PCoIP® Zero Client and Host Administrator Guide

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Issue 3

PCoIP CONNECTED

TERADICI™

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1 Welcome

1.1 Introduction

Welcome to Teradici's PCoIP Zero Client and Host Administrator Online Help. This help system explains how to configure PCoIP device firmware so you can access and manage the hosts and zero clients in your PCoIP deployment. It comprises the following main sections:

- **What's New**: This section explains the new features for each firmware release, and contains links to topics that provide more information about these features.
- **PCoIP Management Tools**: This section describes how to access and use the following PCoIP management tools:
  - Management Console (MC): The MC lets you centrally control and manage the devices in your PCoIP deployment. This help system explains how to configure a profile (a collection of device configuration settings), which you can then assign to a specific PCoIP group (a set of one or more hosts or clients). The MC is the best tool for medium to large deployments, and is often used in conjunction with a connection broker. For further details, see About the MC.
  - Administrative Web Interface (AWI): The AWI lets you use an Internet browser to remotely access and configure a specific client or host. For further details, see About the AWI.
  - On Screen Display (OSD): The OSD is the graphical user interface (GUI) embedded within a client. It is used to connect the client to a virtual desktop or to a host in a remote workstation. It is also used to configure the client, and has a subset of the configuration parameters available in the MC and AWI. For further details, see About the OSD.
- **PCoIP Deployment Scenarios**: This section illustrates and describes the most common ways to deploy the hosts and clients in your PCoIP network. Configuration steps are included for each scenario, with links to topics in the GUI Reference where you can find detailed information. The scenarios are the best place to start when configuring a new deployment.
- **GUI Reference**: This section is a detailed reference that describes each configuration parameter that appears in the MC, AWI, and OSD pages. You can use this reference when configuring a device profile using the MC, or when configuring a single device using the AWI or OSD. The GUI Reference is organized by the categories listed in the MC's **Manage Profiles** page, but also has special sections for AWI and OSD menus that do not corresponding pages in the MC.
- **"How To" Topics**: This section contains procedures for common configuration tasks.
- **Technology Reference**: This section contains definitions for some of the terminology used in the help system.

2 What's New

2.1 What's New in Firmware 4.1.0

2.1.1 Workstation and VDI

New Security Features for Zero Clients

- Failed attempts to access the AWI, OSD, or MC are now logged. The next time users log in, a warning message displays to inform them of these attempts. See Failed Login Attempt Message for an example of this message displayed on the AWI.
- After three failed attempts to access the AWI or OSD, each subsequent failed attempt will require additional time to complete.
- A new **Access** page containing the following features is available for the AWI and OSD:
  - You can now disable AWI and/or MC access to a zero client to prevent changes to the client's configuration.
    Note: If the **Options > Configuration** menus on the OSD are also hidden for the zero client, then only one of these management tools can be disabled at any one time.
  - You can force the changing of the administrative password the next time the AWI or OSD is accessed.
- Simple Certificate Enrollment Protocol (SCEP) is now supported for Tera2 zero clients. From the new **SCEP** page for the AWI and OSD, you can configure a zero client to automatically obtain certificates from a SCEP server. From the new MC **SCEP** page, you can configure a profile to obtain certificates for a group of zero clients.

Other New Features

- Session pages for all management tools have the following new options:
  - For Tera2 zero clients, two new session connection types (**PCoIP Connection Manager** and **PCoIP Connection Manager + Auto-Logon)** have been added. You can configure this feature from thec AWI, OSD, and MC **Session** pages.
    Note: The PCoIP Connection Manager can be used in the future to broker PCoIP sessions for Teradici solutions such as the Teradici Arch™ published desktop solution.
  - For all zero client and host card session connection types, you can now populate the Differentiated Services Code Point (DSCP) field in the IP header to allow intermediate network nodes to prioritize PCoIP traffic accordingly. You can also enable transport congestion notification to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. These settings are available at the bottom of the **Advanced Options** section on all **Session** pages.
- The maximum size for certificates has been increased in this release. From the AWI, the maximum certificate size you can upload to a zero client or host card is now 10,239 bytes (up from 6,143 bytes). From the MC, the maximum certificate size you can upload

to a profile is now 8,176 (up from 6,143 bytes). You can upload up to 16 certificates per device as long as the maximum storage space of 98,112 bytes is not exceeded. Note that if SCEP is enabled, you can only upload a maximum of 14 additional certificates since the SCEP server always installs two certificates in a device.

- The zero client and host card **Power** pages have been moved from the AWI **Permissions** menu to the **Configuration** menu and have the following new settings:
  - For zero clients, you can now configure a screen saver timeout to put attached displays in low-power mode after a specified period of inactivity. For Tera2 zero clients that support powering off, you can configure an auto power-off timeout to power down the client after a period of inactivity when users are not in session. The MC **Power** page also has the new auto power-off timeout option for a Tera2 zero client profile.
  - For Tera2 host cards, you can select whether to wake up the host from sleep mode using the remote power button input or the PCIe bus input.
- The following new display features are included in this release:
  - A new display cloning mode for TERA2321 zero clients lets you mirror images on the primary display to the secondary display (e.g., for multiple digital signs). You can enable display cloning from the OSD Display page, or you can configure a profile for TERA2321 zero clients with this feature from the MC Display page.
  - For Tera2 host cards, you can now enable a host hot plug delay to resolve black screen issues with certain Linux GPU driver timing expectations. This feature is available from the AWI Monitor Emulation page, or you can configure a profile for Tera2 host cards with this feature from the MC Display page.
- Portuguese (Brazilian ABNT) and Slovak (AWERTY and AWERTZ) keyboard layouts are now supported for Tera1 and Tera2 zero clients.

2.1.2 VDI-specific

- The following smart cards and eToken devices are now supported:
  - SafeNet SC650 smart cards with SafeNet PKI applet and SHAC middleware (Tera1 and Tera2 zero clients)
  - Atos CardOS smart cards (Tera2 zero clients only)
  - eToken 72k Pro USB user authentication devices (Tera1 and Tera2 zero clients)
- A new **Use Existing Setting** option has been added to specify whether the proximity card reader beeps when a valid card is tapped on the reader. When selected, this option uses the proximity card setting that has been configured outside of the zero client. This feature is available from the AWI View Connection Server + Imprivata OneSign Session page (**Pre-session Reader Beep** field), or you can configure a profile for zero clients with this feature from the MC View Connection Server + Imprivata OneSign Session page (**Proximity Reader Beep Mode** field).

2.1.3 Workstation-specific

- You can now configure "host wake" options from the OSD Direct to Host Session page. Previously, this feature was only available on the AWI and MC.

- Local termination of keyboards and mice behind USB hubs is now supported provided all devices attached to USB hub are HID keyboards and mice.

2.2 What's New in Firmware 4.0.3

The Teradici firmware 4.0.3 release supports the new Tera2 processor family to deliver enhanced display capabilities, imaging performance, memory, power management, and other important functions.

For example, the TERA2140 zero client can support up to four displays (DVI-D or DisplayPort) and can perform image encoding at speeds of up to 300 million pixels per second (Mpps) for remote workstations and 50 Mpps for virtual desktops. For complete product details on second-generation PCoIP zero clients and host cards containing these new Tera2 processors, see the Teradici website at http://www.teradici.com. For a list of all the host cards and zero clients supported in this firmware release, see PCoIP Host Cards and Zero Clients.

Note: For the Tera1 processor family, please use the firmware 4.0.2 release.

2.3 What's New in Firmware 4.0.2

The Teradici firmware 4.0.2 release provides the following features and enhancements:

- **Processor family information**: You can now display information about the processor family and chipset in your device a number of ways. For details, see Displaying Processor Information.

- **Display topology configuration enhancements**: To support the new Tera2 display capabilities, the Display Topology Configuration page on the Management Console (MC) and the Display Topology settings on the On Screen Display (OSD) now let you configure layout, alignment, and resolution properties for dual-display and quad-display topologies.

- **Preferred resolution override enhancements**: In this release, an expanded list of default resolutions is included when you configure a zero client to advertise default Extended Display Identification Data (EDID) information to the graphics processing unit (GPU) in a host workstation. For Tera2 clients, you can now configure preferred (default) resolutions for up to four displays. For details, see OSD Tera2: Display Settings.

- **Expanded list of test display resolutions**: The **Display** page on the Administrator Web Interface (AWI) now contains an expanded list of display resolutions for viewing a test pattern on a zero client. For details about how to configure a test pattern, see AWI

Client: Display Settings.

- **New Tera2 disconnect options**: When a user is in a session with a remote workstation, pressing the connect/disconnect button on a Tera2 zero client pops up a new dialog that lets the user select whether to disconnect from the session or to power off the remote workstation. Users can also use a Ctrl+Alt+F12 hotkey sequence to display this pop-up dialog. For details about this new feature, see Disconnecting from a Session.

- **Enhanced OSD messaging**: Messaging on the OSD has been enhanced with new overlay windows and also new in-line messages that appear on the OSD's **Connect** page. For example, if a user does not enter the correct user name or password, or if the Caps Lock key is on, a message displays above the **Connect** button on this page to alert the user. Network connection lost/down/up messages also display in this location, replacing the network icons that used to appear in the lower right-hand corner. For details, see Connecting to a Session and Overlay Windows.

- **Management Console cached VCS address enhancement**: You can now configure up to 25 cached View Connection Server addresses from the Management Console's **Session Configuration – View Connection Server** page. These servers are displayed in a drop-down list on the OSD **Connect** page when users use a VMware View Connection Server to connect to a virtual desktop. For details, see MC: View Connection Server Session Settings.

- **Imprivata OneSign configuration enhancements**: New parameters on the **View Connection Server – Imprivata OneSign** page allow you to configure a OneSign server desktop name. When the desktop pool list includes a pool with this name, the zero client will start a session with this desktop. You can configure a profile with this option from the MC: View Connection Server + Imprivata OneSign page, or you can configure a specific zero client from the AWI Client: view Connection Server + Imprivata Onesign page or OSD: View Connection Server + Imprivata Onesign page.

- **Online help for administrators**: PCoIP zero client and host card administrator documentation is now delivered as online help in this release, with a full GUI Reference that includes how to configure device firmware using three PCoIP administrator tools—the MC, the AWI, and the OSD. It also contains topics for common PCoIP device deployment scenarios, providing illustrations, descriptions, and links to configuration details for each one.

2.4 What's New in Firmware 4.0.0

The Teradici firmware 4.0.0 release provides the following features and enhancements:

- Security enhancement when connecting to VMware View Connection server: New **VCS Certificate Check Mode** options allow users to configure the client to reject, warn, or allow an unverifiable connection. This feature is available from both the Administrator Web Interface (AWI) and the Online Screen Display (OSD). You can also enable the

VCS Certificate Check Mode Lockout option on the AWI to prevent users from changing the **VCS Certificate Check Mode** options from the OSD.

- Security enhancement: TLS 1.2 and Suite-B TLS ciphers are now supported for zero clients and host cards.
- New "Preparing desktop..." overlay can be enabled for all connection types.
- When configuring a **View Connection Server + Imprivata OneSign** connection from the AWI, you can now configure the client to connect to any appliance or only to appliances with verified certificates.
- When configuring a Direct to Host session, the **Wake host from low power state** setting in the advanced options now lets you configure the host's IP address as well as its MAC address. In addition, the **Peer MAC Address** field has been removed from the OSD Direct to Host advanced settings options. The wake host feature is now configured from the AWI only.
- OSD advanced View Connection Server options now contain a new **Desktop Name to Select** setting. Previously, this setting was only available from the AWI.
- The OSD now lets you configure a **View Connection Server + Auto-Logon** connection. Previously, this connection could only be configured using the AWI and PCoIP Management Console (MC).
- The default OSD screen-saver timeout value has been changed to 300 seconds. Previously, this setting was disabled by default (i.e., set to 0 seconds).
- New OSD **Display** options let you configure the native resolution of a display when the display cannot be detected and default EDID information is sent.
- OSD **Display Topology** enhancements make the topology easier to configure. In addition, you no longer have to reboot the zero client after changing the **Rotation** setting for a display.
- The OSD interface has a revised color scheme and logo placement.

2.5 What's New in Firmware 3.5.0

The Teradici firmware 3.5.0 release provides the following features and enhancements:

- Proximity card based SSO with Imprivata OneSign server support.
- IEEE 802.1x network authentication.
- IPv6 support.
- DHCPv6 support.
- Self-help link added: Lets you configure an end-user link for access to self-help information.
- Limited USB 2.0 support for View 4.6 or later deployments (bulk only for devices directly connected to root ports).
- Enhanced imaging controls.
- View Connection Server cache increased up to 25 entries.
- Audio Line-in Mode.
- Enhanced logging modes.

- Revamped User Interface: Improved the layout of the pages and screens:
  - **Home** and **Statistics** pages: Added statistics, consolidated information.
  - **Session** page: consolidated information/pages for improved user experience.
  - **Attached Devices** page: expose the resolution, new onscreen legend to explain statistics.
- Certificate management (at this time, limited to 802.1x client certificate).
- Monitor alignment support.
- **Disconnect Message Filter** field added: Lets you control the message that appears when a session disconnects.
- New hotkey to reset zero client to factory default configuration.
- New **Session Connection Type** field.
- New **Pipeline Processing Rate** field.

2.6 What's New in Firmware 3.4.1

The Teradici firmware 3.4.1 release provides the following enhancement:

- Support for .Net cards.

2.7 What's New in Firmware 3.4.0

The Teradici firmware 3.4.0 release provides the following features and enhancements:

- New banner at the top of the Administrative Web Interface page.
- RDP is no longer supported.
- Diagnostic enhancements:
  - Syslog support.
  - Additional log reporting for specific categories of messages (such as audio, USB, video).
- **Reset Host CPU** button from **Host CPU** page removed.
- New OSD page in the **User Settings** window called **Touch Screen**. Lets users configure and calibrate Elo TouchSystems touch screen displays with IntelliTouch surface acoustic wave and AccuTouch five-wire resistive touch screen technologies.

3 PCoIP Management Tools

3.1 PCoIP Management Console

3.1.1 About the MC

The PCoIP Management Console (MC) lets you centrally manage the devices in your PCoIP deployment. It is packaged as a VMware® virtual machine (VM), running on VMware Player. You can use the MC to view status information for devices, create groups and profiles, configure a profile (a collection of configuration settings) that you can apply to a group (one or more devices that require the same configuration), upload certificates and firmware to devices, control the power settings for devices, manage the monitoring of device event logs, and much more.

The MC topics in this help system describe how to use the MC to configure a device profile. For complete information about how to install, set up, and use the MC, please refer to the "PCoIP® Management Console User Manual" (TER0812002).

After you type the IP address of the MC web interface into an Internet Explorer or Mozilla Firefox browser, the browser will use HTTPS (HTTP over an SSL socket) to connect to the MC web interface. The IP address for the MC web interface is configured (either statically or via DHCP) from the MC virtual machine console after installation. Access to the MC is controlled using an administrative password, which is also set from the MC virtual machine console after installation. Full details about these setup procedures are included in the "PCoIP® Management Console User Manual" (TER0812002).

The MC's HTTPS connection is secured using a PCoIP MC root Certificate Authority (CA) certificate. For information on how to install this certificate, see the "PCoIP® Management Console User Manual" (TER0812002).

The following browsers have been tested with this release:

- Firefox version 3 or later
- Internet Explorer 7.0 and 8.0

If you try to log into the MC web interface using a different browser, an error message appears that lists the supported browsers.

3.1.2 Logging into the MC

To log into the Management Console web interface:

1. From an Internet browser, enter the IP address of the MC web page. The IP address may be a static or dynamic address, depending on how it is determined when the MC is configured:

- **Static IP Address:** The IP address is hard-coded and must be known.
- **Dynamic IP Address:** The IP address is dynamically assigned by the Dynamic Host Configuration Protocol (DHCP) server. You can get it from the DHCP server.

2. From the login page, enter the administrative password. The default value is blank (i.e., "").

Figure 2-1: MC Login Page

3. When you first log into the MC, a prompt appears asking you to accept the license agreement. After reading it, click **Agree** at this page. For subsequent logins, this prompt does not appear.

After logging into the MC, the **Home** page appears.

3.1.3 MC Home Page

The MC **Home** page contains links to all the MC functions, and also contains a **Site Status** section that displays summary information about the PCoIP devices discovered by the MC.

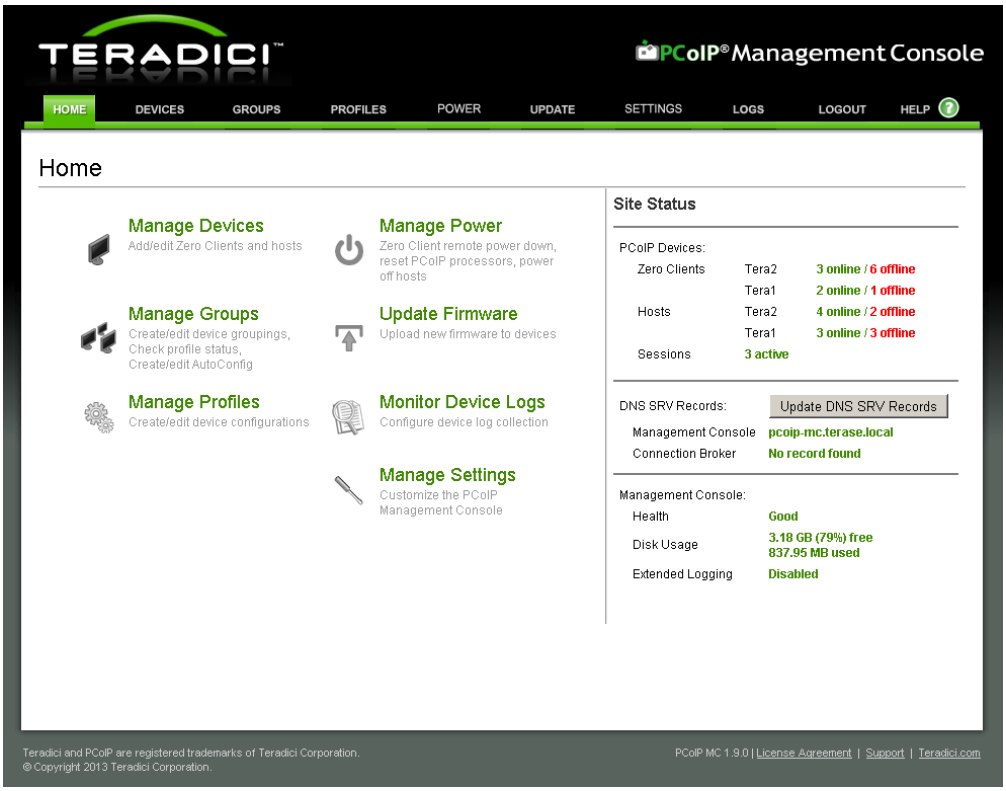


Figure 2-2: MC Home Page

Device firmware is configured on the MC by defining profiles and then applying them to groups of devices. Clicking the **Profiles** tab displays the **Profile Management** page, which lists allows you to manage the profiles in your system.

3.1.4 MC Profile Management Page

From the **Profile Management** page, you can view, add, duplicate, configure (i.e., set properties for), edit, delete, and export profiles.

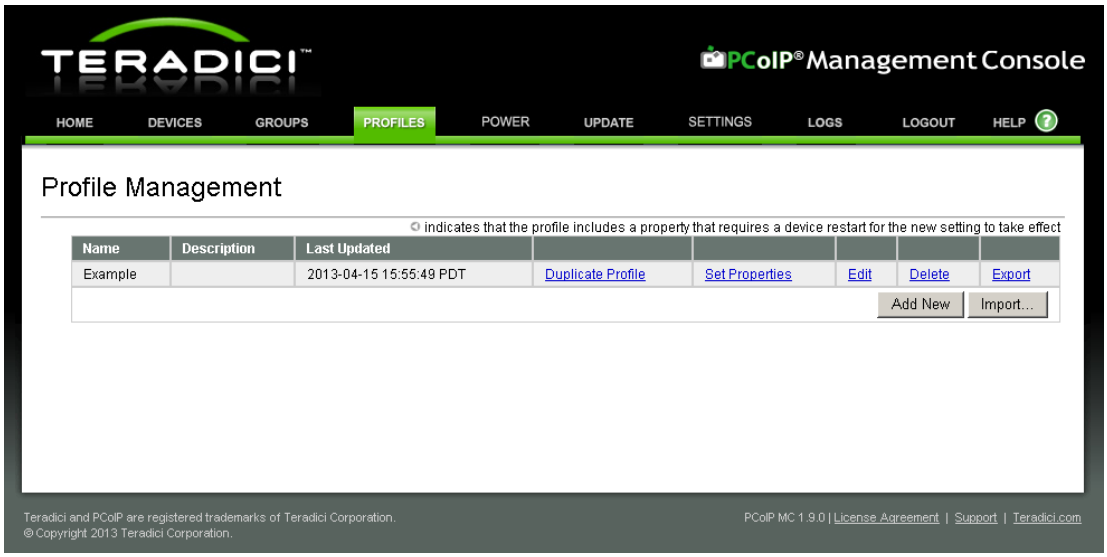


Figure 2-3: MC Profile Management Page

Once a profile has been created, you can click its **Set Properties** link to display the **Manage Profiles** page and begin defining a device configuration for the profile.

3.1.5 MC Manage Profiles Page

The figure below shows the **Manage Profiles** page for a profile. It contains a list of all the categories used to configure the device firmware.

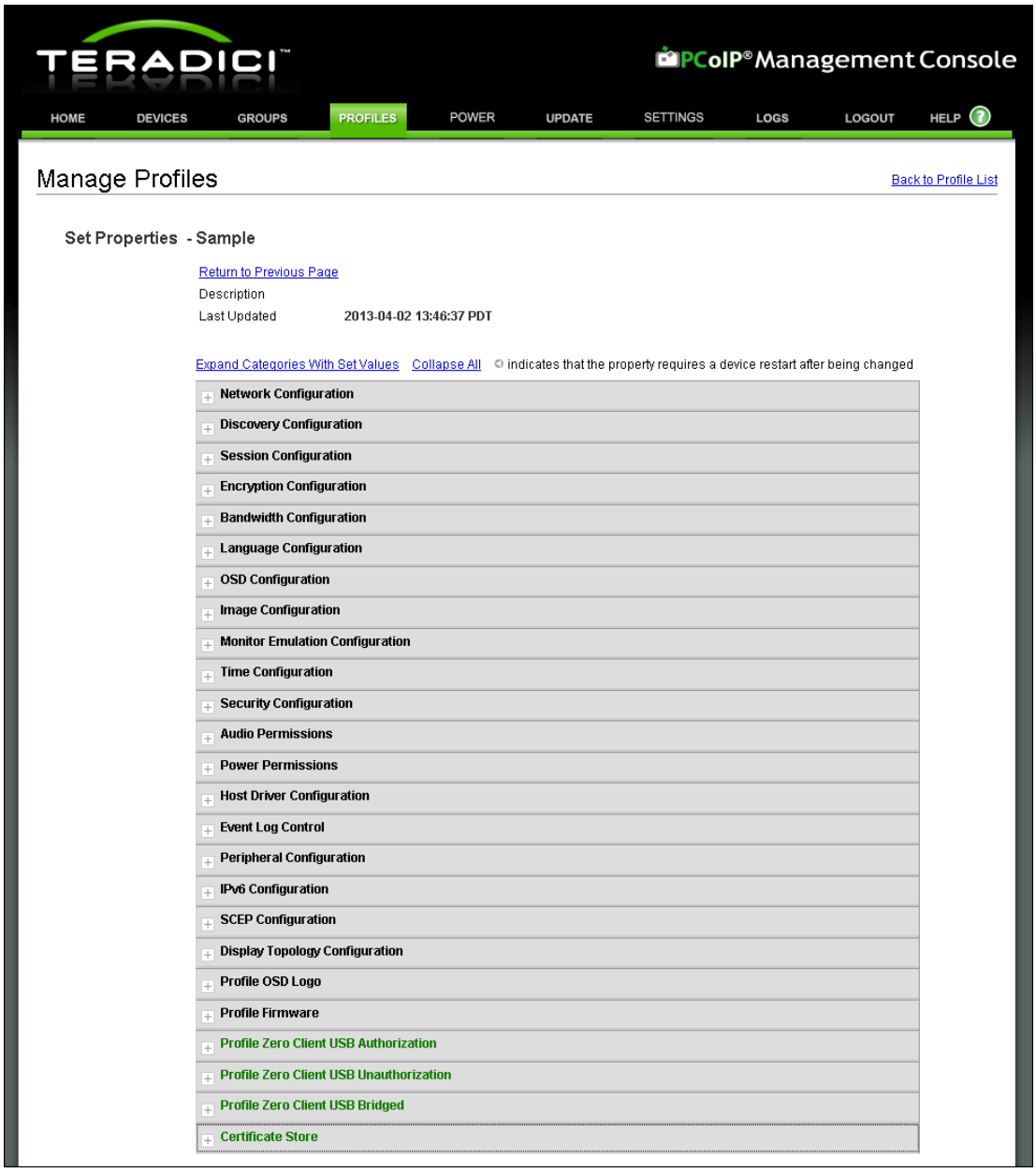


Figure 2-4: MC Manage Profiles Page

To configure a category, expand it and click the **Edit Properties** link, shown in the example below.

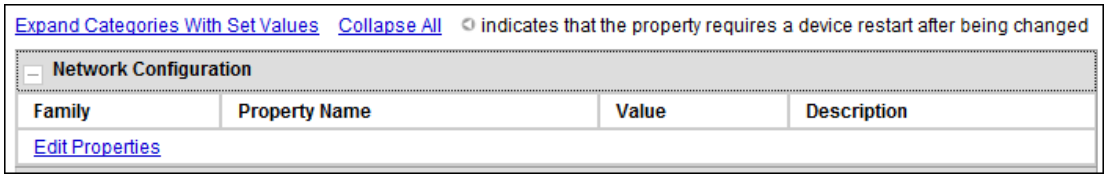


Figure 2-5: Edit Properties Link

This displays the **Set Properties** page for that category, from which you can configure the category's individual parameters. The following example shows the parameters for the **Network Configuration** category.

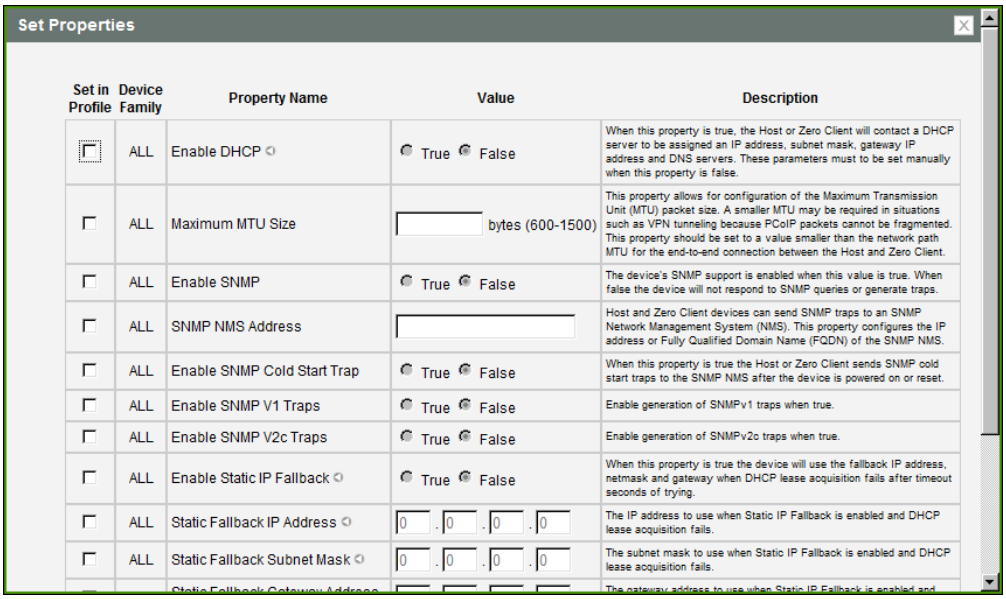


Figure 2-6: Set Properties Page for Network Configuration

Note: The parameter table for each category has a **Description** column to explain each parameter. These parameters are also explained in the MC sections of the GUI Reference.

