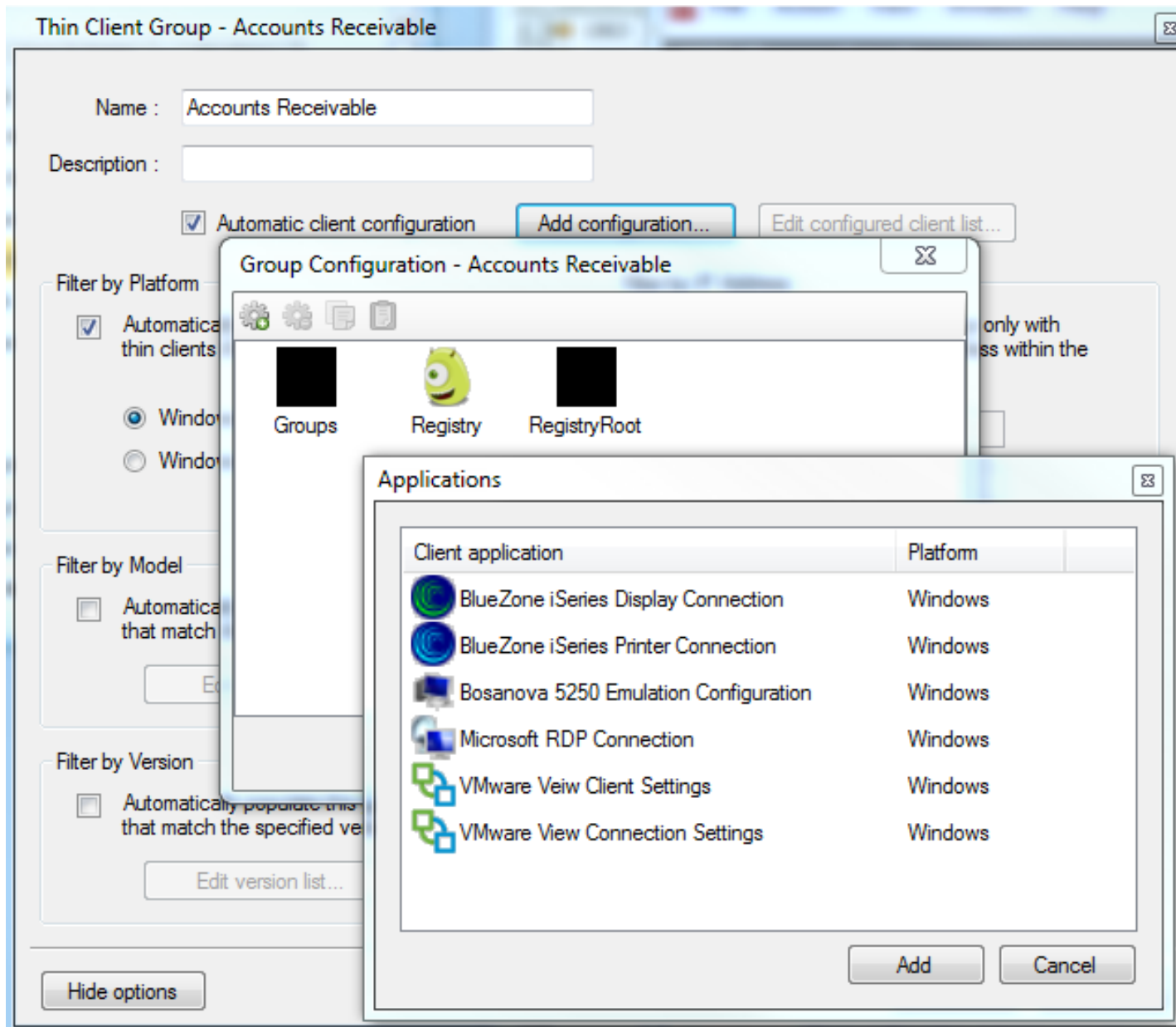
To use Automatic client configuration Filter by Platform must be checked and the specific OS selected.

Configuration options for Linux Thin Clients is by using Templates:

- Add template
- Remote Template from Auto Configuration
- Delete Template from Database
- Edit Configuration
- Import Template
- Export Template






Configuration options for Windows Thin Clients is by using Windows Client Configuration:



NOTE: To replace or change an existing configuration of a specific thin client, the MAC must be removed from the Edit configured client list....

3.3 - Thin clients

The manager currently supports three different platforms :

- Windows XP
- Windows CE
- Linux

How do I create a thin clients ? There are two ways to create a thin client configuration

- With the XPe units the manager creates an empty entry as the thin client is discovered.
- For Linux and WinCE you need to receive the configuration manually. This will create a configuration entry initialized with the existing settings.

ThinClients root of the tree view.

3.4 - Users

This section only relates to the XPe thin clients as Linux and WinCE platforms do not provide user based sessions. The manager gives the opportunity to deploy a specific configuration depending on which user is logged on. In fact depending on the application the configuration will be updated when the user logs on or when he starts the application.

- Domain users : Based on a domain user account.
- Roaming user : A roaming user is tied to a local account but the configuration is consistent.
- Local user : A local user is a tied to a local account and a specific thin client.

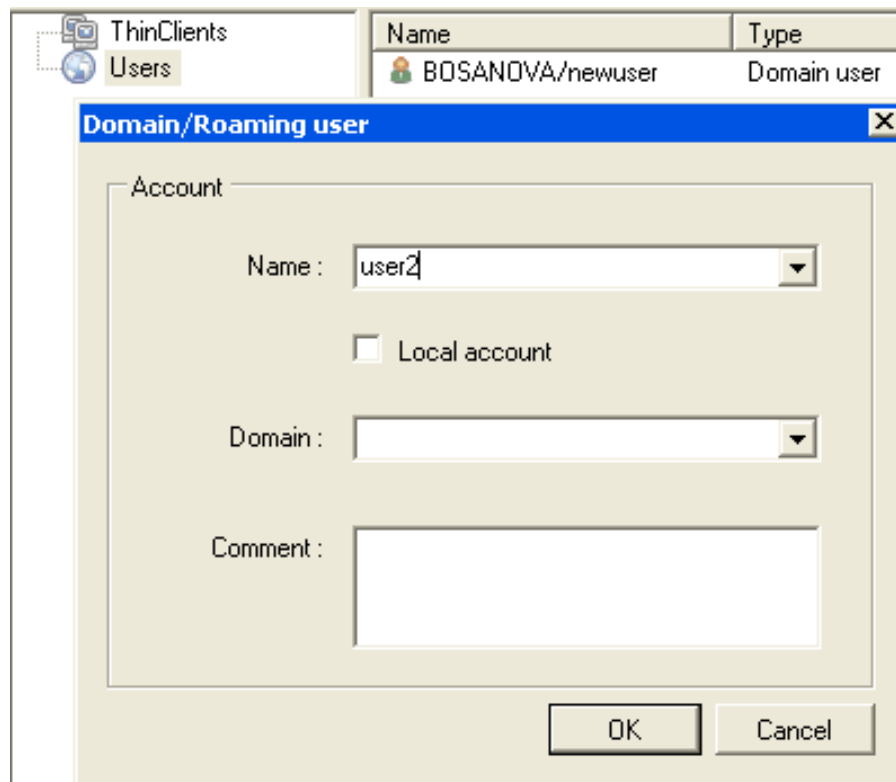
What is the priority of the configuration entries ? A user connects the manager will look for an available configuration.

