

HP ThinPro 4.3

Administrator's Guide

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1 Introduction

The HP ThinPro operating system reinvents user interface simplicity with a single console interface for dashboard access to all user and administrative touch points. A default Connection Manager view integrates traditional connection types with the latest Virtual Desktop Infrastructure (VDI) broker connections with shared access to settings. Administrators are only one click away from the Easy Config setup wizard, Control Panel, and System Information layers.

Using HP ThinPro

The HP ThinPro interface is displayed by default when you turn on the thin client. The desktop includes a volume icon, a clock, and a taskbar that provides access to open applications. Click on **ThinPro Control Center** in the left side of the taskbar to open and close the HP ThinPro interface.

Figure 1-1 HP ThinPro Control Center



HP ThinPro allows you to launch and manage host and remote application connections. Set up connections and connection types that are visible in User Mode while logged in as an administrator. An administrator can also restrict users from deleting or creating connections.

Logging in to Administrative Mode

You must log in with administrator permissions to access all components of the HP ThinPro interface. When the thin client is in Administrative Mode, the following changes occur:

- The top section of the control center changes from blue to red.
- The title adds the text "Administrative Mode".

By default, HP ThinPro opens in User Mode. To switch to Administrative Mode:

Click the HP logo in the bottom left of the screen.

-or-

Position your cursor over the screen background and right-click.

- Select Administrator/User Mode Switch.
- In the Switch to Administration Mode box, under Administrative password, type a password and click OK.
 - NOTE: If you are logging in to Administrative Mode for the first time, retype your password before clicking **OK**.

You can also switch modes as follows:

- Press Ctrl+Alt+Shift+S, select Switch to Administration Mode, and click OK.
- 2. Type the administrative password in the field and click **OK**.

Identifying the taskbar components

The taskbar is a bar across the bottom of the screen that contains several controls:

Figure 1-2 HP ThinPro taskbar



- 1. **HP button**—Allows access to the basic functionality of the HP ThinPro operating system, such as access to the control center and the logout, reboot, and power-off functions.
- 2. Window tasks—Each active window has an icon displayed in this area.
- 3. Volume control—Displays a sound control dialog that allows you to change the sound volume for the thin client.
- 4. **Network icon**—Displays information about the active network connections.
- 5. Virtual keyboard—Displays a software keyboard. Input from the virtual keyboard is redirected to the current focus window. The virtual keyboard responds to both keyboard events and mouse or touchscreen clicks. You can change the layout of the virtual keyboard without changing the overall client keyboard layout; for example, you could use a French virtual keyboard just long enough to type a few accented characters before closing it and returning to the normal keyboard layout. The virtual keyboard's layout is active only while its window is open.
- Clock display—Displays the time according to the thin client's clock. Hovering the cursor over the clock display shows a tooltip containing the current date.

2 Setup and installation

HP ThinPro has a wizard-driven interface to simplify the configuration process of a thin client.

Easy Tools Wizard

The Easy Tools Wizard simplifies the configuration and maintenance processes for HP ThinPro. The wizard opens automatically the first time you turn on your thin client. To start the wizard after the initial setup, click the **HP** icon in the left pane.

The Easy Tools Wizard has two main components: Easy Update and Easy Config. Easy Update allows you to keep the HP ThinPro image up-to-date with new images, service packs, or additional packages. Easy Config assists you in setting up your HP ThinPro configuration. Both Easy Update and Easy Config are available from the **Control Panel > Management** tab.

The Easy Tools thin client management suite is documented in the *HP Easy Tools Administrator's Guide* which can be found at http://www.hp.com/support.

Installation

Once you have set up and configured a thin client, copy that image or configuration and deploy it to other thin clients of identical model and hardware using HP ThinState. See <u>ThinState on page 46</u> for more information.

Connections

HP ThinPro allows you to access and manage remote connections. To access all HP ThinPro functionality, you must log in as an Administrator. As a User, you can only run connections and have limited access to HP ThinPro functionality.

The HP ThinPro display, when configured, lists all server and/or application connections assigned to the user currently logged on to the terminal. For each connection, the display shows the name, type, and status of the connection.



NOTE: Double-click any displayed connection to activate that connection.

In Administrative Mode, you can configure and assign connections by clicking Connections.

Figure 3-1 HP ThinPro Control Center—Administrative Mode



The Connections window lists all connections that you can assign to users. You can add, edit, and delete connections from this window.

- Connection Name: Displays the name of the connection. You cannot change the connection name from this column.
- **Type**: Displays the type of connection. You cannot change the connection type from this column.
- **Status**: Displays the status, active or inactive, of the connection.

There are eight buttons across the top of the connection list:

- Connect on page 5: Click to start a selected connection.
- Disconnect on page 5: Click to disconnect a selected connection.
- General settings on page 5: Click to manage connection settings.

- Add on page 9: Click to create a new connection and add it to the list of available connections.
- Copy on page 28: Click to copy a connection and add it to the list of available connections.
- <u>Delete on page 28</u>: Click to delete the selected connection. The connection is deleted from the lists of connections assigned to all users, not just the user currently logged on to the terminal.
- Edit on page 28: Click to edit the selected connection.
- <u>User View on page 28</u>: Click to edit connections visible in User Mode.

Connect

To open a connection, select a selection under **Connection Name** that has a **Status** of **inactive** and click **Connect**.

Disconnect

To close a connection, select a selection under **Connection Name** that has a **Status** of **active** and click **Disconnect**.

General settings

General settings are shared by all connections of a given connection type. Three types of connections are available: Citrix ICA, Web Browser, and RDP. The options for each connection type are listed below:

Citrix ICA

The options available for a Citrix ICA connection are listed in the following tables.

Table 3-1 Citrix ICA connection options

Option	Description
Enable HDX MediaStream	Whenever possible, HDX MediaStream leverages the processing power of the thin client to render the multimedia content. On the datacenter side, the compressed multimedia information is sent directly to the thin client in its native format. The experience will vary based on the processing power and multimedia capability of the thin client.
Enable Windows Alert Sound	Enable the Windows alert sound.
ICA Acceleration (LAN Only)	Enable ICA Acceleration.
Allow Backing Store	Allow for backing store.
Use Server Redraw	Use the server's redraw functionality.
Disable Info Box Before Connecting	Do not display the information box displayed before a connection is completed.
Use Asynchronous COM-port Polling	Use asynchronous polling of the COM port.
Allow Smart Card Logon	Use a client-connected Smart Card for logon authentication.
Enable Off Screen Surface	Directs the ICA Client to draw screen updates to an in- memory bitmap rather than to the screen, improving bandwidth efficiency.

Table 3-1 Citrix ICA connection options (continued)

Option	Description
Enable Session Sharing	Enable the session to be shared.
Enable Auto Reconnect	Enable automatic reconnection of dropped connections.
Enable UseLocalIM	Uses the local input method to interpret keyboard input. This is supported only for European languages.
Use EUKS Number	Controls use of Extended Unicode Keyboard Support on Windows servers:
	0=no EUKS
	1=EUKS used as fallback
	2=use EUKS whenever possible
Minimum Bitmap Cache Size	Minimize the bitmap cache size.
Use Data Compression	Use data compression for this connection.
Enable Middle Button Paste	Enables a middle mouse button click to perform a paste operation.
Use Disk Cache for Bitmaps	Use a disk cache for connection bitmaps.
Sound	Specifies the sound quality to be used. Valid options are: High Quality, Med Quality, and Low Quality.
Speed Screen	Valid options are: Auto, On, and Off.
Mouse Click Feedback	Valid options are: Auto , On , and Off .

Table 3-2 Citrix ICA connection local resources options

·	o input from the thin client.
Auto Printer Creation Automatic	
Automatic	ally create a printer.
Drive Mapping	
Enable Drive Mapping Allows you	to specify drive mappings to local paths.

Table 3-3 Citrix ICA connection window options

Option	Description
Enable Seamless Window	Allows you to display a single window on the local ThinPro desktop as if it were a native application.
Default Window Size	Establish the default window size. Options are: Full Screen, Fixed Size, Percentage of Screen Size.
Default Window Colors	Establish the default window colors. Options are: 16 , 256 , 16-bit , 24-bit , Automatic .
Default 256 Color Mapping	This option is only enabled if Default Window Colors is set to 256 . Options are: Shared - Approximate Colors and Private - Exact Colors .

Table 3-4 Citrix ICA connection firewall options

Option	Description
Proxy	Proxy server settings.
Proxy Type	Options are: None - direct, SOCKS, Secure - HTTPS, Use browser settings, Automatically detect proxy.
Proxy Address	The IP address of the proxy server.
Proxy Port	The port for connection to the proxy server.
Username	The username to use for connection to the proxy server.
Password	The password to use for connection to the proxy server.
Use Alternate Address for Firewall Connection	The Citrix ICA Client will request the alternate address defined for the server when contacting servers inside the firewall. The alternate address must be specified for each server in a server farm.

Table 3-5 Citrix ICA connection server location options

Option	Description
Default Protocol	The default protocol for this connection. Options are: TCP/IP Browser, TCP/IP HTTP Browser, SSL/TLS HTTPS Browser.
TCP Address	The TCP address of the Citrix server. The three buttons enable you to add, edit, or delete entries from the list.
HTTP Address	The http address of the Citrix server. The three buttons enable you to add, edit, or delete entries from the list.

Table 3-6 Citrix ICA connection keyboard shortcuts options

Option	Description
Handling of keyboard shortcuts	Specifies how function keys should be handled. Options are: Translated, Direct in full screen desktops only, and Direct.
Stop Direct key handling	Not enabled when the option Handling of keyboard shortcuts is set to Translated .
List of individual function keys and their mappings.	Only enabled when Handling of keyboard shortcuts is Translated or Direct in full screen desktops only .