After setting the desired properties, the **Manage Profiles** page expands the categories to show their configuration. You can use the expand/collapse links to control the display of this information.

An example of a profile with some of its categories configured is shown below.

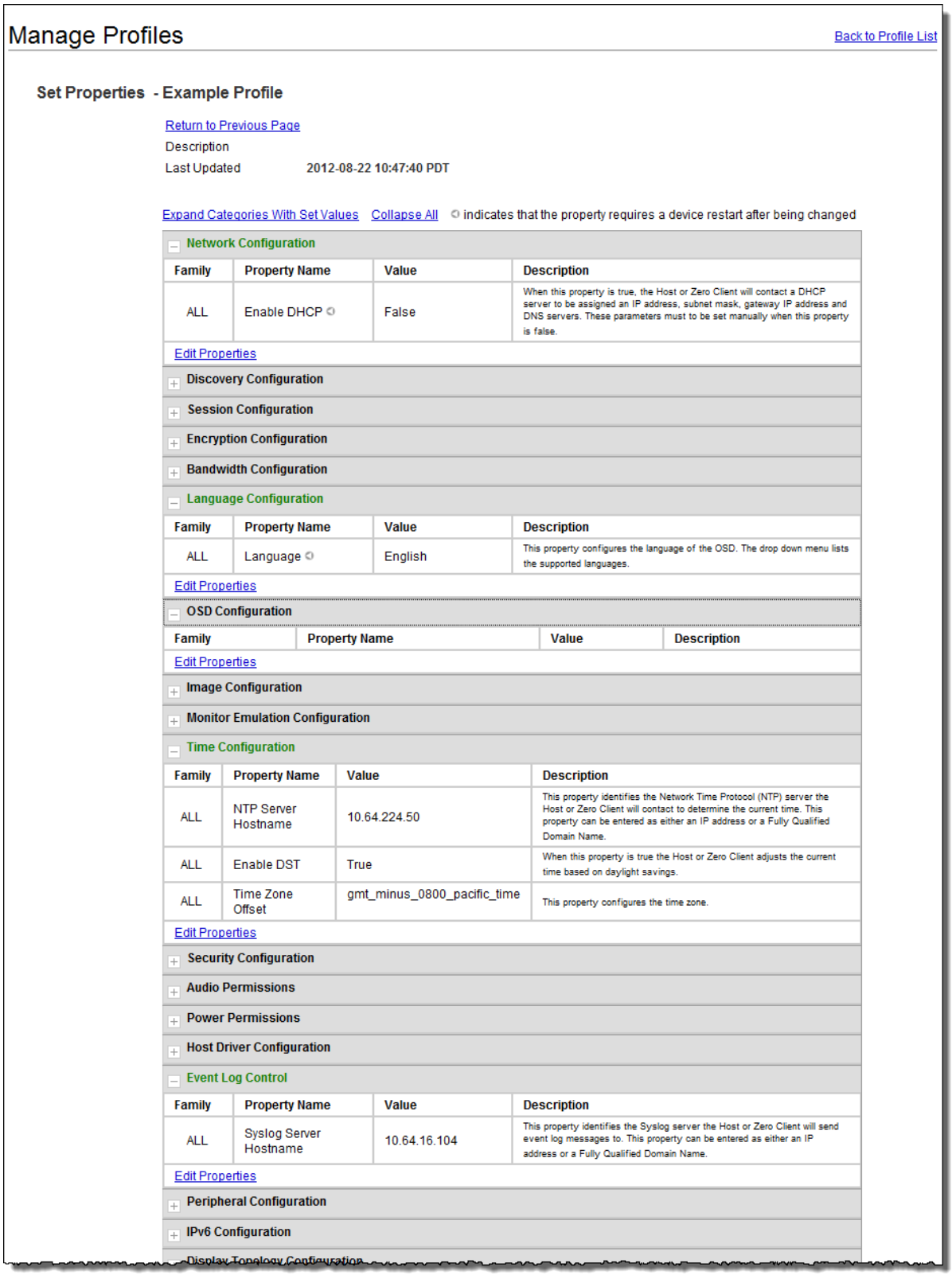


Figure 2-7: MC Manage Profiles Page – Configured

The GUI Reference in this help system contains full details about each category. For information about how to configure or manage a device using these MC pages, please see the appropriate section in the GUI Reference.

For details on how to apply a profile, please refer to the "PCoIP® Management Console User Manual" (TER0812002).

3.2 PCoIP Administrative Web Interface

3.2.1 About the AWI

The PCoIP Administrative Web Interface (AWI) allows you to interact remotely with a PCoIP host or client. From the AWI, you can manage and configure a host or client, view important information about it, and even upload firmware and certificates to it.

After you type the device's IP address into an Internet Explorer or Mozilla Firefox browser, the browser will use HTTPS (HTTP over an SSL socket) to connect to the device's AWI web page. Access to the AWI is controlled using an administrative password, which can be optionally disabled.

The AWI's HTTPS connection is secured using a PCoIP root Certificate Authority (CA) certificate. To avoid warning messages when you log into the AWI, it is recommended that you install this certificate in your browser. The certificate file ("cacert.pem") is always included in a firmware release, but you can also download it directly from the Teradici support site. For detailed instructions on how to install the certificate, see Knowledge Base support topic 15134-529 on the Teradici support site.

The following browsers have been tested with this release:

- Firefox version 3 or later
- Internet Explorer 7.0 and 8.0

3.2.2 Logging into the AWI

To log into the Administrator Web Interface web page for a host or client:

1. From an Internet browser, enter the IP address of the host or client. The IP address may be a static or dynamic address, depending on how the IP addresses are determined within your IP network:
   - **Static IP Address:** The IP address is hard-coded and must be known.
   - **Dynamic IP Address:** The IP address is dynamically assigned by the Dynamic Host Configuration Protocol (DHCP) server. You can get it from the DHCP server.
2. From the **Log In** page, enter the administrative password. The default value is blank (i.e., "").

Figure 2-8: AWI Log In Page

3. To change idle timeout (the time after which the device is automatically logged off), select an option from the **Idle Timeout** drop-down menu.
4. Click **Log In**.

Note: Some networks using DHCP may be able to access the AWI using the PCoIP device name.

Note: Some PCoIP devices have password protection disabled and do not require a password to log in. You can enable or disable password protection through the security settings on the MC's **Manage Profiles** page.

If configured in the firmware defaults, the **Initial Setup** page appears the first time you log in. You can configure audio, network, and session parameters on this page. After you click **Apply**, the **Home Page** appears for each subsequent session. This page provides an overview of the device status.

If a warning message appears when you try to log in, then a session is already in progress on that device. Only one user can log into a device at one time. When a new session logs in, the current session is ended and the previous user is returned to the **Log In** page.

3.2.3 AWI Initial Setup Page

The AWI's **Initial Setup** page contains the audio, network, and session configuration parameters that you must set before a client or host device can be used. This page helps to simplify initial setup and reduce the time for new users to establish a session between a PCoIP zero client and PCoIP host card in a remote workstation.

The AWI client **Initial Setup** and host **Initial Setup** pages are not identical. Each one provides parameters that apply to the client and host, respectively.

If configured in the firmware defaults, the **Initial Setup** page appears the first time you log in. After you click **Apply**, the **Home** page appears for subsequent sessions unless the firmware parameters are reset.

Note: More complex environments that use host discovery or connection management systems require further configuration than is available on the **Initial Setup** page.

3.2.4 AWI Home Page

The AWI **Home** page displays a statistics summary for the host or client. You can display the **Home** page at any time by clicking the **Home** link at the top left section of the menu bar.

Figure 2-9: AWI Host: Home Page

Figure 2-10: AWI Client: Home Page

Note: The above figures show session statistics for devices that can support four connected displays. If your deployment only supports two displays, information for these two displays will appear in the bottom area of the page.

Table 2-1: AWI Home Page Statistics

Statistics	Description
Processor	PCoIP processor type, version, and RAM size
Time Since Boot	Length of time that the PCoIP processor has been running.

Statistics	Description
PCoIP Device Name	The logical name for the device. This field is the name the host or client registers with the DNS server if DHCP is enabled or the system is configured to support registering the hostname with the DNS server. (See the PCoIP Device Name parameter on the **Label** page.)
Connection State	The current (or last) state of the PCoIP session. Values include the following: • **Asleep** • **Canceling** • **Connected** • **Connection Pending** • **Disconnected** • **Waking**
802.1X Authentication Status	Indicates whether 802.1x authentication is enabled or disabled on the device.
Session Encryption Type	The type of encryption in use when a session is active: • AES-128-GCM • SALSA20-256-Round 12
PCoIP Packets Statistics	**PCoIP Packets Sent:** The total number of PCoIP packets sent in the current/last session. **PCoIP Packets Received:** The total number of PCoIP packets received in the current/last session. **PCoIP Packets Lost:** The total number of PCoIP packets lost in the current/last session.
Bytes	**Bytes Sent:** The total number of bytes sent in the current/last session. **Bytes Received:** The total number of bytes received in the current/last session.
Round Trip Latency	The minimum, average, and maximum round-trip PCoIP system and network latency in milliseconds (+/- 1 ms).
Bandwidth Statistics	**Transmit Bandwidth:** The minimum, average, and maximum traffic transmitted by the Tera processor. The active bandwidth limit is the maximum amount of network traffic the Tera processor may currently generate. The value is derived from the configured bandwidth parameters and the current (or last) network congestion levels. **Receive Bandwidth:** The minimum, average, and maximum traffic received by the Tera processor.
Pipeline Processing Rate	How much image data is currently being processed by the image engine (in megapixels per second).

Statistics	Description
Endpoint Image Settings In Use	Displays if the image settings being used are configured within the client or within the host. This is based on how the **Use Client Image Settings** field is configured on the **Image** page for the host device.
Image Quality	The minimum and maximum quality setting is taken from the **Image** page for the device. The active setting is what's currently being used in the session and only appears on the host.
Image Quality Preference	This setting is taken from the **Image Quality Preference** field on the **Image** page. The value determines if the image is set to a smoother versus a sharper image.
Build to Lossless	Options that may appear in this field include the following: **Enabled:** The **Disable Build to Lossless** field on the **Image** page is unchecked. **Disabled:** The **Disable Build to Lossless** field is checked.
Display	The port number for the display.
Maximum Rate	This column shows the refresh rate of the attached display. If the **Maximum Rate** field on the **Image** page is set to 0 (i.e., there is no limit), the maximum rate is taken from the monitor's refresh rate. If the **Maximum Rate** field on the **Image** page is set to a value greater than 0, the refresh rate shows as "User Defined."
Input Change Rate	The rate of content change from the GPU. This includes everything the user is doing (such as cursor movement, email editing, or streaming video). Note: This option is only available on the host. It does not appear on the client.
Output Process Rate	The frame rate currently being sent from the image engine on the host to the client.
Image Quality	Shows the current lossless state of the attached display: • **Lossy** • **Perceptually lossless** • **Lossless**

Note: When you click the **Reset Statistics** button on a host Session Statistics or client Session Statistics page, the statistics reported in the **Home** page are also reset.

3.2.5 Failed Login Attempt Message

As of firmware release 4.1.0, a warning message alerts you if any failed access attempts to the AWI, OSD, or MC were detected since the last successful login. The message provides the date and time of the failed attempt, as shown below in the example warning message on the AWI.

Figure 2-11: Failed Login Attempt Warning

3.2.6 AWI Menus

The AWI has five main menus that link to the various configuration and status pages.

- **Configuration:** The pages under this menu let you configure the various aspects for the device, such as network settings, language, session parameters, etc.
- **Permissions:** The pages under this menu let you set up the permissions for the USB, audio, and power on the client, and for the USB and audio on the host.
- **Diagnostics:** The pages under this menu help you troubleshoot the device.
- **Info:** The pages listed this menu let you view firmware information and the devices currently attached to the device.
- **Upload:** The pages under this menu let you upload a new firmware version, an OSD logo, and your certificates to the device.

The following figure shows the menus and pages available in the AWI.

Note: The pages only available from the client are marked with a (*C) and the pages only available from the host are marked with an (*H).

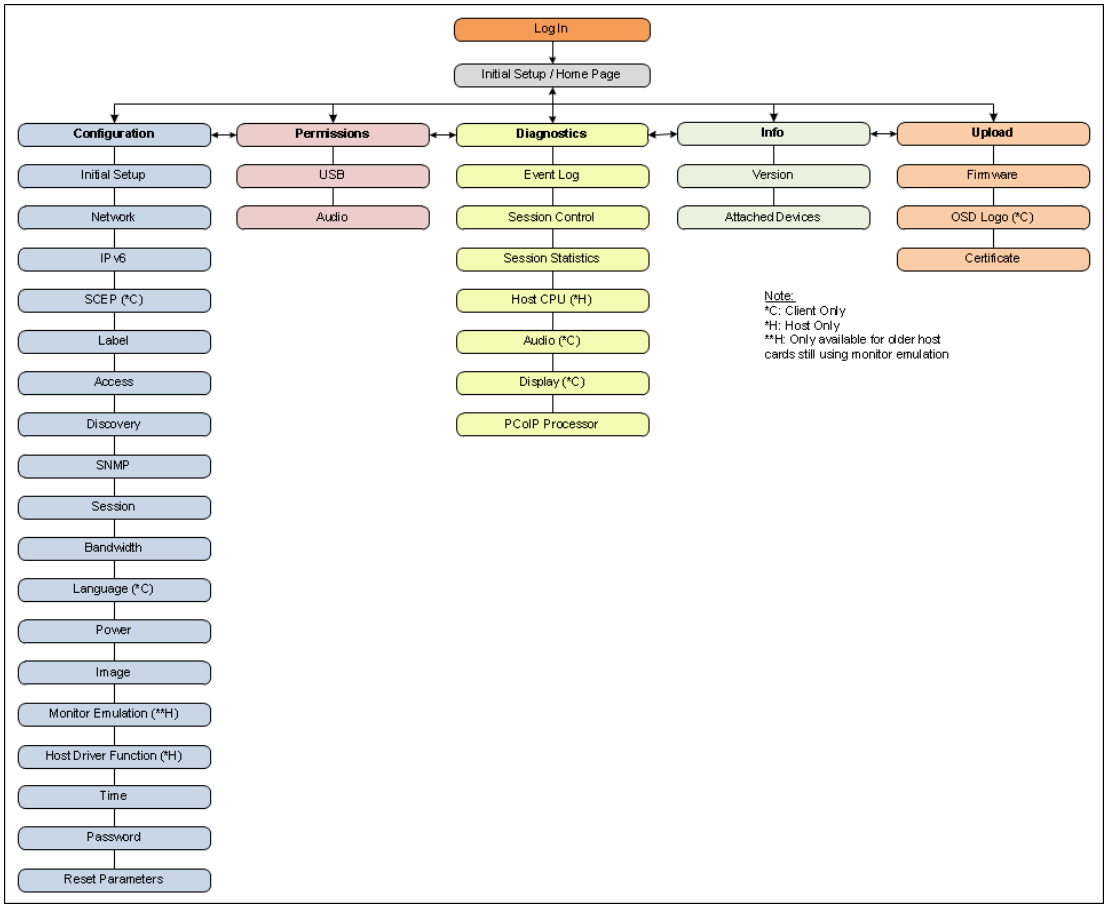


Figure 2-12: AWI Menu Overview

The GUI Reference in this help system contains full details about each page. For information about how to configure or manage a device using these AWI pages, please see the appropriate section in the GUI Reference.

3.3 PCoIP On Screen Display

3.3.1 About the OSD

The PCoIP On Screen Display (OSD), shown in the figure below, is a graphical user interface (GUI) embedded within the client. It displays when the client is powered on and a PCoIP session is not in progress. The only exception to this is when the client is configured for a managed startup or auto-reconnect.

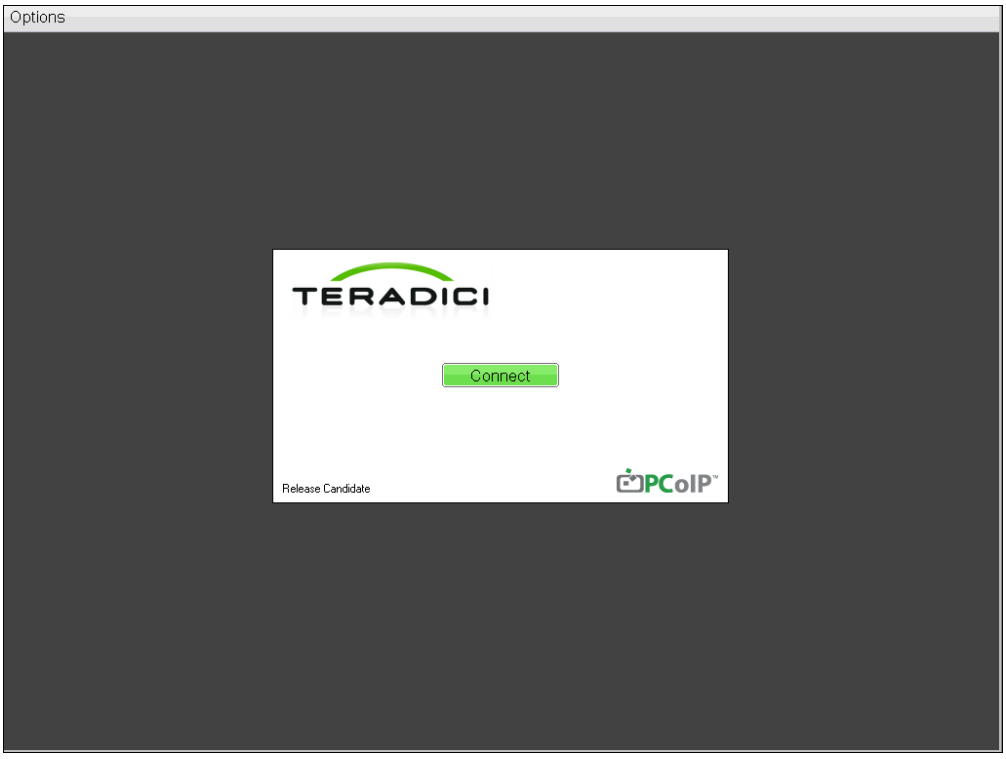


Figure 2-13: OSD Main Window

An **Options** menu in the upper left-hand corner lets users access various sub-menus for configuring the client and viewing information about it. A **Connect** button in the center of the window lets users connect the client to a virtual desktop or to a host card in a remote workstation.

3.3.2 Connecting to a Session

The OSD allows users to create a session between the client and a host card on a remote workstation (or between the client and a virtual desktop) by clicking the green **Connect** button in the center of the **Connect** window. Once the connection is established, the OSD local GUI disappears, and the session image appears.

The following figure shows the **Connect** window for a Direct to Host session type—i.e., when the client is connecting to a host card in a remote workstation.

Figure 2-14: OSD Direct to Host Connect Window

While the network connection is initializing, various status messages are displayed above the button to indicate the progress, such as the message shown below.

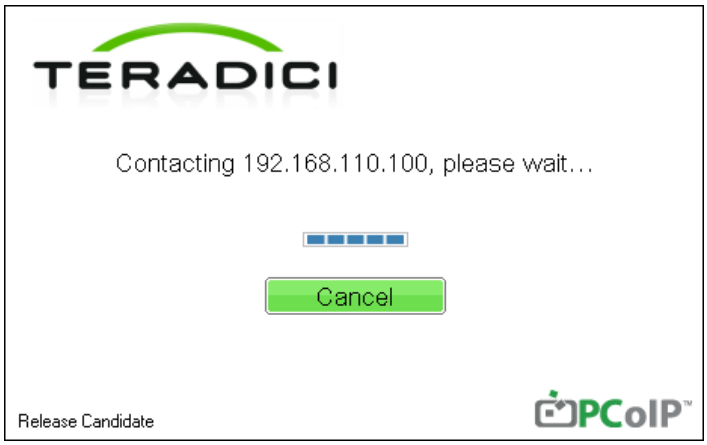


Figure 2-15: OSD Connection Status

If problems are experienced during startup—e.g., if the connection cannot be made or a DHCP lease fails—other messages display in this area to indicate the nature of the problem.

The following figure shows the **Connect** window for a View Connection Server connection—i.e., when the client is using a VMware View Connection Server to connect to a virtual desktop.

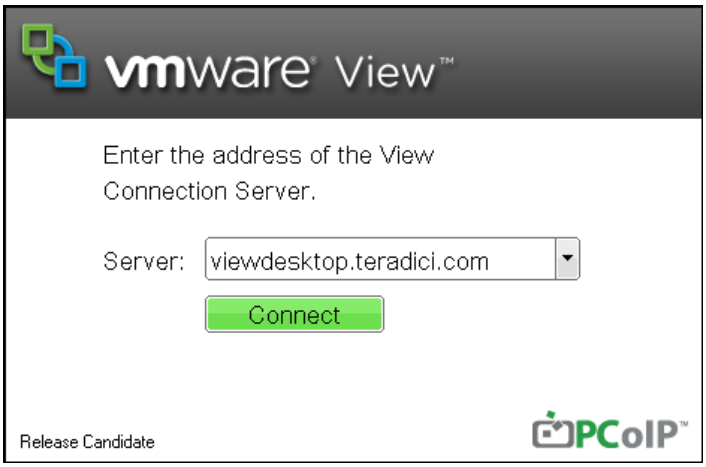


Figure 2-16: OSD View Connection Server Connect Window

Note: you can change the logo that appears above the **Connect** button by uploading a replacement image using the **Upload > OSD Logo** menu from a client's AWI.

While the connection is initializing, status messages may also display above the **Connect** button to inform users of the connection progress or to alert them to a problem.

After connecting to the View Connection Server, the virtual desktop login page appears.

Figure 2-17: Virtual Desktop Login Page

If the user name and password are not entered correctly, or if the Caps Lock key is on, a message displays on this page to indicate these problems.

If the correct trusted SSL root certificate for the VMware View Connection Server has not been installed in the client, the following warning appears.

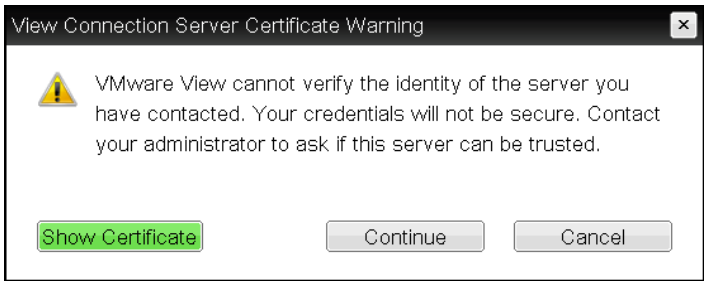


Figure 2-18: OSD View Connection Server Certificate Warning

If the user clicks **Continue** at this warning, the session will not be secure. This is indicated by the warning icon on the lock in the upper left of the window and also by the red "https" with strikethrough formatting, which tells users that the secure HTTPS protocol will not be used for the connection.

Figure 2-19: OSD Login Screen with Insecure Warning

As an administrator, you can use the **Options > User Settings > VMware View** page, shown below, to prevent users from initiating insecure sessions by configuring the zero client to refuse a connection to a server that cannot be verified.

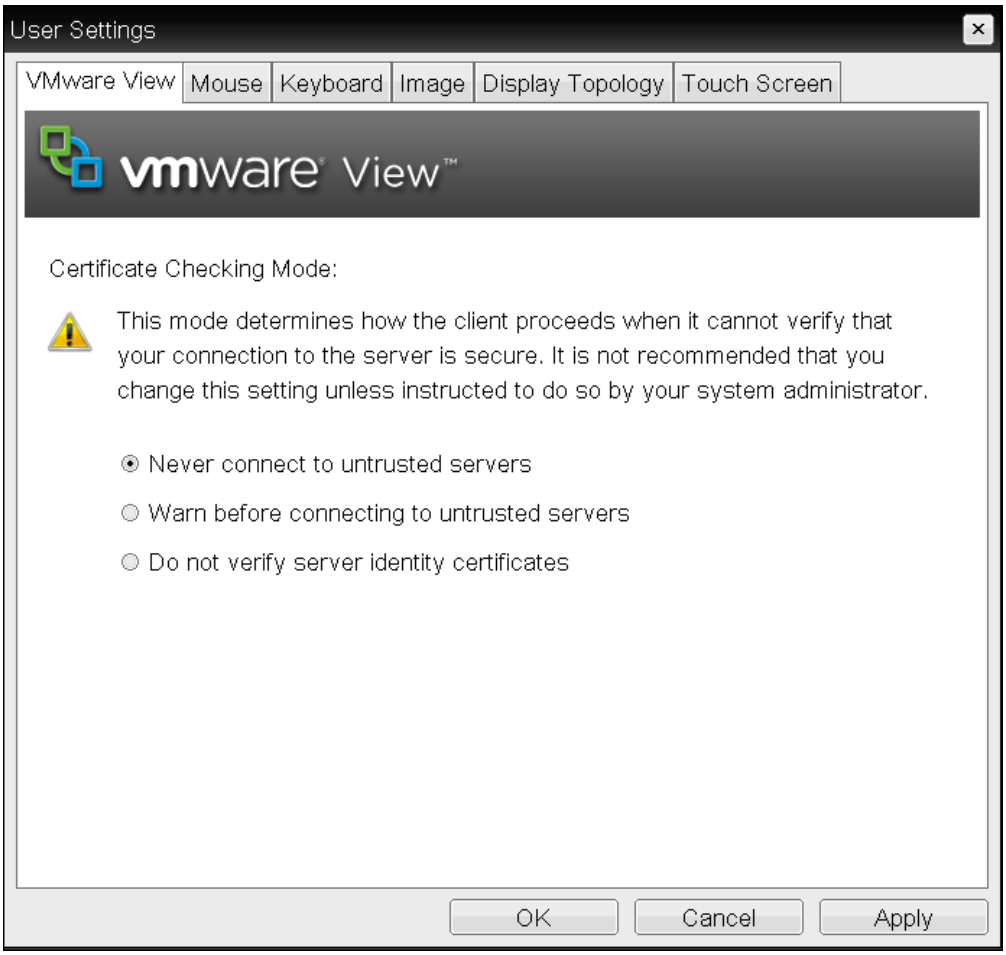


Figure 2-20: OSD VMware View Page

Using the AWI, you can then enable VCS Certificate Check Mode Lockout from the **Session – View Connection Server** page to prevent users from changing this setting.

See also:

- For information about how to upload certificates to a profile using the MC, see MC: Certificate Store Management.
- For information on how to upload certificates to a single device using the AWI, see AWI: Certificate Upload Settings.
- For information on other OSD messages that may appear on top of a user's session during startup or after a session has been established, see Overlay Windows.

3.3.3 Disconnecting from a Session

For Tera1 clients, users can disconnect from a session and return to the OSD by pressing the connect/disconnect button on the device.

For Tera2 clients, users can also disconnect from a virtual desktop session and return to the OSD by pressing the device's connect/disconnect button. However, if a user is in a session

with a host card in a remote workstation, pressing this button will pop up the Zero Client Control Panel overlay, shown in the figure below, which provides options to disconnect from the session, to power off the remote workstation, or to cancel the operation.

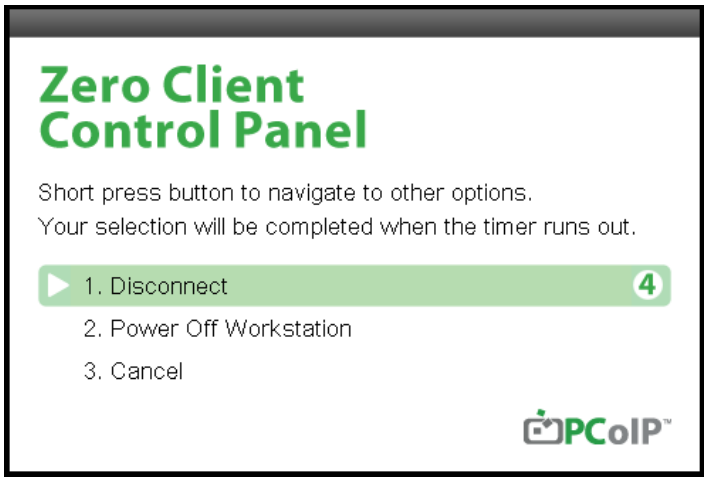


Figure 2-21: Zero Client Control Panel

Users can select an option from this overlay in a number of ways:

- Continue to tap the connect/disconnect button to toggle between options until the desired one is highlighted, then wait for the four-second countdown to complete.
- Use the up/down arrow keys on the keyboard to highlight the desired option, then press the Enter key.
- Type the number of the desired option to select it immediately.

