

HP ThinPro, version 4.1

Administrator's Guide

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About this book

CAUTION: Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.

NOTE: Text set off in this manner provides important supplemental information.

This guide provides the network administrator with instructions for configuring the thin client and explains the various configuration utilities.

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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.

Connectivity support may include access to Windows[®], Citrix, mainframes, midrange servers, Unix/ Linux backends, web hosts as well as various VDI brokers such as Citrix XenDesktop and VMware View.

NOTE: Host access support may vary between different HP Thin Client models using the HP ThinPro operating system.

Some ThinPro images may look different than those pictured in this guide. Not all features are present on all models.

Using HP ThinPro

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

0	Thin	Pro Control Center			
hp	Connections				
	Connect Disconnect	General Settings	Add Cop	y Delete Edit	
	CONNECTION NAME		<u> </u>	TYPE	STATUS
	에 Cupertino RDesktop			RDP Citrix ICA XenApp VMware View	inactive inactive inactive inactive
Connections Control Panel					

HP ThinPro allows you to launch and manage host and remote application connections by creating an ICA (Independent Computing Architecture), XenApp, RDP (Remote Desktop Protocol), HP TeemTalk, VMware View, X Windows, or Web Browser connection. When logged in as Administrator, you can define which connections and connection types are visible when in User mode. The Administrator can further restrict Users from deleting connections or creating new ones.

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

- The top section of the window changes from blue to red.
- The window title adds the text (Administrative Mode).

HP ThinPro opens by default in the User Mode. To switch to the Administrative Mode:

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

-or-

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

- 2. Select Administrator/User Mode Switch.
- 3. Type the Administrative password in the field and click **OK**.

NOTE: The default password for Administrative Mode is root.

You can also switch modes as follows:

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

The ThinPro taskbar

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

Figure 1-1 The ThinPro taskbar

Control Panel	
1 ThinPro Control	

- 1. **The HP button** The HP button allows access to basic functionality of the ThinPro operating system, such as access to the control center, logoff, 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.
- **6. 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 the ThinPro software. 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 ThinPro image up to date with new images, service packs or additional packages. Easy Config provides a wizard interface to assist you in setting up your 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 43</u> for more information.

3 Reference

This section describes all utilities and procedures available to administrators and users in the HP ThinPro control center. Click one of the three buttons in the left pane to access the corresponding window:

- <u>Connections on page 5</u>: Access and manage remote connections in the Connections window.
- <u>Control Panel on page 25</u>: Configure peripherals, set up the user experience, personalize the desktop, and manage various utilities on the five Control Panel tabs.
- <u>System Information on page 51</u>: View system, network, and software information and run diagnostic tests on the five System Information tabs.

Connections

HP ThinPro allows you to access and manage remote connections such as ICA, XenApp, RDP, TeemTalk, VMware View, X Windows, Web Browser, etc. To access all HP ThinPro functionality, you must log in as an Administrator. As a User, you can 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.

<i>(p</i>)	ThinPro Control Center (Administrative Mode)							
(hp	Connections							
	Connect	R Disconnect	General Settings	Add_	р Сору	S Delete	Edit	ser View
	CONNECTIO	N NAME			Δ	TYPE		STATUS
	🗌 🚽 💷 Cupe	ertino RDesktop				RDF	2	inactive
/ hp		ollins KA				Citrix	CA	inactive
	🗌 🔄 😒 Hous	ston XenApp				XenA		inactive
	🛛 🗟 Wayı	ne PA				VMware	View	inactive
<u>Connections</u>								
2.2								
X Control Panel								
System Information								

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 (ICA, XenApp, RDP, TeemTalk, VMware View, Web Browser, etc.). 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:

- <u>Connect on page 7</u>: Click to start a selected connection.
- <u>Disconnect on page 7</u>: Click to disconnect a selected connection.
- <u>General settings on page 7</u>: Click to manage connection settings.
- <u>Add on page 10</u>: Click to create a new connection and add it to the list of available connections.
- <u>Copy on page 24</u>: Click to copy a connection and add it to the list of available connections.
- <u>Delete on page 24</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 24: Click to edit the selected connection.
- <u>User View on page 24</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 tables below:

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.
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.

Table 3-1 Citrix ICA connection options

Option	Description
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.