1. If the user connects as a domain user, the manager will try to find the corresponding **Domain User** configuration. If the configuration does not exist it will look for a **Roaming user** configuration
2. If the user connects as a local user or if the previous step failed the manager will look for a **Roaming user** configuration
3. If the a **Roaming user** configuration does not exist, the manager tries to **Local user** attached to the thin client he is using
4. Ultimately if no user has been defined the configuration of the Thin client will be used

3.4.1 - Domain & Roaming users

How do I create a domain or roaming user To create a user :

- Right click on a user group item or the domain root
- Click *Add User...*



How about Active Directory ? The manager allow you to import Active Directory user names. In fact the manager connects to your main Domain server and enumerates all the user accounts. To do this :

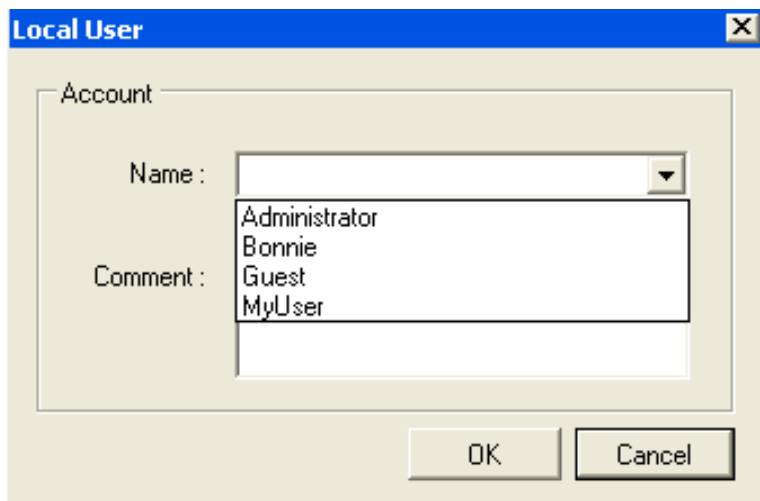
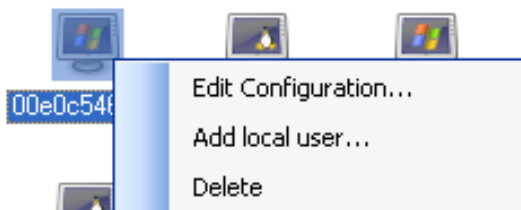
- Right click on a user group item or the domain root
- Click *Import AD users...*



3.4.2 - Local users

How do I create a local user ? The local user must already be added to the XPe thin client itself. To create a user :

- Right click on a Xpe thin client item
- Click *Add User...*



As you can see the list is filled with the names of the existing users.

3.5 - Group Configuration Settings

To manage a group, user or thin client settings you just need to click on the item.

The console will then display the list of applications configuration (connection) as well as the current path of the current item.

The regular icons represent the actual configuration of your item. The faded icons represent the configuration inherited from the parent group.

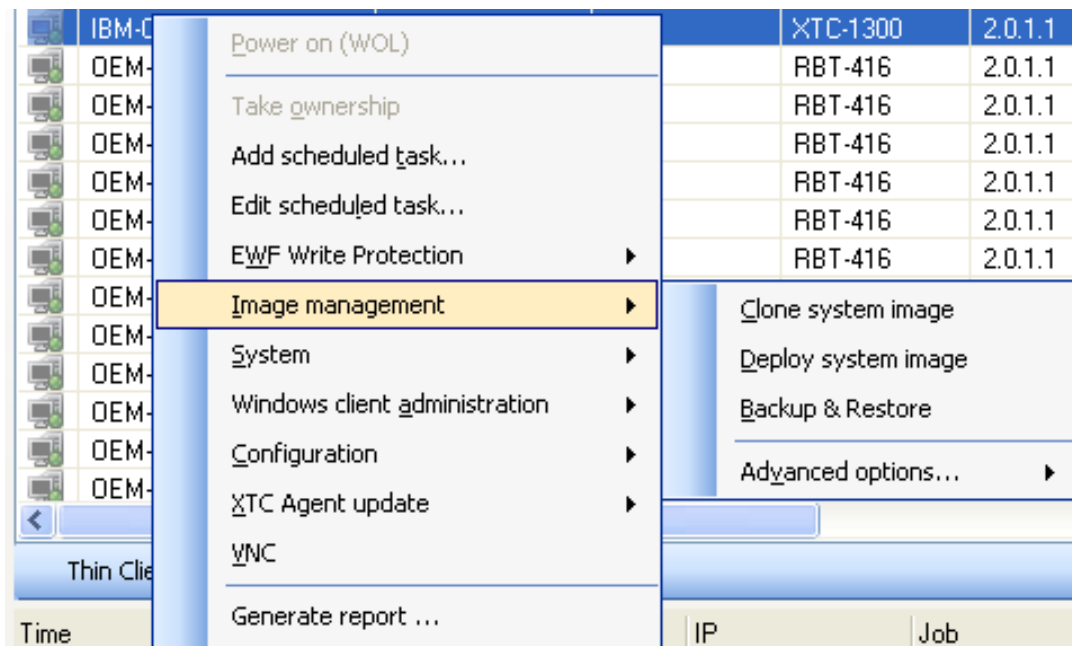
How do I duplicate settings ? To duplicate settings :

- Right click on a configuration item
- Click copy... (configuration item is copied to clipboard)