During a session, users can also use a Ctrl+Alt+F12 hotkey sequence to display this overlay, providing the following options are configured in advance:

- Enable Session Disconnect Hotkey must be enabled in the advanced options on the **Session – View Connection Server** page.
- The **Enable Local Cursor and Keyboard** feature must be enabled on the PCoIP host software on the host computer. For details, see "PCoIP® Host Software for Windows User Guide" (TER1008001).
- On the client, the keyboard must be recognized as locally connected (i.e., not bridged).

Note: the latter two options must also be in place in order for users to use the up/down arrow keys or to type in a number to select a disconnect option on this overlay.

In order to allow users to use the second overlay option (i.e., to power off the workstation), the power permissions on the client must be configured to allow a "hard" power off. You can set this parameter from the MC **Power Permissions** page or from the AWI **Power Permissions** page.

3.3.4 Overlay Windows

Overlay windows occasionally appear on top of the user's PCoIP session to display pertinent information when the status changes—e.g., when the network connection is lost or an

unauthorized USB device is plugged in. These overlays show network, USB device, and monitor statuses as icons and text, as shown in the examples below.

Display Link Training Failed

This overlay only displays on Tera2 clients that contain DisplayPort display interfaces (as opposed to DVI interfaces). The DisplayPort protocol requires a link training sequence for adapting to differing cable lengths and signal qualities. If this training does not succeed, the following overlay appears with the message "Display link training failed."

Figure 2-22: Display Link Training Failed Overlay

Half Duplex Overlay

PCoIP technology is not compatible with half-duplex network connections. When a half-duplex connection is detected, the following overlay appears with the message "Half-duplex network connection."

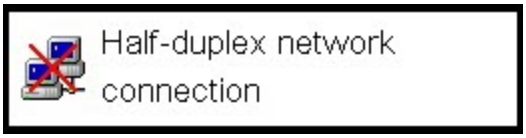


Figure 2-23: Half Duplex Overlay

Network Connection Lost Overlay

Loss of network connectivity is indicated using an overlay with the message "Network connection lost" over the most recent screen data. This overlay appears when the client network cable is disconnected or when no PCoIP protocol traffic is received by the client for more than two seconds.

Figure 2-24: Network Connection Lost Overlay

The lost network connection message appears until the network is restored or the timeout expires (and the PCoIP session ends).

Note: It is not recommended to use this notification message when using PCoIP devices with virtual desktops. Normal scheduling within the virtual desktop hypervisor can falsely trigger this message. To prevent this problem, you can disable the **Enable Peer Loss Overlay** setting.

No Support Resolutions Found

This overlay displays on Tera2 clients only. Display resolution may have limitations due to resource constraints when all four ports have large displays connected. If the resolution limit is exceeded, the following overlay appears with the message "No support resolutions found. Please try unplugging other displays."

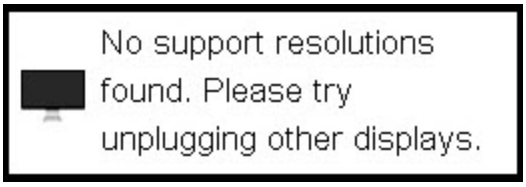


Figure 2-25: No Support Resolutions Found Overlay

Preparing Desktop Overlay

When a user first logs into a PCoIP session, the following overlay appears with the message "Preparing desktop."

Figure 2-26: Preparing Desktop Overlay

USB Device Not Authorized Overlay

If an unauthorized USB device is connected, the following overlay appears with the message "USB device not authorized." This overlay lasts for approximately five seconds.

Figure 2-27: USB Device Not Authorized Overlay

USB Over Current Notice Overlay

If the USB devices connected to the client cannot be handled by the USB ports, the following overlay appears with the message "USB over current notice." This overlay remains until USB devices are removed to meet the current handling of the USB ports.

Figure 2-28: USB Over Current Notice Overlay

USB Device Not Supported Behind a High-speed Hub Overlay

Some USB devices cannot be connected through a high speed (USB 2.0) hub, and should instead be connected directly to the zero client or through a full speed (USB 1.1) hub. If such a device is connected to the zero client through a high speed hub, the following overlay appears with the message "USB device not supported behind high speed hub." This overlay lasts for approximately five seconds.

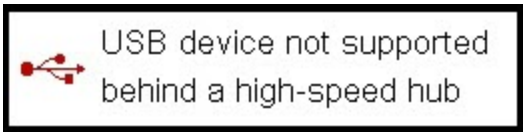


Figure 2-29: USB Device Not Supported Behind a High-speed Hub Overlay

Resolution Not Supported Overlay

If the resolution of a monitor connected to the client cannot be supported by the host, the monitor is set to its default resolution and the following overlay appears with the message "Resolution not supported."

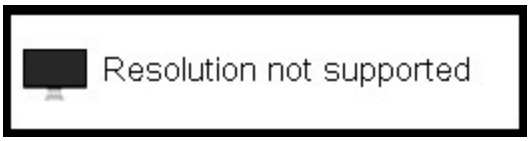


Figure 2-30: Resolution Not Supported Overlay

Video Source Overlays

Improper connection of the host video source is denoted by two possible overlays. These overlays appear for approximately five minutes. The monitor is put into sleep mode approximately 15 seconds after they appear.

- When no video source is connected to the host, the following overlay appears with the message "No source signal." This helps you debug a situation where the host does not have the video source connected or the host PC has stopped driving a video signal. To correct this, connect the host PC video to the host. (This message can also be triggered by the host going into display power save mode.)

Figure 2-31: No Source Signal Overlay

- When a video source to the host does not correspond to the video port used on the client, the following overlay appears with the message "Source signal on other port." This helps you debug a situation where the video source is connected to the wrong port. To correct this, swap the video ports at the host or the client.

Figure 2-32: Source Signal on Other Port Overlay

3.3.5 OSD Menus

The **Options** menu in the upper left corner has five sub-menus that link to OSD configuration, information, and status pages.

- **Configuration:** This menu contains links to pages that let you define how the device operates and interacts with its environment. Each tab has an **OK**, **Cancel**, and **Apply** button that lets you accept or cancel the settings changes made.
- **Diagnostics:** This menu contains links to pages that help diagnose issues concerning the client.
- **Information:** The page under this menu displays hardware and firmware version information about the device.
- **User Settings:** This menu contains links to pages that let users define mouse, keyboard, image, display, and touch screen settings, and also the VMware View certificate checking mode.
- **Password:** The page under this menu lets you update the administrative password for the device.

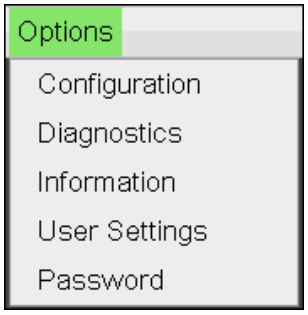


Figure 2-33: OSD Options Menu

Note: You can hide a single menu item, the entire **Options** menu, or all menus from users. For details, see **MC: OSD Settings**.

The GUI Reference in this help system contains full details about each page. For information about how to configure or manage a device using these OSD pages, please see the appropriate section in the GUI Reference.

4 PCoIP Deployment Scenarios

4.1 PCoIP Endpoints

PCoIP is a flexible technology that lets you deploy both PCoIP hardware endpoints (e.g., PCoIP zero clients and host cards) and PCoIP software endpoints (e.g., soft clients and virtual desktops) in your network. For example, you can use a zero client to connect to a PCoIP host card or to a virtual desktop. Alternatively, you can use a PCoIP soft client to connect to a host card or virtual desktop.

4.1.1 PCoIP Hardware Endpoints

The following figure shows some examples of PCoIP hardware endpoints that you can deploy in your network.

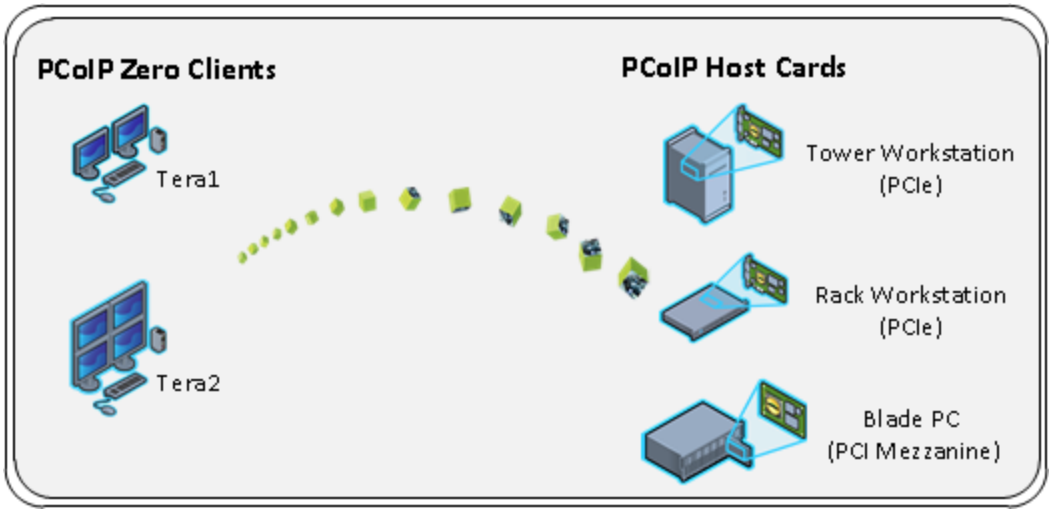


Figure 3-1: PCoIP Hardware Endpoints

The table below lists the processor name and family for each device, along with the set of display resolutions the device supports.

Note: The processor name refers to the chipset used in the PCoIP device. For example, TERA2140 is the processor used in the second-generation TERA2140 zero client, and TERA2240 is the processor used in the second-generation TERA2240 PCIe host card (for tower PC or rack mount workstations) and TERA2240 PCI Mezzanine host card (for blade workstations). For details on how to display the processor name for your device, see Displaying Processor Information.

Table 3-1: Supported Resolutions for PCoIP Host Cards and Zero Clients

Processor Name	Maximum No. of Supported Displays and Resolutions	Device Type	Processor Family
TERA1100	2 x 1920x1200	zero client	Tera1
TERA2321	2 x 1920x1200 1 x 2560x1600*	zero client	Tera2
TERA2140	4 x 1920x1200 2 x 2560x1600*	zero client	Tera2
TERA1202	2 x 1920x1200	host card	Tera1
TERA2220	2 x 1920x1200 1 x 2560x1600	host card	Tera2
TERA2240	4 x 1920x1200 2 x 2560x1600	host card	Tera2
*Tera2 zero clients support 2560x1600 resolution on attached displays using either DVI or DisplayPort interfaces. For instructions on how to connect cables to Tera2 zero clients with DVI and/or DisplayPort ports to support this resolution, see DVI and DisplayPort Interfaces.			

You can mix and match any host card with any zero client. However, when you connect a zero client to a host card, the maximum supported resolutions for any displays attached to the client will equal the most common denominator between the two devices. For example, if you connect a TERA2140 zero client to a TERA2240 host card, you can attach up to four 1920x1200 displays or two 2560x1600 displays. However, if you connect a TERA2321 zero client to the same host card, the options become up to two 1920x1200 displays or one 2560x1600 display.

4.1.2 PCoIP Software Endpoints

A number of software endpoints also support PCoIP, such as the following:

- **Teradici PCoIP software clients**: PCoIP software clients that have been developed by Teradici.
- **VMware View clients and VDI desktops**: PCoIP desktop virtualization products developed by VMware.
- **Teradici Arch published desktop solution**: Published desktops that use PCoIP as the remote protocol instead of RDP.
- **PCoIP optimized clients**: Software clients that have been optimized to take advantage of thin client platforms, including system on chip (SoC) processors. These clients are developed individually for specific client platforms in order to deliver the best possible combination of features and performance.

Some examples of PCoIP software endpoints are illustrated in the figure below.

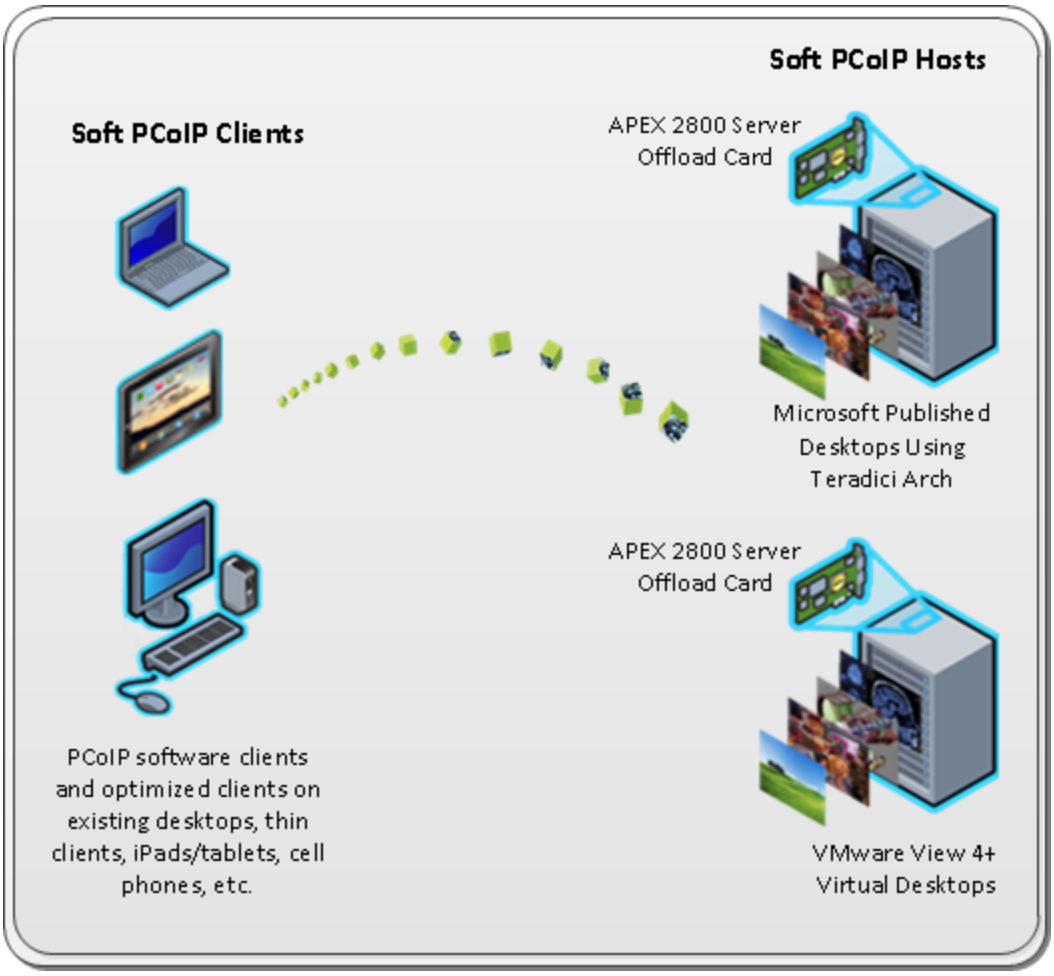


Figure 3-2: PCoIP Software Endpoints

4.2 Connection Prerequisites

4.2.1 PCoIP Client–Host Card Connections

Before connecting a host card and zero client, please ensure that the following prerequisites are in place:

- The host card and zero client have the same firmware versions. For information how to upload firmware using the MC, see the "PCoIP® Management Console User Manual" (TER0812002). For information on how to assign a firmware file to a profile using the MC, see Uploading Firmware. For information on how to upload firmware to a single host or client using the AWI, see AWI: Firmware Upload Settings.
- The PCoIP host software is installed on the host PC or workstation. For details, please see "PCoIP® Host Software for Windows User Guide" (TER1008001). If you are using VMware View as a broker, View Agent must also be installed on the host PC or workstation.
- The Host Driver Function is enabled on the host card.

- Your network resources meet bandwidth, QoS, latency, jitter, and packet loss requirements. For more information about designing PCoIP network architecture, see the "PC-over-IP® Protocol Virtual Desktop Network Design Checklist" (TER1105004).

4.2.2 PCoIP Client–Published Desktop Connections

This connection is implemented via the Teradici Arch™ published desktop software solution. Please see "Teradici Arch™ Published Desktop Installation Guide" (TER1211001) for more information about Teradici Arch prerequisites.

4.2.3 PCoIP Client–View Virtual Desktop Connections

Before connecting a zero client to a VMware View virtual desktop, please ensure that the following prerequisites are in place:

- The VMware View installation, which includes the VMware View Manager and VMware View Agent, are version 4.0.1 or newer. For more information, refer to VMware documentation and also the "Using PCoIP® Zero Clients with VMware View User Guide" (TER0904005).
- The zero client firmware version is 3.1.0 or newer. For information how to upload firmware using the MC, see the "PCoIP® Management Console User Manual" (TER0812002). For information on how to assign a firmware file to a profile using the MC, see Uploading Firmware. For information on how to upload firmware to a single host or client using the AWI, see AWI: Firmware Upload Settings.
- Your network resources meet bandwidth, QoS, latency, jitter, and packet loss requirements. For more information about designing PCoIP network architecture, see the "PC-over-IP® Protocol Virtual Desktop Network Design Checklist" (TER1105004).

4.3 Session Connection Types

4.3.1 Zero Client–Host Card Connections

You can move high-performance Windows or Linux workstations with PCoIP host cards into your datacenter, and then configure sessions between zero clients and these workstation hosts over a LAN or WAN. This type of configuration provides a secure, reliable, and easy-to-manage solution that meets the needs of users who have dedicated computers with graphically demanding applications.

Depending on the size of your PCoIP deployment, you may wish to use the MC or a connection broker to manage connections between host cards and zero clients, or you may use the AWI to configure individual hosts and clients remotely. You can even use the OSD to configure settings for a specific zero client.

The following session connection types are available for zero client–host card connections:

- Connecting hosts and clients statically
- Connecting hosts and clients using SLP host discovery
- Connecting hosts and clients using a 3rd party connection broker
- Connecting hosts and clients using the VMware View Connection Server broker

Connecting Hosts and Clients Statically

To statically configure a client to connect directly to a specific host card, use the **Direct to Host** session connection type. You need to provide the IP address (or DNS name) of the host for this option.

You also need to configure a **Direct from Client** session connection type on the host. You have the option of allowing the host to accept a connection request from any client or from a specific client only. If the latter, you need to provide the client's MAC address.

For details on how to configure this option, see the following topics in the GUI Reference:

- MC: Direct to Host: Explains how to use the MC to configure a profile that sets the **Direct to Host** session connection type for client devices. For information on how to statically link specific hosts and clients using the MC, see the "PCoIP® Management Console User Manual" (TER0812002).
- AWI Client: Direct to Host: Explains how to use the AWI to statically configure a client to connect to a specific host card.
- AWI Host: Direct from Client: Explains how to use the AWI to configure a host card to accept a connection request from any client or from a specific client only.
- OSD: Direct to Host: Explains how to use the OSD to statically configure a client to connect to a specific host card.

Connecting Hosts and Clients Using SLP Host Discovery

If hosts reside on the same subnet as clients, you can use the **Direct to Host + SLP** session connection type to configure clients to use Service Location Protocol (SLP) to discover the hosts on the subnet. With this configuration, the client OSD will list the first 10 hosts discovered. The user can then select the desired one and connect to it.

Note: SLP host discovery is not suitable for deployments with more than 10 hosts if a client needs to connect to a specific host all the time. In this situation, a 3rd party connection broker is required.

You also need to configure a **Direct from Client** session connection type on the host. You have the option of allowing the host to accept a connection request from any client or from a specific one only. If the latter, you need to provide the client's MAC address.

For details on how to configure this option, see the following topics in the GUI Reference:

- MC: Direct to Host + SLP: Explains how to use the MC to configure a profile that sets the **Direct to Host + SLP** session connection type for client devices.
- AWI Client: Direct to Host + SLP: Explains how to use the AWI to configure a client to use SLP discovery to connect to a host card.
- AWI Host: Direct from Client: Explains how to use the AWI to configure a host card to accept a connection request from any client or from a specific client only.
- OSD: Direct to Host + SLP: Explains how to use the OSD to configure a client to use SLP discovery to connect to a host card.

Connecting Hosts and Clients Using a 3rd Party Connection Broker

A 3rd party connection broker is a resource manager that dynamically assigns host PCs to zero clients based on the identity of the user establishing a connection from the zero client. Connection brokers are also used to allocate a pool of hosts to a group of zero clients. They are typically used in large PCoIP deployments, or when hosts and clients do not reside on the same subnet.

Use the **Connection Management Interface** session connection type on both the host and client for this option. You need to provide the IP address (or DNS name) for the 3rd party connection broker.

Note: For information about 3rd party connection brokers, see Knowledge Base support topic 15134-24 on the Teradici support site.

For details on how to configure this option, see the following topics in the GUI Reference:

- MC: Connection Management Interface: Explains how to use the MC to configure a profile that sets the **Connection Management Interface** session connection type for client and host devices.
- AWI Client: Connection Management Interface: Explains how to use the AWI to configure a client to use a 3rd party connection broker to broker the connection between the client and a host card.
- AWI Host: Connection Management Interface: Explains how to use the AWI to configure a host to use a 3rd party connection broker for accepting a connection request from a client.
- OSD: Connection Management Interface: Explains how to use the OSD to configure a client to use a 3rd party connection broker to broker the connection between the client and a host card.

Connecting Hosts and Clients Using the VMware View Connection Server Broker

You can also use the VMware View Connection Server to broker a connection between clients and host cards.

Note: This is not the same thing as configuring a zero client to connect to a VMware View virtual desktop.

For this option, VMware View Agent must be installed on the host workstation, and a number of other configuration requirements for both the client and host must be in place. For complete details, please refer to "Using PCoIP® Host Cards with VMware View" (TER0911004).

4.3.2 Zero Client–Published Desktop Connections

The Teradici Arch™ published desktop solution allows you connect zero clients to Microsoft published desktops using PCoIP as the remote display protocol instead of RDP. This solution is brokered by a PCoIP Connection Manager virtual appliance, which can be installed in a corporate LAN to connect internal clients and/or in the DMZ to connect remote clients over a WAN. When the PCoIP Connection Manager is located in the DMZ,

its PCoIP Security Gateway component is enabled to allow users access to their remote desktops without having to set up a VPN.

The following session connection types are available for zero client–published desktop connections using Teradici Arch™:

- PCoIP Connection Manager
- PCoIP Connection Manager + Auto-Logon

PCoIP Connection Manager

To configure a client to connect to a published desktop with a manual logon, use the **PCoIP Connection Manager** session connection type. You need to provide the IP address (or DNS name) of the PCoIP Connection Manager for this option.

Note: The server DNS name must resolve to the external WAN IP address of the PCoIP Security Gateway in the DMZ for external connections, and to the IP address of the PCoIP Connection Manager for internal connections. For details, please see "Teradici Arch™ Published Desktop Installation Guide" (TER1211001)

For details on how to configure this option, see the following topics in the GUI Reference:

- MC: PCoIP Connection Manager: Explains how to use the MC to configure a profile that sets the **PCoIP Connection Manager** session connection type for client devices.
- AWI Client: PCoIP Connection Manager: Explains how to use the AWI to configure a client to connect to a published desktop via a PCoIP Connection Manager.
- OSD: PCoIP Connection Manager: Explains how to use the OSD to configure a client to connect to a published desktop via a PCoIP Connection Manager.

PCoIP Connection Manager + Auto-Logon

To configure clients to automatically enter users' login details when clients connect to a published desktop, use the **PCoIP Connection Manager + Auto-Logon** session connection type. You need to provide the IP address (or DNS name) of the PCoIP Connection Manager for this option, and also the user name, user password, and the domain name for the user to send to the server.

Note: The server DNS name must resolve to the external WAN IP address of the PCoIP Security Gateway in the DMZ for external connections, and to the IP address of the PCoIP Connection Manager for internal connections. For details, please see "Teradici Arch™ Published Desktop Installation Guide" (TER1211001)

For details on how to configure this option, see the following topics in the GUI Reference:

- MC: PCoIP Connection Manager + Auto-Logon: Explains how to use the MC to configure a profile that sets the **PCoIP Connection Manager + Auto-Logon** session connection type for client devices.
- AWI Client: PCoIP Connection Manager + Auto-Logon: Explains how to use the AWI to configure a client to automatically enter the user's login details when connecting to a published desktop via a PCoIP Connection Manager.

- OSD: PCoIP Connection Manager + Auto-Logon: Explains how to use the OSD to configure a client to automatically enter the user's login details when connecting to a published desktop via a PCoIP Connection Manager.

4.3.3 Zero Client–View VDI Connections

You can configure zero clients to use the PCoIP protocol when connecting to virtual desktops in a VMware View environment. Depending on the size of your PCoIP deployment, you may wish to use the MC to configure a profile with a VMware View session connection type, or you may use the AWI or the OSD to configure an individual zero client to use a VMware View session connection type.

The following session connection types are available for zero client–View VDI connections:

- View Connection Server
- View Connection Server + Auto-Logon
- View Connection Server + Kiosk
- View Connection Server + Imprivata OneSign

View Connection Server

To configure a client to connect to a VMware virtual desktop with a manual logon, use the **View Connection Server** session connection type. You need to provide the IP address (or DNS name) of the VMware View Connection Server for this option.

For details on how to configure this option, see the following topics in the GUI Reference:

- MC: View Connection Server: Explains how to use the MC to configure a profile that sets the **View Connection Server** session connection type for client devices.
- AWI Client: View Connection Server: Explains how to use the AWI to configure a client to connect to a virtual desktop via a VMware View Connection Server.
- OSD: View Connection Server: Explains how to use the OSD to configure a client to connect to a virtual desktop via a VMware View Connection Server.

View Connection Server + Auto-Logon

To configure clients to automatically enter users' login details when clients connect to a virtual desktop, use the **View Connection Server + Auto-Logon** session connection type. You need to provide the IP address (or DNS name) of the VMware View Connection Server, and also the user name, user password, and the domain name for the user to send to the server.

For details on how to configure this option, see the following topics in the GUI Reference:

- MC: View Connection Server + Auto-Logon: Explains how to use the MC to configure a profile that sets the **View Connection Server + Auto-Logon** session connection type for client devices.
- AWI Client: View Connection Server + Auto-Logon: Explains how to use the AWI to configure a client to automatically enter the user's login details when connecting to a virtual desktop via a VMware View Connection Server.

- OSD: View Connection Server + Auto-Logon: Explains how to use the OSD to configure a client to automatically enter the user's login details when connecting to a virtual desktop via a VMware View Connection Server.

View Connection Server + Kiosk

VMware View Kiosk mode allows you to configure clients to connect to a desktop that will be used for a kiosk implementation, such as when multiple users connect to a desktop to obtain information that is not specific to any one individual. At minimum, you need to provide the IP address (or DNS name) of the VMware View Connection Server and the kiosk user name—either a custom user name for the kiosk or its MAC address.

For details on how to configure this option, see the following topics in the GUI Reference:

- MC: View Connection Server + Kiosk: Explains how to use the MC to configure a profile that sets the **View Connection Server + Kiosk** session connection type for client devices.
- AWI Client: View Connection Server + Kiosk: Explains how to use the AWI to configure a client to use Kiosk mode when connecting to a virtual desktop via a VMware View Connection Server.
- OSD: View Connection Server + Kiosk: Explains how to use the OSD to configure a client to use Kiosk mode when connecting to a virtual desktop via a VMware View Connection Server.