Table 3-1 Citrix ICA connection options (continued)

Table 3-2 Citrix ICA connection local resources options

Option	Description
Allow Audio Input	Allow audio input from the thin client.
Auto Printer Creation Automatically 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

Description		
Proxy server settings.		
Options are: None - direct, SOCKS, Secure - HTTPS, Use browser settings, Automatically detect proxy.		
The IP address of the proxy server.		
The port for connection to the proxy server.		
The username to use for connection to the proxy server.		

Table 3-4 Citrix ICA connection firewall options (continued)

Option	Description		
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.

Web browser

The configuration options for a web browser connection are:

Table 3-7 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 0-0 KBI 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.

Table 3-8 RDP connection general options

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 3-9	New	connection	advanced	settings
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Option	Description
•F	
Fallback Connection	If the connection fails to start, attempt to start the fallback connection instead.
	NOTE: This option is not available for the XenApp and VMware View connection types.
Auto start priority	The autostart priority determines the ordering of connection startup. O 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:

- <u>Citrix ICA on page 11</u>
- <u>RDP on page 14</u>

- <u>HP TeemTalk on page 16</u>
- Web browser on page 18
- XenApp on page 19
- <u>VMware View on page 19</u>
- XDMCP on page 21
- <u>SSH on page 22</u>
- <u>Telnet on page 23</u>
- Custom on page 23

Citrix ICA

- 1. To add a Citrix ICA connection, click **Connections > Add**.
- 2. Select Citrix ICA. Select the appropriate values for the network settings:

Table 3-10 New Citrix ICA connection network settings

Option	Description
Connection Name	The connection name.
Network	Network-specific settings section.
Server Location	The server location.
Server Type	The server type. Valid options are: Server or Published Application . Clicking Browse allows you to browse for a server. The Use default allows you to specify the default server type.
Server	Server name.
Protocol	The network protocol to use for the connection. Valid options are: Default, TCP/IP Browser, TCP/IP HTTP Browser, and SSL/TLS HTTPS Browser.
Application	Application.
Credentials	Logon credential settings.
Username	Logon username.
Password	Logon password.
Domain	Logon domain.
Allow Smart Card Logon	Allow logon using a client-connected Smart Card.

Click **Next** to continue.

3. Select the appropriate values for the connection settings:

Table 3-11	New Citrix	ICA cor	nnection	settings
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Option	Description
Enable Audio Input	Enable audio input from this connection.
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.
Enable Drive Mapping	Enable thin client drive mapping.
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.
Local Text Echo	Valid options are: Auto, On, and Off.
Encryption Level	Valid options are: Basic, RCS 128 bit - Login Only, RCS 40 bit, RCS 56 bit, and RCS 128 bit.

Click **Next** to continue.

4. Select the appropriate values for the window settings:

Table 3-12 New Citrix ICA connection window settings

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

Click **Next** to continue.

5. Select the appropriate values for the application settings:

Table 3-13 New Citrix ICA connection application settings

Option	Description
Application	The Citrix application.
Directory	The Citrix directory.

Click **Next** to continue.

6. Select the appropriate values for the firewall settings:

Option	Description	
Proxy	Proxy server settings.	
Ргоху Туре	Select a proxy type. Valid options are: Default, None - direct, SOCKS , Secure - HTTPS, Use Browser settings , and Automatically detect proxy .	
Proxy Address	Type the proxy host name. This option is not enabled if the Proxy Type is set to Default or None - direct .	
Proxy Port	Type the proxy host port.	
Username	Type the proxy user name for the account to use to connect to a remote computer.	
Password	Type a password for the account to use to connect to a remote computer.	
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 3-14
 New Citrix ICA connection firewall settings

Click **Next** to continue.

7. Select the appropriate values for the smart ping settings:

Table 3-15 New Citrix ICA connection smart ping settings

Option	Description	
Smart Ping	Allows you to enable HP ThinPro to ping the server before attempting a connection. If the server name fails to resolve or the server fails to respond to the ping, the thin client aborts the connection attempt. Valid options are: Don't ping and Standard Echo . The next two options are disabled unless this option is set to Standard Echo .	
Smart Ping Port	Allows you to specify a port for Smart Ping.	
Smart Ping Timeout	Allows you to specify a time period for Smart Ping to keep pinging.	

Click **Next** to continue.

- 8. Select the appropriate values for the common settings (refer to <u>Table 3-9 New connection</u> <u>advanced settings on page 10</u>).
- 9. Click **Finish** to save your settings and close the wizard.

NOTE: To enable Citrix ICA USB Redirection, use the USB Manager utility. See <u>USB Manager</u> on page 34 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.