Or

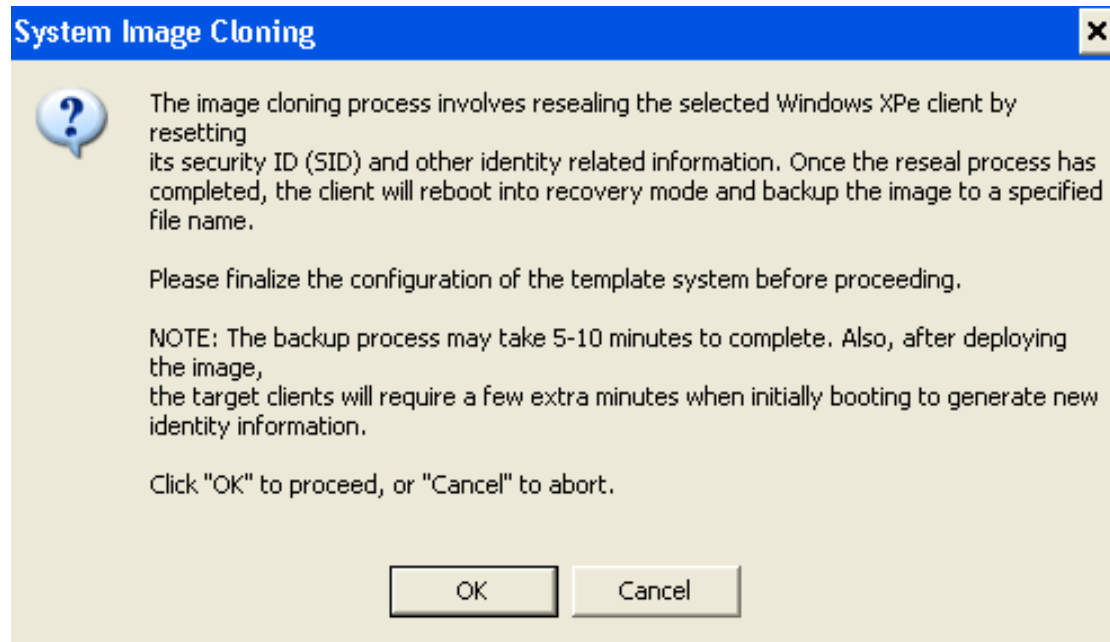
- Select the item to copy to and edit the configuration
- Right click and select copy...(configuration item is pasted from the clipboard)

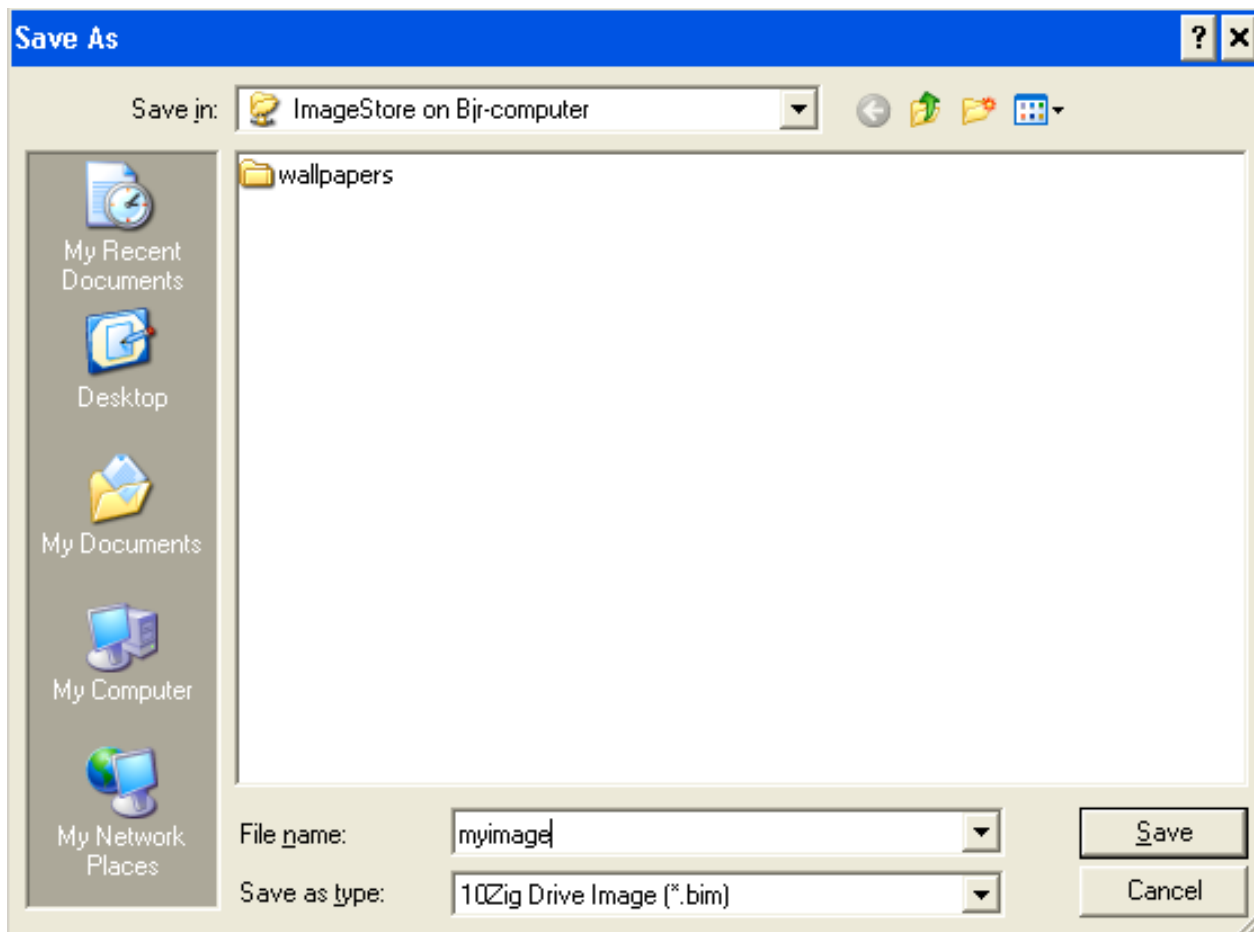
4 - XPe and WES 2009 Image Management



4.1 - XPe and WES 2009 Clone System Image







The image cloning process involves resealing the selected Windows XPe client by resetting its security ID (SID) and other identity related information. Once the reseal process has completed, the client will reboot into recovery mode and backup the image to a specific name.








The image is saved as a compressed image (.bim) to the ImageStore.

The thin client will now show up under the Image recovery tab with a task of *Clone System Image*. The thin client will shut down and boot into PXE mode. It will boot to the PXE server (10ZiG Manager) and begin the cloning process. A blue progress bar will be displayed in the status column.

	no	00E0C546F802			0 MB		
	no	00E0C546B134			0 MB		
	no	00E0C54003E9			0 MB		
	no	00E0C54899B0	172.16.6.103	IDOM	999 MB		
	no	00E0C55F655B	172.16.6.162	IDOM	999 MB	Clone system image	