Table 3-7 Citrix session options

Option	Description
Auto Logout Delay	The Auto Logout Delay box applies to Citrix servers using multiple published resources. If applicable to your system, use the Auto Logout Delay to set the number of seconds between the closing of the last Xen published resource and the time that a user automatically logs out and returns to the initial login screen.
	If you do not launch an application after the initial login, use the Auto Logout Delay option to set the number of seconds

Table 3-7 Citrix session options (continued)

Option	Description
	that pass before a user automatically logs out and returns to the initial login screen.
	NOTE: Citrix processing delays may extend the auto-logout processing time.
	TIP: If desired, set the Auto Logout Delay value to less than 0. This ensures that ThinPro does not perform an auto-logout
Auto Logout Delay with Single App	The Auto Logout Delay with Single App applies to Citrix servers using a single published application or desktop. If applicable to your system, use the Auto Logout Delay with Single App box to set the number of seconds between the closing of a Xen published resource and the time that a user automatically logs out and returns to the initial login screen. NOTE: Citrix processing delays may extend the auto-logout processing time. TIP: If desired, set the Auto Logout Delay value to less than 0. This ensures that ThinPro does not perform an auto-

Web browser

The configuration options for a web browser connection are:

Table 3-8 Web browser connection general options

Option	Description
Web Browser preferences	Pressing this button starts the web browser options dialog.
Allow connections to manage their own settings	Allow the web browser to control the connection settings.

RDP

The configuration options for an RDP connection are:

Table 3-9 RDP connection general options

Option	Description
Send hostname as	Send your thin client's MAC address or hostname as the hostname specified to the remote system.
Multimedia Redirection	Select 1 to enable multimedia redirection. Select 0 to disable multimedia redirection.

Add

The **Add** button is used to create new connections. When a new connection is created, you are guided to set connection-specific options by a wizard interface. The wizard dialog boxes contain a **Previous** and **Next** button which allows you to move forward and back through the wizard dialogs.

Each connection type wizard contains a dialog named **Advanced** that contains common settings for all connection types. The following table describes the **Advanced** connection wizard settings:

Table 3-10 New connection advanced settings

Option	Description
Fallback Connection	If the connection fails to start, attempt to start the fallback connection instead. NOTE: This option is not available for the RGS or VMware Horizon View connection types.
Auto start priority	The autostart priority determines the ordering of connection startup. 0 means the connection is disabled, with the other values determining the startup ordering. Valid options are: 0 , 1 , 2 , 3 , 4 and 5 .
Auto reconnect	Attempt to auto-reconnect if this connection is dropped.
Wait for network before connecting	Disable this option if your connection doesn't need the network in order to start or if you don't want to wait for network to start the connection.
Show icon on desktop	A desktop icon will be created for this connection.
Allow the user to launch this connection	This connection can be launched by a non-administrative user.
Allow the user to edit this connection	This connection can be modified by a non-administrator user.

NOTE: The "allow the user" options are available only in the Administrative Mode.

You can create any of the following connection types:

- Citrix on page 10
- RDP on page 13
- HP TeemTalk on page 16

- Web browser on page 19
- RGS on page 19
- VMware Horizon View on page 20
- XDMCP on page 24
- SSH on page 25
- Telnet on page 27
- Custom on page 27

Citrix

A Citrix connection accesses the Citrix SBC (Server-Based Computing) and VDI (Virtual Desktop Infrastructure) services.

Configure a Citrix remote connection with the connection wizard. If the default values do not meet your requirements, use the extended options to complete the connection setup process.

Citrix connection management features

When using a Citrix connection, you can configure the client to automatically perform the following functions:

- Launch resources when only a single resource is published
- Launch a specified resource
- Launch a published desktop
- Reconnect sessions on connection startup
- Log off the connection after a specified timeout period
- Launch published resources use the following configurable shortcuts:
 - Desktop icons
 - Start menu icons
 - Taskbar icons

Citrix receiver features

Citrix receiver features include the following:

- Latest version at the time of release:
 - 12.1.5 for x86
 - 12.5 for ARM/SoC
- Window size and depth settings
- Seamless window support
- Sound quality settings
 - Low
 - Medium

- High
- Disabled
- Static drive mapping
- Dynamic drive mapping
- USB redirection for XenDesktop and VDI-in-a-Box
- Smart card virtual channel enablement
- NOTE: This feature is equivalent to a smart card login/authentication when using direct, non-PNAgent connections. With a PNAgent connection, smart card virtual channel enablement enables or disables the smart card virtual channel but does not provide for initial connection authentication. For a smart card authentication to XenApp and XenDesktop, use the provided Web Browser connection instead of the Citrix connection and be sure to enable web access.
- Printer mapping
- Serial port mapping
- HDX MediaStream (hardware-accelerated on most models)
- HDX Flash Redirection (x86-only)
- HDX Webcam Compression
- HDX RealTime (MS Lync Optimization) (x86-only)

HDX MediaStream support matrix

Table 3-11 HDX MediaStream support matrix

Feature	Support	
Frame rate	• 24 fps	
Resolution	• 1080p	
Nesolution	• 720p	
	• WMV	
	• AVI	
Video containers	• MPG	
Video containers	• MPEG	
	• MOV	
	• MP4	
	• WMV2	
	• WMV3 / VC-1	
	 H.264 / AVC / MPEG-4 Part 10 	
Video codecs	MPEG-4 Part 2	
	• H.263	
	• DivX	
	 Xvid 	

Table 3-11 HDX MediaStream support matrix (continued)

Feature	Support	
	• MPEG1	
	• MP3	
	• WMA	
Audio codecs	• AAC	
Addio codecs	• PCM	
	 mpeg-audio 	
	MLAW / ULAW	

Citrix connection support matrix

The following table describes the supported Citrix backends.

Table 3-12 Citrix connection support matrix

		Backend		
		XenApp	XenDesktop	VDI-in-a-Box
	Direct (legacy)	4.5 / 5 / 6 / 6.5		
Access type	Native (PNAgent)	4.5 / 5 / 6 / 6.5	4.5 / 5.5 / 5.6.5	5.x
	Web browser	4.5 / 5 / 6 / 6.5	4.5 / 5.5 / 5.6.5	5.x

Creating a Citrix connection

- 1. Obtain the following Citrix server information:
 - Hostname
 - -or-
 - IP address

NOTE: If you are configuring a connection to a server on an HTTPS site, be sure to provide the Fully Qualified Domain Name (FQDN) of the site and the local root certificate in the Citrix certificate store.

- 2. In the HP ThinPro interface, log in as the administrator.
- Under Connections, select Add > Citrix.
- 4. In the **Configuration** dialog box, fill in the following information:

Table 3-13 Citrix connection configurations

Option	Description
Name	The connection name.
Server URL	The Citrix server hostname or IP address. If you are configuring a connection to a server on an HTTPS site, enter the FQDN for the site and the local root certificate in the Citrix certificate store.

Table 3-13 Citrix connection configurations (continued)

Option	Description
Username	The username to use for the connection.
Password	The password to use for the connection.
Domain	The domain to use for the connection.
Autostart resource	The name of an autostart resource.

- 5. When completed, click **Next**.
- 6. In the Advanced dialog box, select the appropriate options:

Table 3-14 Citrix connection advanced configurations

Option	Description
Fallback connection	Select a fallback connection. HP ThinPro attempts to start a fallback connection when the original connection does not start.
Autostart priority	Determines the connection startup order. 0 means the connection is disabled. The other values determine the startup order. Valid options are: 0, 1, 2, 3, 4, and 5.
Wait for Network before connecting	Disable this option if your connection does not need the network to start or if you do not want to wait for the network to start the connection.
Show icon on desktop	Creates a desktop icon for this connection.

- 7. Click **Finish** to save your settings and close the wizard.
 - NOTE: To enable Citrix USB redirection, use the USB Manager utility. See Redirecting USB devices on page 38 for instructions.

RDP

Microsoft Remote Desktop Protocol (RDP) enables Windows-based applications to communicate over network connections. It is installed on all versions of Windows later than Windows NT.

RDP client connections

The RDP client is based on FreeRDP 1.0 and meets the following requirements for RDP 7.1:

- Hardware-accelerated RemoteFX
- MMR supported when connecting to Windows hosts with the Desktop Experience feature enabled (Windows 7 or Windows Server 2008 R2)
- USBR supported when connecting to Windows 7 Remote Desktop Virtual Hosts
- Bidirectional audio
- True multi-monitor support

Creating an RDP7 connection

- 1. In the HP ThinPro desktop, select **Connections** and then click **Add**.
- Under Add, choose RDP7.

3. In the **Connections** dialog box, under **Network**, set the appropriate network connection options as described in the following table.

Table 3-15 RDP network connection options

Option	Description	
Name	Type a name for this network connection.	
Address	Type the IP address for this network connection.	
	Under Port , do one of the following:	
Port	Type the network port number.	
	Select the appropriate port number using the up and down arrow keys.	
Username	Type the username for this network connection.	
Password	Type the password for this network connection.	
Domain	Type the domain name for this network connection.	
Allow smart card login	If desired, select this option to use a locally-connected smart card that substitutes for login credentials.	

- 4. Click **Next** to continue.
- 5. In the **Connections** dialog box, under **Window and Mode**, select one of the following options:
 - a. Standard Desktop
 - b. Remote Application
 - c. Alternate Shell
- 6. Depending on the mode selected in step 5, provide the information described in the following tables.
 - a. Standard Desktop—Specify the options in the RDP Standard Desktop options table below.

Table 3-16 RDP Standard Desktop options

Option	Description
Hide window decoration	Set Hide Window Decoration to choose a custom fixed or percentage window size. This setting makes sure that HP ThinPro does not display screen elements, such as the menu bar, minimize and close options, and borders in the window pane.
Window size	Choose one of the following window sizes: Full Fixed Percent
Percentage size	If you choose percent in the Window Size box, then fill- in or select the percentage of the screen that a desktop window occupies.
Fixed size	If you choose fixed in the Fixed Size boxes, then fill-in or select the fixed width and height dimensions in pixels that the desktop window occupies.

b. Remote Application—Specify the **Application** box as described in the RDP Application options table.