- **1.** To add an RDP connection, click **Connections > Add**.
- 2. Select **RDP**. Set the appropriate network options:

Table 3-16 New RDP connection network settings

Option	Description	
Name	The Browse button allows you to browse for the remote system.	
Address	The IP address of the remote system.	
Port	The port to use for the remote connection.	
Application	RDP application path. NOTE: If you will use RDP Seamless Windows mode, type the path of seamlessrdp on your server and the path of the application you want to run. For example, if you installed seamlessrdp in C:\seamless and want to run Word, type C:\seamlessrdp\seamlessrdpshell.exe C:\Program Files \Microsoft\Word.exe.	
Directory	Sets the initial working directory for the user. Used with the Application setting to set up a fixed published application connection.	
Username	The RDP directory.	
Password	The username to use for the connection.	
Domain	The password to use for the connection.	
Allow Smartcard Login	Allow a locally-connected smart card to be used for login credentials.	

Click **Next** to continue.

3. Set the appropriate window options:

Table 3-17 New RDP connection window settings

Option	Description
	Allows you to display a single window on the local ThinPro desktop as if it were a native application.
	NOTE: To use the RDP Seamless Windows mode:
	a. Install server side software (<u>http://www.cendio.com/seamlessrdp/</u>).
Enable Seamless Windows	b. In the Application field in the Network dialog box, type the application to the path of seamlessrdp on your server and the path of the application you want to run. For example, if you installed seamlessrdp in C:\seamless and want to run Word, type C:\seamlessrdp\seamlessrdpshell.exe C: \Program Files\Microsoft\Word.exe.
	c. Enable Seamless Windows.

Table 3-17 New RDP connection window settings (continued)

Option	Description	
Window Size	The window size. Valid options are: fixed , percent , and full .	
Window Colors	Valid options are: Auto, 8-bit, 15-bit, 16-bit, 24-bit, and 32-bit.	

Click **Next** to continue.

4. Set the appropriate options:

Table 3-18 New RDP connection options settings

Description
Enable motion events for this connection.
Use data compression for this connection.
Encrypt communications for this connection.
Force bitmap updates.
Use a local private colormap.
Enable the system beep.
Attach to the console port.
Valid options are: Auto, 4, 5, 5.1, and 5.2.
The hostname to send to the remote system for this connection.

Click **Next** to continue.

5. Set the appropriate local resource options:

Table 3-19 New RDP connection local resources settings

Option	Description	
Remote computer sound	Valid options are: Do not play , Bring to this computer , and Leave at remote computer .	
Devices mapping		
Enable USB storage mapping	Enable USB storage mapping. The drive letter to be used can be established with the drop-down list.	
Enable port mapping	Enable port mapping.	
Enable printer mapping	Enable printer mapping.	

Click **Next** to continue.

6. Set the appropriate experience options:

Table 3-20 New RDP connection experience settings

Option	Description
Desktop background	Set the desktop for the connection.
Show contents of window while dragging	Show the contents of a window when you drag it across the desktop.
Menu and window animation	Enable window and menu animation.
Themes	The theme for the connection.
Bitmap caching	Enable bitmap caching.

Click **Next** to continue.

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

NOTE: To enable RDP USB Redirection, use the USB Manager utility. See <u>USB Manager</u> on page 34 for instructions.

HP TeemTalk

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

- Adding a TeemTalk connection using the TeemTalk creation wizard on page 16
- Adding a TeemTalk connection manually on page 18

For more information on HP TeemTalk, see HP TeemTalk Terminal Emulator 7.3 User Guide at http://bizsupport1.austin.hp.com/bc/docs/support/SupportManual/c02718822/c02718822.pdf.

Adding a TeemTalk connection using the TeemTalk creation wizard

- 1. To add a TeemTalk connection using the wizard, click **Connections > Add**.
- 2. Select **Teemtalk** and click **Teemtalk creation wizard**. Set the appropriate connection options:

Table 3-21 New TeemTalk creation wizard connection information settings

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 .	

Option	Description
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.

Table 3-21 New TeemTalk creation wizard connection information settings (continued)

Click **Next** to continue.