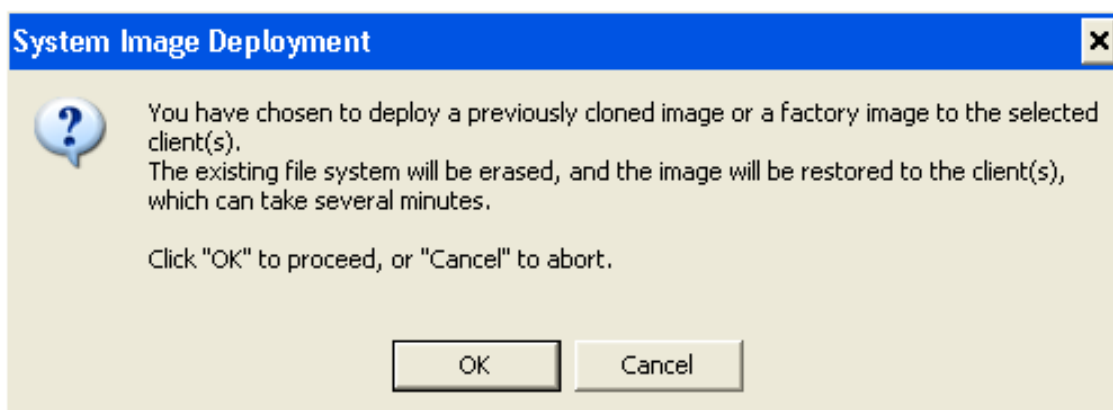
Thin clients
Client configuration
Image recovery

Once cloning image is complete the status will change to Completed.

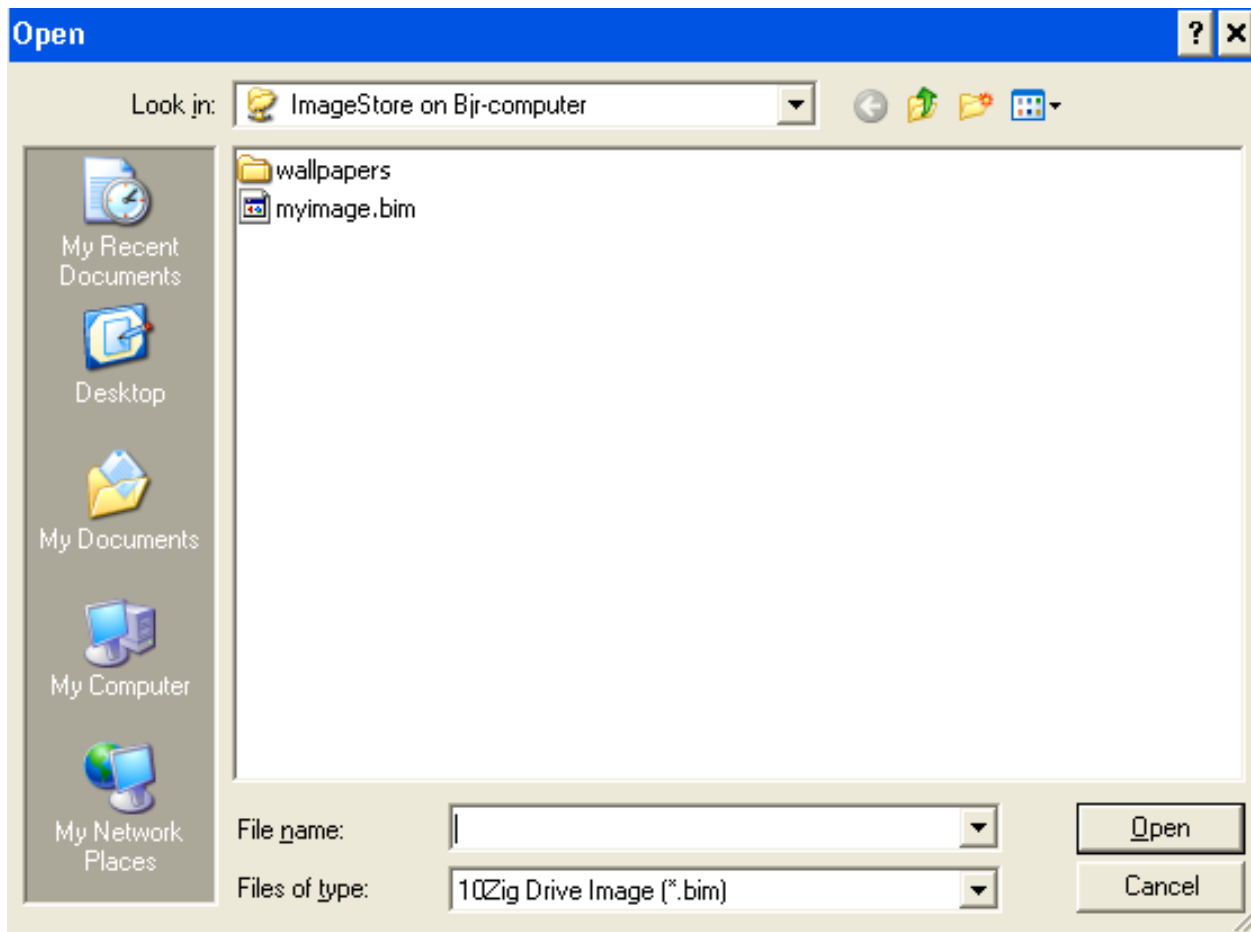
	no	00E0C54003E9			0 MB		
	no	00E0C54899B0	172.16.6.103	IDOM	999 MB		
	no	00E0C55F655B	172.16.6.162	IDOM	999 MB	Clone system image	Completed

4.2 - XPe and WES 2009 Deploy System Image

The Deploy System Image deploys a previously cloned image or a factory image to the selected Client(s). Keep in mind the existing file system will be erased.



Select the previously saved image (.bim) compressed or (.bin) binary to deploy to the thin client.



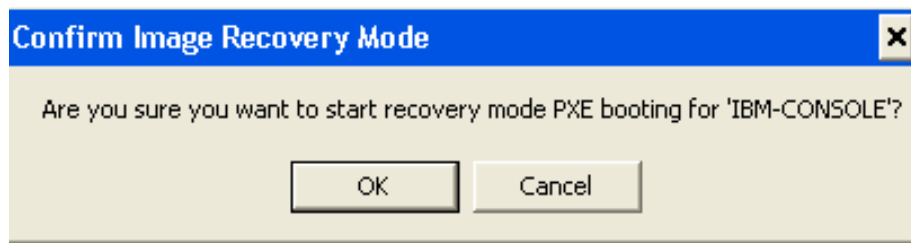
The thin client will shut down and boot into PXE mode. It will boot to the PXE server (10ZiG Manager) and begin the deploying process. The image recovery tab will show display the task *Deploy Image System*. Once the process begins you will see a blue progress bar in the status column while the image is being deployed. The Status will change to Completed one the image has been successfully deployed.


	Set for PXE	MAC	IP	Media type	Capacity	Task	Status
	no	00E0C55F655B	172.16.6.164	IDOM	999 MB	Deploy system image	<div><div></div></div>

4.3 - XPe and WES 2009 Backup and Restore


Backup and Restore sets the thin client in PXE mode. All backup and restore options are then done from the Image Recovery Tab. Once the confirmation is accepted, the thin client will shut down and boot in PXE mode. If the thin client does not boot in PXE mode you will need to access the thin client's BIOS and set the first boot device to the network.