View Connection Server + Imprivata OneSign

VMware View Imprivata OneSign mode allows you to configure clients to use Imprivata OneSign proximity card support when connecting to a virtual desktop via a VMware View Connection Server. You need to provide the IP address (or DNS name) of the VMware View Connection Server and the bootstrap URL for the OneSign server.

For details on how to configure this option, see the following topics in the GUI Reference:

- MC: View Connection Server + Imprivata OneSign: Explains how to use the MC to configure a profile that sets the **View Connection Server + Imprivata OneSign** session connection type for client devices.
- AWI Client: View Connection Server + Imprivata OneSign: Explains how to use the AWI to configure a client to use Imprivata OneSign mode when connecting to a virtual desktop via a VMware View Connection Server.
- OSD: View Connection Server + Imprivata OneSign: Explains how to use the OSD to configure a client to use Imprivata OneSign mode when connecting to a virtual desktop via a VMware View Connection Server.

4.4 Common LAN Scenarios

4.4.1 Connecting over a LAN

LAN connections between PCoIP endpoints can either be direct or brokered by a connection server. The scenarios listed below describe some of the most common ways you can connect PCoIP endpoints over a LAN.

- Scenario 1: Connecting a zero client to a host card.
- Scenario 2: Using a View Connection Server to broker a connection between a zero client to a host card.
- Scenario 3: Using a View Connection Server to broker a connection between a zero client to a virtual desktop.

Note: You can also use the Teradici Arch™ published desktop solution to connect a PCoIP client to a Microsoft published desktop using PCoIP as the remote protocol. For details, please see "Teradici Arch™ Published Desktop Installation Guide" (TER1211001).

4.4.2 Zero Client to Host Card

The figure below shows a PCoIP session between a zero client and host card from within a LAN.

Note: All host card scenarios assume you have the PCoIP host software installed on the host PC or workstation. For details, please see "PCoIP® Host Software for Windows User Guide" (TER1008001). Please refer to Connection Prerequisites for other conditions that may apply.

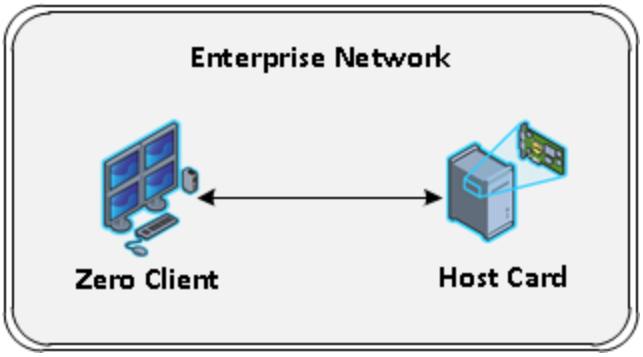


Figure 3-3: Zero Client to Host Card (LAN)

To establish the connection:

1. From the zero client's AWI:
   - Configure the Direct to Host session connection type, and enter the DNS name or IP address of the host card.
2. From the host card's AWI:
   - Configure the Direct from Client session connection type, and whether to accept any peer (i.e., zero client) or a specific one.
3. Start a PCoIP session.
4. If necessary, adjust bandwidth and image parameters on both the host and client to optimize performance.

4.4.3 Zero Client to Host Card via View Connection Server

The figure below shows a PCoIP session between a zero client and host card from within a LAN using a View Connection Server to connect the endpoints.

Note: All host card scenarios assume you have the PCoIP host software installed on the host PC or workstation. For details, please see "PCoIP® Host Software for Windows User Guide" (TER1008001). This scenario also assumes you have the VMware View Agent software installed on the host PC or workstation. For more information, see "Using PCoIP® Host Cards with VMware View" (TER0911004). Please refer to Connection Prerequisites for other conditions that may apply.

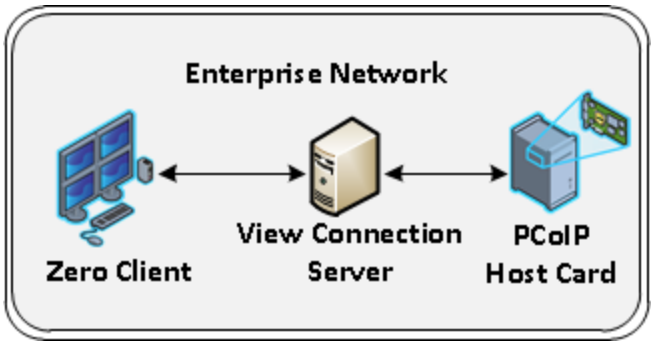


Figure 3-4: View – Zero Client to Host Card via View Connection Server

To establish the connection:

Note: For more information about configuring VMware View servers, please refer to VMware View documentation.

1. From the View Connection Server:
   - Install View Agent on the host workstation.
   - Create a manual pool that is configured to support PCoIP hardware, and then add the workstation to the pool.
   - Ensure that the **Use Secure Tunnel connection to desktop** checkbox is enabled. (This checkbox is enabled by default.)
   - Enter the View Connection Server's IP address or domain name for the **External URL** (e.g. **192.168.1.140:443** or **https://myserver.com:443**).
2. From the zero client's AWI:
   - Configure the View Connection Server session connection type, and enter the DNS name or IP address of the View Connection Server.
3. Start a PCoIP session.

4.4.4 Zero Client to Virtual Desktop via View Connection Server

The figure below shows a PCoIP session between a zero client and a virtual desktop from within a LAN using a View Connection Server to connect the endpoints.

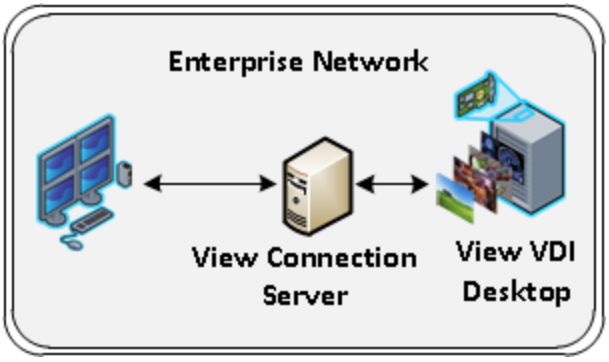


Figure 3-5: View – Zero Client to Virtual Desktop via View Connection Server

To establish the connection:

Note: For more information about configuring VMware View servers, please refer to VMware View documentation.

1. On the ESXi server:
   - Create a virtual machine (VM).
   - Install Windows and View Agent on the VM.
2. On the View Connection Server:
   - Create a pool, and add the VM to the pool.
   - Ensure that the **Use Secure Tunnel connection to desktop** checkbox is enabled. (This checkbox is enabled by default.)
   - Enter the View Connection Server's IP address or domain name for the **External URL** (e.g. **192.168.1.140:443** or **https://myserver.com:443**).
3. From the zero client's AWI:
   - Configure the View Connection Server session connection type, and enter the DNS name or IP address of the View Connection Server.
4. Start a PCoIP session.

For information on optimizing networks for VMware View connections, see the following Knowledge Base topics on the Teradici support site:

- PCoIP session variable settings: 15134-276
- Windows desktop experience optimization: 15134-242, 15134-880

4.5 Common Remote Access Scenarios

4.5.1 Connecting Remotely

PCoIP sessions between clients and hosts can operate in a wide area network (WAN) that traverses the Internet. You can connect clients and hosts remotely using the following main methods:

- Configuring network address translation (NAT) devices at both ends to implement the necessary IP address and port translation. This method applies only to Tera2 devices that

employ UDP-encapsulated IPsec ESP encryption (firmware 4.1.0 or later).

- Setting up a VPN to connect two trusted networks over an intermediate untrusted network.
- Using a security server/connection server pair to secure and broker the outside client to the trusted inside network.

The scenarios listed below describe some common ways you can connect PCoIP endpoints remotely.

- Scenario 1: Connecting a remote zero client to a host card.
- Scenario 2: Connecting a remote zero client to a host card over a hardware VPN.
- Scenario 3: Using a third-party broker to connect a remote zero client to a host card.
- Scenario 4: Using a View Security Server/View Connection Server pair to broker a connection between a remote zero client and a host card.
- Scenario 5: Using a View Security Server/View Connection Server pair to broker a connection between a zero client and a View virtual desktop.
- Scenario 6: Using a View Security Server/View Connection Server pair to broker a connection between a remote View software client and a host card.
- Scenario 7: Using View Connection Servers for remote and internal connections.

Note: You can also use the Teradici Arch™ published desktop solution over a WAN to connect a PCoIP client to a Microsoft published desktop using PCoIP as the remote protocol. For details, please see "Teradici Arch™ Published Desktop Installation Guide" (TER1211001).

4.5.2 Remote Zero Client to Host Card

As of firmware 4.1.0, Tera2 zero clients and host cards use UDP-encapsulated IPsec format. Because this encapsulation type supports IP address and port number translation, it is not necessary to set up a VPN when these devices connect remotely. To connect devices with earlier firmware versions, see Zero Client to Host Card Using a Hardware VPN.

Note: All host card scenarios assume you have the PCoIP host software installed on the host PC or workstation. For details, please see "PCoIP® Host Software for Windows User Guide" (TER1008001). Please refer to Connection Prerequisites for other conditions that may apply.

Note: The IP addresses in the following figures are intended as example addresses only.

The figure below shows a PCoIP session between a Tera2 zero client and host card over a WAN.

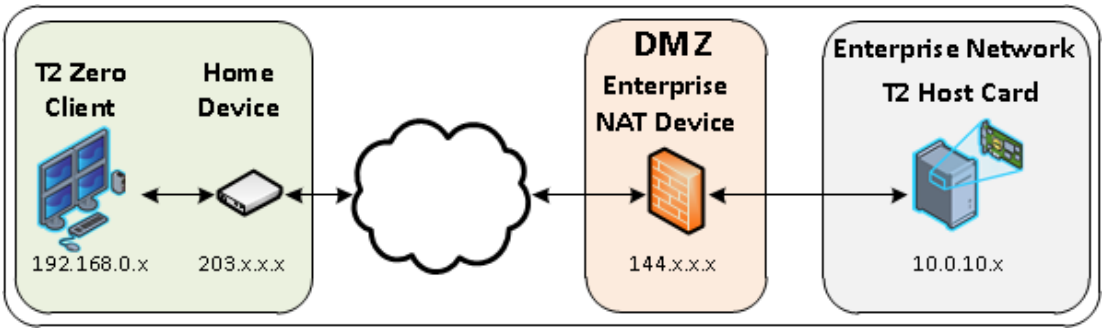


Figure 3-6: Tera2 Zero Client to Host Card (WAN)

You can also have multiple zero clients and host cards connected behind NAT devices, as shown in the next figure.

Note: In this scenario, an enterprise-level NAT device is required in both the source and destination networks.

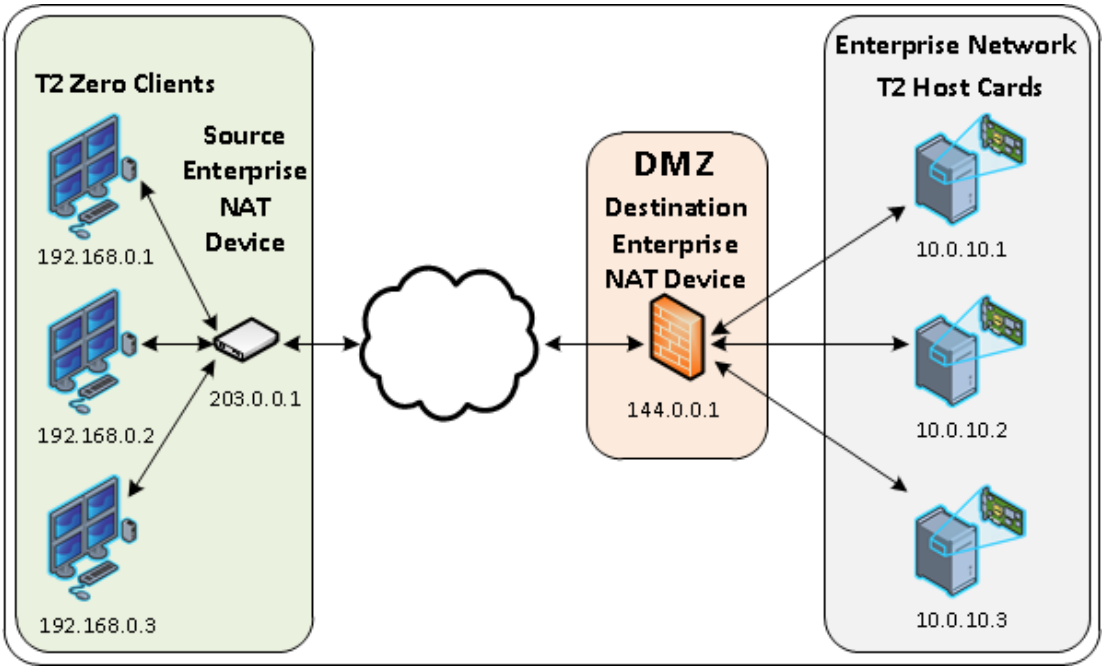


Figure 3-7: Remote PCoIP Sessions with Multiple Tera2 Devices

To establish the connection:

1. For the first scenario: Configure the enterprise NAT device to redirect TCP/UDP port 4172 to the host card.
   For the second scenario:
   - Configure the source enterprise NAT device (203.0.0.1) to translate IP address and ports as follows:
     192.168.0.1:4172 to 203.0.0.1:4172
     192.168.0.2:4172 to 203.0.0.1:4173
     192.168.0.3:4172 to 203.0.0.1:4174

- Configure the destination enterprise NAT device (144.0.0.1) to translate IP addresses and ports as follows:
  144.0.0.1:4172 to 10.0.10.1:4172
  144.0.0.1:4173 to 10.0.10.2:4172
  144.0.0.1:4174 to 10.0.10.3:4172

2. From the zero client's AWI:
   - Configure the Direct to Host session connection type, and enter the IP address of the destination enterprise NAT device.
3. From the host card's AWI:
   - Configure the Direct from Client session connection type.
4. On your firewall or router, allow both TCP and UDP traffic on the ports you have configured in your NAT devices (4172+).
5. Start a PCoIP session.
6. If necessary, adjust bandwidth and image parameters on both the host and client to optimize performance.

For more information on how NAT applications work with PCoIP, see Knowledge Base support topic 15134-830 on the Teradici support site. For information on optimizing networks for WAN connections, see the following Knowledge Base topics:

- Packet size (MTU) settings: 15134-40
- Bandwidth settings: 15134-242, 15134-88
- Image settings: 15134-28, 15134-51
- Windows desktop experience optimization: 15134-242, 15134-880

4.5.3 Remote Zero Client to Host Card via Hardware VPN

The figure below shows a PCoIP session between a remote zero client and host card over a hardware VPN.

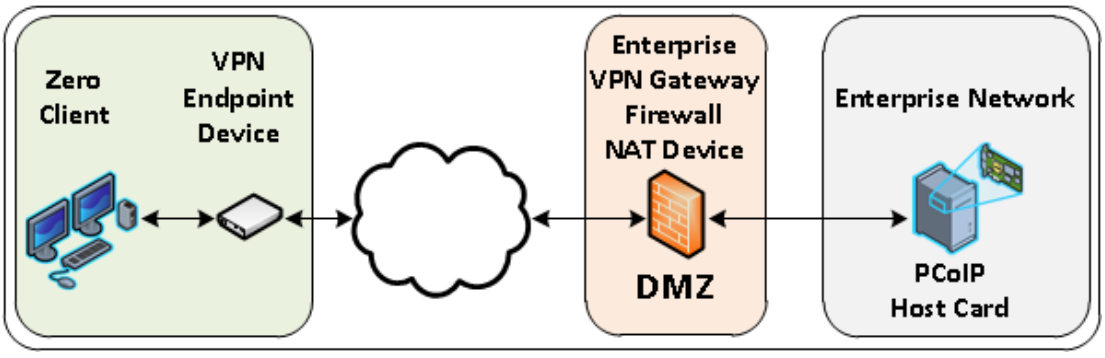


Figure 3-8: Hardware VPN – Zero Client to Host Card

A VPN is necessary when connecting the following PCoIP endpoints over the Internet:

- Tera1 zero client to a Tera1 host card
- Tera2 zero client to a Tera2 host card when the installed firmware in these devices is prior to release 4.1.0

- Tera2 zero client to a Tera2 host card when the enterprise NAT device/gateway cannot implement the required IP address and port translation

To establish the connection:

1. At the home network, install a VPN endpoint device (e.g., a router) and establish a VPN session between the endpoint device and the enterprise VPN gateway. For information on how to set up the VPN, please see the documentation for your device.
2. Configure the enterprise VPN gateway/firewall/NAT device to allow IPsec ESP traffic, and also traffic on UDP port 4172 for the PCoIP data stream and on TCP port 4172 for the TCP handshake.
3. From the zero client's AWI:
   - Configure the Direct to Host session connection type, and enter the IP address of the host card.
   - Configure the address of the home VPN endpoint device as the default gateway.
   - Set the packet MTU to be less than or equal to the largest size supported by the VPN tunnel.
4. From the host card's AWI:
   - Configure the Direct from Client session connection type.
   - Set the packet MTU to be less than or equal to the largest size supported by the VPN tunnel.
5. Start a PCoIP session.
6. If necessary, adjust bandwidth and image parameters on both the host and client to optimize performance.

For information on optimizing networks for WAN connections, see the following Knowledge Base topics on the Teradici support site:

- Packet size (MTU) settings: 15134-40
- Bandwidth settings: 15134-242, 15134-88
- Image settings: 15134-28, 15134-51
- Windows desktop experience optimization: 15134-242, 15134-880

4.5.4 Remote Zero Client to Host Card via 3rd Party Broker

The figure below shows a PCoIP session between a zero client and host card over a WAN with a 3rd party broker in the enterprise network acting as a connection server.

Note: All host card scenarios assume you have the PCoIP host software installed on the host PC or workstation. For details, please see "PCoIP® Host Software for Windows User Guide" (TER1008001). Please refer to Connection Prerequisites for other conditions that may apply.

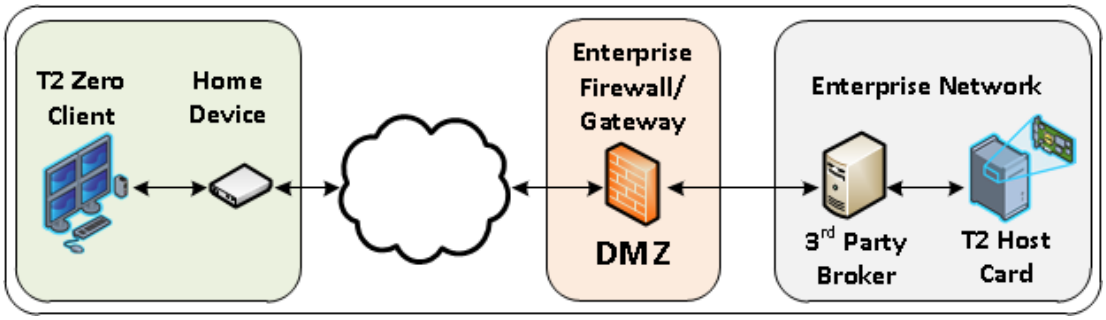


Figure 3-9: Zero Client to Host Card via 3rd Party Broker (Tera2 only)

Note: If you are using Tera1 devices, you must first set up a hardware VPN to tunnel from the home device to the enterprise gateway in order for this scenario to work. See see Zero Client to Host Card Using a Hardware VPN for details.

To establish the connection:

1. Configure the 3rd party broker to redirect traffic from the zero client to the host card. See documentation for the broker for details.
2. From the zero client's AWI:
   - Configure the Connection Management Interface session connection type, and enter the DNS name or IP address of the connection manager (i.e., the 3rd party broker).
3. From the host card's AWI:
   - Configure the Connection Management Interface session connection type, and enter the DNS name or IP address of the connection manager.
4. On your firewall or router, allow both TCP and UDP traffic on port 4172.
5. Start a PCoIP session.
6. If necessary, adjust bandwidth and image parameters on both the host and client to optimize performance.

For information on optimizing networks for WAN connections, see the following Knowledge Base topics on the Teradici support site:

- Packet size (MTU) settings: 15134-40
- Bandwidth settings: 15134-242, 15134-88
- Image settings: 15134-28, 15134-51
- Windows desktop experience optimization: 15134-242, 15134-880

4.5.5 Remote Zero Client to Host Card via View Security Server

The figure below shows a PCoIP session between a zero client and host card over a WAN using a View Security Server and View Connection Server pair to authenticate and connect the endpoints.

Note: All host card scenarios assume you have the PCoIP host software installed on the host PC or workstation. For details, please see "PCoIP® Host Software for Windows User Guide" (TER1008001). This scenario also assumes you have the VMware View Agent

software installed on the host PC or workstation. For more information, see "Using PCoIP® Host Cards with VMware View" (TER0911004). Please refer to Connection Prerequisites for other conditions that may apply.

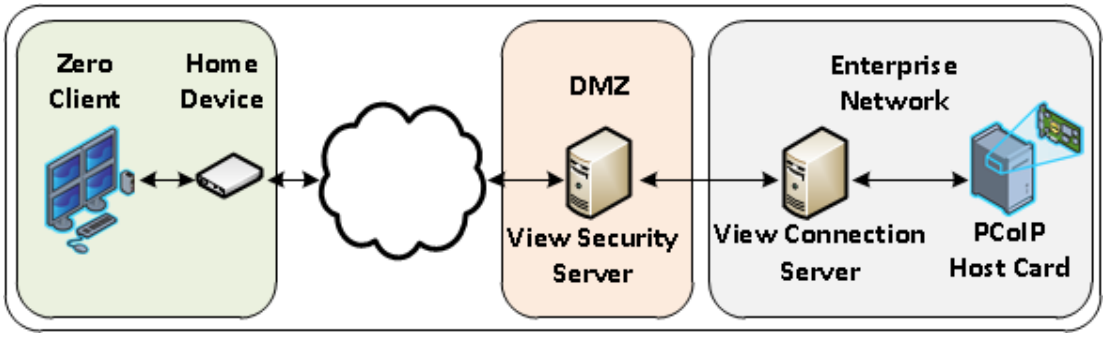


Figure 3-10: View – Zero Client to Host Card via View Security/Connection Server

To establish the connection:

Note: For more information about configuring VMware View servers, please refer to VMware View documentation.

1. On the View Connection Server:
   - Install View Agent on the host workstation.
   - Create a manual pool that is configured to support PCoIP hardware, and then add the workstation to the pool.
   - Define the pairing password (and pairing timeout) that will be used to pair the View Connection Server and View Security Server.
2. On the View Security Server:
   - Pair the View Security Server with the View Connection Server.
   - Enable the **Use Secure Tunnel connection to desktop** and **Use PCoIP Secure Gateway for PCoIP connections to desktop** checkboxes.
   - Enter the View Security Server's IP address for the **External URL** (e.g., **https://12.50.16.151:443**) and for the **PCoIP External URL** (e.g., **12.50.16.151:4172**). This is the WAN-facing address that remote clients can resolve. Only the port number is different for the two addresses.
3. On your firewall or router:
   - Allow both TCP and UDP traffic on port 4172 and TCP traffic on port 443.
4. From the zero client's AWI:
   - Configure the View Connection Server session connection type, and enter the DNS name or external IP address of the View Security Server.
5. Start a PCoIP session.
6. If necessary, adjust bandwidth and image parameters on both the host and client to optimize performance.

For information on optimizing networks for VMware View connections, see the following Knowledge Base topics on the Teradici support site:

- PCoIP session variable settings: 15134-276
- Windows desktop experience optimization: 15134-242, 15134-880

4.5.6 Remote Zero Client to Virtual Desktop via View Security Server

The figure below shows a PCoIP session between a zero client and a virtual desktop over a WAN using a View Security Server and View Connection Server pair to authenticate and connect the endpoints.

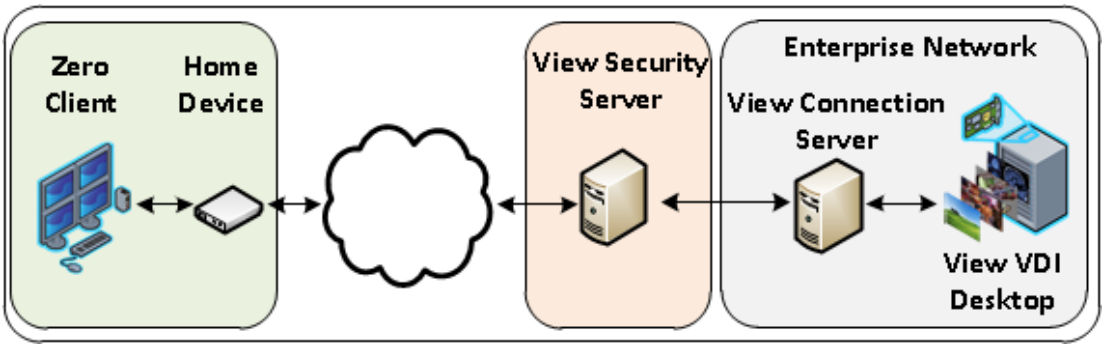


Figure 3-11: View – Zero Client to VDI Desktop via View Security/Connection Server

To establish the connection:

Note: For more information about configuring VMware View servers, please refer to VMware View documentation.

1. On the ESXi server:
   - Create a virtual machine (VM).
   - Install Windows and View Agent on the VM.
2. On the View Connection Server:
   - Create a pool, and add the VM to the pool.
   - Define the pairing password (and pairing timeout) that will be used to pair the View Connection Server and View Security Server.
3. On the View Security Server:
   - Pair the View Security Server with the View Connection Server.
   - Enable the **Use Secure Tunnel connection to desktop** and **Use PCoIP Secure Gateway for PCoIP connections to desktop** checkboxes.
   - Enter the View Security Server's IP address for the **External URL** (e.g., **https://12.50.16.151:443**) and for the **PCoIP External URL** (e.g., **12.50.16.151:4172**). This is the WAN-facing address that remote clients can resolve. Only the port number is different for the two addresses.
4. On your firewall or router:
   - Allow both TCP and UDP traffic on port 4172, and TCP traffic on port 443.
5. From the zero client's AWI:
   - Configure the View Connection Server session connection type, and enter the DNS name or external WAN IP address of the View Security Server.

6. Start a PCoIP session.
7. If necessary, adjust bandwidth and image parameters on both the host and client to optimize performance.

For information on optimizing networks for VMware View connections, see the following Knowledge Base topics on the Teradici support site:

- PCoIP session variable settings: 15134-276
- Windows desktop experience optimization: 15134-242, 15134-880

4.5.7 Remote View Software Client to Host Card via View Security Server

The figure below shows a PCoIP session between a View software client and host card over a WAN using a View Security Server and View Connection Server pair to authenticate and connect the endpoints.

Note: All host card scenarios assume you have the PCoIP host software installed on the host PC or workstation. For details, please see "PCoIP® Host Software for Windows User Guide" (TER1008001). This scenario also assumes you have the VMware View Agent software installed on the host PC or workstation (see "Using PCoIP® Host Cards with VMware View" (TER0911004)) and a View software client installed on your client device (see VMware View documentation). Please refer to Connection Prerequisites for other conditions that must be met.

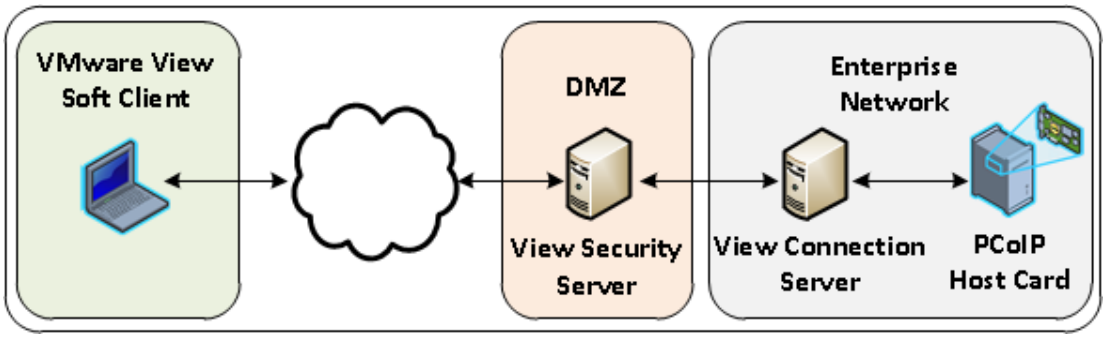


Figure 3-12: View – Soft Client to Host Card via View Security Server

To establish the connection:

Note: For more information about configuring VMware View servers, please refer to VMware View documentation.