3. Set the appropriate advanced options:

Table 3-22 New TeemTalk creation wizard connection advanced options settings

Option	Description	
Emulation Printer	The TeemTalk emulation printer settings.	
Auto Logon	The TeemTalk auto login settings.	
Key Macros	The TeemTalk key macros settings.	
Mouse Actions	The TeemTalk mouse actions settings.	
Soft Buttons	The TeemTalk soft buttons settings.	
Attributes	The TeemTalk attributes settings.	
Auxiliary Ports	The TeemTalk auxiliary ports settings.	
Hotspots	The TeemTalk hotspots settings.	
	http://bizsupport1.austin.hp.com/bc/docs/support/SupportManual/ c02718822/c02718822.pdf	

Click **Next** to continue.

4. Set the appropriate preferences:

Table 3-23 New TeemTalk creation wizard connection preferences options settings

Option	Description	
Preferences	The TeemTalk preferences button.	
Start session connected	TeemTalk should start the session connected.	
Show Status Bar	Request that TeemTalk display the status bar for this connection.	

Click **Next** to continue.

5. Set the appropriate finalization options:

Table 3-24 New TeemTalk creation wizard connection finalization settings

Option	Description
Create an icon on the desktop	Select this option if you wish to have a desktop icon created for this connection.
Summary Session Information	Displays a summary of the session that is to be created.

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

Adding a TeemTalk connection manually

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

Table 3-25 New Teemtalk manual connection configuration settings

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

Click **Next** to continue.

- **3.** Set the appropriate advanced options (refer to <u>Table 3-9 New connection advanced settings</u> <u>on page 10</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.

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

Table 3-26 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 <u>Table 3-9 New connection advanced settings</u> <u>on page 10</u>).
- 4. Click **Finish** to save your settings and exit the wizard.

XenApp

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

Table 3-27 New XenApp connection configuration settings

Option	Description
Name	The connection name.
Server URL	The URL of the 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.

Click **Next** to continue.

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

VMware View

PC-over-IP (PCoIP) is a communications protocol integrated into VMware that enables remote access to virtual machines.

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

Table 3-28 New VMware View connection network settings

Option	Description
Name	The connection name.
Server	The name of the remote 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.

Click **Next** to continue.

3. Set the appropriate options:

Table 3-29 New VMware View general settings options settings

Option	Description
Login options	
Automatic login	Login automatically when the connection is established.
Allow Smartcard login	Allow a locally-connected smart card to provide login credentials.
Command Line Arguments	The command line arguments to be used for the connection.

Click **Next** to continue.

4. Set the appropriate RDP options:

Table 3-30 New VMware View connection RDP settings

Option	Description
Sound redirection	
Enable sound redirection	Valid options are: off, local, and remote.
Device mappings	
Enable USB storage mapping	The assigned drive letter should be chosen from the drop-down list.
Enable port mapping	Allow the mapping of local ports to the remote system.
Enable printer mapping	Allow the mapping of local printers to the remote system.

Click **Next** to continue.

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

To start a desktop connection using PCoIP instead of RDP:

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

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

3. Type the user name, password, and domain names in the corresponding fields and click **Connect**.

- 4. Click the arrow on the right side of the Desktop pool. Select **Protocols** > **PCoIP**.
- 5. Click Connect.
- **NOTE:** To set PCoIP as the default protocol or to disable user protocol selection, edit the desktop/pool settings in the **VMware View Manager** window (http://<Server>/admin).

NOTE: To set PCoIP as the default protocol or to disable user protocol selection, edit the desktop/ pool settings in the **VMware View Manager** window (http://<server>/admin).

NOTE: To enable VMware View USB Redirection, use the USB Manager utility. See <u>USB Manager</u> on page 34 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).

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

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	
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 31</u> .

 Table 3-31
 New XDMCP connection configuration settings

Click **Next** to continue.

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

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.

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

Table 3-32 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.
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 3-9 New connection advanced settings</u> <u>on page 10</u>).
- 4. Click **Finish** to save your settings and close the dialog box.

SSH

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 3-33 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 3-9 New connection advanced settings</u> <u>on page 10</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.

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

Table 3-34 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 3-9 New connection advanced settings</u> <u>on page 10</u>).
- 4. Click **Finish** to save your settings and close the dialog box.

Сору

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.
- 3. Click OK.

User View

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

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

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

- 2. Select one or more of the connections listed.
- **3.** 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.