NOTE: This option for backup does not do a reseal on the image. The clone option must be used for the reseal.

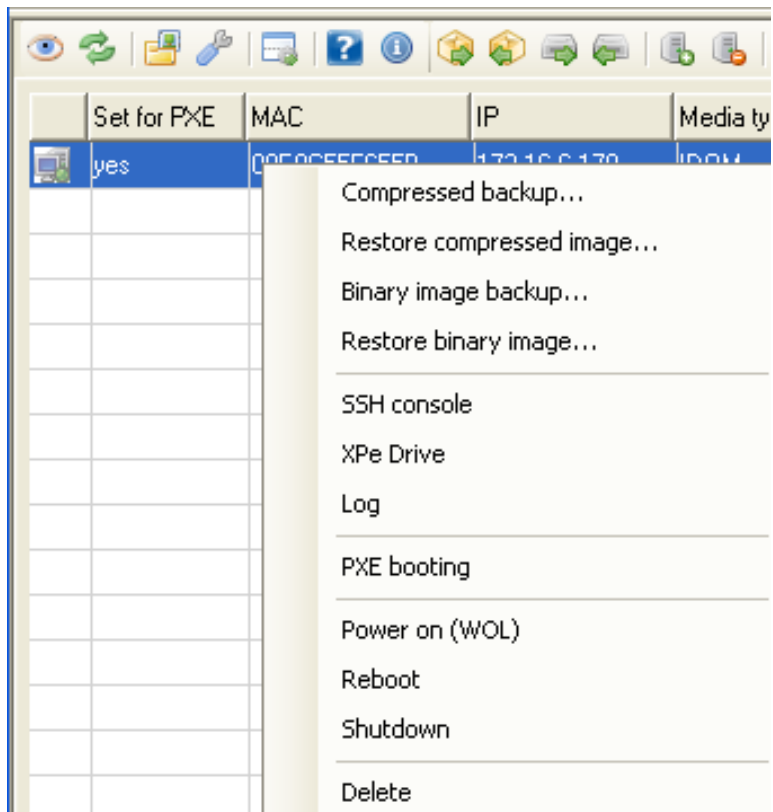


	Set for PXE	MAC	IP	Media type	Capacity	Task	Status
	yes	00E0C55F655B			0 MB		

Once the thin client has booted into PXE mode you will see it go active in the Image Recovery Tab and then wait for a backup and

	Set for PXE	MAC	IP	Media type	Capacity	Task	Status
	yes	00E0C55F655B	172.16.6.179	IDOM	999 MB		

Right click on the thin client to be presented with the backup and recovery options.



[Click here to view a short video of back up to a Compressed Image](#)

4.4 - XPe and WES 2009 Image Deployment Concepts

Image recovery options are performed under the Image Recovery Tab

- **Compressed Backup** - backs up the image in compressed mode to the ImageStore (this is quicker and uses less disk space).
- **Restore Compressed Image** - restores a compressed image that was created using the Compressed Backup option.
- **Binary Image Backup** - back up the image in binary mode to the ImageStore.
- **Restore Binary Image** - restore a binary image that was created using the Binary Image Backup.

Note: Should you receive a binary image download location from 10ZiG Technical Support, copy it to the ImageStore and restore to the thin client using the Restore Binary Image option.

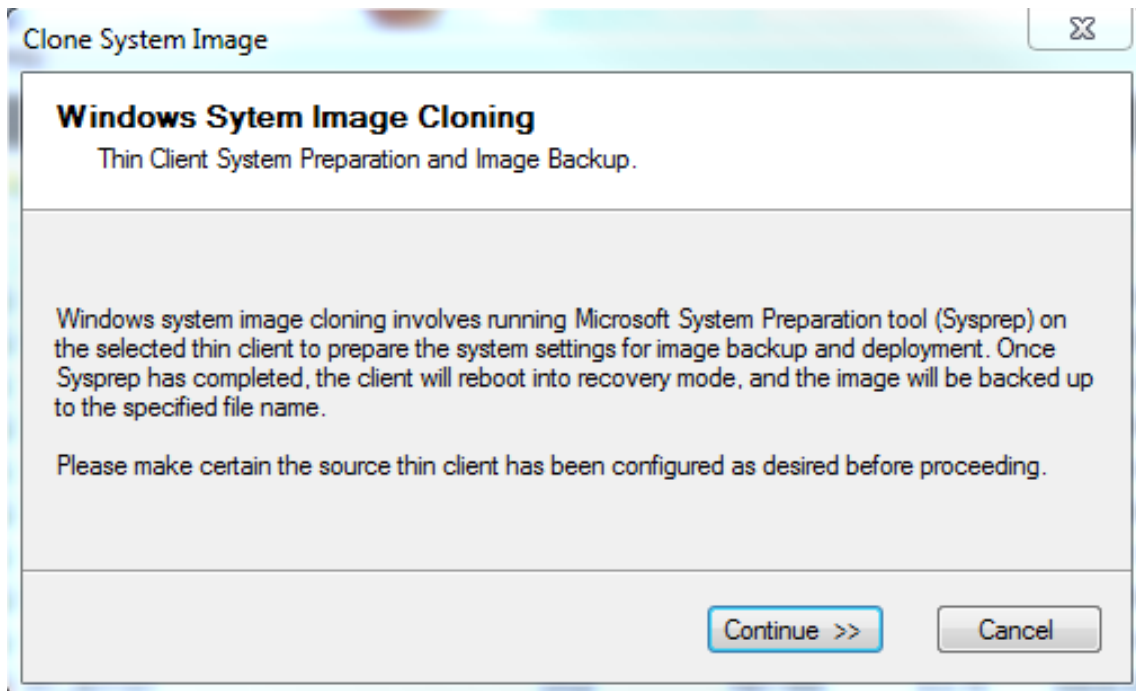
- SSH Console allows connection to the thin client in recovery mode using SSH console
- XPe Drive - displays the drive information on the XPe thin client