1. On the View Connection Server:
   - Install View Agent on the host workstation.
   - Create a manual pool that is configured to support PCoIP hardware, and then add the workstation to the pool.

- Define the pairing password (and pairing timeout) that will be used to pair the View Connection Server and View Security Server.

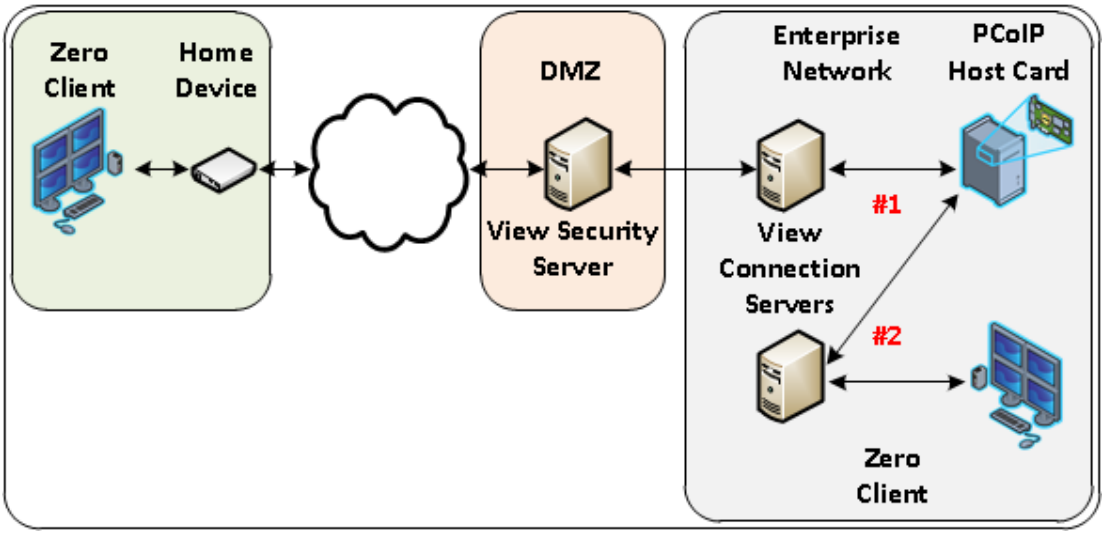
2. On the View Security Server:
   - Pair the View Security Server with the View Connection Server.
   - Enable the **Use Secure Tunnel connection to desktop** and **Use PCoIP Secure Gateway for PCoIP connections to desktop** checkboxes.
   - Enter the View Security Server's IP address for the **External URL** (e.g., **https://12.50.16.151:443**) and for the **PCoIP External URL** (e.g., **12.50.16.151:4172**). This is the WAN-facing address that remote clients can resolve. Only the port number is different for the two addresses.
3. On your firewall or router:
   - Allow both TCP and UDP traffic on port 4172 and TCP traffic on port 443.
4. From the VMware View soft client:
   - Configure the DNS name or external IP address of the View Security Server.
   - Set the desired certificate checking mode.
5. Start a PCoIP session.
6. If necessary, adjust bandwidth and image parameters on both the host and client to optimize performance.

For information on optimizing networks for VMware View connections, see the following Knowledge Base topics on the Teradici support site:

- PCoIP session variable settings: 15134-276
- Windows desktop experience optimization: 15134-242, 15134-880

4.5.8 Internal vs. External Zero Client to Host Card Connections Using View Connection Servers

To avoid limiting session bandwidth for LAN connections, it is recommended to use different View Connection Servers for internal and external connections. The scenario below shows a PCoIP session between a host card and remote zero client over a WAN (#1) and an alternative configuration for a PCoIP session between the host card and an internal zero client that is situated within the LAN (#2).



For internal and external scenarios:

- To configure the remote connection, see Remote Zero Client to Host Card via View Security Server.
- To configure the LAN connection, see Zero Client to Host Card via View Connection Server.

  Note: For details about encryption and bandwidth metrics for different types of PCoIP sessions, see Knowledge Base support topic 15134-1389 on the Teradici support site.

4.6 Performance Optimization

4.6.1 Tuning for Performance

A number of tuning options are available for optimizing PCoIP session performance:

- Windows desktop experience settings: Windows provides various desktop experience features that create enhanced visual effects for users but require significant bandwidth to deliver. You can reduce network bandwidth for a session by turning off these options.
- PCoIP session settings: Network and audio bandwidth limits, frame rate, image quality, and audio compression are PCoIP session settings that you can configure to optimize performance.
- Display factors: You can adjust the number of displays or the display resolution to save network bandwidth.

4.6.2 Configuring Windows Visual Effects

A number of visual settings in Windows require additional bandwidth to deliver. One initial step in optimizing for WAN networks is to consider turning these features off to significantly reduce the average and peak network bandwidth required.

The instructions below explain how to optimize visual settings for virtual desktops in Windows 7. Please see Microsoft documentation for how to configure these settings in other versions of Windows.

Note: For VMware View environments, you can also download "VMware View Optimization Guide for Windows 7" from the VMware Documentation website.

Setting Visual Effects to Best Performance

To configure Windows visual effects for best performance on an individual virtual machine:

1. Right-click on the desktop **Computer** icon, and then select the **Properties** menu.
2. Click the **Advanced system settings** link.
3. From the **Advanced** tab, click the **Settings** button.
4. From the **Visual Effects** tab, select the **Adjust for best performance** radio button.
5. Click the **OK** button to save settings and close the dialog.

Removing Desktop Wallpaper

To remove desktop wallpaper on an individual virtual machine:

1. From the **Start** menu, enter **gpedit.msc** in the **Search programs and files** text box to display the **Local Group Policy Editor** window.
2. Select **Computer Configuration > Administrative Templates > Windows Components > Remote Desktop Services > Remote Desktop Session Host > Remote Session Environment**.
3. Ensure that **Enforce Removal of Remote Desktop Wallpaper** is set to **Enabled**.
4. Click **OK** to save the setting and close the dialog.

Enabling Blank Screensaver

To enable a blank screensaver on an individual virtual machine:

1. From the **Start** menu, enter **gpedit.msc** in the **Search programs and files** text box to display the **Local Group Policy Editor** window.
2. Select **User Configuration > Administrative Templates > Control Panel > Personalization**.
3. Ensure that **Enable screen saver** is set to **Enabled**.
4. Click **OK** to save the setting and close the dialog.
5. Set the **Force specific screen saver** to **Enabled**, and in the **Screen saver executable name** text box, enter **scrnsave.scr**.
6. Click **OK** to save settings and close the dialog.

Changing Icon and Folder Options

To configure small icons on an individual virtual machine:

1. Right-click on the Windows desktop, and then select **View > Small icons**.
2. Right-click on the taskbar, and then select **Properties**.
3. From the Taskbar tab, select **Use small icons**.
4. Click **OK** to save the setting and close the dialog.

To change folder options on an individual virtual machine:

1. From the Control Panel, select **Folder Options**.
2. From the **View** tab, deselect all unnecessary folder options.
3. Click **OK** to save the settings and close the dialog.

4.6.3 Optimizing PCoIP Sessions

A number of PCoIP software settings are provided for configuring sessions. Some of these settings allow you to fine-tune image and audio quality, frame rate, and network bandwidth limits to maximize bandwidth savings during a session while still maintaining an optimal user experience.

For client-to-soft-host sessions (e.g., connections between clients and virtual desktops), a collection of PCoIP software session variables is available in the Windows Group Policy Editor's **Local Computer Policy\Computer Configuration\Administrative Templates\Classic Administrative Templates (ADM)\PCoIP Session Variables\Overrideable Administrator Defaults** section.

For client-to-host-card sessions, image, frame rate, and bandwidth parameters can also be configured from the MC and AWI.

PCoIP software session variables and parameters that you can use to optimize PCoIP sessions are listed below. For more information about how to optimize these settings for special use cases, see Adjusting Session Settings.

PCoIP Build-to-Lossless Feature

The PCoIP build-to-lossless feature uses a progressive build process for screen images. Under constrained network conditions, images are first displayed with reduced quality, although this may be imperceptible to users. They then build rapidly to a completely lossless state (i.e., identical pixel-for-pixel display when compared to the host image source).

The build-to-lossless feature is enabled by default. If users do not require optimal image quality to perform critical functions, this feature can be turned off to provide bandwidth savings, as explained below.

- **Client-to-soft-host sessions**: The setting to turn off build-to-lossless is enabled/disabled via the **Turn off Build-to-Lossless feature** variable in the Group Policy Editor. It applies to the soft host only. When set to **Disabled** or **Not Configured**, the build-to-lossless feature is turned on. When set to **Enabled**, the setting to turn it off becomes active only when the "I accept to turn off the Build-to-Lossless feature" option is selected. For more information, see Knowledge Base support topic 15134-869 on the Teradici support site.
- **Client-to-host-card sessions**: You can configure a device profile to enable or disable the build-to-lossless feature from the MC Image page. You can enable or disable this feature for a zero client from the client AWI Image page. If you are connecting to a host card from a soft client, you can enable or disable this feature from the host AWI Image page.

Note: Turning on the **Disable Build to Lossless** field will degrade the image presented to the user by the zero client. Do not turn on this field unless it has been determined by the administrator of the zero client that users do not require optimal image quality to perform critical functions. It is the sole responsibility of the zero client administrator to make this determination.

PCoIP Image Quality

PCoIP image quality settings interoperate to provide fine control when network bandwidth is constrained. By default, **Minimum Image Quality** is set to 50%, **Maximum Initial Image Quality** is set to 90%, and **Maximum Frame Rate** is set to 30 frames per second (fps). You can adjust these image quality values as explained below.

- **Client-to-soft-host sessions**: Use the **Configure PCoIP image quality levels** variable in the Group Policy Editor to change image quality levels from their default values. The settings apply to the soft host only, although an option is also provided to use image settings from a zero client if they are available. When set to **Disabled** or **Not Configured**, the default settings are used. When set to **Enabled**, you can adjust each of the values as explained in the Group Policy Editor help displayed beside each variable. For more information, see Knowledge Base support topic 15134-353 on the Teradici support site.
- **Client-to-host-card sessions**: You can configure a device profile with image quality settings from the MC Image page. You can configure them for an individual zero client from the client AWI Image page. If you are connecting to a host card from a soft client, you can configure a host with image quality settings from the host AWI Image page.

PCoIP Client Image Cache Size

Client-side image caching reduces bandwidth by storing previously transmitted image content on the client to avoid retransmission. The default value for this variable is 250 MB. Currently, this setting is only effective for Windows and Linux View clients when the client, View Agent, and View Connection Server release is 5.0 or later.

- **Client-to-soft-host sessions**: Use the **Configure PCoIP client image cache size policy** variable in the Group Policy Editor to adjust this setting. When set to **Disabled** or **Not Configured**, the default setting is used. When set to **Enabled**, you can adjust the cache size to a different value. For more information, see Knowledge Base support topic 15134-1039 on the Teradici support site.
- **Client-to-host-card sessions**: This setting is not available for client-to-host-card sessions.

PCoIP Audio Bandwidth Limit

The audio bandwidth limit setting specifies the maximum bandwidth that can be used for sound playback in a PCoIP session. By default, it is set to 500 kilobits per second.

- **Client-to-soft-host sessions**: Use the **Configure PCoIP session audio bandwidth limit** variable in the Group Policy Editor to change this default. The setting applies to the soft host only. Audio must be enabled on both endpoints via the **Enable/disable audio in the PCoIP session** variable before the audio bandwidth limit setting has any effect. This setting also has no effect on USB audio. When set to **Disabled** or **Not Configured**, the

default setting is used. When set to **Enabled**, you can adjust the value as explained in the Group Policy Editor help displayed beside this variable. For more information, see Knowledge Base support topic 15134-386 on the Teradici support site.

- **Client-to-host-card sessions**: This setting is not available for client-to-host-card sessions.

Maximum PCoIP Session Bandwidth

This setting specifies the maximum bandwidth, in kilobits per second, that a PCoIP session can use, including all imaging, audio, virtual channel, USB, and PCoIP control traffic. Typically, this value is set to the overall capacity minus 10% of the link to which the endpoint is connected. You can configure this value as explained below.

- **Client-to-soft-host sessions**: Use the **Configure the maximum PCoIP session bandwidth** variable in the Group Policy Editor to configure this setting for both client and soft host endpoints. If the two endpoints have different settings, the lower value is used. When set to **Disabled** or **Not Configured** on an endpoint, the endpoint imposes no bandwidth constraints. When set to **Enabled** on an endpoint, the setting is used as the endpoint's maximum bandwidth constraint. For more information, see the Group Policy Editor help displayed beside the variable and also Knowledge Base support topic 15134-351 on the Teradici support site.
- **Client-to-host-card sessions**: You can configure a device profile with a maximum session bandwidth setting from the MC Bandwidth page. You can configure setting for a zero client or host card from the device's AWI Bandwidth page.

PCoIP Session Bandwidth Floor

This setting specifies a lower limit, in kilobits per second, for the bandwidth that is reserved by the PCoIP session. The default value is 0, meaning no minimum bandwidth is reserved. You can configure this value as explained below.

- **Client-to-soft-host sessions**: Use the **Configure the PCoIP session bandwidth floor** variable in the Group Policy Editor to configure this setting for both client and soft host endpoints. (The setting affects only the endpoint on which it is configured. When set to **Disabled** or **Not Configured**, no minimum bandwidth is reserved for the endpoint. When set to **Enabled**, you can adjust the value as explained in the Group Policy Editor help displayed beside this variable. For more information, see Knowledge Base support topic 15134-350 on the Teradici support site.
- **Client-to-host-card sessions**: You can configure a device profile with a PCoIP session bandwidth floor from the MC Bandwidth page. You can configure setting for a zero client or host card from the device's AWI Bandwidth page.

4.6.4 Adjusting Session Settings

Besides limiting audio bandwidth or disabling the build-to-lossless feature to optimize performance, you may encounter bandwidth constrained environments where you want to adjust the PCoIP image quality and bandwidth settings shown in the table below.

For example, you can manipulate session bandwidth settings for finer control, or you can combine the following image quality settings for special situations:

- Lower minimum image quality (possible blurred images) plus higher maximum frame rate (smoother motion)
- Higher minimum image quality (sharper images) plus lower maximum frame rate (possible choppiness)
- Lower initial image quality (possible blurred images) plus higher maximum frame rate (smoother motion)
- Higher initial image quality (sharper images) plus lower maximum frame rate (possible choppiness)

Note: Teradici has carefully selected the default PCoIP software session values and recommends that you do not change them unless you have carefully determined the overall effect to be beneficial.

Table 3-2: PCoIP Session Settings

PCoIP Session Setting	Notes
Maximum Initial Image Quality	Limits the initial image quality of the changed regions of the display. In a limited bandwidth situation, a lower value reduces the initial image quality and decreases peak bandwidth requirement during large screen changes. A higher value increases the initial image quality and increases peak bandwidth requirement during large screen changes. Consider adjusting the maximum initial image quality before adjusting a minimum image quality or applying a bandwidth limit. The default value of 90 (percentage of fully lossless) is recommended. Values of 90 or lower best utilize the available network bandwidth. The range of possible values is 30 to 100.
Minimum Image Quality	Sets the lower limit of quality for images. In a limited bandwidth situation, a lower value allows a higher frame rate for smooth motion (to provide less jitter), but with lower image quality. A higher value gives crisp imaging, but with image motion that is less smooth. The default value of 50 (percentage of fully lossless) is recommended. The range of possible values is 30 to 100. Note: the minimum image quality must be set to a value lower than that of the maximum initial image quality.
Maximum Frame Rate	Manages the average bandwidth consumed per user by limiting the number of screen updates per second. A higher frame rate allows smoother display imaging motion (to provide less jitter), but with possible increased average network bandwidth. A lower frame rate results in lower average network bandwidth, but with image motion that is less smooth. The default value of 30 (frames per second) is recommended. The range of possible values is 1 to 120.

PCoIP Session Setting	Notes
Maximum PCoIP Session Bandwidth	Constrains the maximum link rate in a PCoIP session. Setting this value prevents a single user from consuming too much bandwidth, and prevents the server from attempting to transmit at a higher rate than the link capacity, which would cause excessive packet loss. This setting applies to both server and client. If the two endpoints have different settings, the lower value is used. The default value is 90,000 kilobits per second.
PCoIP Session Bandwidth Floor	Specifies a lower limit for the bandwidth reserved for each PCoIP session. The actual session bandwidth can be below this floor if the minimum amount configured is not needed. No default value is set. The range of possible values is 0 to 100, 000 Kbps.
PCoIP Client Image Cache Size	Controls the size of the PCoIP View client image cache. A larger cache size reduces bandwidth usage but requires more memory on the client. A small cache size requires more bandwidth usage. The default value is 250 MB. The range of possible values is 50 to 300 MB.

Troubleshooting Scenarios

The following scenarios provide examples of how to adjust these PCoIP session settings for some common use cases.

Scenario 1: Occasional Network Congestion

In this scenario, network congestion causes occasional degraded user experience. An analysis of the link shows periodic spikes in b andwidth that consume the available link bandwidth or the bandwidth assigned to PCoIP traffic. Network traffic during these spikes is roughly distributed across all active users, who notice a momentary degradation in their desktop experience.

Assumptions:

- T1 line with 4 active users.
- Basic office productivity applications (no video or 3D graphics)

Recommendations:

- Optimize Windows desktop settings.
- Reduce the maximum initial image quality (e.g., to 70%).

Result: Users maintain an acceptable desktop experience even during spikes in bandwidth.

Scenario 2: Occasional Network Congestion Caused by Small Number of Users

In this scenario, occasional network congestion causes occasional degraded user experience when a small number of users consume 3 or 4 Mbps. (This could happen if these users are watching video even though it was not planned for.)

Assumptions:

- 6 Mbps link with 20 active users.
- Basic office productivity applications.

Recommendations:

- Optimize Windows desktop settings.
- Adjust the maximum PCoIP session bandwidth for all users on the network link to limit how much any one user can consume (e.g., to 1000 Kbps).
- Set the PCoIP bandwidth floor per user to 240 Kbps to ensure a baseline performance for the users during a congestion event.
- If users still notice occasional degradation, consider reducing the maximum initial image quality (e.g., to 70%) and increasing the minimum image quality (e.g., to 60%).

Result: Users maintain an acceptable desktop experience even when a few users cause spikes in bandwidth.

4.6.5 Reducing Display Factors

The network bandwidth used by a PCoIP session is related to the number of display pixels that are changing on the screen at a given moment. To reduce overall PCoIP session bandwidth:

- Reduce the number of displays for a user. Multiple displays will increase the burst network requirements for the PCoIP session at time where there are large changes on both screens at once.
- Reduce the display resolution to lower the number of pixels that can change on the screen.

For more information about reducing display factors to optimize bandwidth, please see Knowledge Base support topic 15134-436 on the Teradici support site.

4.7 Network Design

4.7.1 Network Bandwidth Planning

Network requirements for WAN access can vary greatly depending on network parameters, application graphical requirements, and user demands. To ensure a responsive desktop, the PCoIP protocol must be deployed across a properly architected network infrastructure that meets bandwidth, latency, jitter, and packet loss requirements. Because end user perception differs, it is also important to consider the following:

- Graphic intensity of the typical user (e.g., forms pages or 3D viewer)
- Importance of image quality to user (e.g., administrative worker or artist)
- Amount of interactivity vs. static viewing
- Degree of increased bandwidth that may be necessary to satisfy more demanding users

The following are some typical minimum bandwidth metrics for simultaneous access for office productivity users using virtual desktops. Please use these metrics only as a starting point for more detailed bandwidth planning and testing. In general, plan for less than an 80% network utilization on the link.

- **Average bandwidth**: 100 to 150 Kbps for typical office applications (no video or 3D graphics), and default Windows and VMware settings.
- **Optimized average bandwidth**: 50 to 100 Kbps for typical office applications (no video or 3D graphics), with Windows desktop optimization and PCoIP session optimization.
- **Average bandwidth (enhanced)**: 400 to 600 Kbps for typical office applications plus multiple monitors, 3D, and default Windows and VMware settings.
- **Peak bandwidth**: 500 Kbps to 1 Mbps minimum peak bandwidth to provide headroom for bursts of display changes. In general, you can size your network using the average bandwidth, but you also need to consider peak bandwidth to accommodate bursts of imaging traffic associated with large screen changes.
- **Video bandwidth**: 2 Mbps per simultaneous user running 480p (progressive scan) video, depending on the configured frame rate limit and video type.

Note: 50 to 150 Kbps per user is based on the assumption that all users are operating continuously and performing similar tasks over an 8- to 10-hour day. However, some users may be fairly inactive and consume almost no bandwidth, allowing more users per link.

Example Scenarios

The following examples show how to calculate user density for different use cases.

1.5 Mbps T1 Link (Basic Office Productivity)

This scenario is suitable for users with basic office productivity applications (i.e., no video or 3D graphics, and keyboard/mouse traffic only). It assumes the following:

- The required bandwidth per user is from 50 to 150 Kbps.
- The T1 network capacity is 1.5 Mbps.
- The bandwidth utilization is 80%.

Worst case (users require 150 Kbps):

(1.5 Mbps * 0.8) / 150 Kbps = (1500 * 0.8) / 150 = 8 users

Best case (users require 50 Kbps):

(1.5 Mbps * 0.8) / 50 Kbps = (1500 * 0.8) / 50 = 24 users

Result:

Between 8 and 24 concurrent users per T1 line with 1.5 Mbps capacity can be accommodated, but optimization of Windows desktop and PCoIP session settings may be required to achieve this user density.

10 Mbps Link (Occasional Multimedia)

In this scenario, a single user who occasionally watches 480p video shares the network link with other users who have basic office productivity virtual desktops ((i.e., no video or 3D graphics, and keyboard/mouse traffic only). This example assumes the following:

- The bandwidth required for the single 480p video viewer is 2 Mbps.
- The bandwidth required per typical office user is from 50 to 150 Kbps.
- The network capacity is 10 Mbps.

- The bandwidth utilization is 80%.
- The following optimizations are applied:
  - Windows desktop settings are optimized.
  - The maximum bandwidth limit is set to 5 Mbps. (This limit is set so that one user cannot consume all 10 Mbps of bandwidth.)
  - The maximum initial image quality is set to 70%.
  - The frame rate limit is set to 12 frames per second (fps).

Because the bandwidth utilization factor is 0.8, you need to set aside 2.5 Mbps (2 Mbps / 0.8 utilization factor = 2.5 Mbps) for the video user, and then divide the remaining bandwidth (10 Mbps - 2.5 Mbps = 7.5 Mbps) for the other office users.

Worst case (office users require 150 Kbps per user):

(7.5 Mbps * 0.8) / 150 Kbps = (7500 *0.8) / 150 = 6000 / 150 = 40 users

Best case (office users require 50 Kbps per user):

(7.5 Mbps * 0.8) / 50 Kbps = (7500 * 0.8) / 50 = 6000 / 50 = 120 users

Result:

Between 40 and 120 typical office users can share a 10 Mbps network line with one video user if the frame rate is set at 12 fps so that the video user consumes 2 Mbps bandwidth. (The frame rate of 12 fps is built into the estimated 2 Mbps bandwidth utilization for the video user.)

10 Mbps (Occasional Multimedia with Lower Frame Rate)

This scenario is similar to the previous one except the frame rate limit is set to 8 fps instead of 12 fps. All other assumptions are the same. With the lower frame rate limit, the bandwidth required for the single 480p video user drops from 2 Mbps to 1.5 Mbps. Because the bandwidth utilization factor is 0.8, you need to set aside 1.875 Mbps (1.5 Mbps / 0.8 utilization factor = 1.875 Mbps) for the video user, and then divide the remaining bandwidth (10 Mbps - 1.875 Mbps = 8.125 Mbps) for the other office users.

Worst case (office users require 150 Kbps per user):

(8.125 Mbps * 0.8) / 150 Kbps = (8125 *0.8) / 150 = 6500 / 150 = 43 users

Best case (office users require 50 Kbps per user):

(8.125 Mbps * 0.8) / 50 Kbps = (8125 * 0.8) / 50 = 6500 / 50 = 130 users

Result:

Between 43 and 130 typical office users can share a 10 Mbps network line with one video user if the frame rate is set at 8 fps so that the video user consumes 1.5 Mbps bandwidth. (The frame rate of 8 fps is built into the estimated 1.5 Mbps bandwidth utilization for the video user.)

4.7.2 Network Configuration

When configuring your network, here are some important guidelines:

- Ensure that you use a full-duplex, end-to-end network link. Older switches may incorrectly default to half-duplex when connected to a link with auto-negotiation. If this happens, you must explicitly set the switch link to full-duplex.
- Confirm network connectivity. If you are using VMware View, also confirm that sufficient bandwidth is available between the View Connection Server, View Administrator, and the PCoIP client.
- Ensure that PCoIP packets are not fragmented at any point in the network path. To do this, check that the maximum transmission unit (MTU) for the switches/routers in the network path is not below the PCoIP packet MTU size. If it is, consider increasing the switch/router MTU.

  Note: You can also adjust the PCoIP packet MTU to a value between 600 and 1500 bytes (default is 1400 bytes). However, this is a less desirable option than increasing the switch/router MTU because a lower MTU size can have a negative impact on desktop performance.
- Consider segmenting PCoIP traffic using quality of service (QoS) technologies, such as IP Quality of Service (QoS) Differentiated Services Code Point (DSCP), layer-2 Class of Service (CoS), or virtual LAN (VLAN) architecture.
- If a VPN is used for WAN scenarios, ensure that it is an IPsec VPN. PCoIP traffic cannot be routed through TCP-based SSL tunnels. If possible, use a security gateway solution rather than a VPN for WAN access.
- Currently WAN accelerator network devices are not compatible with PCoIP traffic, which already has many WAN optimization features. In the future, PCoIP-enabled WAN accelerators may become available.

4.7.3 Network Latency and Jitter

Network congestion and traffic shaping with deep packet buffers can cause high packet latency, which the PCoIP protocol may consider as lost packets. It is therefore important to perform a thorough assessment of active application traffic across the end-to-end network to ensure that sufficient bandwidth is available for PCoIP traffic, even with network congestion.

Here are some guidelines for latency and jitter:

- In a VMware View environment, ensure that the round trip network latency is less than 250 ms.
- Ensure guaranteed network bandwidth for PCoIP traffic during congestion. In general, set PCoIP traffic to have 80% of the remaining bandwidth after the higher priority traffic is allocated. For example, consider a network that guarantees 20% of a link bandwidth for critical traffic, such as VoIP. PCoIP traffic should be set to receive 80% of the remaining bandwidth, i.e., 64%. This lets other protocols (e.g., file transfers or web traffic) some traffic without starving the PCoIP sessions.
- Ensure that buffers in routers/switches are set to minimize latency (e.g, to absorb 50 to 100 ms of PCoIP packet traffic). If a service provider cannot reduce the buffer depths in all routers in the network path, consider applying traffic shaping policies in the customer edge (CE) router or the service provide edge (PE) router.