Control Panel



Control Panel utilities are organized under five tabs:

- <u>Peripherals on page 25</u>
- <u>Setup on page 35</u>
- Management on page 40
- Advanced on page 48

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:

- <u>Client aggregation on page 26</u>
- Display preferences on page 31
- Keyboard layout on page 32
- Mouse on page 33
- Printers on page 33
- SCIM input method setup on page 33

- Sound on page 33
- ThinPrint on page 34
- Touch screen on page 34
- USB Manager on page 34

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:

- <u>Configuring the aggregation clients on page 28</u>—From one to three aggregation clients can be configured.
- 2. Configuring the aggregation server on page 28

Configuring the aggregation clients

Perform this procedure on each aggregation client:

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

Configuring the aggregation server

To configure the aggregation server:

- 1. Double-click Client Aggregation.
- 2. 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.

•	Client Agg	regation	+ _ ×
Client Aggregatio	n Configuration		
Disabled			
 Server 			
Client			
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	HP000c29c90076		
	and the second sec		
n.			
			Ŭ
	Status	🖌 Apply	X <u>C</u> lose
Market I			

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.

= •	Client Aggı	regation	+ _ ×
Client Aggregatio Disabled Server Client	n Configuration		
16.125.19.91	HP000c29c90076		
<u>✦ A</u> bout	Status		Close

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.
- 5. 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.

- 9. 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.
- 2. 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**.
- 2. 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:

- 1. Double-click Keyboard Layout.
- 2. 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**.
- 2. 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.
- 3. 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.

- 1. Double-click **Sound**.
- 2. 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:

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

Touch screen

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

To enable the touch screen:

- 1. 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.

4. 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.

USB Manager

To set USB mounting preferences:

- 1. Double-click USB Manager.
- 2. Select one of the following remote protocols:
 - Citrix
 - Local
 - RDP
 - VMware View
- 3. If the setting is Local, you can also specify: allow devices to be mounted and mount devices read-only.
- 4. Click **OK** to save your preference and close the dialog box.

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 35
- Network on page 35
- Language on page 39
- Security on page 39
- <u>HP ThinPro configuration on page 39</u>

Date and time

To set date, time, and time zone information:

- 1. Double-click Date and Time.
- 2. On the **Timezone** and **Date and Time** tabs, select the time zone, date, and time.
- 3. If you would like to use the network time server instead, select **Use Network Time Server** and type the server address in the field.
- 4. If you would like to display the week number in the calendar, click **Show Week Numbers**.
- 5. Click **Apply**, and then click **OK** to save your changes and close the dialog box.

Network

To configure network settings:

- 1. Double-click **Network**.
- 2. Configure the **Wired** tab:
 - a. Enable IPv6—Check to use IPv6 connection. 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—Example: 2001:0db8:85a3:0000:0000:8a2e:0370:7334
 - Subnet Previx Length—Example 64
 - Default Gateway—Example: fe80::20a:42ff:feb0:5400%4
- f. Security Settings

Authentication

- TTLS
 - Inner Authentication—Further Authentication layer
 - CA Certificate-Location of security certificate
 - Anonymous Identity—(Optional) Any temporary name
 - 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—(Optional) Any temporary name
 - 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 this 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 groupname
 - Group Password—Group 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
- 6. Configure the **HP Velocity** tab:

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

Screensaver

To configure the screensaver:

- 1. Double-click Screensaver.
- 2. 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.
- 3. 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.

Background manager

To change the desktop background:

- 1. Double-click **Desktop Background**.
- 2. Click **Change**, browse to the image file you want to use as the desktop background, and then click **Open**.
- 3. In the Style list, select center, tile, or fullscreen.
- 4. Click **Restore Default** to discard changes and return to the factory image.
- 5. To change the color, select Color and select a color in the Color list.
- 6. click **Apply**, and then click **OK** to save your changes and close the dialog box.

HP Easy Tools

- **1.** Double-click **Easy Deploy**.
- 2. Select Capture to capture image, settings, or configuration to a USB key or an FTP.
- 3. Select **Deploy** to deploy to this or another thin client.
- 4. Select **Security** to provide the Administrator Password.

Language

- 1. Double-click Language.
- 2. 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.

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.
- 3. 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

NOTE: 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:

- 1. Double-click HP ThinPro Configuration.
- 2. Click **Connections** in the left panel and select authorized connections by selecting or clearing check boxes.

- **3.** Click **Control Panel** in the left panel and select authorized applications by selecting or clearing check boxes.
- 4. 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.
- 2. 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.

4. 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 41
- Easy Deploy on page 41
- Easy Config on page 41
- Easy Update on page 41
- Factory reset on page 42
- HP Automatic Update on page 42
- HPDM Agent on page 42
- <u>SSHD Manager on page 43</u>
- ThinState on page 43
- VNC Shadow on page 47

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.