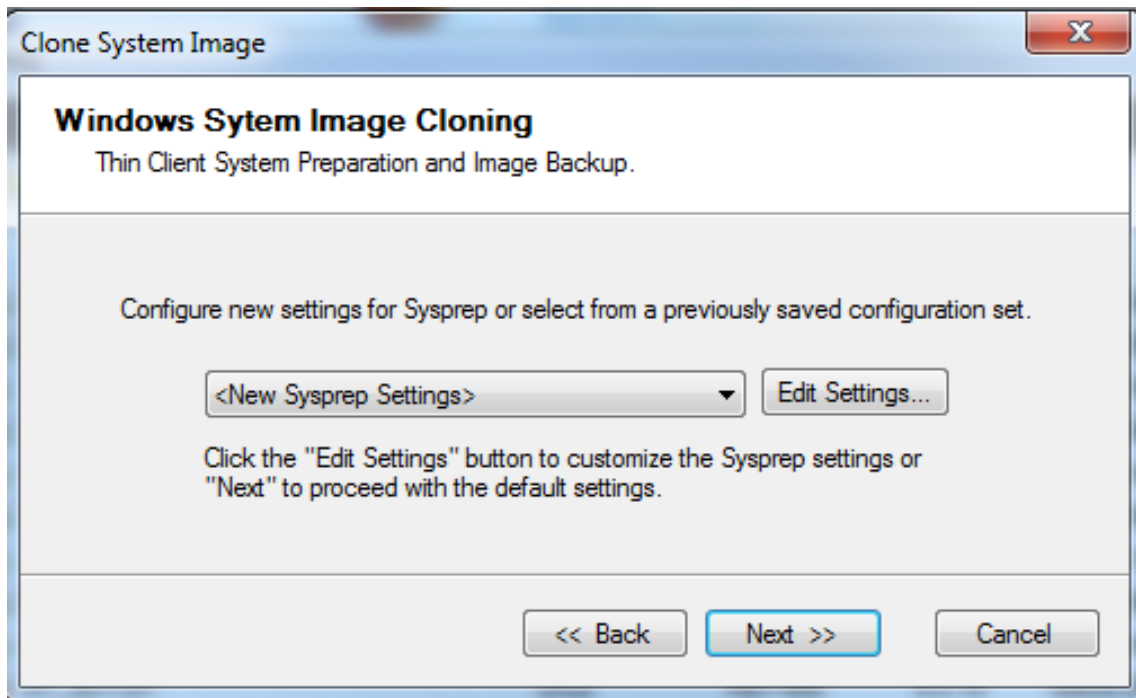
- Log will display a log of recovery operation
- PXE Booting will set the PXE to yes or no - check or uncheck the box under PXE - a warning must be answered to continue
- Power on (WOL)
- Reboot and Shutdown
- Delete - removes the thin client from the Image Recovery Tab

5 - Windows 7 Image Management

5.1 - Windows 7 Clone System Image

From the Thin Clients tab, right click on the Win 7 thin client to be cloned and select Image Management -> Clone System Image





Make any changes required to the Sysprep Settings

SysprepSettingsForm

Windows Sytem Image Cloning

Thin Client System Preparation and Image Backup.

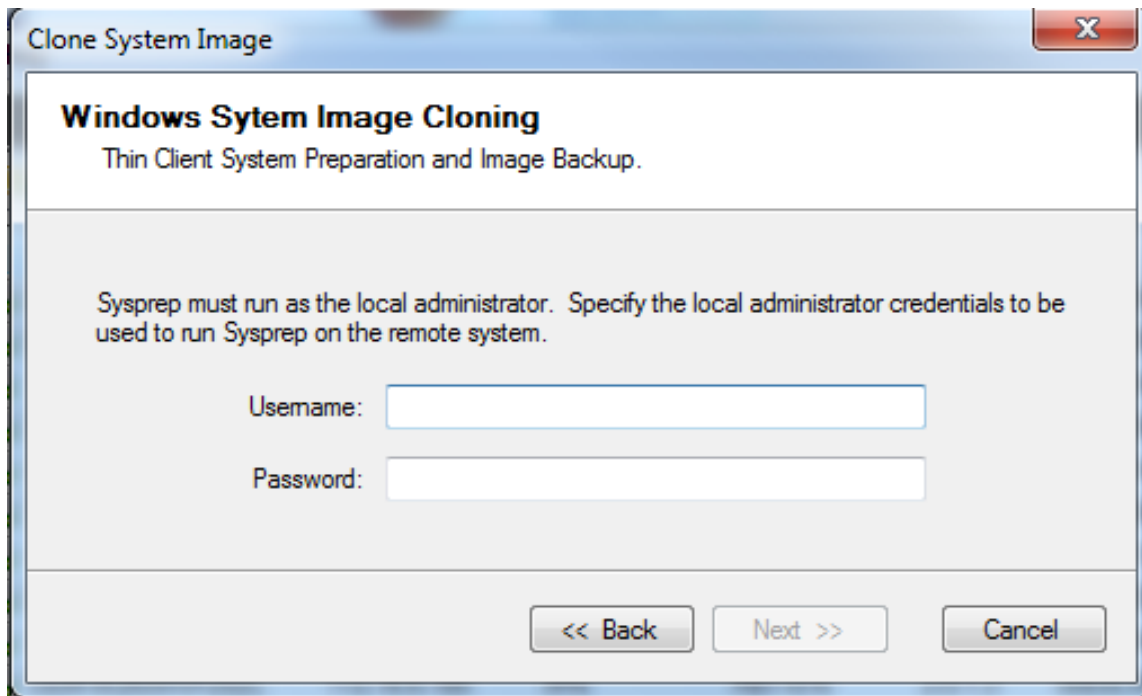
Name: <Current Settings>

<input checked="" type="checkbox"/> Auto Logon Settings	
Enabled	True
Domain	
Username	ThinClientUser
Password	••••••••••
<input checked="" type="checkbox"/> Culture/Language Settings	
Input Locale	(Collection)
System Locale	English (United States)
UI Language	English (United States)
<input checked="" type="checkbox"/> Display Settings	
Color Depth	32 bit
<input checked="" type="checkbox"/> Resolution	1024 x 768
<input checked="" type="checkbox"/> Time Zone Settings	
Automatic Daylight Saving Time	False
Time Zone	(UTC-07:00) Arizona
<input checked="" type="checkbox"/> User Account Settings	
Enable Local Administrator	True
Copy User Profile	False
Administrator Password	•••••
Local Accounts	(Collection)
<input checked="" type="checkbox"/> Windows Firewall Settings	
Enable Windows Firewall	False
Disable Notifications	True