- Allow PCoIP traffic to burst when network bandwidth is available (i.e., do not set a hard limit on PCoIP traffic as a percentage of the link rate).
- Ensure sufficient priority for PCoIP traffic while taking into consideration the interactive, real-time nature of the protocol—e.g., assign a priority to PCoIP traffic that is above standard TCP traffic but below Voice-over-IP (VoIP).
- If traffic shapers are employed, use them in conjunction with a scheduling queue, and assign high priority to this queue based on the CoS value set for PCoIP traffic (i.e., class-based weighted fair queueing).
- To reduce packet latency further, configure priority queueing for low latency traffic (also known as low latency queueing).
- Configure congestion avoidance policies to use weighted random early detection (WRED) for PCoIP traffic.
- In a VMware View environment, ensure that the ESX traffic shaper is turned off.

Note: Periodic excessive latency is an indication that traffic shaping with deep packet buffers is impacting PCoIP packet delivery during periods of congestion.

Note: If network logs show no packet loss but VMware View and/or PCoIP zero client logs do, this indicates either packets with high latency or packets that are sufficiently out of order to be considered lost.

4.7.4 Network Packet Loss

Although the PCoIP protocol is tolerant of a reasonable amount of packet loss, it should be minimized as much as possible to ensure the real-time delivery of a rich desktop experience.

Potential sources of packet loss include the following:

- Network congestion triggering congestion avoidance algorithms. While this is expected behavior when congestion avoidance policies are configured, excessive packet loss due to congestion is an indication that additional optimization is required to increase available brandwidth or to reduce PCoIP traffic.
- PCoIP packets that arrive with a high latency due to network congestion may be considered as lost packets by VMware View.
- PCoIP packets that arrive sufficiently out of order may be considered as lost packets by VMware View. Be sure to minimize packet reordering in the network.

Note: If network logs show no packet loss but VMware View and/or PCoIP zero client logs do, this indicates either packets with high latency or packets that are sufficiently out of order to be considered lost.

Packet Loss Resolution Options

The following table shows the resolution options to consider when you experience significant packet loss.

Description	Resolution Options
Significant packet loss due to congestion (e.g., WRED being triggered)	• Optimize Windows visual settings. • Optimize PCoIP software session settings. • Increase priority of PCoIP traffic. • Increase the amount of bandwidth assigned to PCoIP traffic. • Increase the link bandwidth.
Packets considered lost by VMware View due to high latency packet delivery	• Optimize Windows visual settings. • Optimize PCoIP session variables. • Minimize the packet buffer depth in all switches/routers. • Increase priority of PCoIP traffic. • Increase the amount of bandwidth assigned to PCoIP traffic.Increase the link bandwidth.
Packets considered lost by VMware View due to sufficiently out-of-order packets.	• Optimize Windows visual settings. • Optimize PCoIP software session settings. • Minimize packet reordering in the network.

4.7.5 WAN Testing Guidelines

Consider the following guidelines when testing PCoIP implementations where clients connect to virtual desktops over a WAN:

- Test real workloads with multiple users who are actively sharing the link. Single-user bandwidth tests are invalid since the PCoIP protocol will take as much bandwidth as possible unless it is constrained by configuration or by network conditions. When constrained, the PCoIP protocol fairly shares bandwidth with other PCoIP protocol users.
- Do not try to simulate desktop performance by limiting a single session. This is also an invalid test.
- Do not use random packet loss to emulate network packet loss (e.g., using free WAN emulation tools to randomly drop packets). In real networks, random packet loss is rare and due to poor network link quality, which is typically repaired by service providers when it occurs. Random packet loss causes the PCoIP protocol to continually lower display quality and frame rate until the minimum quality floor is hit. More sophisticated WAN emulation tools that incorporate intelligent packet loss algorithms should be used.
- Do not rely on video playback to be representative of real application user performance.
- Test real web sites that users go to, not just sites that support Windows media.
- Test with the client devices you plan to purchase.
- Multimedia redirection (MMR) offloads the execution of multimedia content to a capable client, and can make certain videos look better. However, the same performance improvement is not realized with media formats that are not supported by MMR (e.g., HTML5, WebM). Turn MMR off to test performance without this feature.

4.8 Security Considerations

4.8.1 PCoIP Zero Client Security Overview

PCoIP zero clients are ultra-secure, easy to manage devices that offer a rich user experience. Based on the TERA chipset by Teradici, they are available in a variety of form factors from a number of trusted OEMs. For example, PCoIP zero clients can be standalone desktop devices, integrated monitors, touch screen displays, and IP phones. With embedded hardware support for PCoIP and no local storage, they are the most trusted client wherever security and performance are critical.

Data Control

When control and lockdown of sensitive data are a primary objective, PCoIP zero clients enable an environment where no application data ever leaves the data center. The virtual machine sends only encrypted PCoIP data to the client. PCoIP zero clients have no local storage, and no sensitive application data is ever processed or stored on the client.

Zero clients also have many security-related settings that are frequently used in high security deployments.

User Authentication

PCoIP zero clients support a number of third-party, hardware-based, user authentication methods including the following:

- SIPR hardware tokens
- Common Access Card (CAC) and Personal Identity Verfication (PIV) smart cards
- SafeNet eToken
- RSA SecurID
- Proximity cards (Imprivata)

For a complete list of supported authentication methods, see Knowledge Base support topic 15134-299 on the Teradici support site.

Encryption

PCoIP zero clients support the following encryption types.

Session negotiation security:

- TLS 1.0 with AES-128-CBC-SHA
- TLS 1.0 with AES-256-CBC-SHA
- Suite B (in hardware host environments only)

Session security:

- AES-128-GCM
- AES-256-GCM
- Salsa20-256-Round12

Zero clients themselves also employ encryption to ensure that information is protected. In the media stream, all media data is encrypted as it moves from the server to the client. This includes display data, USB data, and audio network traffic. In the management channel, all management data is encrypted.

802.1x Network Authentication

PCoIP zero clients support 802.1x network device authentication using EAP-TLS certificates. With 802.1x network authentication, all network end devices must be authenticated before they are granted access to the network. This is a typical method of device authentication for high security environments, providing an additional layer of security beyond username and password credentials.

See Configuring 802.1x Network Device Authentication in the "How To" section for instructions on how to configure zero clients for this type of authentication.

4.8.2 Security Settings Checklist

The table below provides a list of zero client security settings that are frequently used in high security deployments. Your network administrator or your security advisor must determine whether these settings are appropriate for your own network environment.

The links in the **Configuration Category** column below take you to the Management Console page where you can configure the setting for a zero client profile. For instructions on how to enable and configure a setting, see MC Manage Profiles Page.

Note: Many of these settings can also be configured through the AWI or OSD.

Zero Client MC Security Settings

Table 3-3: PCoIP Zero Client Security Settings Checklist

Configuration Category	Setting Name	Setting
Network Configuration	Enable SNMP	False
Discovery Configuration	Enable SLP Discovery	False
Session Configuration	Session Connection Type	PCoIP Connection Manager or View Connection Server
	Enable View Connection Server SSL	True Note: This setting only applies to devices with firmware versions prior to 4.0.0. From 4.0.0 on, SSL communication is always used.
	Certificate Check Mode	Reject the unverifiable connection (Secure)

Configuration Category	Setting Name	Setting
	Certificate Check Lockout Mode	Locked
	Clear Trusted Connection Server Cache	Clear Cache
	Connection Server Cache Mode	Last servers used
	Connection Server Cache Entry (1-25)	Enter the allowed PCoIP Connection Manager or View Connection Server address (es)
	Enable Login Username Caching	False
Encryption Configuration	Session Negotiation Security Level	Maximum Compatibility - in software or mixed host environments Suite B - in hardware-only host card environments
	T2 Enable AES-128-GCM	True
	T2 Enable AES-256-GCM	True
	T1 Enable AES-128-GCM	True
	T1 Enable Salsa20-256-Round12	True - in software or mixed host environments False - in hardware-only host card environments
OSD Configuration	Hidden Menu Entries	Hide menus (as desired)
Time Configuration	NTP Server Hostname	<NTP server address>
Security Configuration	Password	Create a password in accordance with the local security policy
	Enable Password Protection	True. This enables password protection for the AWI and the OSD.
	Enable Web Interface	False (disable the web UI if desired)
	Enable Hotkey Parameter Reset	False

Configuration Category	Setting Name	Setting
	Enable 802.1x Security	True
	Enable 802.1x Authentication Identity	Enter the username configured for the 802.1x authentication.
Profile Zero Client USB Authorization /Unauthorization	Example: To allow USB access to HID devices only, click **Add New** and configure these settings:	**Authorized**: Rule Type: **Class** Device Class: **Human Interface Device** Sub Class: **Any** Protocol: **Any** **Unauthorized**: No unauthorization rules. Delete any existing rules. When there are no rules, the MC displays two radio buttons on the **Manage Profiles** page. Select **Erase the device's existing USB unauthorizations and replace them with an empty set**.
	Example: To allow USB access to all devices except mass storage, click **Add New** and configure these settings.	**Authorized**: Rule Type: **Class** Device Class: **Any** Sub Class: **Any** Protocol: **Any** **Unauthorized**: Rule Type: **Class** Device Class: **Mass Storage** Sub Class: **Any** Protocol: **Any**
Certificate Store		VCS certificate issuer (root or intermediate) or VCS certificate. Note that SSL certificates are required in VMware View 5.1 and newer versions. If SSL is turned off in firmware version FW4.0 and older, passwords are sent unencrypted over the network.

Zero Client Smart Card/Hardware Token Configuration

Typically, no configuration is required on the zero client side for the following:

- CAC and PIV smart card user authentication
- SIPR hardware token user authentication

However, for CAC cards that support both the modern PIV and the old-style CAC (GSC-IS) command sets, administrators may want to enable the **Prefer GSC-IS over PIV Endpoint**

checkbox in the MC, AWI, and OSD **View Connection Server** and **View Connection Server + Imprivata Onesign** windows.

5 GUI Reference

5.1 Initial Setup

5.1.1 AWI Host: Initial Setup Page

You can display this page from the **Configuration > Initial Setup** menu.

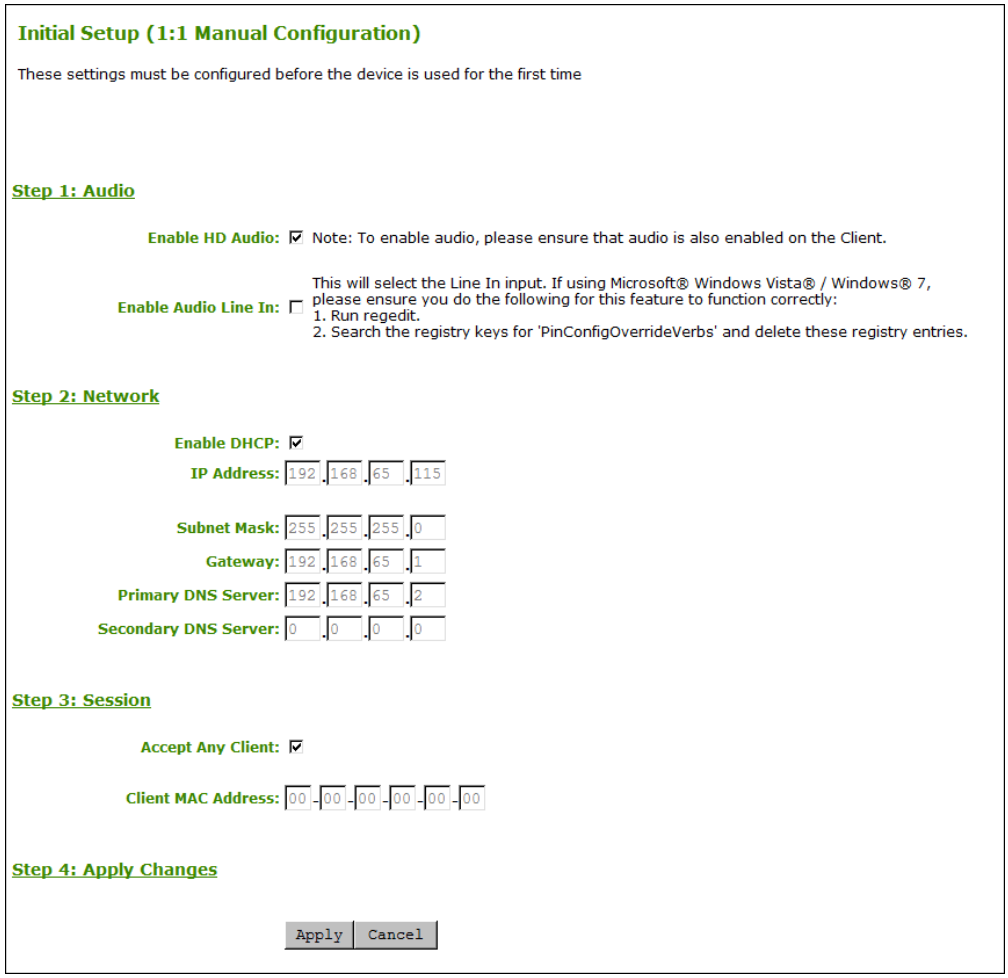


Figure 4-1: AWI Host Initial Setup Page

Table 4-1: Audio Parameters

Parameter	Description
Enable HD Audio	Enables audio support on the host or client.

Parameter	Description
Enable Microsoft® Windows Vista® 64-bit Mode	Enables 64-bit mode on the host. This mode should only be used for Windows Vista 64-bit and Windows 7® 64-bit versions to ensure audio works correctly. Note: Enabling 64-bit mode is not required for Linux, Windows 7® 32-bit, Windows Vista 32-bit, or Windows XP (32-bit or 64-bit).
Enable Audio Line In	**Enable:** Use the line-in connector found on the client. **Disable:** Use the line-in connector as a microphone input. Follow the onscreen instructions if you have Windows Vista or Windows 7 installed on the device.

Table 4-2: Network Parameters

Parameter	Description
Enable DHCP	Enables DHCP (as opposed to using manual IP address configuration)
IP Address	Device's IP address
Subnet Mask	Device's subnet mask
Gateway	Device's gateway IP address
Primary DNS Server	Device's primary DNS IP address
Secondary DNS Server	Device's secondary DNS IP address

Table 4-3: Session Parameters

Parameter	Description
Accept Any Client	Lets the host accept any client for a PCoIP session.
Client MAC Address	Lets you specify the client MAC address for a PCoIP session. Note: You cannot set the client MAC address to 00-00-00-00-00-00.

5.1.2 AWI Client: Initial Setup Page

You can display this page from the **Configuration > Initial Setup** menu.

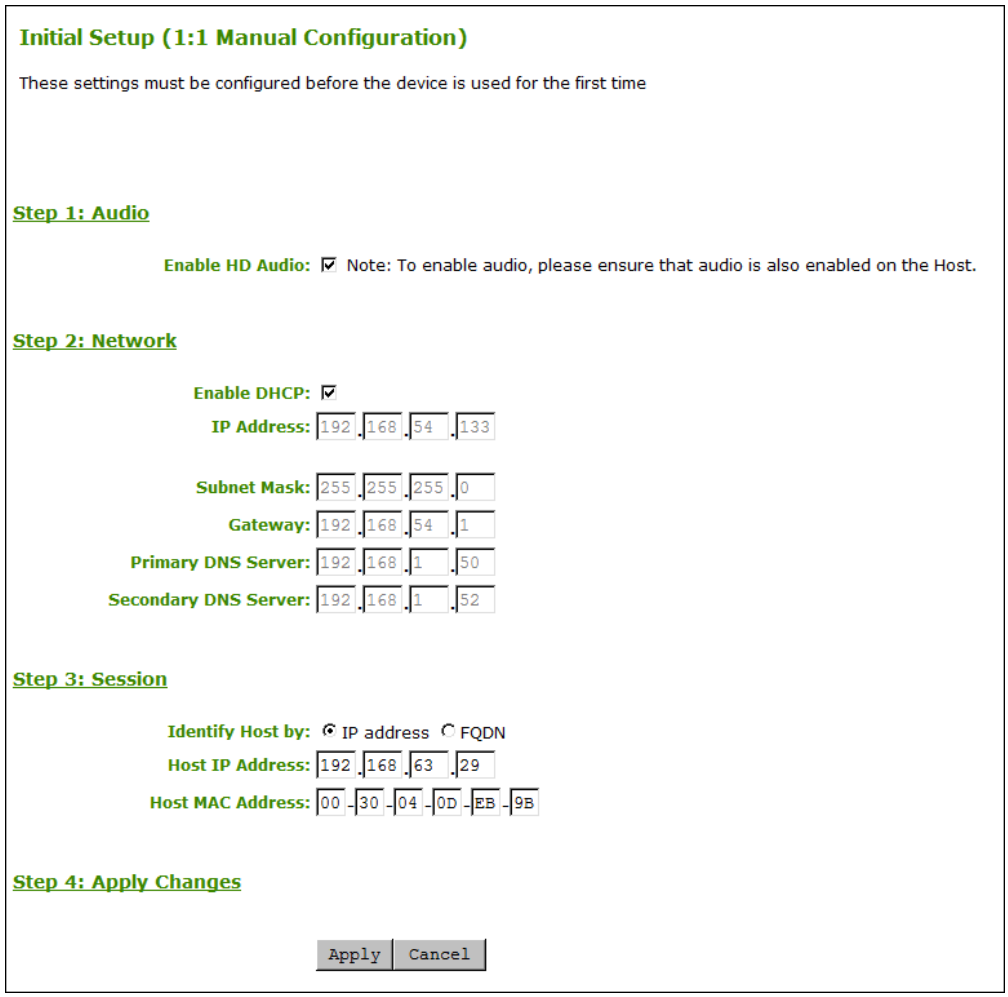


Figure 4-2: AWI Client Initial Setup Page

Table 4-4: Audio Parameters

Parameter	Description
Enable HD Audio	Enables audio support on the host or client.

Table 4-5: Network Parameters

Parameter	Description
Enable DHCP	Enables DHCP (as opposed to using manual IP address configuration)
IP Address	Device's IP address
Subnet Mask	Device's subnet mask

Parameter	Description
Gateway	Device's gateway IP address
Primary DNS Server	Device's primary DNS IP address
Secondary DNS Server	Device's secondary DNS IP address

Table 4-6: Session Parameters

Parameter	Description
Identify Host By	Specifies the host identify method
Host IP Address	Specifies the host IP address
Host MAC Address	Specifies the host MAC address. You can set the host MAC address to 00-00-00-00-00-00 to ignore this field when a session starts.

Note: When host discovery or connection management is configured on the client, you cannot modify the client session parameters. A message appears on the **Initial Setup Client** page instead of the session parameters.

5.2 Configuring the Network

5.2.1 MC: Network Settings

The settings on this page let you configure a profile with the Dynamic Host Configuration Protocol (DHCP), Maximum Transmission Unit (MTU), and Simple Network Managment Protocol parameters.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

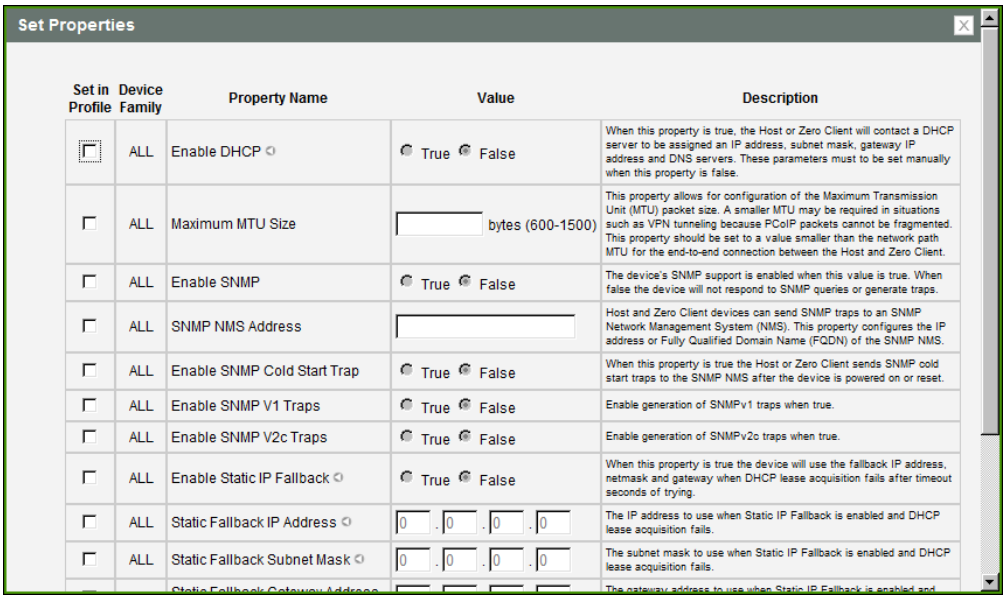


Figure 4-3: MC Network Configuration

Table 4-7: MC Network Configuration Parameters

Parameter	Description
Enable DHCP	When enabled, the device contacts a DHCP server to be assigned an IP address, subnet mask, gateway IP address, and DNS servers, and also requests a domain name (option 15), host name (option 12), and client fully qualified domain name (FQDN). When disabled, you must set these parameters manually. Note: For MC discovery, the device also requests vendor class options 60/43. Note: This property requires a device restart after being changed.
Maximum MTU Size	Lets you configure the **Maximum Transfer Unit** packet size. A smaller MTU may be needed for situations such as VPN tunneling because PCoIP packets cannot be fragmented. Set the **Maximum MTU Size** to a value smaller than the network path MTU for the end-to-end connection between the host and client. The **Maximum MTU Size** range is 600 to 1500 bytes for all firmware versions. Note: The default MTU is 1400 for sessions between PCoIP zero clients and PCoIP host cards. The default MTU is 1300 for sessions with PCoIP software (in the host or client) such as VMware View.
Enable SNMP	When enabled, the device enables the PCoIP SNMP agent to respond to SNMP requests. Disabling the SNMP agent prevents it from responding to SNMP requests and from generating traps. It also ensures that the PCoIP SNMP MIB cannot be accessed.

Parameter	Description
SNMP NMS Address	If you want the device to send SNMP traps to an SNMP Network Management System (NMS), enter the IP address or fully qualified domain name (FQDN) of the SNMP NMS.
Enable SNMP Cold Start Trap	When enabled, the device sends SNMP cold start traps to the SNMP NMS after the device is powered on or reset.
Enable SNMP V1 Traps	When enabled, allows generation of SNMPv1 traps.
Enable SNMP V2c Traps	When enabled, allows generation of SNMPv2c traps.
Enable Static IP Fallback	When enabled, the device will use the fallback IP address, netmask and gateway when DHCP lease acquisition fails after timeout seconds of trying. Note: This property requires a device restart after being changed.
Static Fallback IP Address	Configures the IP address to use when **Static IP Fallback** is enabled and DHCP lease acquisition fails. Note: This property requires a device restart after being changed.
Static Fallback Subnet Mask	Configures the subnet mask to use when **Static IP Fallback** is enabled and DHCP lease acquisition fails. Note: This property requires a device restart after being changed.
Static Fallback Gateway Address	Configures the gateway address to use when **Static IP Fallback** is enabled and DHCP lease acquisition fails. Note: This property requires a device restart after being changed.
Static Fallback Timeout	Configures the amount of time in seconds the device will attempt to acquire a DHCP lease before using the fallback address configuration. You must enter a value greater than or equal to 60. Note: It may take up to 30 seconds longer than this value for the fallback configuration to become active. Note: This property requires a device restart after being changed.
SNMP Community Name	Configures the SNMP community name used by the device.

5.2.2 AWI: Network Settings

This page lets you configure network settings for the host or client. You can display this page from the **Configuration > Network** menu. After you update the parameters on this page, click **Apply** to save your changes.

Note: You can also configure network information from the host's **Initial Setup** page and the client's **Initial Setup** page.

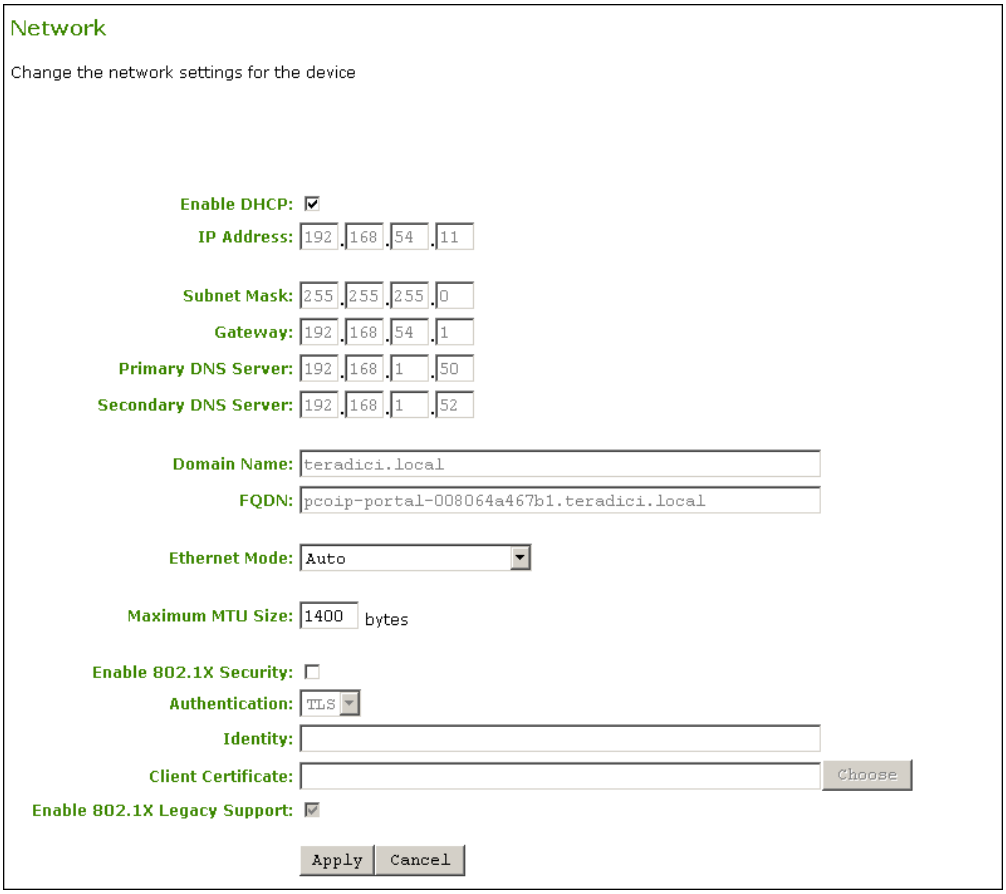


Figure 4-4: AWI Network Page

Table 4-8: AWI Network Page Parameters

Parameter	Description
Enable DHCP	When enabled, the device contacts a DHCP server to be assigned an IP address, subnet mask, gateway IP address, and DNS servers, and also requests a domain name (option 15), host name (option 12), and client fully qualified domain name (FQDN). When disabled, you must set these parameters manually.
IP Address	The device's IP address. If DHCP is disabled, you must set this field to a valid IP address. If DHCP is enabled, you cannot edit this field.
Subnet Mask	The device's subnet mask. If DHCP is disabled, you must set this field to a valid subnet mask. If DHCP is enabled, you cannot edit this field. Warning: It is possible to configure an illegal IP address/subnet mask combination (e.g., invalid mask) that leaves the device unreachable. Take care when setting the subnet mask.
Gateway	The device's gateway IP address. If DHCP is disabled, this field is required. If DHCP is enabled, you cannot edit this field.

Parameter	Description
Primary DNS Server	The device's primary DNS IP address. This field is optional. If the DNS server IP address is configured when using a connection manager, the connection manager address may be set as an FQDN instead of an IP address.
Secondary DNS Server	The device's secondary DNS IP address. This field is optional. If the DNS server IP address is configured when using a connection manager, the connection manager address may be set as an FQDN instead of an IP address.
Domain Name	The domain named of the host or client (e.g., "domain.local"). This field is optional.
FQDN	The fully qualified domain name for the host or client. The default is pcoip-host-<MAC> or pcoip-portal-<MAC> where <MAC> is the host or client's MAC address. If used, the domain name is appended (for example, pcoip-host-<MAC>.domain.local). This field is read-only on this page. Note: To use the FQDN feature, the DNS server with DHCP option 81 must be available and properly configured.
Ethernet Mode	Lets you configure the Ethernet mode of the host or client as follows: • **Auto** • **100 Mbps Full-Duplex** • **10 Mbps Full-Duplex** When you choose **10 Mbps Full Duplex** or **100 Mbps Full-Duplex** and then click **Apply**, the following warning message appears: "Warning: When Auto-Negotiation is disabled on the PCoIP device, it must also be disabled on the switch. Additionally, the PCoIP device and switch must be configured to use the same speed and duplex parameters. Different parameters may result in a loss of network connectivity. Are you sure you want to continue?" Click **OK** to change the parameter. Note: You should always set the Ethernet mode to **Auto** and only use **10 Mbps Full-Duplex** or **100 Mbps Full-Duplex** when the other network equipment (e.g., a switch) is also configured to operate at 10 Mbps full-duplex or 100 Mbps full-duplex. An improperly set Ethernet mode may result in the network operating at half-duplex, which is not supported by the PCoIP protocol. The session will be severely degraded and eventually dropped.