Table 3-17 RDP Application options

Option	Description
	Type the RDP application path for the application.
	If using RDP Seamless Windows mode, do the following:
	Type the path of the seamlessrdp on your server.
Application	Type the path of the application.
	For example, if you installed seamlessrdp in c: \seamless and want to run Microsoft Word, in the Application box type the following command:
	<pre>c:\seamless\seamlessrdpshell.exe</pre>
	<pre>c:\Program Files\Microsoft\Word.exe</pre>

c. Alternate Shell—Fill in or select the options in the RDP Alternate Shell options table. This mode displays a single window on the desktop as if it were a native application.

Table 3-18 RDP Alternate Shell options

Options	Description
Command	Specifies the application that will run in Alternate Shell mode. Type the command that executes the application. For example, to run Microsoft Word, type Word.exe.
Directory	Type the server's working directory path for the application's program files. For example, the working directory for Microsoft Word is C:\Program Files\Microsoft.
Window size	Choose one of the following window sizes: Full Fixed Percent
Percentage size	If you choose percent in the Window Size box, then fill- in or select the percentage of the screen that a desktop window occupies.
Fixed size	If you choose fixed in the Fixed Size boxes, then fill-in or select the fixed width and height dimensions in pixels that a desktop windows occupies.

- 7. When completed, click **Next**.
- 8. Under **Options**, select the appropriate options described in the RDP Options table.

Table 3-19 RDP Options

Option	Description
Enable motion events	Enables motion events for this connection.
Enable data compression	Uses data compression for this connection.

Table 3-19 RDP Options (continued)

Option	Description
Enable encryption	Enables encryption for this connection.
Force bitmap updates	Forces bitmap updates.
Attach to admin console	Attaches the connection to the administrator console port.
Hostname to send	Sends the hostname to the remote system for this connection.

Under Local Resources, select the appropriate options from the RDP Local Resources table and then click Next.

Table 3-20 RDP Local Resources

Option	Description
Remote computer options	Valid options are: Do not play , Bring to this computer , and Leave at remote computer .
Enable port mapping	Under Devices mapping select Enable port mapping . This enables USB storage mapping. Establish the drive letter to be used via the drop-down list.
Enable printer mapping	Under Devices mapping select Enable printer mapping .

10. Under Experience, select the appropriate options and then click Next.

Table 3-21 RDP Experience options

Option	Description
Choose your connection speed to optimize performance	Select one of the following options: Custom, Modem, LAN, or Broadband.
Desktop background	Sets the desktop for the connection.
Font smoothing	Sets the font smoothing options for the connection.
Desktop composition	Sets the desktop composition options for the connection.
Show contents of window while dragging	Shows the contents of a window when you drag it across the desktop.
Menu and window animation	Enables menu and window animation.
Themes	Enables themes for this connection.

- 11. Click **Next** to continue.
- **12.** Set the appropriate advanced options (refer to <u>Table 3-10 New connection advanced settings on page 9</u>).
- 13. Click **Finish** to save your settings and close the wizard.

NOTE: To enable RDP USB redirection, use the USB Manager utility. See Redirecting USB devices on page 38 for instructions.

HP TeemTalk

You can add a new HP TeemTalk connection in two ways:

- Adding an HP TeemTalk connection using the HP TeemTalk creation wizard on page 17
- Adding an HP TeemTalk connection manually on page 18

For more information on HP TeemTalk, see the HP TeemTalk Terminal Emulator 7.3 User Guide.

Adding an HP TeemTalk connection using the HP TeemTalk creation wizard

- Click Connections > Add.
- Select HP TeemTalk and click HP TeemTalk creation wizard. Set the appropriate connection options as described in the following table.

Table 3-22 HP TeemTalk connection options

Option	Description
Session Name	The name of the session.
Transport	The network transport to use for the connection. Valid transports are: TCP/IP , Serial , SSH2 , and SSL .
Connection	The connection method to be used. Advanced connection options can be configured via the button.
Emulation	Emulation types are: hp70092, IBM 3151, IBM3270 Display, IBM3270 Printer, IBM5250 Display, IBM5250 Printer, MD Prism, TA6530, VT Series, and Wyse.

- Click Next to continue. 3.
- Set the desired advanced options.

Table 3-23 HP TeemTalk advanced options

Option	Description
Emulation Printer	The HP TeemTalk emulation printer settings.
Auto Logon	The HP TeemTalk auto login settings.
Key Macros	The HP TeemTalk key macros settings.
Mouse Actions	The HP TeemTalk mouse actions settings.
Soft Buttons	The HP TeemTalk soft buttons settings.
Attributes	The HP TeemTalk attributes settings.
Auxiliary Ports	The HP TeemTalk auxiliary ports settings.
Hotspots	The HP TeemTalk hotspots settings.

5. Set the appropriate preferences.

Table 3-24 HP TeemTalk options

Option	Description
Preferences	Displays the preferences shown in <u>Table 3-25 HP TeemTalk preferences</u> on page 18.
Start session connected	Starts the session connected.
Show Status Bar	Displays the status bar for this connection.

Table 3-25 HP TeemTalk preferences

Option	Description
Show Configuration Bar	Displays the Configuration Bar.
Save Current Window Position	Saves current window's size and position when you click Save Preferences . It will be restored on the next system launch.
Save Current Window Position	NOTE: Click Save Preferences each time you change the window size or position to save the new values.
	Select to make the window full screen and remove the frame, soft buttons, menu, and configuration bars.
Run in Full Screen Mode	NOTE: This option does not become effective until the next system launch and overrides the Show Configuration Bar and Save Current Window Position options.
Browser Command	In the box, type the command that runs your web browser, such as:
browser Command	/ display html links Firefox
	Use to specify an alternate location for the startup options.
Command Line Start Up Options	NOTE: For specific information on HP TeemTalk Command Line Startup Options, see the <i>HP TeemTalk Terminal Emulator User Guide</i> .

- 6. Click **Next** to continue.
- 7. Set the appropriate finalization options:

Table 3-26 HP TeemTalk finalization options

Option	Description
Create an icon on the desktop	Creates a desktop icon for this connection.
Summary Session Information	Displays a summary of the session that is to be created.

8. Click **Finish** to save your settings and close the wizard.

Adding an HP TeemTalk connection manually

- 1. Click Connections > Add.
- 2. Select **HP TeemTalk** and set the appropriate configuration options:

Table 3-27 HP TeemTalk manual connection configuration settings

Option	Description
Name	The connection name.
System beep	Enables the system beep sound.

Click **Next** to continue.

- 3. Set the appropriate advanced options (refer to <u>Table 3-10 New connection advanced settings on page 9</u>).
- 4. Click **Finish** to save your settings and exit the wizard.

Web browser

Create a connection using a web browser based on the Mozilla Firefox browser.

- To add a connection, click **Connections > Add**.
- 2. Select **Web Browser** and set the options described in the following tables:

Table 3-28 New web browser connection configuration settings

Option	Description	
Name	The connection name.	
URL	The URL for the connection.	
Enable kiosk mode	Enable kiosk mode.	
Enable full screen	Use full screen mode for the connection.	
Enable print dialog	Enable the print dialog box.	

Click **Next** to continue.

- 3. Set the appropriate advanced options (refer to Table 3-10 New connection advanced settings on page 9).
- Click Finish to save your settings and exit the wizard.

RGS

- To add an RGS connection, click **Connections > Add > RGS**.
- Set the appropriate configuration options:

NOTE: For more information about RGS, see the HP Remote Graphics Software User Guide.

Table 3-29 New RGS connection configuration settings

Option	Description	
Name	The connection name.	
	Select one of the RGS connection modes, either Normal Mode or Directory Mode .	
Mode - Servers	If you select Normal Mode , type the hostname or IP address of the system running the RGS Sender.	
	If you select Directory Mode , type the path of the Directory file.	
Warning Timeout	Set the appropriate Warning Timeout value. The RGS Receiver will display a warning if it fails to detect the RGS Sender after this value in seconds.	
Error Timeout	Set the appropriate Error Timeout value. The RGS Receiver will end the connection if it fails to detect the RGS Sender after this value in seconds.	
Use Global Image Updates	When enabled, the entire screen will be updated instead of just the parts that changed.	
Borders	Select one of the following values: Off, On, or Use Previous Setting.	
	NOTE: If you set the borders to Off, the window will not have the borders that allow it to be moved, resized, or minimized.	

Click Next to continue.

- 3. Set the appropriate advanced options (refer to <u>Table 3-10 New connection advanced settings</u> on page 9).
- 4. Click Finish to save your settings and close the dialog box.

VMware Horizon View

This section describes the VMware Horizon View connection features. PC-over-IP (PCoIP) is a communications protocol integrated into VMware that enables remote access to virtual machines.

Setting up a VMware Horizon View connection

Follow these steps to set up a VMware Horizon View connection:

- 1. Obtain the following VMware Horizon View Manager server information:
 - Hostname
 - -or-
 - IP address
- In the HP ThinPro desktop, select Connections > Add.
- 3. Select VMware Horizon View and set up the network options described in the following table.

Table 3-30 VMware Horizon View network connection options

Option	Description
Name	The connection name.
Server	The hostname, or IP address, of a remote VMware Horizon View server.
Username	The username to use for the connection.
Password	The password to use for the connection.
Domain	The domain to use for the connection.
Desktop	The desktop to use for the connection.

- 4. When completed, click **Next**.
- 5. In the Connections wizard under Login Options—General, select the appropriate options.

Table 3-31 VMware Horizon View login options

Вох	Description	
Automatic login	Logs in automatically when the connection is established.	
Allow Smart Card login	Allows a locally-connected smart card to provide login credentials.	
Close after disconnect	Closes the VMware Horizon View window after HP ThinPro disconnects from the server.	
Hide top menu bar	Hides the top menu bar.	

Table 3-31 VMware Horizon View login options (continued)

Вох	Description	
Connection security levels	Valid options are: Allow all connections , Warn , and Refuse insecure connections .	
Command line arguments	Enables the command line arguments to be used for the connection.	

When completed, click Finish.