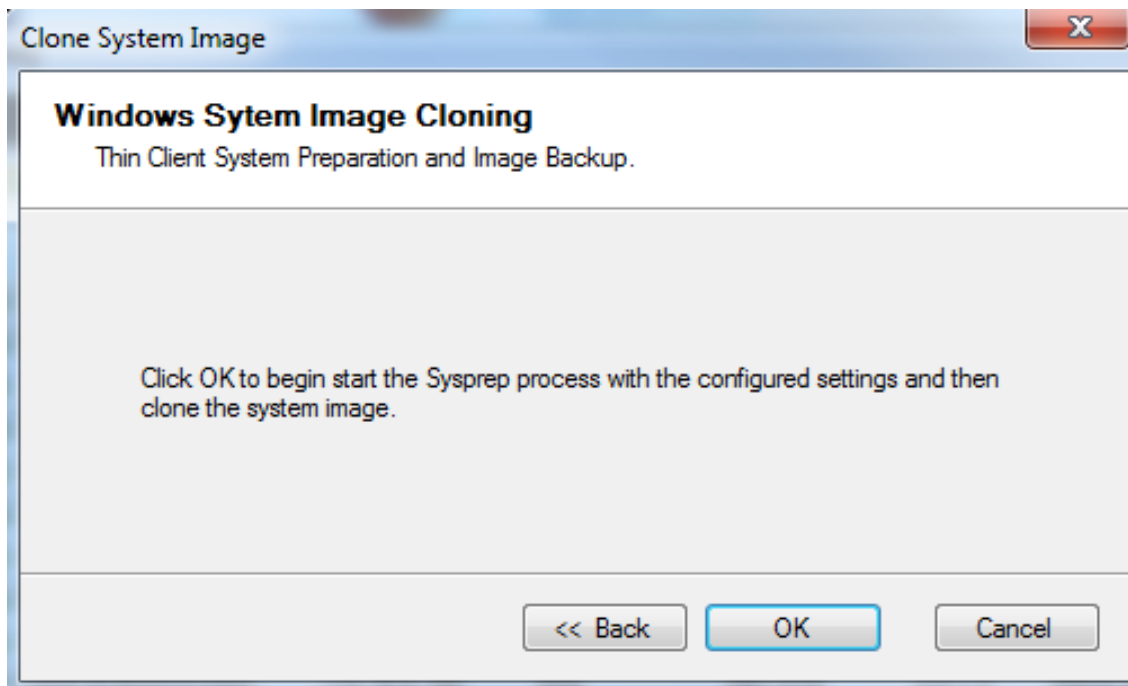
Enabled
Specifies whether the autologon process is enabled.

Next >> Cancel

Enter the local administrator user ID and password for the thin client



Select OK to begin the Sysprep process and then clone the system image



Once the sysprep has completed the thin client will boot to the 10ZiG Manger in PXE mode where the image is ready to be backed up.

Once the image has been backed up uncheck the PXE option

5.2 - Windows 7 Deploy System Image

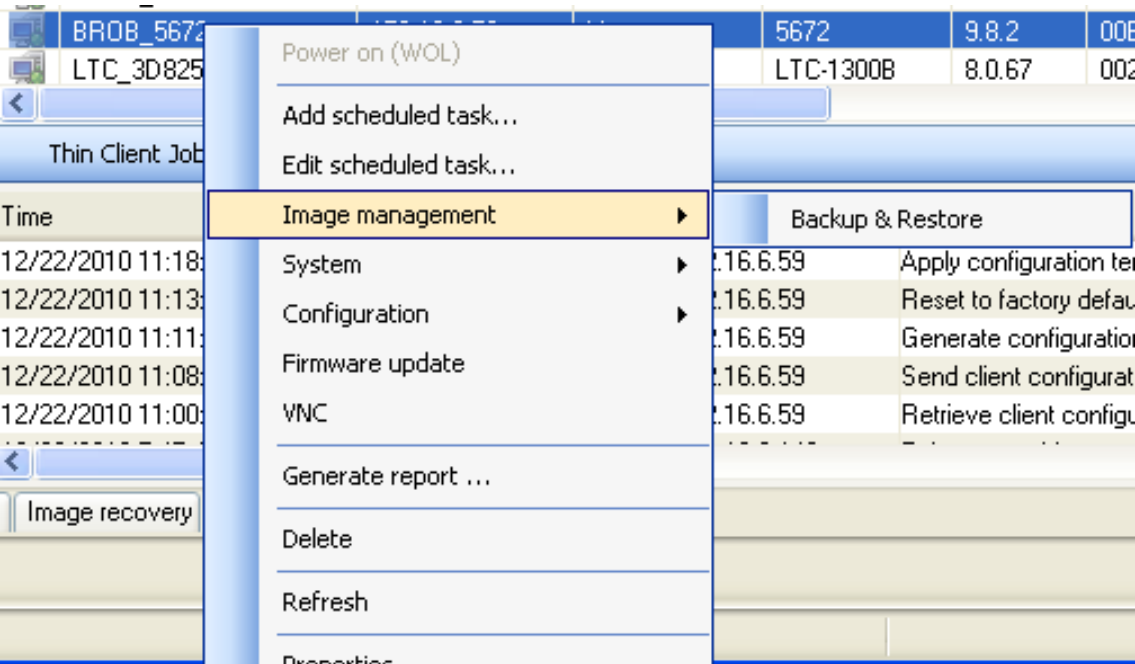
Deploying a Window 7 System Image is the same process as in the previous [section 4.2](#)

6 - Linux Image Management

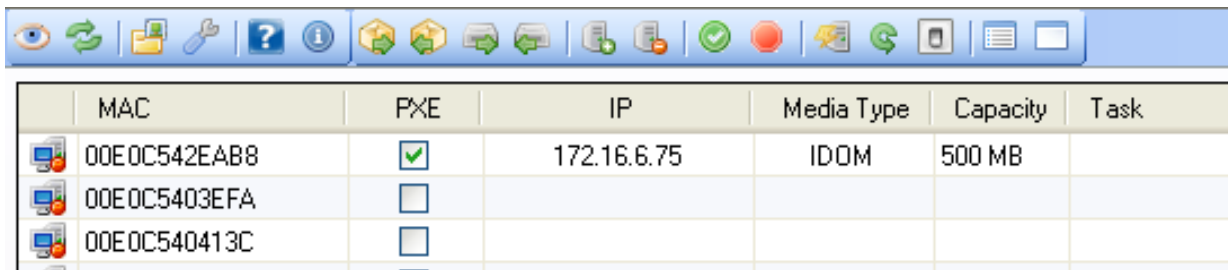
6.1 - Linux Image Backup & Restore

Backup and Restore is mainly used to backup a Linux thin client for the purpose of restoring that specific thin client should the need arise.




If directed by 10ZiG Technology tech support to restore a binary or compressed image, place that image in the ImageStore folder, follow directions below to PXE boot the thin client and take the option to restore the binary or compressed image.



The Backup & Restore option moves the thin client to the Image Recovery tab and sets the PXE value to Yes.