Parameter	Description
Maximum MTU Size	Lets you configure the **Maximum Transfer Unit** packet size. A smaller MTU may be needed for situations such as VPN tunneling because PCoIP packets cannot be fragmented. Set the **Maximum MTU Size** to a value smaller than the network path MTU for the end-to-end connection between the host and client. The **Maximum MTU Size** range is 600 to 1500 bytes for all firmware versions. Note: The default MTU is 1400 for sessions between PCoIP zero clients and PCoIP host cards. The default MTU is 1300 for sessions with PCoIP software (in the host or client) such as VMware View.
Enable 802.1X Security	Enable this field for each of your host cards and zero clients if your network uses 802.1x security to ensure that only authorized devices access the network. If enabled, configure the **Authentication**, **Identity**, and **Client Certificate** fields.
Authentication	This field is set to TLS (Transport Layer Security) and is grayed-out. TLS is currently the only authentication protocol supported.
Identity	Enter the identity string used to identify your device to the network.
Client Certificate	Click **Choose** to select the client certificate you want to use for your 802.1x devices. The list of certificates that appears includes the certificates uploaded from the **Certificate Upload** page that contain a private key. The certificate you choose from the **Network** page is linked to the read-only **Client Certificate** field on the **Certificate Upload** page. Note: PCoIP only supports one 802.1x client certificate. Ensure your security details are all contained within the one file. The 802.1x certificate must contain a private key.
Enable 802.1X Legacy Support	When enabled, allows greater 802.1x compatability for older switches on the network.

5.2.3 OSD: Network Settings

This page lets you configure network settings for the client. You can display this page from the **Options > Configuration > Network** menu. After you update the parameters on this page, click **Apply** to save your changes.

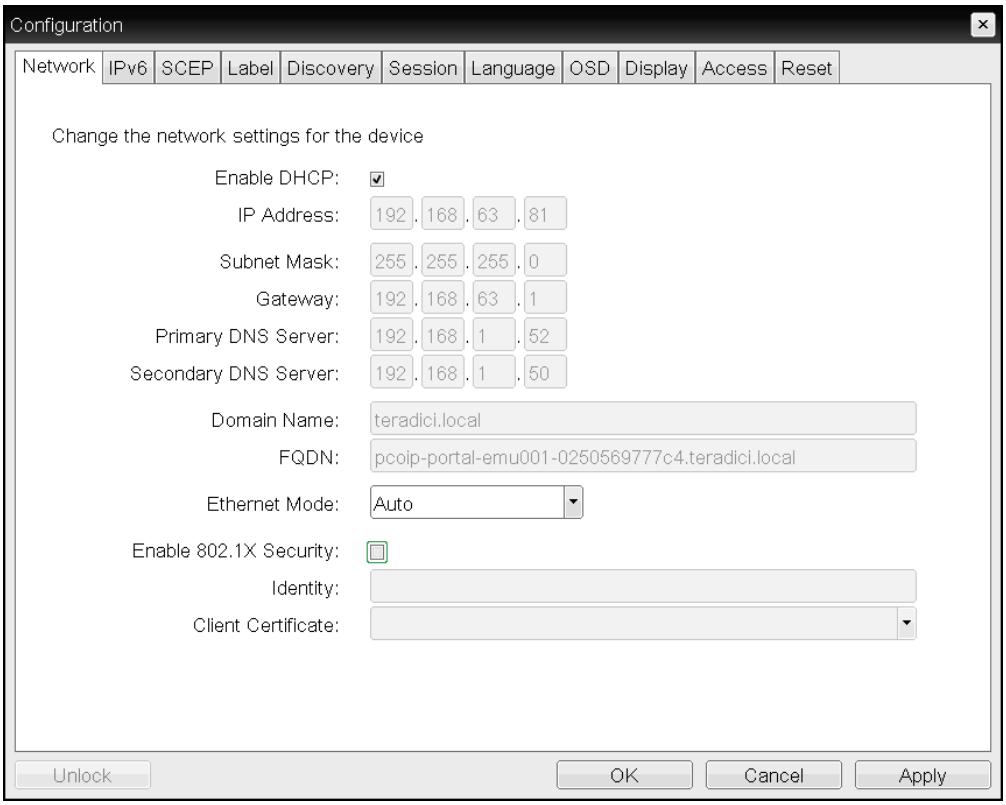


Figure 4-5: OSD Network Page

Table 4-9: OSD Network Page Parameters

Parameter	Description
Enable DHCP	When enabled, the device contacts a DHCP server to be assigned an IP address, subnet mask, gateway IP address, and DNS servers, and also requests a domain name (option 15), host name (option 12), and client fully qualified domain name (FQDN). When disabled, you must set these parameters manually.
IP Address	The device's IP address. If DHCP is disabled, you must set this field to a valid IP address. If DHCP is enabled, you cannot edit this field.
Subnet Mask	The device's subnet mask. If DHCP is disabled, you must set this field to a valid subnet mask. If DHCP is enabled, you cannot edit this field. Warning: It is possible to configure an illegal IP address/subnet mask combination (e.g., invalid mask) that leaves the device unreachable. Take care when setting the subnet mask.
Gateway	The device's gateway IP address. If DHCP is disabled, this field is required. If DHCP is enabled, you cannot edit this field.

Parameter	Description
Primary DNS Server	The device's primary DNS IP address. This field is optional. If the DNS server IP address is configured when using a connection manager, the connection manager address may be set as an FQDN instead of an IP address.
Secondary DNS Server	The device's secondary DNS IP address. This field is optional. If the DNS server IP address is configured when using a connection manager, the connection manager address may be set as an FQDN instead of an IP address.
Domain Name	The domain named of the host or client (e.g., "domain.local"). This field is optional.
FQDN	The fully qualified domain name for the host or client. The default is pcoip-host-<MAC> or pcoip-portal-<MAC> where <MAC> is the host or client's MAC address. If used, the domain name is appended (for example, pcoip-host-<MAC>.domain.local). This field is read-only on this page. Note: To use the FQDN feature, the DNS server with DHCP option 81 must be available and properly configured.
Ethernet Mode	Lets you configure the Ethernet mode of the host or client as follows: • **Auto** • **100 Mbps Full-Duplex** • **10 Mbps Full-Duplex** When you choose **10 Mbps Full Duplex** or **100 Mbps Full-Duplex** and then click **Apply**, the following warning message appears: "Warning: When Auto-Negotiation is disabled on the PCoIP device, it must also be disabled on the switch. Additionally, the PCoIP device and switch must be configured to use the same speed and duplex parameters. Different parameters may result in a loss of network connectivity. Are you sure you want to continue?" Click **OK** to change the parameter. Note: You should always set the Ethernet mode to **Auto** and only use **10 Mbps Full-Duplex** or **100 Mbps Full-Duplex** when the other network equipment (e.g., a switch) is also configured to operate at 10 Mbps full-duplex or 100 Mbps full-duplex. An improperly set Ethernet mode may result in the network operating at half-duplex, which is not supported by the PCoIP protocol. The session will be severely degraded and eventually dropped.
Enable 802.1X Security	Enable this field for each of your host cards and zero clients if your network uses 802.1x security to ensure that only authorized devices access the network. If enabled, configure the **Authentication**, **Identity**, and **Client Certificate** fields.
Authentication	This field is set to TLS (Transport Layer Security) and is grayed-out. TLS is currently the only authentication protocol supported.
Identity	Enter the identity string used to identify your device to the network.

Parameter	Description
Client Certificate	Click **Choose** to select the client certificate you want to use for your 802.1x devices. The list of certificates that appears includes the certificates uploaded from the **Certificate Upload** page that contain a private key. The certificate you choose from the **Network** page is linked to the read-only **Client Certificate** field on the **Certificate Upload** page. Note: PCoIP only supports one 802.1x client certificate. Ensure your security details are all contained within the one file. The 802.1x certificate must contain a private key.

5.3 Label Settings

5.3.1 AWI: Label Settings

The **Label** page lets you assign a device name to the device. You can display this page for the host or client from the **Configuration > Label** menu.

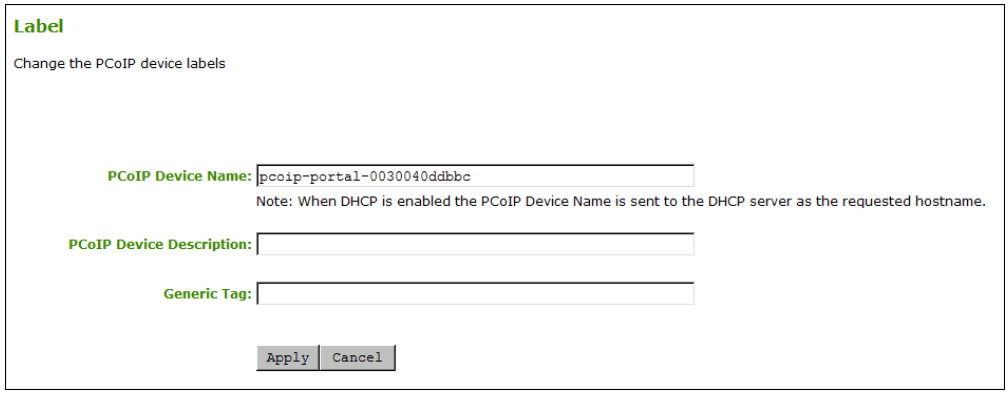


Figure 4-6: AWI Label Page

Table 4-10: AWI Label Page Parameters

Parameter	Description
PCoIP Device Name	Lets you give the host or client a logical name. The default is pcoip-host-<*MAC*> or pcoip-portal-<*MAC*>, where <*MAC*> is the device's MAC address. This field is the name the host or client registers with the DNS server if DHCP is enabled and the system is configured to support registering the hostname with the DNS server. It's important to ensure that the **PCoIP Device Name** is unique for each endpoint in the network and follows these naming conventions: • The first and last character must be a letter (A-Z or a-z) or a digit (0-9). • The remaining characters must be letters, digits, or hyphens. • The length must be 63 characters or fewer.

Parameter	Description
PCoIP Device Description	A description of the device or other information, such as the location of the device's endpoint. Note: The firmware does not use this field. It is provided for administrator use only.
Generic Tag	Generic tag information about the device. Note: The firmware does not use this field. It is provided for administrator use only.

5.3.2 OSD: Label Settings

The **Label** page lets you assign a device name to the device. You can display this page from the **Options > Configuration > Label** menu.

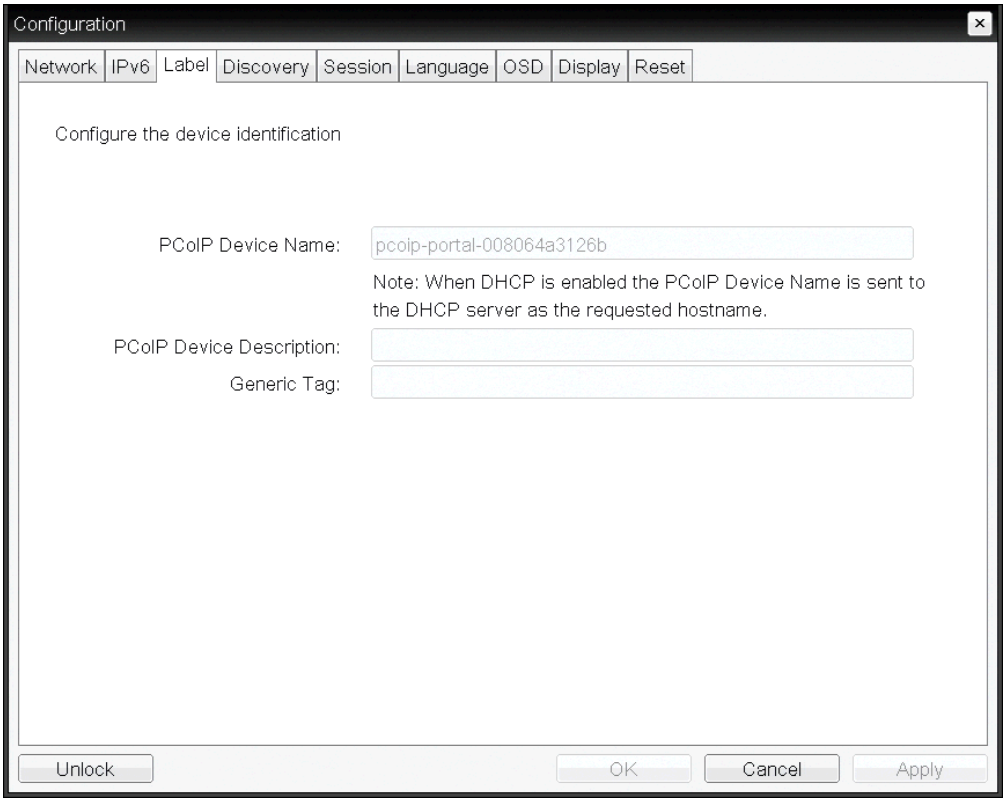


Figure 4-7: OSD Label Page

Table 4-11: OSD Label Page Parameters

Parameter	Description
PCoIP Device Name	Lets you give the host or client a logical name. The default is pcoip-host-<*MAC*> or pcoip-portal-<*MAC*>, where <*MAC*> is the device's MAC address. This field is the name the host or client registers with the DNS server if DHCP is enabled and the system is configured to support registering the hostname with the DNS server. It's important to ensure that the **PCoIP Device Name** is unique for each endpoint in the network and follows these naming conventions: • The first and last character must be a letter (A-Z or a-z) or a digit (0-9). • The remaining characters must be letters, digits, or hyphens. • The length must be 63 characters or fewer.
PCoIP Device Description	A description of the device or other information, such as the location of the device's endpoint. Note: The firmware does not use this field. It is provided for administrator use only.
Generic Tag	Generic tag information about the device. Note: The firmware does not use this field. It is provided for administrator use only.

5.4 Access Settings

5.4.1 MC: Help for Access Settings

Administrative access settings for the Management Console are located on the following pages:

- Hiding the OSD **Configuration** menu: see **Hide Options -> Configuration** on the OSD Settings page
- Disabling the AWI: see **Enable Web Interface** on the Security Settings page.
- Disabling the management console interface: see **Disable Management Console Interface** on the Security Settings page.

Note: At least one of the device's three management configuration interfaces (OSD, AWI, or MC) must remain enabled at all times.

5.4.2 AWI: Access Settings

The **Access** page lets you prevent the device from being managed by the MC (or any other PCoIP device management tool), and lets you disable administrative access to the device's AWI. It also provides an option to force an administrative password change the next time the AWI or OSD is accessed.

You can display this page for the host or client from the **Configuration > Access** menu.

Note: At least one of the device's three management configuration interfaces (OSD, AWI, or MC) must remain enabled at all times. If the device has its OSD **Configuration** menu hidden (see MC OSD Settings), you will receive an error message if you try to disable both the MC interface and the AWI from this page. In this situation, only one of these interfaces can be disabled.

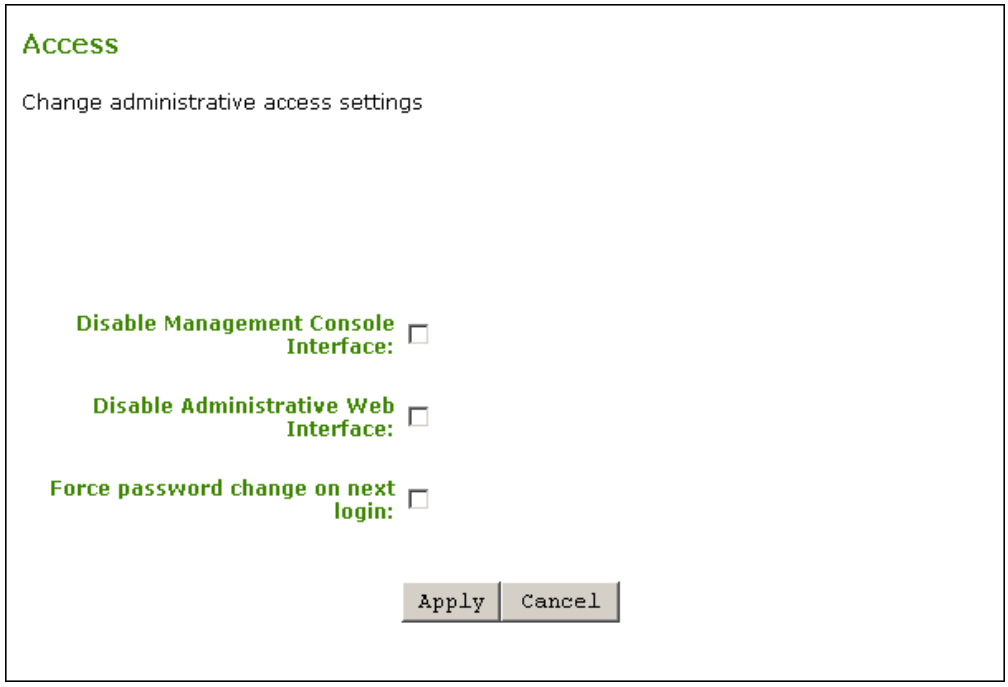


Figure 4-8: AWI Access Page

Table 4-12: AWI Access Page Parameters

Parameter	Description
Disable Management Console Interface	When enabled, the management console interface is disabled, and the device cannot be accessed or managed by the MC (or any other PCoIP device management tool).
Disable Administrative Web Interface	When enabled, the device cannot be accessed or managed using the AWI.
Force password change on next login	When enabled, the administrative password must be changed the next time either the AWI or OSD is accessed. The new password may be blank.

5.4.3 OSD: Access Settings

The **Access** page lets you prevent the device from being managed by the MC (or any other PCoIP device management tool), and lets you disable administrative access to the device's

AWI. It also provides an option to force an administrative password change the next time the AWI or OSD is accessed.

You can display this page from the **Options > Configuration > Access** menu.

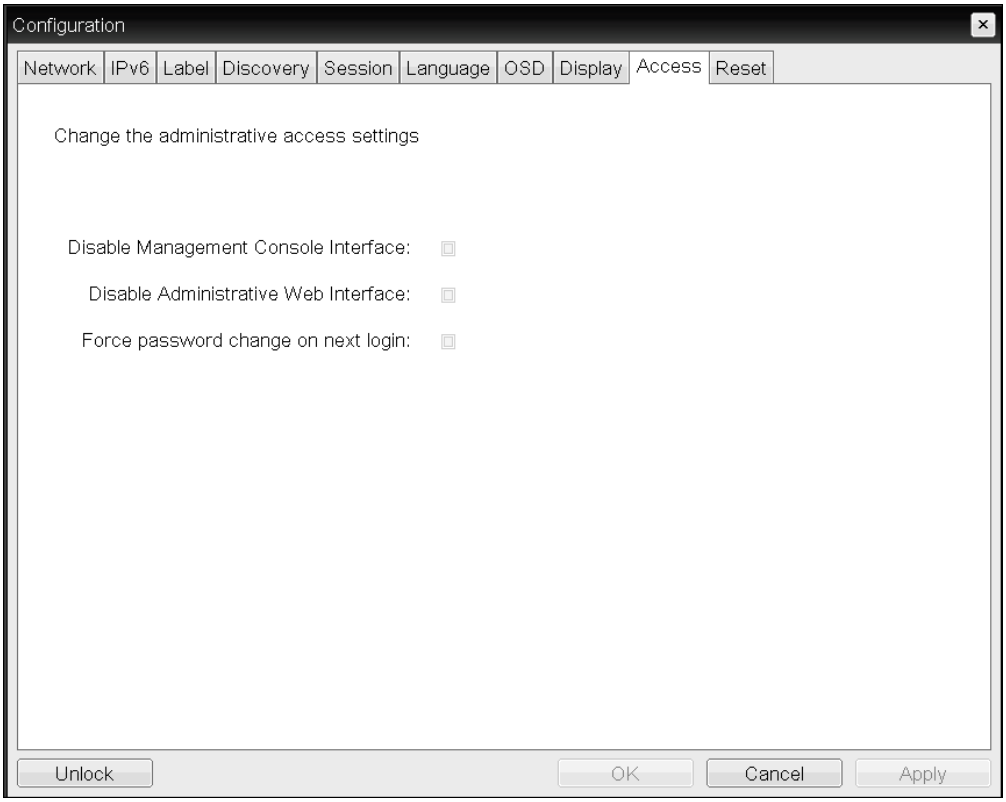


Figure 4-9: OSD Access Page

Table 4-13: OSD Access Page Parameters

Parameter	Description
Disable Management Console Interface	When enabled, the management console interface is disabled, and the device cannot be accessed or managed by the MC (or any other PCoIP device management tool).
Disable Administrative Web Interface	When enabled, the device cannot be accessed or managed using the AWI.
Force password change on next login	When enabled, the administrative password must be changed the next time either the AWI or OSD is accessed. The new password may be blank.

5.5 Configuring Device Discovery

5.5.1 MC: Discovery Settings

The settings on this page let you configure a profile to use SLP discovery, a PCoIP MC DNS-based discovery prefix, and/or DNS-SRV discovery to discover hosts and clients dynamically in a PCoIP system without requiring prior knowledge of their locations in the network. Using a discovery mechanism can dramatically reduce configuration and maintenance effort for complex systems.

Note: SLP discovery mechanism requires all PCoIP devices and the MC to reside on the same network subnet. For SLP discovery to work across subnets, routers must be configured to forward multicast traffic between subnets. Because most deployments do not allow this, the recommended discovery mechanism in this case is to configure DHCP Vendor Class Options directly in the DHCP server. For more information about DHCP Options discovery, see the "Configuring Device Discovery" section of the "PCoIP® Management Console User Manual" (TER0812002).

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

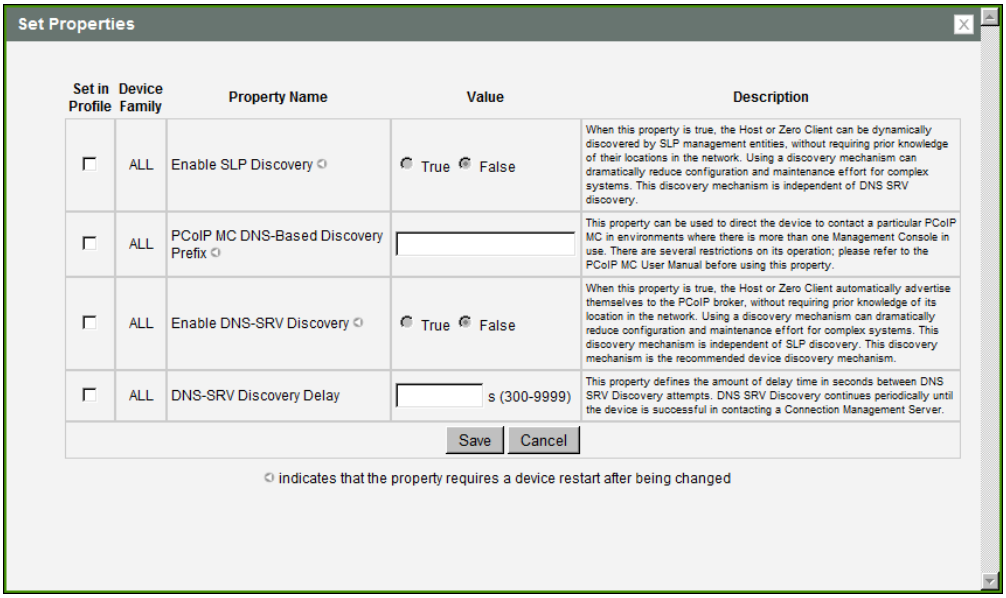


Figure 4-10: MC Discovery Configuration

Table 4-14: MC Discovery Configuration Parameters

Parameter	Description
Enable SLP Discovery	When enabled, hosts and clients can be dynamically discovered by SLP management entities. Note: This property requires a device restart after being changed.
PCoIP MC DNS-Based Discovery Prefix	Use this property to direct the device to contact a particular PCoIP MC in environments where there is more than one Management Console in use. There are several restrictions on its operation. Please refer to "PCoIP® Management Console User Manual" (TER0812002) before using this property. Note: This property requires a device restart after being changed.
Enable DNS-SRV Discovery	When enabled: • Hosts and clients automatically advertise themselves to a connection broker without requiring prior knowledge of its location in the network. • The host or client tries to download and use the DNS SRV record from the DNS server. For more information about this discovery mechanism, see the "PCoIP® Management Console User Manual" (TER0812002). Note: This property requires a device restart after being changed.
DNS-SRV Discovery Delay	Configures the amount of delay time in seconds between the DNS SRV discovery attempts for connection brokers and the Management Console. DNS SRV discovery continues periodically until the device successfully contacts a connection management server.

5.5.2 AWI: Discovery Settings

The settings on this page let you enable management entities to discover hosts and clients dynamically in the PCoIP system without requiring prior knowledge of their locations in the network. Using a discovery mechanism can dramatically reduce configuration and maintenance effort for complex systems.

You can display this page for the host or client from the **Configuration > Discovery** menu.

Note: SLP discovery mechanism requires all PCoIP devices and the MC to reside on the same network subnet. For SLP discovery to work across subnets, routers must be configured to forward multicast traffic between subnets. Because most deployments do not allow this, the recommended discovery mechanism in this case is to configure DHCP Vendor Class Options directly in the DHCP server. For more information about DHCP Options discovery, see the "Configuring Device Discovery" section of the "PCoIP® Management Console User Manual" (TER0812002).

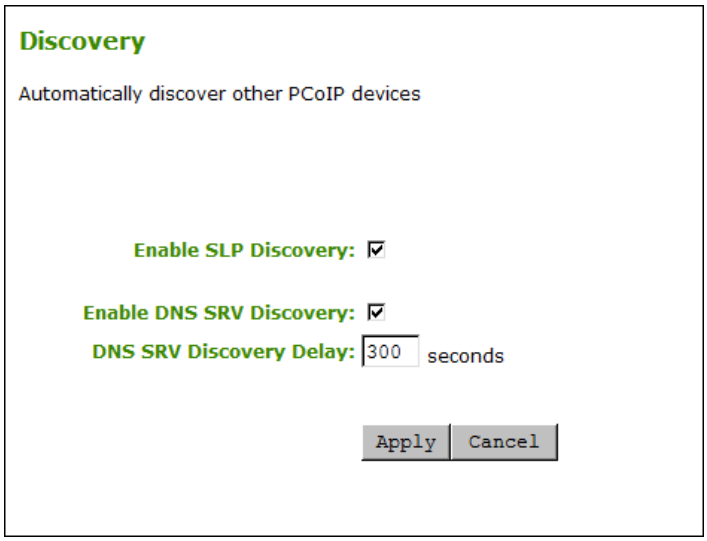


Figure 4-11: AWI Discovery Page

Table 4-15: AWI Discovery Page Parameters

Parameter	Description
Enable SLP Discovery	When enabled, hosts and clients can be dynamically discovered by SLP management entities.
Enable DNS-SRV Discovery	When enabled: • Hosts and clients automatically advertise themselves to a connection broker without requiring prior knowledge of its location in the network. • The host or client tries to download and use the DNS SRV record from the DNS server. For more information about this discovery mechanism, see the "PCoIP® Management Console User Manual" (TER0812002). Note: The **Enable DNS SRV Discovery** option configures the discovery for connection brokers but does not affect the DNS SRV functionality for the PCoIP Management Console.
DNS-SRV Discovery Delay	Configures the amount of delay time in seconds between the DNS SRV discovery attempts for connection brokers and the Management Console. DNS SRV discovery continues periodically until the device successfully contacts a connection management server. Note: Although the **Enable DNS SRV** option does not affect the DNS SRV functionality for the PCoIP Management Console, the DNS SRV Discovery Delay is used for the PCoIP Management Console. When DNS SRV records are not installed, we recommend you set the delay to the maximum value of “9999”. This minimizes attempts by the host or client to contact the PCoIP Management Console.