Logging in to the VMware Horizon View Manager server

- 1. In the VMware Horizon View Client screen, type the following credentials:
 - a. Username
 - b. Password
 - c. Domain
- Click Connect.
- NOTE: The client performs the following tasks:
 - Contacts the VMware Horizon View Management server.
 - Authenticates and retrieves the available desktops from the server

If only one desktop is available (or a desktop is configured in the connection settings), the user will automatically be connected to the desktop.

Using Kiosk Mode with VMware Horizon View

In Kiosk Mode, the client performs an automatic login to a remote desktop using predefined user credentials at startup. If you lose a connection because of a logout, disconnect, or network failure, the connection automatically restores when connectivity returns.

To minimize the session and return to the login screen, use the keyboard shortcut Ctrl+Alt+End.

To set up a Kiosk mode login:

- 1. As the administrator, select **Connections** on the HP ThinPro desktop.
- 2. Choose a connection and click Edit.
- Under Network, fill in the following settings:
 - Server name (hostname or IP address)
 - b. Username
 - c. Password
 - d. Domain
 - e. Desktop (if applicable)
- 4. Under Advanced, set the Autostart value to 1.
- Click Apply, and then clickOK.
- Reboot the system.

Using Multimedia Redirection with VMware Horizon View

VMware Horizon View connections support MMR functionality when used with the Microsoft RDP protocol.

Using multi-monitor sessions with VMware Horizon View

VMware Horizon View supports multi-monitor sessions. To enhance the virtualization experience, the default VMware Horizon View sessions use full-screen and span all monitors. To choose a different window size, select **Full Screen – All Monitors** under the protocol type of the desktop pool for the connection and then choose another option from the window size list. The next time you connect to a session the window will open in the selected size.

Using keyboard shortcuts with VMware Horizon View

Windows keyboard shortcuts

To help administer Windows systems, VMware Horizon View supports Windows keyboard shortcuts. For example, when Ctrl+Alt+Del is used, VMware Horizon View displays a message that provides the following options:

- Send a Ctrl+Alt+Del command.
- Disconnect the session—Use this when you have no other way of ending the session.

Windows keyboard shortcuts will be forwarded to the remote desktop session. The result is that local keyboard shortcuts, such as Ctrl+Alt+Tab and Ctrl+Alt+F4, will not function while inside the remote session. To switch sessions, the top bar can be enabled by unchecking **Hide top menu bar** in the **General** tab of the **Connection Settings** or via the registry key root/ConnectionType/view/connections/{UUID}/hideMenuBar.

Media keys

VMware Horizon View uses media keys to control options such as volume, play/pause, and mute during a remote desktop session. This supports multimedia programs such as Windows Media Player.

Using device redirection with VMware Horizon View

Using USB redirection with VMware Horizon View

To enable USBR for VMware Horizon View connections, select **VMware Horizon View** as the remote protocol in the USB Manager.

Using mass storage redirection with VMware Horizon View

You must use the RDP connection protocol to use mass storage redirection with a VMware Horizon View connection.

To perform drive redirection of a USB drive or internal SATA drive:

Disable USBR by using the USB Manager to set the Remote Protocol to Local.

This creates a network-mapped drive in the virtual desktop session for each internal and external mass storage device connected to the client. The file system format of the storage being remoted does not matter. For example, an ext3-formatted USB key can be used on a Windows connection.

Using printer redirection with VMware Horizon View

For connections made with the PCoIP protocol, USBR supports printers.

Using audio redirection with VMware Horizon View

If you do not need the audio recording capability, use high-level audio redirection. Audio will play out of the 3.5 mm jack or, by default, a USB headset if it is plugged in. Use the local audio manager to adjust the input/output level, select playback, and capture devices.

The VMware Horizon View client does not support high level audio-record redirection via the PCoIP connection type. If you need audio-recording support, use one of the following methods:

- If your system uses VMware Horizon View Client 1.7 or higher, use the RDP protocol to allow for high-level audio redirection through either the 3.5 mm jack or a USB headset.
- NOTE: To use high-level audio-record redirection through the RDP protocol, the server must support it and be configured to allow audio recording over a remote session. The client must be running Windows 7 or greater. You also must make sure the HKLM\SYSTEM \CurrentControlSet\Control\Terminal Server\WinStations\RDP-Tcp \fDisableAudioCapture registry key is set to 0.
- If you have a USB headset with a microphone, use USBR. Set the USB headset to be redirected into the session. The headset will show up as an audio device. By default, USB audio devices are not redirected and the view client uses high-level audio redirection. To redirect the USB headset, use the client's USB Manager and select the USB headset to be redirected. Make sure that **VMware Horizon View** is selected as the USBR protocol and make sure that the headset is checked under the **Devices** to be redirected.
- NOTE: VMware does not recommend using USBR for headsets. A large amount network bandwidth is required to stream audio data over the USBR protocol. Also, you might experience poor audio quality with this method.

Using smart card redirection with VMware Horizon View

To use a smart card to log in to the VMware Horizon View server:

- On the HP ThinPro desktop, select Connections.
- 2. Select an existing connection, and then click Edit.
- In the Connection Settings dialog box, under General, select Allow smart card login.
 After starting the connection, the VMware Horizon View client will display a list of server credentials.
- **4.** To unlock the credentials and access the VMware Horizon View Manager server, type the appropriate PIN for the server.
- NOTE: After you supply the correct PIN, the user's credentials will be used to log in to the VMware Horizon View Manager server. Please see the VMware Horizon View documentation for details on configuring the server to support smart card login. As long as the server is configured to allow smart card login, the user's credentials will pass through and they will be logged in to the desktop without having to enter their PIN again.
- NOTE: To log in to the VMware Horizon View Manager administrator server with a smart card, the local smart card driver must be installed on the client. Once logged in to the remote host, the smart card will be passed to the remote host using a virtual channel, not USBR This virtual channel redirection makes sure that the smart card can be used for tasks such as email signing, screen locking, and so on, but might cause the smart card to not show as a smart card device in the Windows Device Manager.
- NOTE: The remote host must have the proper smart card drivers installed.

Advanced VMware Horizon View options

Using advanced command line arguments

To use advanced command line arguments:

- In the VMware Horizon View Connection Manager, navigate to Edit Connection Settings > General.
- Under Command Line Arguments, enter arguments that pass to the VMware Horizon View client when it starts.

For more help on using advanced command line options, do one of the following:

- On the command line, type vmware-view--help and then press Enter.
- See the Linux Horizon View client documentation provided by VMware at http://www.vmware.com

Starting a desktop connection using PCoIP instead of RDP

To start a desktop connection using PCoIP instead of RDP:

- 1. Click Connections > Add.
- Select a connection in the Connections window, and click Connect.

Type the hostname or the IP address of the View Connection Server in the field, if necessary.

- 3. Type the user name, password, and domain name in the corresponding fields and click Connect.
- Click the arrow on the right side of the desktop pool. Select Protocols > PCoIP.
- Click Connect.
- NOTE: To either set PCoIP as the default protocol or to disable user protocol selection, edit the desktop pool settings in the VMware Horizon View Manager window (http://<Server>/admin).
- NOTE: To enable VMware Horizon View USB redirection, use the USB Manager utility. See Redirecting USB devices on page 38 for instructions.

XDMCP

XDMCP is a way to connect directly to remote X servers. X servers are used to display graphics on most UNIX-like operating systems, such as Linux, Berkeley Software Distribution (BSD), and Hewlett Packard UniX (HP-UX).

- To add an XDMCP connection, click Connections > Add.
- Select Xdmcp and set the appropriate configuration options:

Table 3-32 New XDMCP connection configuration settings

Option	Description	
Name	The connection name.	
Туре	The XDMCP connection type. Valid options are: chooser , query , and broadcast .	
Address	This value is required if the Type value is set to query .	
Font Server		

Table 3-32 New XDMCP connection configuration settings (continued)

Option	Description	
Use font server	Use a remote X font server instead of locally installed fonts.	
Font server	Font server is not enabled unless the Use font server option is checked.	
Configure display	Click to set the display configuration for the XDM connection. If you do not set this configuration, the default configuration will be used. For information on this screen, see <u>Display preferences on page 35</u> .	

Click Next to continue.

- Set the appropriate advanced options (refer to <u>Table 3-10 New connection advanced settings</u> on page 9).
- Click Finish to save your settings and close the dialog box.

SSH

Secure shell (SSH) is the most common way to gain remote command line access to UNIX-like operating systems, such as Linux, BSD, and HP-UX. SSH is also encrypted.

- To add an SSH connection, click **Connections > Add**. 1.
- 2. Select **SSH** and set the appropriate configuration options:

Table 3-33 New SSH connection configuration settings

Option	Description	
Name	The connection name.	
Network		
Address	The IP address of the remote system.	
Port	The remote port to use for the connection.	
User name	The username to use for the connection.	
Run application	The application to run to make the connection.	
Options		
Compression	Select this option if you want to compress the data sent between the server and thin client.	
X11 connection forwarding	If the server has an X server on it, select this option to allow the user to open user interfaces from the SSH session and display them locally on the thin client.	
Force TTY allocation	Select this option and specify a command to initiate a temporary session to run the command. Once the command has completed, the session will terminate. If no command is specified, then the session will run normally as if the option were not selected.	
Style		
Foreground color	The default color of the text in the SSH session.	

Table 3-33 New SSH connection configuration settings (continued)

Option	Description
Background color	The default color of the background in the SSH session.
Font	Valid options are: 7X14 , 5X7 , 5X8 , 6X9 , 6X12 , 7X13 , 8X13 , 8X16 , 9X15 , 10X20 , and 12X24 .

Click Next to continue.

- 3. Set the appropriate advanced options (refer to <u>Table 3-10 New connection advanced settings on page 9</u>).
- 4. Click **Finish** to save your settings and close the dialog box.

Telnet

Telnet is an older method of gaining remote command line access. It is not encrypted.

- 1. To add a Telnet connection, click Connections > Add.
- 2. Select **Telnet** and set the appropriate configuration options:

Table 3-34 New Telnet connection configuration settings

Option	Description	
Name	The name of the connection.	
Address	The IP address of the remote system.	
Port	The port to use on the remote system.	
Style		
Foreground color	The foreground color.	
Background color	The background color.	
Font	Valid options are: 7X14 , 5X7 , 5X8 , 6X9 , 6X12 , 6X13 , 7X13 , 8X13 , 8X16 , 9X15 , 10X20 , and 12X24 .	