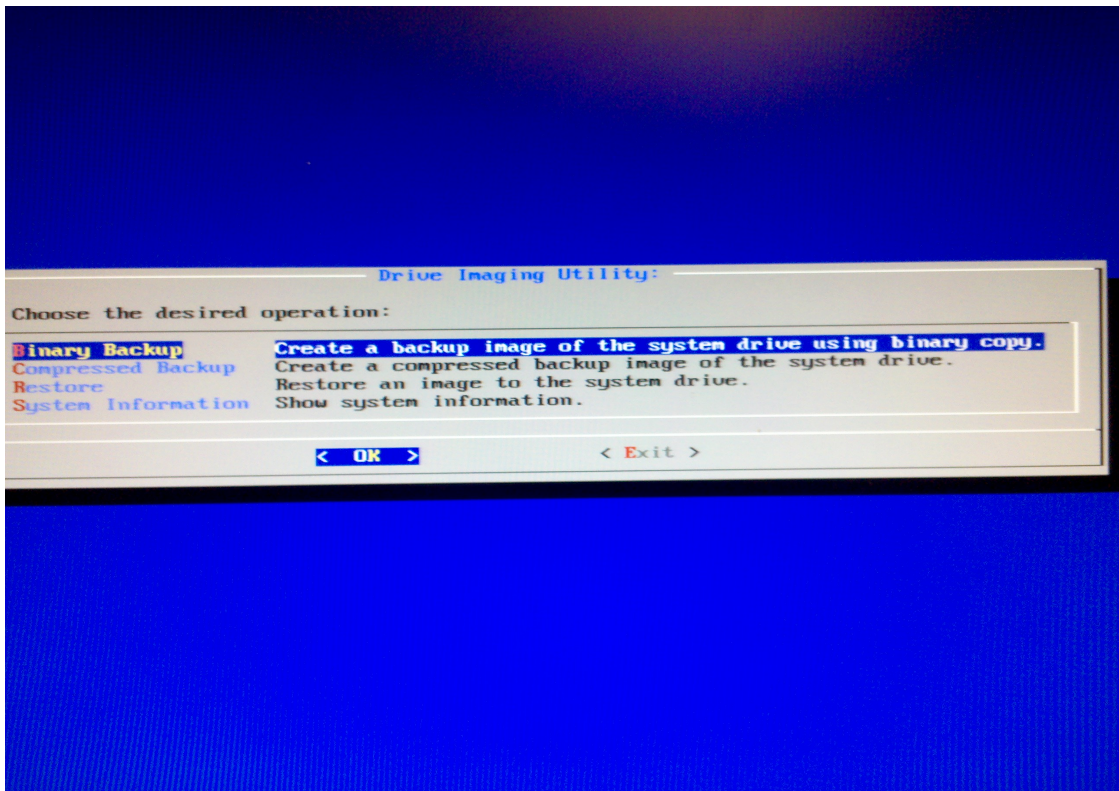


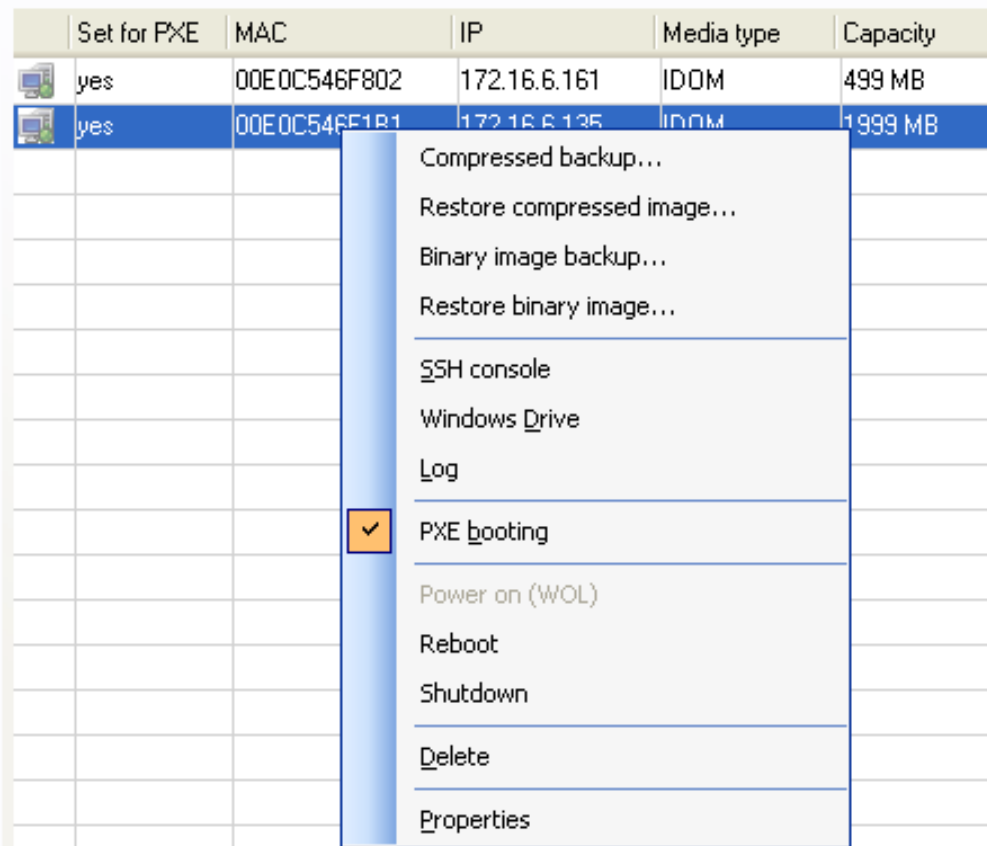
The screenshot shows the 10ZiG Manager interface with a toolbar at the top containing various icons for navigation and management. Below the toolbar is a table with the following data:

	MAC	PXE	IP	Media Type	Capacity	Task
	00E0C542EAB8	<input checked="" type="checkbox"/>	172.16.6.75	IDOM	500 MB	
	00E0C5403EFA	<input type="checkbox"/>				
	00E0C540413C	<input type="checkbox"/>				

NOTE: If the thin client does not boot in PXE mode you will need to access the BIOS and set the first boot device to the network.

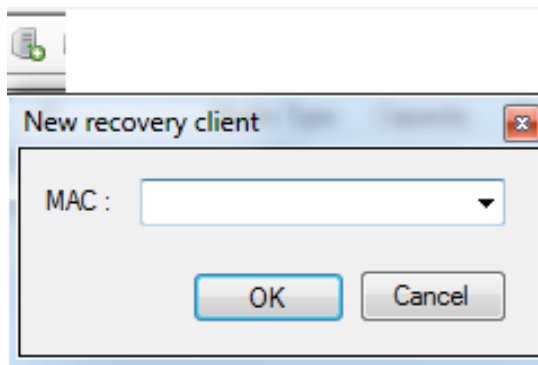
When the thin client has PXE booted to the 10ZiG Manager the screen on the thin client should look similar to the image below:





Once the image has been backed up or restored set the PXE back to NO and reboot the thin client.

If the thin client has not been seen prior in the 10ZiG Manager manually add its MAC to the Image Recovery tab by selecting the ICON to add the MAC as seen below:



NOTE: This backup and restore is for recovery only. Each image is licensed based on the thin client's MAC and if copied from one

Linux thin client to another a license error would be displayed on boot. If you have need to use an image to be pushed out to other like thin clients please contact tech support for further instructions.

7- FAQ

<http://www.10zig.com/faq/10zigmgr.htm>