- 1. Double-click AD/DDNS Manager.
- **2.** Type the following information in the fields:
 - Active Directory Domain
 - Organizational Unit for Machine (OU)
 - Administrator User Name
 - Administrator User Password
- 3. 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 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 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 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:

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

HP Automatic Update

To configure HP Automatic Update:

- 1. 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.

- 1. Double-click **HPDM Agent** to access this screen.
- 2. Use the **General** tab to set the following:
 - Backup Gateway
 - Pull Interval
 - Log Level
 - Delay Scope
- 3. Set the groups using the **Groups** tab. You can select preassigned groups from the DHCP tab or you can use static custom groups.
- 4. 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.
- 4. 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 43
- Manage the HP ThinPro configuration on page 45

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 43
- Deploy HP ThinPro image from a remote site on page 44
- Capture HP ThinPro image to a bootable USB flash drive on page 45

Capture HP ThinPro image to an FTP server

- **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 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.

 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:

- **1.** Double-click **ThinState**.
- Select the HP ThinPro image, and then click Next.
- 3. Select restore an HP ThinPro image, and then click Next.
- **4.** 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.

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:

- **1.** Switch to Administrative Mode.
- 2. Create a web browser connection to an HTTP or an FTP server where a ThinPro image resides.

- 3. Right-click on the link to the ThinPro image file (this is normally a link with a .dd.gz file extension).
- 4. select Open Link in HP ThinState.
- 5. 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.
- 5. 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.
- 2. 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 46
- Restore an HP ThinPro configuration from a remote server on page 46
- <u>Capture an HP ThinPro configuration to a USB drive on page 46</u>
- Restore an HP ThinPro configuration from a USB key on page 47

Save the HP ThinPro configuration on an FTP server

- **1.** Double-click **ThinState**.
- 2. Select the HP ThinPro configuration, and then click Next.
- 3. Select save the configuration, and then click Next.
- 4. 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.
- 2. Double-click **ThinState**.
- 3. Select the HP ThinPro configuration, and then click Next.
- 4. Select save the configuration, and then click Next.
- 5. Click on a USB key, and then click Next.

- 6. Select the USB key.
- 7. 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:

- 1. Double-click VNC Shadow.
- 2. Select Enable VNC Shadow to enable the thin client to be accessed using VNC.
- 3. Select **VNC Read Only** to make the VNC session read only.
- 4. Select **VNC Use Password** to require a password to access the thin client using VNC.
- 5. 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:

- <u>CDA mode on page 48</u>
- DHCP Option Manager on page 49
- <u>Text editor on page 49</u>
- X Terminal on page 49

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 9.
- 2. Double-click CDA Mode.
- 3. Select Enable CDA and type the URL in the field.
- 4. 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.
- 3. 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

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
- 2. 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.

- 3. 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**.
- 4. To **Delete** a keyboard shortcut:
 - a. Click the keyboard shortcut you would like to **Delete**.
 - **b.** Click **Delete**.

System Information

hp	Syste	m Info	ormatio	n		
	General	Network	Net Tools	Software Information	System Logs	
	BIOS and	d os				
1	Serial Number: BIOS Version:		Unknov K30 v0			
hp		ease Date:	01/27/	2012		
				019		
	OS Kerne	OS Kernel Version: 2.6.32-33-generic				
	System					
	Platform		t610			
	CPU Spe	ed:	2x 165	0.000 MHz CPU Cache:	2x 5	12 KB
	Processo	ir:	AMD G	-T56N Processor		
	Flash an	d Memory				
<u>Connections</u>				Free	Used	Installed
Control <u>P</u> anel	Flash:			3710 M	386 M	4096 M
System Information	Memory:			1274 M	775 M	2048 M

The System Information screen has five tabs:

- General on page 51
- Network on page 52
- Net tools on page 53
- <u>Software information on page 53</u>
- System logs on page 53

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:

- 1. Click System Information > Net Tools.
- **2.** Select the tool:
 - Ping
 - DNS Lookup
 - Trace Route
- 3. 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.

- Smart Client Service—Displays log on checking and pulling a new or updated profile
- DHCP Wired Leases—Displays log on lease information on the current wired connection
- DHCP Wireless Leases—Displays log on lease information on the current wireless connection
- Kernel—Displays log on kernel tasks, messages, warnings, and errors
- X Server—Displays log 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.
- 2. Click **Save** to save the archive and close the dialog box.

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