Click Next to continue.

- 3. Set the appropriate advanced options (refer to <u>Table 3-10 New connection advanced settings on page 9</u>).
- 4. Click **Finish** to save your settings and close the dialog box.

Custom

If you would like to install a custom Linux application, you can use the Custom connection to allow you to open this application through the connection manager.

- To add a Custom connection, click Connections > Add.
- 2. Select **Custom** and set the appropriate configuration options:

Table 3-35 New Custom connection configuration settings

Option	Description
Name	The connection name.
Enter command to run	The command to run to make the remote connection.

Click **Next** to continue.

- 3. Set the appropriate advanced options (refer to <u>Table 3-10 New connection advanced settings</u> on page 9).
- 4. Click **Finish** to save your settings and close the dialog box.

Copy

To copy a connection:

▲ Click a selection under Connection Name and then click Copy.

A copy of the connection appears in the list under **Connection Name**.

Delete

To delete a connection:

△ Click a selection under **Connection Name** and then click **Delete**.

The connection is removed from the list under **Connection Name**.

Edit

To edit a connection, click a selection under Connection Name and then click Edit.

The connection settings window for that connection opens.

- 2. Edit the connection and click Apply.
- Click OK.

User View

NOTE: This feature is available only in the Administrative Mode.

To select connections to be visible in the User Mode, click User View.

The **Allow** and **Deny** buttons appear above the **Connection Name** bar.

- Select one or more of the connections listed.
- Click Allow to allow the connections to be visible in the User Mode or click Deny to make the connections unavailable in the User Mode.
- 4. Click **User View** again when you have completed your changes.

4 Control Panel



Control Panel utilities are organized under the following tabs:

- Peripherals on page 29
- Setup on page 38
- Management on page 43
- Advanced on page 50

All Control Panel items are available for use when you are in Administrator Mode; in non-Administrator mode, only the items allowed by the configuration are available. This list of Control Panel items can be modified while in Administrator Mode by using the **Setup** tab and then the **HP ThinPro Configuration** tool.

Peripherals

These utilities allow you to configure your peripherals. The following utilities are available on this tab:

- Client aggregation on page 30
- Display preferences on page 35
- Keyboard layout on page 36
- Mouse on page 36
- Printers on page 36
- SCIM input method setup on page 37

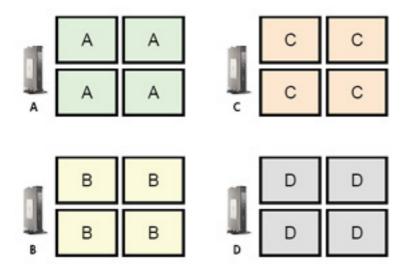
- Sound on page 37
- ThinPrint on page 37
- Touch screen on page 37
- Redirecting USB devices on page 38

Client aggregation

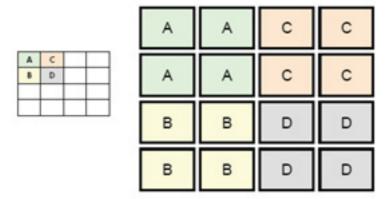
The thin client supports up to four monitors. If you need additional screen real estate, client aggregation allows up to four thin clients to be combined together, controlled by a single keyboard and mouse. Because each thin client supports up to four monitors, client aggregation allows up to four computers and 16 monitors to be controlled by a single keyboard and mouse, without the need for additional hardware or software.

Client aggregation overview

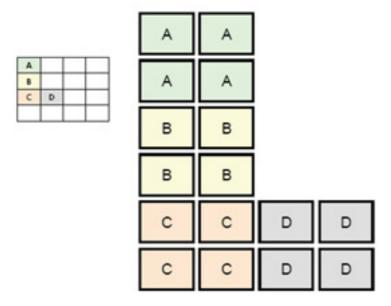
Assume that you have four thin clients, each with 4 monitors. Using the Display Preferences dialog, the thin clients and their monitors are configured as shown—each thin client is configured with a 2x2 array of monitors.



Client aggregation allows you to arrange the four thin clients on a 4x4 grid. The following illustration shows one possible arrangement of the thin clients arranged in a rectangular array using the 4x4 grid. In moving the mouse pointer off the right side of the thin client A monitors, for example, the pointer will appear on the left side of the thin client C monitors. Likewise, keyboard input will be redirected from thin client A to thin client C.



Following is another arrangement of the thin clients on the 4x4 grid, and the resulting arrangement of the monitors.



In this configuration, moving the mouse pointer off the right side of the thin client A monitors will cause it to appear on the upper 1/3 of the left side of the thin client D monitors. Similarly, moving the mouse pointer off the right side of the thin client B monitors will cause it to appear in the middle 1/3 of the left side of the thin client D monitors. Finally, moving the mouse pointer off the right side of the thin client C monitors will cause it to appear in the lower 1/3 of the left side of the thin client D monitors.

NOTE: Desktop windows cannot span the thin clients or be moved between client computers. Typically, each thin client will create windows based on its connection to an associated remote computer, and there won't be a need to move windows between thin clients.

The thin client physically connected to the keyboard and mouse is referred to as the aggregation server. The other thin clients are referred to as aggregation clients. When the mouse pointer is on one of the aggregation clients, the mouse and keyboard inputs (from the aggregation server thin client) are encrypted and sent over the network to the selected aggregation client. The aggregation client decrypts the mouse and keyboard inputs and passes the inputs to the local desktop of the aggregation client.

Client aggregation is based on an open source software package called Synergy, with encryption provided by a package called stunnel.

NOTE: Because the Synergy and stunnel software is also installed on the HP dc72 Blade Workstation Client and the HP dc73 Blade Workstation Client (running Embedded OS versions 9.xx and 10.xx), these client computers can be interconnected to the HP gt7725 Thin Client in client aggregation configurations.

Configuring client aggregation

NOTE: Client aggregation must be configured individually on each thin client—on the aggregation server and on each aggregation client.

Client aggregation configuration is a two-step process:

- 1. Configuring the aggregation clients on page 32
- 2. Configuring the aggregation server on page 32

Configuring the aggregation clients

Perform this procedure on each aggregation client:

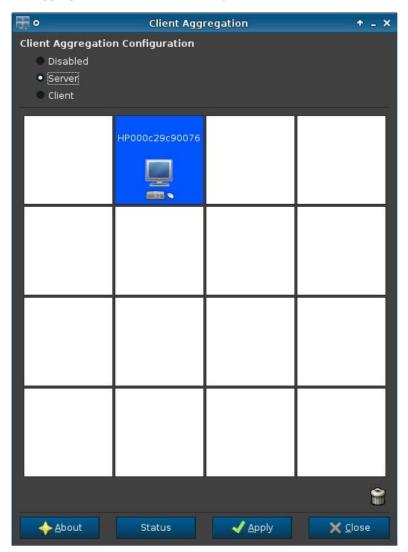
- 1. Double-click Client Aggregation.
- Click Client.
- 3. Type the server hostname or IP address of the aggregation server in the field.
- Click Apply to apply the changes.

Configuring the aggregation server

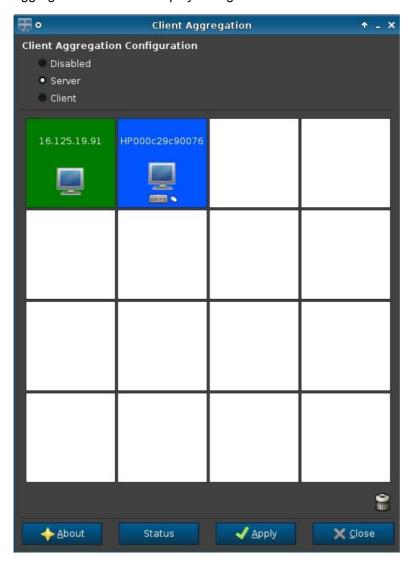
To configure the aggregation server:

- 1. Double-click Client Aggregation.
- Click Server.

3. The aggregation server thin client is displayed in a purple box that contains its hostname. Click and drag the aggregation server to the desired location in the 4x4 grid. In the following figure, the aggregation server thin client is positioned in the first row, second column of the 4x4 grid.



4. Click the location in the 4x4 grid where you want to place the first aggregation client, and enter its hostname or IP address. In the following illustration, the aggregation client at IP address 16.125.19.91 is positioned in the first row, first column of the 4x4 grid. Press Enter when done—aggregation clients are displayed in green boxes.



5. In this same manner, position up to two additional aggregation clients in the 4x4 grid, for a total of up to three aggregation clients.

Placement of the aggregation server and the aggregation clients in the 4x4 grid can be modified at any time by clicking and dragging a client computer to a new location.

Once the aggregation clients and the aggregation server have been configured, they automatically attempt to establish encrypted communications with each other. Click **Status** to view the connection status between computers.

Disabling client aggregation

To disable client aggregation:

- 1. Double-click Client Aggregation.
- 2. Select Disabled.
- 3. Click Apply and Closed.

Display preferences

This utility allows you to add, edit, and delete profiles. A profile is a display specification, which includes resolution, refresh rate, bit depth, and whether or not the display should be rotated.

Most administrators use the default profile, which:

- Uses Display Data Channel (DDC) to query the resolution and refresh rate from the monitor
- Uses 24- or 32-bit color depth
- Does not rotate the display

The administrator may set up different profiles when:

- Using a 16-bit color depth should improve RDP or ICA performance because less data has to be transmitted over the network or sent to the graphics chip
- Some users have to run an application that requires a specific resolution or bit depth in order to function properly
- The administrator wants to standardize on one display profile, even though there are many different monitors across the organization
- One or more users run applications that require their monitor to be rotated (portrait versus landscape mode)

NOTE: The **Display Preferences** window contents are different based on the actual hardware model. Some models allow configuration of up to four monitors, some two, and some only one.

Adding a profile

To add a profile:

- 1. Double-click **Display Preferences**.
- 2. Click New.
- 3. Under **Profile Settings**, type a name in the **Profile Name** field.
- **4.** Select the appropriate **Resolution** for your monitor.
- Select the **Depth**.
- 6. Select the appropriate **Orientation** for your monitor.
- 7. Click **Save** to keep your changes or **Revert** to discard them.
- 8. Under Display Configuration, select the Primary Display Profile and the Secondary Display Profile.
- Set the Mode.
- 10. Click **Test Settings** to check the profile.
- 11. Click Apply, and then click Close to save your changes and close the dialog box.

Editing a profile

To edit a profile:

- 1. Double-click Display Preferences.
- Select a profile in the Profiles list.
- 3. Edit the Profile Settings and Display Configuration as desired.
- 4. Click **Test Settings** to check the profile.
- 5. Click Apply, and then click Close to save your changes and close the dialog box.

Deleting a profile

To delete a profile:

- 1. Double-click Display Preferences.
- Select a profile in the Profiles list and click Delete.
- 3. Click Apply, and then click Close to save your changes and close the dialog box.

Keyboard layout

If you have a single keyboard, configure it on the **Primary** tab. Configure a second keyboard on the **Secondary** tab.

To set your keyboard layout:

- Double-click Keyboard Layout.
- Select your keyboard type with the Standard Keyboard list.
- 3. Set the Model, Layout, and Variant keyboard settings.
- Click Minimize Local Keyboard Shortcuts to minimize the number of keyboard shortcuts mapped to the thin client, if desired.
- 5. Click **OK** to save your changes and close the dialog box.

Mouse

To set the mouse behavior and cursor size:

- 1. Double-click Mouse.
- Set your preferences on the three tabs:
 - Behavior: Set left- or right-handed mouse operation, motions setting, and double-click speed.
 - Cursor: Set the cursor size.
 - Accessibility: Enable mouse emulation.
- Click Close to save your settings and close the dialog box.

Printers

This Control Panel item starts the CUPS printer configuration tool. For more details, see http://cyberelk.net/tim/software/system-config-printer.

SCIM input method setup

This is a graphical user interface (GUI) setup utility for the Smart Common Input Method platform. It is used to set up Chinese and Japanese input methods on the thin client itself. For more information on this open source program, go to the Smart Common Input Method Platform website at http://sourceforge.net/apps/mediawiki/scim/index.php?title=Main_Page.

▲ Double-click **SCIM Input Method Setup**.

Sound

This allows you to specify audio parameters.

- Double-click Sound.
- Click Show Switches to display additional settings.
- 3. The individual slider controls can be used to adjust the sound level for the individual sources.
- 4. Click **File > Options** to view additional device and control options.
- 5. Click View > Manage to view and manage volume control profiles.
- Set your device and control parameters, and click File > Exit to save your preferences and close the dialog box.

ThinPrint

To use ThinPrint:

- Double-click ThinPrint.
- 2. Set the **Bandwidth**, **Packet Size**, and **Printer settings** for each printer.
- Click OK.

Touch screen

Touch Screen allows you to operate the thin client by touching the display screen.

To enable the touch screen:

- Double-click Touch Screen and select Enable Touch Screen.
- 2. Select the Controller Type and Device Port, and elect to Swap X or Swap Y, if desired.
- 3. Click **OK** to save your changes and close the dialog box.

A message appears to inform you that your changes will take effect at the next login.

- Click Yes to log off and restart the desktop with your changes.
 - If you click **No**, the current desktop environment will remain unchanged.
- 5. Click Control Panel > Peripherals > Touch Screen and click Calibrate to calibrate the touch screen.
- NOTE: The touch screen can only be calibrated if it has been enabled and the desktop has been restarted.

The touch screen will not track correctly on the screen if the display is rotated.

Redirecting USB devices

- 1. In the client, log in as the Administrator.
- 2. In the Control Panel, double-click USB Manager.
- 3. Select one of the following remote protocols:
 - Citrix
 - Local
 - RDP
 - VMware Horizon View
- If the setting is Local, you can also specify the optionsallow devices to be mounted and mount devices read-only.
- 5. In the USB Manager screen, under Devices, view the devices connected the system.
- 6. To override the default redirection settings, select the devices that require modification.
- 7. For the selected devices, choose one of the following redirection options:
 - a. Default
 - b. Redirect
 - c. Do not redirect
- 8. When completed, select **Apply**, and then click **OK**.

Setup

These utilities enable you to set up the thin client to your requirements. The following utilities are available on the Setup tab:

- Date and time on page 39
- Background manager on page 38
- Date and time on page 39
- Language on page 40
- Network on page 40
- Screensaver on page 42
- Security on page 42
- HP ThinPro configuration on page 43

Background manager

Use HP Background Manager to change the desktop background image file, orientation, or background colors.

To manage desktop background settings, complete the appropriate tasks:

- 1. In the HP ThinPro Control Panel, double-click Background Manager.
- 2. To change the desktop background image file, do the following:

- a. In HP Background Manager, alongside File, click Browse.
- b. Under Find a Background Image, select a new image and click Open.
 - NOTE: Be sure to select an image file in one of the following formats: *.jpg, *.jpeg, *.png, *.niff, *.tiff, *.pbm
- c. Click Apply.
- To change the desktop background color:
 - a. Select Color.
 - b. Under the Select Color dialog box, choose a new Basic Color or define a Custom Color.
 - c. Click Apply.
- **4.** To change the desktop background orientation or style:
 - a. Under Style, select one of the following settings: Center, Tile, Stretch, Fit, or Fill.
 - b. Click Apply.
- 5. To restore the default background images, select **Restore Default** and click **Apply** .
- 6. To save your changes and close the HP Background Manager, click OK.

Date and time

To set date, time, and time zone information:

- In the HP ThinPro Control Panel, double-click Date and Time.
- 2. In the **Time Settings** screen, do one of the following:
 - Using the world map, select a time zone.
 - Under **Timezone** set the following options:
 - Country
 - Linux Timezone
 - Windows Timezone
- If desired, display week numbers in the calendar by clicking Show Week Numbers under Time Servers in the Time Settings screen.
- 4. To manually set the time of day, under **Time Servers > Time**, use the arrow keys.
- 5. To display the time in a 24 hour clock format, under Time Servers, select 24 hours format.
- 6. To use network time server settings instead of a selected time zone, under Date and Time > Time Servers, choose one of the following options:
 - Use DHCP Time Servers
 - Use these Time Servers
 - Use No Time Servers
- Click Apply.
- 8. To save your changes and close the Time Settings dialog box, click **OK**.

Language

- 1. In the HP ThinPro Control Panel, double-click Language.
- Select the language you want to use.
- 3. Click **OK** to save your changes and close the dialog box. A logout is required to make any changes effective. A logout timer will start when you confirm these changes.
- NOTE: The language can also be set by configuring Dynamic Host Configuration Protocol (DHCP) tag 192 as a string whose value is English, German, Spanish, French, Japanese, or Simplified Chinese.

Network

To configure network settings:

- In the HP ThinPro Control Panel, double-click Network.
- Configure the Wired tab:
 - a. Enable IPv6—Enables the IPv6 connection. The default is IPv4.
 - **b.** Ethernet Speed—List of Link speed/Duplex mode pairings available.
 - c. Connection Method—Option to use Auto or Static connection
 - d. Static Address Configuration—Enable IPv6 NOT enabled
 - IP Address
 - Subnet Mask
 - Default Gateway
 - e. Static Address Configuration—Enable IPv6 enabled
 - IPv6 Address
 - Subnet Prefix Length
 - Default Gateway
 - f. Security Settings

Authentication

- TTLS
 - Inner Authentication—Further authentication layer
 - CA Certificate—Location of security certificate
 - Anonymous Identity—Any temporary name (Optional)
 - Username—User's username
 - Password—User's password
- PEAP
 - Inner Authentication—Further authentication layer
 - PEAP Version—Version of PEAP to be used
 - CA Certificate—Location of security certificate

- Anonymous Identity— Any temporary name (Optional)
- Username—User's username
- Password—User's password

TLS

- CA Certificate—Location of security certificate
- User Certificate—Location of user certificate
- Private Key—Location of private key
- Identity—User's identity string
- Private Key Password—User's key password

3. Configure the **DNS** tab:

- Hostname—Hostname of the thin client
- DNS Server—DNS Server name
- Search Domains—Domain to which the thin client belongs
- HTTP Proxy—Proxy to be used for HTTP communications
- FTP Proxy—Proxy to be used for FTP communications

4. Configure the **IPSec** tab:

- Add—Add new rule
 Can expand on this, if needed
- Edit—Edit highlighted rule
- Delete—Delete highlighted rule

5. Configure the **VPN** tab:

Connection Type

- Cisco
 - Gateway—Server gateway address
 - Group Name—Group's name
 - Group Password—Group's password
 - Domain—Domain name
 - User Name—User's username
 - User Password—User's password

PTTP

- Gateway—Server gateway address
- NT Domain—NT Domain name

- User Name—User's username
- User Password—User's password
- Configure the HP Velocity tab:

Enable packet loss prevention—When possible, this prevents the loss of data over the internet.

Screensaver

To configure the screensaver:

- In the HP ThinPro Control Panel, double-click Screensaver.
- Select the Screensaver settings:
 - **a.** Select **Enable screensaver**, or clear the selection if you do not want a screensaver.
 - **b.** Select the number of minutes of inactivity after which to activate the screensaver. Type the number in the field or use the up or down arrow keys to select a number.
 - c. Select Require password on resume, if desired.
 - d. Select the Mode:
 - blank
 - logo
 - **e.** If you selected **logo**, select **Customize a logo**, and then click **Select** to browse to the desired logo file.
- Configure the Display Power Management settings to turn off the display after a set period of inactivity:
 - **a.** Select **Enable Display Power Management**, or clear the selection if you do not want to set this feature.
 - **b.** Select the idle time in minutes after which to turn off the display. Type the number in the field or use the up or down arrow keys to select a number.
- 4. Click **OK** to save your changes and close the dialog box.

Security

This feature allows you to change Administrator and User passwords.

To change your password:

- 1. Double-click **Security**.
- 2. Select **Administrator** or **User** and click **Change password**.
- Type the new password in the New password and Confirmation fields and click OK.
- 4. If you wish to force a login, enable the **Must login to access desktop** option.
- 5. Click OK.
- NOTE: It is strongly recommended that you change both the user and administrator passwords from their default values.

HP ThinPro configuration

You can select:

- Connections: Authorized actions on connections
- **Control Panel**: Authorized applications
- **Desktop**: Desktop options
- System: Asset information and WakeOnLAN mode
 - This option is not available on all models.

Setting connections and Control Panel user permissions

To set user permissions on the Connections and Control Panel tabs:

- Double-click HP ThinPro Configuration. 1.
- 2. Click Connections in the left panel and select authorized connections by selecting or clearing check boxes.
- Click Control Panel in the left panel and select authorized applications by selecting or clearing check boxes.
- Click Apply, then click OK to close the dialog box.

Setting user desktop and system options

To configure the **Desktop** and **System** tabs:

- 1. Double-click **HP ThinPro Configuration**.
- Click **Desktop** in the left panel and select desktop options by selecting or clearing check boxes.
- Click System in the left panel and set asset information and enable or disable the WakeOnLAN mode by selecting or clearing check boxes.
- NOTE: This option is not available on all models.
- Click Apply, then click OK to close the dialog box.

Management

These utilities are management tools that can help you manage a thin client network. The following utilities are available on the Management tab:

- AD/DDNS Manager on page 44
- Easy Deploy on page 44
- Easy Config on page 44
- Easy Update on page 44
- Factory reset on page 45
- HP Automatic Update on page 45
- **HPDM Agent on page 45**
- SSHD Manager on page 45

- ThinState on page 46
- VNC Shadow on page 49

AD/DDNS Manager

This control allows you to add the thin client to an Organizational Unit of the Active Directory Server, and to enable automatic Dynamic DNS updates of the thin client's name and IP-address association. It does not enable authentication against the Active Directory database.

- Double-click AD/DDNS Manager.
- Type the following information in the fields:
 - Active Directory Domain
 - Organizational Unit for Machine (OU)
 - Administrator User Name
 - Administrator User Password
- Click Update Dynamic DNS from client if you want the system to update this information automatically.
- **4.** Click **Information** to see the following information:
 - AD Server
 - Credentials
 - Time Synchronization
 - AD Machine Status

Click OK when done.

5. Click **OK** to save your changes and close the dialog box.

Easy Deploy

Easy Deploy is a tool in the **Easy Tools** Management suite. See the *HP Easy Tools Administrator's Guide* at http://www.hp.com/support for full details.

Easy Config

Easy Config is a tool in the **Easy Tools** Management suite. See the *HP Easy Tools Administrator's Guide* at http://www.hp.com/support for full details.

Easy Update

Easy Update is a tool in the **Easy Tools** Management suite. See the *HP Easy Tools Administrator's Guide* at http://www.hp.com/support for full details.

Factory reset

In Factory Reset, you can

- Save the current configuration
- Restore the factory settings
- Restore the factory image

To access these functions:

- Double-click Factory Reset.
- 2. Click the button that will accomplish the task you desire.

HP Automatic Update

To configure HP Automatic Update:

- Double-click HP Automatic Update.
- 2. Click Enable HP Automatic Update on system startup if you wish to have this system updated on restarts.
- If the previous option is enabled, you can click Enable manual configuration if you wish to supply the server address via ftp, http, or https. If you wish to supply the Server, Path, User name, and Password, you may do this in the supplied fields.

HPDM Agent

Configure the HP Device Management Agent using this feature.

- Double-click **HPDM Agent** to access this screen.
- Use the **General** tab to set the following:
 - **Backup Gateway**
 - Pull Interval
 - Log Level
 - **Delay Scope**
- Set the groups using the Groups tab. You can select preassigned groups from the DHCP tab or you can use static custom groups.
- Click **OK** to save your changes.
- NOTE: Changes will take effect after the HP Device Management Agent is restarted.

SSHD Manager

To enable secure shell access:

- 1. Double-click SSHD Manager.
- 2. Click Enable Incoming Secure Shell Access.
- 3. Click Enable Non-Administrator Access via Secure Shell, if you wish.
- Click **OK** to save your preference and close the dialog box.

ThinState

ThinState allows you to copy and deploy an HP ThinPro image and settings to another HP Thin Client of identical model and hardware:

- Manage the HP ThinPro image on page 46
- Manage the HP ThinPro configuration on page 48

Use the captured images and settings to replicate (deploy) on different systems or to restore the current capture back to its original setting after settings are altered.

NOTE: HP ThinState is not a standalone tool and can only be accessed by the administrator from within the thin client image.

What do I need to have?

- An HP-approved USB flash drive (also referred to as a USB key)
- An HP Thin Client unit that contains the latest HP-provided HP ThinPro image

Manage the HP ThinPro image

HP ThinState allows you to:

- Capture HP ThinPro image to an FTP server on page 46
- Deploy HP ThinPro image from a remote site on page 46
- Capture HP ThinPro image to a bootable USB flash drive on page 47

Capture HP ThinPro image to an FTP server

- 1. Double-click ThinState.
- Select the HP ThinPro image, and then click Next.
- 3. Select make a copy of the HP ThinPro image, and then click Next.
- 4. Click an FTP server, and then click Next.
- NOTE: The image path must exist on the FTP server before you can make the copy. ThinState produces an error if the image path does not exist on the FTP server.

The image file name is set by default with the HP ThinPro host name.

- 5. Type the FTP server information in the fields and choose whether or not to Compress the image.
- NOTE: The HP ThinPro image file is a simple disk dump. The uncompressed size is about 512 MB; a compressed image without add-ons is approximately 237 MB.
- 6. Click Finish.

When the image capture begins, all applications stop and a new window appears showing the copy progress. If a problem occurs, click **Details** for information. The desktop reappears after capture is complete.

The HP ThinPro image capture is complete.

Deploy HP ThinPro image from a remote site

There are two ways to deploy an HP ThinPro image from a remote site: using the **ThinState** tool directly or by creating a web browser connection.

To deploy using the **ThinState** tool directly:

- Double-click ThinState.
- Select the HP ThinPro image, and then click Next.
- 3. Select restore an HP ThinPro image, and then click Next.
- Select FTP or HTTP protocol. Type the remote server information in the fields.
- **Username** and **Password** are not required if you are using HTTP protocol.

Be sure of the image file you are using: neither content nor size are verified before the image upgrade begins.

Click Finish.

When the image capture begins, all applications stop and a new window appears showing the copy progress. If a problem occurs, click **Details** for information. The desktop reappears after restoration is complete.

A MD5sum check is done only if the file exists on the FTP server.

NOTE: If you abort a restoration, the previous overwritten image will not be restored and the contents of the flash drive will be corrupted.

To deploy using a web browser connection:

- Switch to Administrative Mode.
- Create a web browser connection to an HTTP or an FTP server where an HP ThinPro image resides.
- Right-click on the link to the HP ThinPro image file. This is usually a link with a .dd.gz file extension.
- 4. select Open Link in HP ThinState.
- Verify the values displayed and click Finish to launch the deployment of the image.

Restoration is complete.

Capture HP ThinPro image to a bootable USB flash drive

A bootable USB flash drive with an HP ThinPro image allows you to restore the image or duplicate it on different thin clients.

NOTE: Back up any data on the USB flash drive before you begin. ThinState automatically formats the flash drive to create a bootable USB flash drive. This process will erase all data currently on the flash drive.

- 1. Double-click ThinState.
- 2. Select the HP ThinPro image, and then click Next.
- 3. Select make a copy of the HP ThinPro image, and then click Next.
- 4. Click create a bootable USB flash drive, and then click Next.
- Attach a USB flash drive to the thin client. Select the USB key and click Finish.

When the image capture begins, all applications stop and a new window appears showing the copy progress. If a problem occurs, click **Details** for information. The desktop reappears after capture is complete.

HP ThinPro image capture is complete.

Deploy HP ThinPro image from a bootable USB flash drive

To install an HP ThinPro image from a bootable USB flash drive:

- 1. Turn off the target thin client.
- Insert the bootable USB flash drive.
- 3. Turn on the thin client.

The screen remains black for 10-15 seconds while the thin client detects and boots from the bootable USB flash drive.

NOTE: If the thin client fails to boot from the USB flash drive, try unplugging all other USB devices and repeat the procedure.

Manage the HP ThinPro configuration

The HP ThinPro configuration file contains the connections set and the settings set through the Control Panel applications. A configuration file is specific to a given version of HP ThinPro. Be sure to use a configuration file generated with the same version of HP ThinPro.

HP ThinPro allows you to:

- Save the HP ThinPro configuration on an FTP server on page 48
- Restore an HP ThinPro configuration from a remote server on page 48
- Capture an HP ThinPro configuration to a USB drive on page 49
- Restore an HP ThinPro configuration from a USB key on page 49

Save the HP ThinPro configuration on an FTP server

- 1. Double-click ThinState.
- 2. Select the HP ThinPro configuration, and then click Next.
- Select save the configuration, and then click Next.
- Click on an FTP server, and then click Next.
- NOTE: The file path must exist on the FTP server before you can make the copy. ThinState produces an error if the file path does not exist on the FTP server.
- 5. Type the FTP server information in the fields, and click **Finish**.

The HP ThinPro configuration capture is complete.

Restore an HP ThinPro configuration from a remote server

- 1. Double-click ThinState.
- 2. Select the HP ThinPro configuration, and then click Next.
- 3. Select restore a configuration, and then click Next.
- 4. Click on a remote server, and then click Next.

- 5. Select FTP or HTTP protocol. Type the remote server information in the fields.
- NOTE: Username and Password are not required if you are using HTTP protocol.
- 6. Click Finish.

The HP ThinPro configuration restoration is complete.

Capture an HP ThinPro configuration to a USB drive

- 1. Attach a USB key to the thin client.
- Double-click ThinState.
- 3. Select the HP ThinPro configuration, and then click Next.
- Select save the configuration, and then click Next.
- Click on a USB key, and then click Next.
- Select the USB key.
- Click Browse.
- 8. Navigate to the desired location on the USB key and assign a file name to the profile.
- 9. Click Save.
- 10. Click Finish.

The HP ThinPro configuration capture is complete. Remove the USB key.

Restore an HP ThinPro configuration from a USB key

- 1. Attach a USB key containing the profile you want to copy to the thin client.
- 2. Double-click **ThinState**.
- 3. Select the HP ThinPro configuration, and then click Next.
- 4. Select restore a configuration, and then click Next.
- 5. Click on a USB key, and then click Next.
- 6. Select the USB key.
- 7. Click Browse.
- 8. Double-click the desired profile file on the USB key.
- 9. Click Finish.

The HP ThinPro configuration restoration is complete. Remove the USB key.

VNC Shadow

Virtual Network Computing (VNC) is a remote control program that allows you to see the desktop of a remote machine and control it with your local mouse and keyboard, just as if you were sitting in the front of that computer.

To allow a thin client to be accessed from another location:

- Double-click VNC Shadow.
- Select Enable VNC Shadow to enable the thin client to be accessed using VNC.

- Select VNC Read Only to make the VNC session read only.
- Select VNC Use Password to require a password to access the thin client using VNC.
- Select VNC Notify User to Allow Refuse to display a message when someone uses VNC to access the thin client and allow a user to refuse VNC access.
 - a. Select VNC Show Timeout for Notification and set a time delay to allow the user to refuse.
 - b. Type a User Notification Message in the field.
- 6. Select Re-set VNC server right now and click OK to reset the VNC server.
- 7. Click **OK** to save the settings and exit the dialog box.
 - NOTE: You will need to restart the thin client for the changes to take effect.

Advanced

These utilities allow you to enable CDA mode, open a text utility, and access the root directory. The following utilities are available on the Advanced tab:

- CDA mode on page 50
- Certificates on page 51
- DHCP Option Manager on page 54
- Text editor on page 54
- X Terminal on page 54

CDA mode

This utility allows you to enable Citrix Desktop Appliance (CDA) Mode and set the URL.

To use CDA mode:

- Be sure that web browser preferences have been set. For more information, see <u>Web browser</u> on page 8.
- Double-click CDA Mode.
- Select Enable CDA and type the URL in the field.
- Click OK to save your changes and close the dialog box.

NOTE: CDA mode can also be enabled by configuring DHCP tag 191 as a string whose value is the URL to the Citrix environment.

To disable CDA mode:

- 1. Press Ctrl+Alt+End to minimize Web Browser.
- 2. Click Control Panel > Advanced > CDA Mode.
- Clear the Enable CDA check box.
- 4. Click **OK** to save your changes and close the dialog box.

When you restart the desktop, CDA mode will be disabled

Certificates

Use the **Certificate Manager** to easily import, view, or remove certificates.

Importing certificates

This section describes how to import certificates from a URL or file.

To import certificates:

- In the HP ThinPro Control Panel, double-click Certificates.
- In the Certificate Manager, select an option indicating the type of certificate you want to import, as follows:
 - **Local Root Certificate Authorities**
 - **Root Certification Authorities**
 - Personnel Certificates
 - Private Keys
- To import a certificate from a URL:
 - In the Certificate Manager, click Import from URL.
 - Under Certificate Import > URL, type the address of the URL that references a certificate b. you want to import.
 - C. Click **Import**.
 - When completed, click Quit. d.
- To import a certificate from a file:
 - In the Certificate Manager, click Import from File. a.
 - Under Certificate Import > File Name, type the name of the file that references a certificate to import, and then click Open.

```
NOTE: Import PEM and DER certificates in the following file formats: *.der, *.pem, *.crt,
   *.cer, *.12, *.pfx, *.key
```

When completed, click Close.

Removing certificates

This section describes how to remove certificates from the Certificate Manager.

To remove certificates:

- In the HP ThinPro Control Panel, double-click Certificates.
- In the Certificate Manager, select an option indicating the type of certificate you want to remove, as follows:
 - Local Root Certificate Authorities
 - **Root Certification Authorities**
 - Personnel Certificates
 - Private Keys

- 3. To remove a certificate, do the following:
 - a. In the Certificate Manager, select the certificate you want to remove.
 - b. Click Remove.
- 4. When completed, click Close.

Viewing certificates

This section describes how to view certificates in the **Certificate Manager**.

To view certificates:

- 1. In the HP ThinPro Control Panel, double-click Certificates.
- 2. In the Certificate Manager, select an option indicating the type of certificate to view, as follows:
 - Local Root Certificate Authorities
 - Root Certification Authorities
 - Personnel Certificates
 - NOTE: There are two types of certificate authorities (CAs): root CAs and intermediate CAs. For a certificate to be trusted, and often for a secure connection to be established, that certificate must have been issued by a CA that is included in the trusted store of the device that is connecting.

The name of the site is specified within the certificate.

If the certificate was not issued by a trusted CA, the connecting device (e.g., a web browser) will then check to see if the certificate of the issuing CA was issued by a trusted CA, and so on until either a trusted CA is found (at which point a trusted, secure connection will be established) or no trusted CA can be found (at which point the device will usually display an error).

To facilitate the process of verifying a "chain" of trust, every certificate includes the fields "Issued To" and "Issued By". An intermediate CA will show different information in these two fields, showing a connecting device where to continue checking, if necessary, in order to establish trust.

- 3. To view detailed certificate information on a selected certificate, double-click the record you want to view. Select one of the following:
 - General
 - Details

VMware Horizon View HTTPS and certificate management requirements

VMware Horizon View Client 1.5 and VMware Horizon View Server 5.0 and later require HTTPS. By default, the VMware Horizon View client warns about untrusted server certificates, such as selfsigned (like the VMware Horizon View Manager default certificate) or expired certificates. If a certificate is signed by a Certificate Authority (CA) and the CA is untrusted, the connection will return an error and the user will not be allowed to connect.

HP recommends that a signed certificate verified by a standard trusted root CA be used on the VMware Horizon View Manager server. This makes sure that users will be able to connect to the

server without being prompted or required to do any configuration. If using an internal CA, the VMware Horizon View client connection returns an error until you complete one of the following tasks:

- In Administrator Mode, under Control Panel > Advanced, select Certificates. Then, import the certificate from a file or URL.
- Use a remote profile update to import a certificate.
- In the VMware Horizon View Manager, select Edit Connection Settings > General. Set Connection Security Level to Allow all Connections, and then click Apply.

DHCP Option Manager

The DHCP Option Manager displays details of the DHCP tags that are requested by the client. You can direct the thin client to request or ignore specific DHCP tags by enabling the tag request in the **Requested** column.

When a pencil is shown next to the DHCP Code, the code itself can be changed, in case you have a conflict in your DHCP server over a particular code number. By clicking on the information icon next to each option, you can learn more about how that option is used, both on the thin client and on the DHCP server.

The drop-down list in the lower left corner allows you to change the DHCP tags that are displayed. You can select **Show Custom Options**, **Show Common Options**, or **Show All Options**.

Text editor

To open this Notepad-style text utility:

▲ Double-click Text Editor.

X Terminal

To access the command line of the local thin client:

Double-click X Terminal.

Keyboard shortcuts

Keyboard Shortcuts allows the user to assign key combinations to launch programs or perform actions such as minimize and close the current window.

- 1. Double-click Keyboard Shortcuts
- To Create a new keyboard shortcut:
 - a. Click New.
 - **b. Enter** in the comment or **Select from directory** and browse for the program/action you would like to run.
 - **c.** Perform the key combination you would like to trigger this new program/action you would like to run.
 - d. If you make a mistake, just perform the key combination again and it will override the error.
 - e. Click OK.
- To Edit a keyboard shortcut:
 - a. Click the keyboard shortcut section you would like to **Edit**.

i. Click Command if you would like to edit the command.

Enter in the comment or Select from directory and browse for the program/action you would like to run.

ii. Click **Shortcut** if you would like to edit the shortcut.

Perform the key combination you would like to trigger this new program/action you would like to run.

- b. Click OK.
- To **Delete** a keyboard shortcut:
 - Click the keyboard shortcut you would like to **Delete**.
 - b. Click **Delete**.

5 System Information



The System Information screen has the following tabs:

- General on page 56
- Network on page 57
- Net tools on page 57
- Software information on page 58
- System logs on page 58

General

The **General** tab displays the following information:

- BIOS (Basic Input/Output System) and OS (operating system)
 - Serial Number
 - BIOS Version
 - BIOS Release Date
 - OS Build ID
 - OS Kernel Version
- System

- Platform
- CPU (Central Processing Unit) Speed
- Processor
- Flash and Memory
 - Free
 - Used
 - Installed

Network

The **Network** tab displays the following information:

- Interface
 - Name
 - State
 - Type
 - IP Address
 - **Network Mask**
 - MAC (Media Access Control) Address
 - **DHCP Server Address**
 - Interface Statistics
- Network
 - **Default Gateway**
- **DNS Settings**
 - Hostname
 - **Default Domain**
 - Nameservers

Net tools

The **Net Tools** tab allows you to run a test:

- Click System Information > Net Tools.
- Select the tool:
 - Ping
 - **DNS Lookup**
 - Trace Route
- Identify the host and set the diagnostic parameters.

- 4. Click Start Process.
- 5. To clear the diagnostic log, click Clear Log.

Software information

The **Software Information** tab displays the name and version of the main software installed.

System logs

The **System Logs** display log information.

- DHCP Wired Leases—Displays a log on lease information on the current wired connection.
- DHCP Wireless Leases—Displays a log on lease information on the current wireless connection.
- Kernel—Displays a log on kernel tasks, messages, warnings, and errors.
- X Server—Displays a log on X Servers tasks, messages, warnings, and errors.

To save the diagnostic archive of all of these logs:

- 1. Click **Diagnostic**, name the file, and specify a location.
- Click Save to save the archive and close the dialog box.

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