5.5.3 OSD: Discovery Settings

The settings on this page let you enable Service Location Protocol (SLP) management entities to discover hosts and clients dynamically in the PCoIP system without requiring prior knowledge of their locations in the network. Using a discovery mechanism can dramatically reduce configuration and maintenance effort for complex systems.

You can display this page from the **Options > Configuration > Discovery** menu.

Note: SLP discovery mechanism requires all PCoIP devices and the MC to reside on the same network subnet. For SLP discovery to work across subnets, routers must be configured to forward multicast traffic between subnets. Because most deployments do not allow this, the recommended discovery mechanism in this case is to configure DHCP Vendor Class Options directly in the DHCP server. For more information about DHCP Options discovery, see the "Configuring Device Discovery" section of the "PCoIP® Management Console User Manual" (TER0812002).

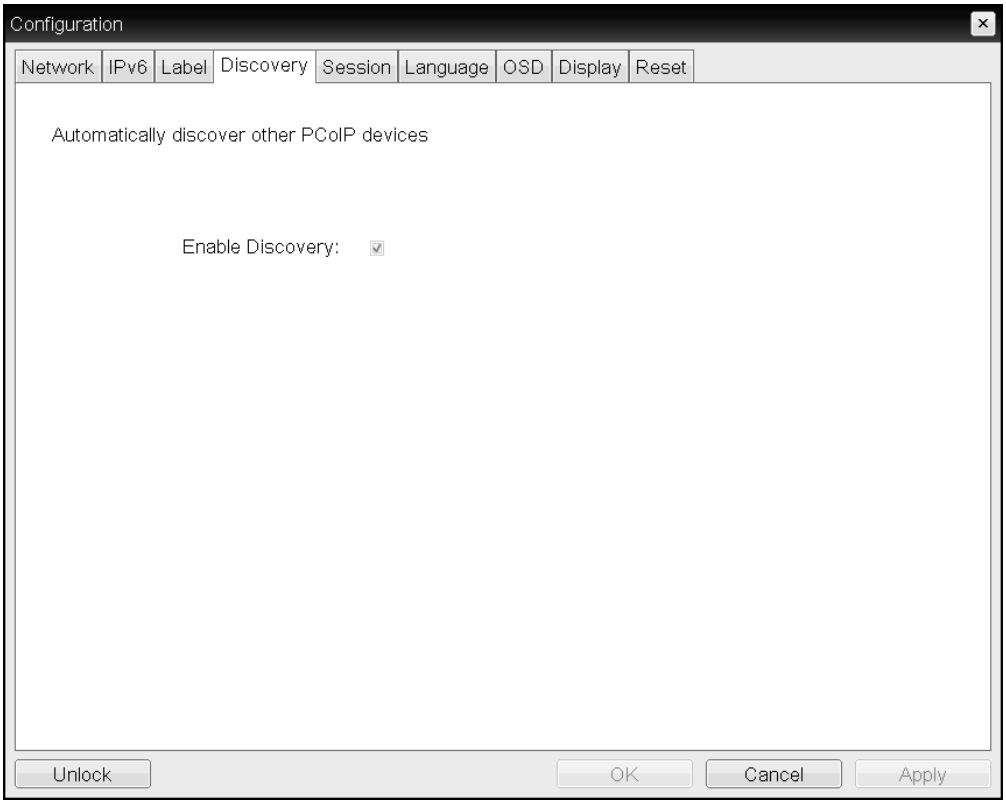


Figure 4-12: OSD Discovery Page

Table 4-16: OSD Discovery Page Parameter

Parameter	Description
Enable Discovery	When enabled, hosts can be dynamically discovered by SLP management entities.

5.6 Configuring SNMP

5.6.1 MC: Help for SNMP Settings

SNMP settings for the Management Console are located on the MC's Network Configuration page.

Note: For more information on using the PCoIP SNMP Agent, see "Using SNMP with a PCoIP® Device User Guide" (TER0805002).

5.6.2 AWI: SNMP Settings

The **SNMP** page lets you enable or disable the host or client SNMP agent. You can display this page for the host or client from the **Configuration > SNMP** menu.

Note: For more information on using the PCoIP SNMP Agent, see "Using SNMP with a PCoIP® Device User Guide" (TER0805002).

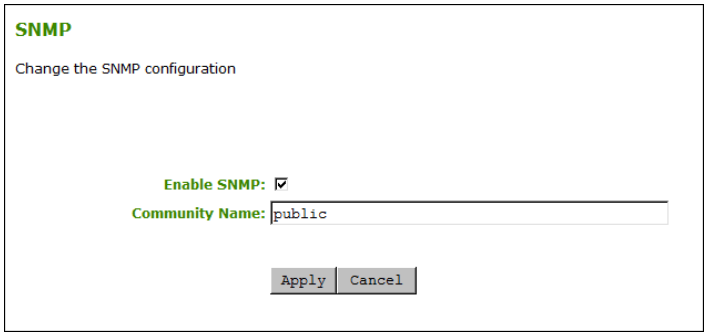


Figure 4-13: AWI SNMP Page

Table 4-17: AWI SNMP Page Parameter

Parameter	Description
Enable SNMP	When enabled, the device enables the PCoIP SNMP agent to respond to SNMP requests. Disabling the SNMP agent prevents it from responding to SNMP requests and from generating traps. It also ensures that the PCoIP SNMP MIB cannot be accessed.
Community Name	Configures the SNMP community name used by the device.

5.7 Configuring a Session

5.7.1 Configuring a Session

The **Session** pages on the MC, AWI, and OSD let you configure how the host or client device connects to or accepts connections from peer devices. The available configuration options depend on the session connection type you select.

Session Connection Types

There are four main session connection types:

- Direct to Host (with option for SLP host discovery)
- PCoIP Connection Manager (with option for Auto-Logon)
- View Connection Server (with various options)
- Connection Management Interface

Direct to Host Sessions

A Direct to Host session is a direct connection between a zero client and a remote workstation containing a PCoIP host card. You can specify a host's DNS name or IP address, or you can configure clients to use Service Location Protocol (SLP) to discover a host. You can also configure cllients to automatically reconnect to a host when a session is lost.

Table 4-18: Direct Session Connections

Management Tool	Device(s)	Session Connection Options
MC	All	Direct to Host Direct to Host + SLP Host Discovery
AWI	Host	Direct from Client
	Client	Direct to Host Direct to Host + SLP Host Discovery
OSD	Client	Direct to Host Direct to Host + SLP Host Discovery

PCoIP Connection Manager (Tera2 Clients Only)

A PCoIP Connection Manager session is a connection between a Tera2 zero client and a Teradici solution (e.g., the Teradici Arch™ published desktop solution) using the PCoIP Connection Manager as a broker. You can configure this session type in basic mode or Auto-Logon mode.

Table 4-19: PCoIP Connection Manager Connections

Management Tool	Device(s)	Session Connection Options
MC	All	PCoIP Connection Manager PCoIP Connection Manager + Auto-Logon

Management Tool	Device(s)	Session Connection Options
AWI	Client	PCoIP Connection Manager PCoIP Connection Manager + Auto-Logon
OSD	Client	PCoIP Connection Manager PCoIP Connection Manager + Auto-Logon

VMware View Virtual Desktop Connections

A VMware View session is a connection between a zero client and a VMware View virtual desktop using VMware View Connection Server as the connection manager (also known as the connection broker). You can configure this session type in basic mode, Auto-Logon mode, VMware View Kiosk mode, and Imprivata OneSign mode.

Table 4-20: VMware View Connections

Management Tool	Device(s)	Session Connection Options
MC	All	View Connection Server View Connection Server + Auto-Logon View Connection Server + Kiosk View Connection Server + Imprivata OneSign
AWI	Client	View Connection Server View Connection Server + Auto-Logon View Connection Server + Kiosk View Connection Server + Imprivata OneSign
OSD	Client	View Connection Server View Connection Server + Auto-Logon View Connection Server + Kiosk View Connection Server + Imprivata OneSign

Connection Management Interface Sessions

The Connection Management Interface is used to configure an external connection manager as the connection broker.

Table 4-21: Connection Management Interface Connections

Management Tool	Device(s)	Session Connection Options
MC	All	Connection Management Interface
AWI	Host	Connection Management Interface
	Client	Connection Management Interface
OSD	Client	Connection Management Interface

5.7.2 MC: Direct to Host Session Settings

Select the **Direct to Host** session connection type from the MC to configure a profile to connect clients directly to hosts.

This selection requires a device restart after being changed.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

Note: For information on how to link specific hosts and clients, see "PCoIP® Management Console User Manual" (TER0812002). To configure a specific host with peering properties (e.g., to accept any peer rather than a specific MAC address), use the AWI's Direct from Client session settings.

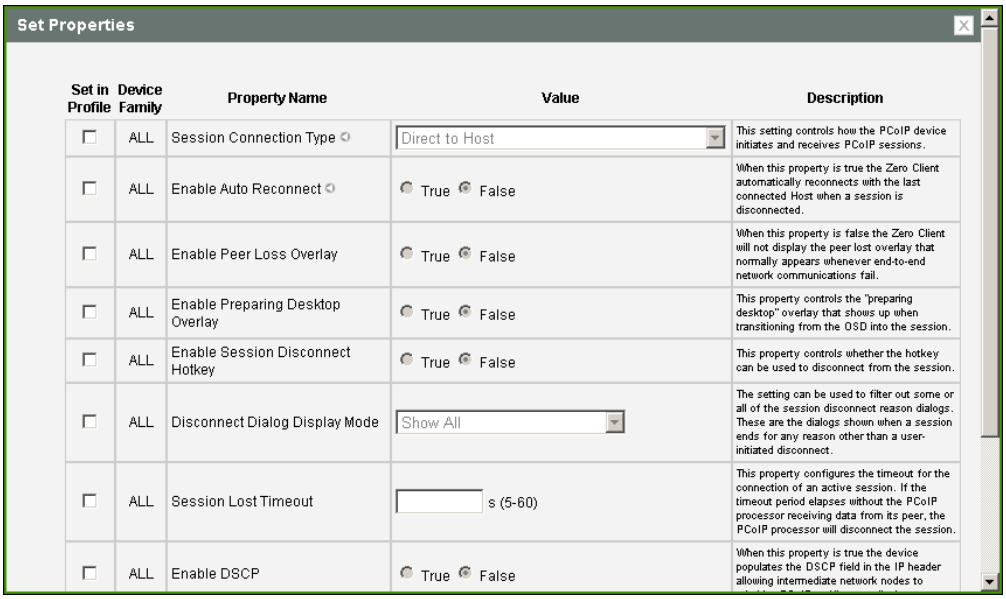


Figure 4-14: MC Session Connection Type – Direct to Host

Table 4-22: MC Session Configuration Parameters

Parameters	Description
Enable Auto Reconnect	When enabled, lets the client automatically reconnect with the last connected host when a session is lost. Note: This property requires a device restart after being changed.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.

Parameters	Description
Disconnect Dialog Display Mode	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameters	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Session Lost Timeout	Enter the timeout (in seconds) for the connection of the active session. The valid timeout range for this field is 5 to 60 seconds. The session will be disconnected when this timeout period expires.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.3 MC: Direct to Host Session + SLP Host Discovery Settings

Select the **Direct to Host + SLP Host Discovery** session connection type from the MC to configure a profile to connect clients directly to hosts and to configure clients to use Service Location Protocol (SLP) to discover hosts dynamically.

This selection requires a device restart after being changed.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

Note: For information on how to link specific hosts and clients, see "PCoIP® Management Console User Manual" (TER0812002). To configure a specific host with peering properties (e.g., to accept any peer rather than a specific MAC address), use the AWI's Direct from Client session settings.

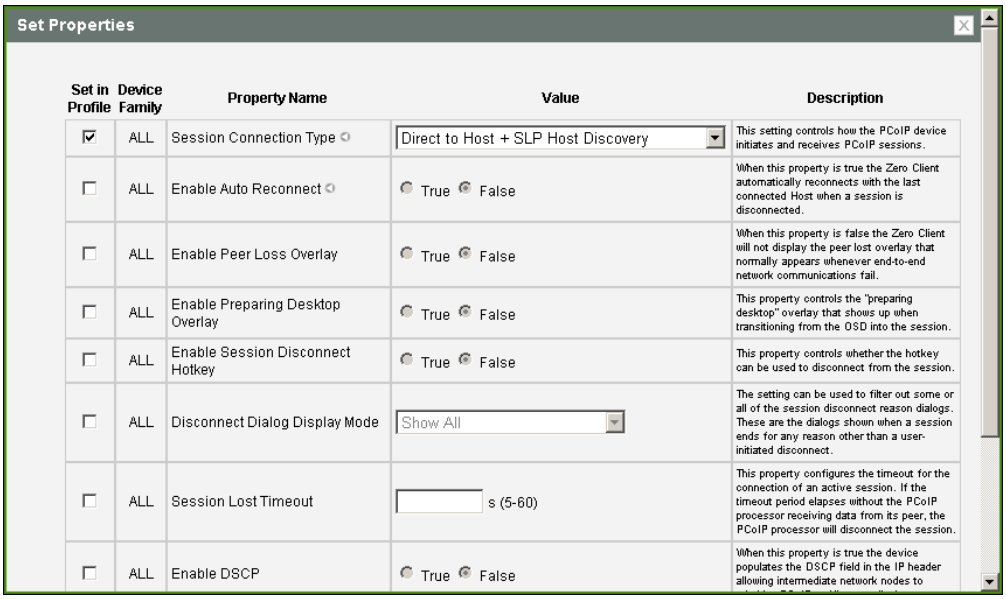


Figure 4-15: MC Session Connection Type – Direct to Host + SLP Host Discovery

Table 4-23: MC Session Configuration Parameters

Parameters	Description
Enable Auto Reconnect	When enabled, lets the client automatically reconnect with the last connected host when a session is lost. Note: This property requires a device restart after being changed.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.

Parameters	Description
Disconnect Dialog Display Mode	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameters	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Session Lost Timeout	Enter the timeout (in seconds) for the connection of the active session. The valid timeout range for this field is 5 to 60 seconds. The session will be disconnected when this timeout period expires.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.4 MC: View Connection Server Session Settings

Select the **View Connection Server** session connection type from the MC to configure a profile to use a VMware View Connection Server to connect clients to a virtual desktop.

This selection requires a device restart after being changed.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

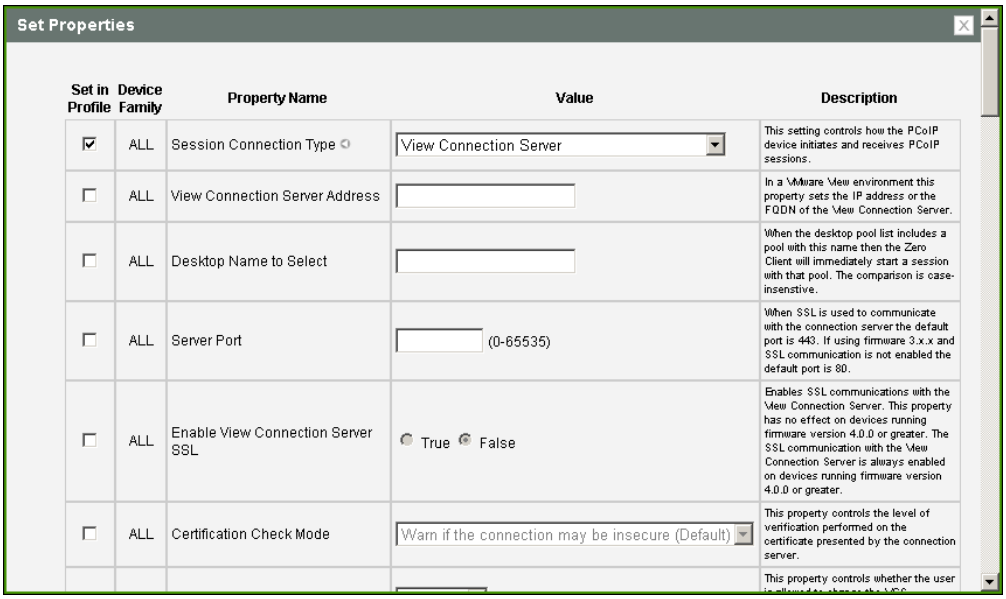


Figure 4-16: MC Session Connection Type – View Connection Server

Table 4-24: MC Session Configuration Parameters

Parameter	Description
View Connection Server Address	Enter the IP address or the fully qualified domain name (FQDN) of the View Connection Server.
Desktop Name to Select	Enter the pool or desktop name used by the client when starting a session. Note: This setting is optional.
Server Port	By default, port 443 is used to communicate with the connection server. If your network is set up to use a non-standard port for secure connections, enter the port number.
Enable View Connection Server SSL	When enabled, enables SSL communication with the connection server. Note: This property has no effect on devices running firmware version 4.0.0 or greater because SSL communication with the connection server is always enabled.

Parameter	Description
Certification Check Mode	Select the level of verification performed on the certificate presented by the connection server: • **Warn if the connection may be insecure (Default)**: Configure the client to display a warning if an unsigned or expired certificate is encountered, or if the certificate is not self-signed and the zero client trust store is empty. • **Reject the unverifiable connection (Secure)**: Configure the client to reject the connection if a trusted, valid certificate is not installed. • **Allow the unverifiable connection (Not Secure)**: Configure the client to allow all connections.
Certification Check Lockout Mode	Select whether to lock or unlock Certification Check Mode: • **Unlocked**: Select this option to allow users to change the Certification Check Mode setting using the OSD or AWI. • **Locked**: Select this option to prevent users from changing the Certification Check Mode setting.
Clear Trusted Connection Server Cache	When enabled, clears the trusted connection server cache.
Enable Auto Connect	When enabled, the client automatically connects with the connection server after startup, bypassing the OSD **Connect** page.
Connection Server Cache Mode	This field determines whether a connection server is dynamically added to the **Server** drop-down menu on the OSD **Connect** page when a user types in a valid server address, or whether it appears in a read-only list for the user to select. • **Last servers used**: Select this option if you want a list of cached servers that a user has typed in to appear in the **Server** drop-down menu on the OSD **Connect** page. • **Read-only**: Select this option if you want users to select a connection server from a read-only list.
Connection Server Cache Entry (1 to 25)	Enable the desired number of fields (up to 25) that may appear in the cache on a user's OSD **Connect** page, and for each one, enter a connection server IP address or FQDN to which a user is allowed to connect. • If **Last servers used** is selected in the **Connection Server Cache Mode** field, a new connection server is added to the **Server** drop-down menu whenever the user types in a valid server IP address or FQDN. • If **Read-only** is selected, a user can only select a server from a read-only list in the **Server** drop-down menu.
Self Help Link Mode	When enabled, enables the Self Help Link on user authentication screens. For a description of this feature, see Enabling the Self Help Link.

Parameter	Description
Auto Launch If Only One Desktop	When enabled, users are automatically connected to their desktop after user credentials are entered.
Enable Login Username Caching	When enabled, the username text box automatically populates with the last username entered.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.
Prefer GSC-IS Over PIV Endpoint	When selected, the GSC-IS interface is used if a smart card supports more than one interface such as CAC (GSC-IS) and PIV endpoint. If a smart card supports only one interface, such as either CAC or PIV endpoint, then only the CAC or PIV endpoint interface is used regardless of this setting. This only affects smart card access performed outside of PCoIP sessions.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.

Parameter	Description
Disconnect Dialog Display Mode	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Session Lost Timeout	Enter the timeout (in seconds) for the connection of the active session. The valid timeout range for this field is 5 to 60 seconds. The session will be disconnected when this timeout period expires.
Custom Session SNI	When enabled, sets a customized Server Name Indication (SNI) string on authorized man-in-the-middle-enabled clients. The SNI string is appended to the SSL/TLS HELLO when the client initates an SSL connection with the host.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.5 MC: View Connection Server + Auto-Logon Session Settings

Select the **View Connection Server + Auto-Logon** session connection type from the MC to configure a profile to automatically enter users' login details when a VMware View Connection Server is used to connect clients to a virtual desktop.

This selection requires a device restart after being changed.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

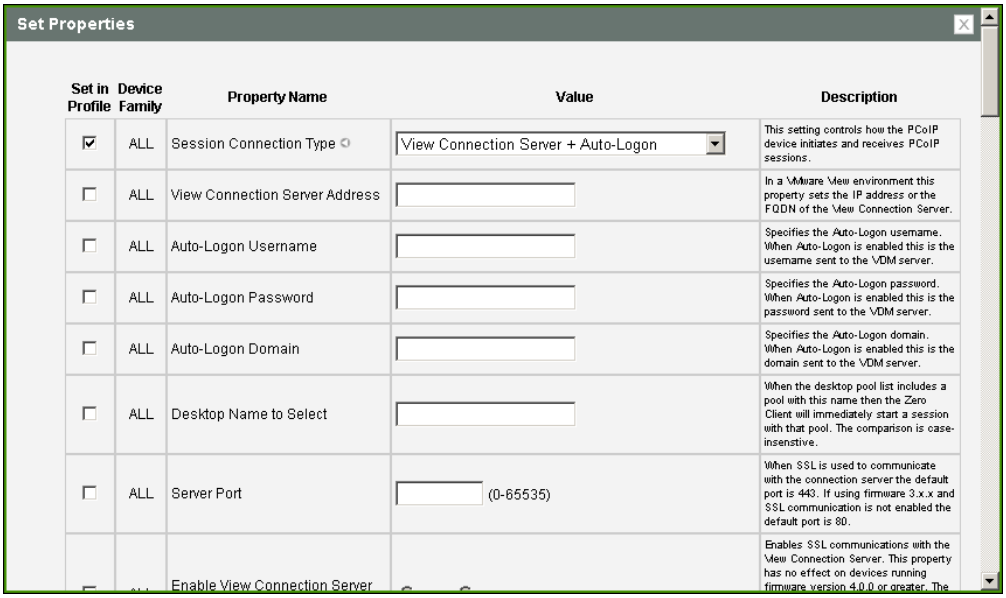


Figure 4-17: MC Session Connection Type – View Connection Server + Auto-Logon

Table 4-25: MC Session Configuration Parameters

Parameter	Description
View Connection Server Address	Enter the IP address or the fully qualified domain name (FQDN) of the View Connection Server.
Auto-Logon Username	Enter the username for the client. This username will be sent to the specified connection server.
Auto-Logon Password	Enter the password for the client. This password will be sent to the specified connection server.
Auto-Logon Domain	Enter the domain for the client. This domain will be sent to the specified connection server.
Desktop Name to Select	Enter the pool or desktop name used by the client when starting a session. Note: This setting is optional.
Server Port	By default, port 443 is used to communicate with the connection server. If your network is set up to use a non-standard port for secure connections, enter the port number.
Enable View Connection Server SSL	When enabled, enables SSL communication with the connection server. Note: This property has no effect on devices running firmware version 4.0.0 or greater because SSL communication with the connection server is always enabled.

Parameter	Description
Certification Check Mode	Select the level of verification performed on the certificate presented by the connection server: • **Warn if the connection may be insecure (Default)**: Configure the client to display a warning if an unsigned or expired certificate is encountered, or if the certificate is not self-signed and the zero client trust store is empty. • **Reject the unverifiable connection (Secure)**: Configure the client to reject the connection if a trusted, valid certificate is not installed. • **Allow the unverifiable connection (Not Secure)**: Configure the client to allow all connections.
Certification Check Lockout Mode	Select whether to lock or unlock Certification Check Mode: • **Unlocked**: Select this option to allow users to change the Certification Check Mode setting using the OSD or AWI. • **Locked**: Select this option to prevent users from changing the Certification Check Mode setting.
Clear Trusted Connection Server Cache	When enabled, clears the trusted connection server cache.
Enable Auto Connect	When enabled, the client automatically connects with the connection server after startup, bypassing the OSD **Connect** page.
Connection Server Cache Mode	This field determines whether a connection server is dynamically added to the **Server** drop-down menu on the OSD **Connect** page when a user types in a valid server address, or whether it appears in a read-only list for the user to select. • **Last servers used**: Select this option if you want a list of cached servers that a user has typed in to appear in the **Server** drop-down menu on the OSD **Connect** page. • **Read-only**: Select this option if you want users to select a connection server from a read-only list.
Connection Server Cache Entry (1 to 25)	Enable the desired number of fields (up to 25) that may appear in the cache on a user's OSD **Connect** page, and for each one, enter a connection server IP address or FQDN to which a user is allowed to connect. • If **Last servers used** is selected in the **Connection Server Cache Mode** field, a new connection server is added to the **Server** drop-down menu whenever the user types in a valid server IP address or FQDN. • If **Read-only** is selected, a user can only select a server from a read-only list in the **Server** drop-down menu.
Auto Launch If Only One Desktop	When enabled, users are automatically connected to their desktop after user credentials are entered.

Parameter	Description
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.

Parameter	Description
Disconnect Dialog Display Mode	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Session Lost Timeout	Enter the timeout (in seconds) for the connection of the active session. The valid timeout range for this field is 5 to 60 seconds. The session will be disconnected when this timeout period expires.
Custom Session SNI	When enabled, sets a customized Server Name Indication (SNI) string on authorized man-in-the-middle-enabled clients. The SNI string is appended to the SSL/TLS HELLO when the client initates an SSL connection with the host.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.6 MC: View Connection Server + Kiosk Session Settings

Select the **View Connection Server + Kiosk** session connection type from the MC to configure a profile to use Kiosk mode when when a VMware View Connection Server is used to connect clients to a virtual desktop.

This selection requires a device restart after being changed.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

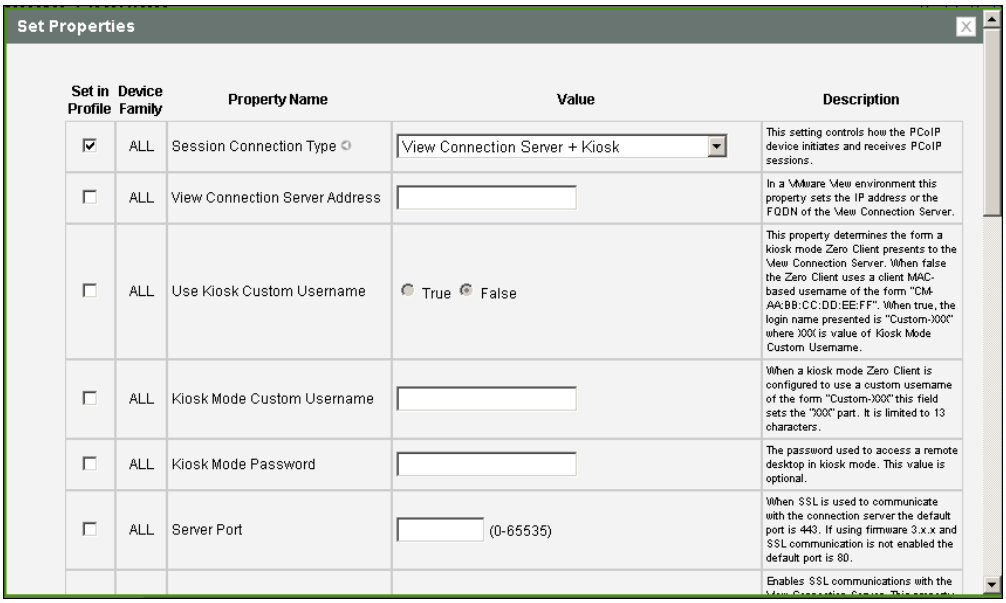


Figure 4-18: MC Session Connection Type – View Connection Server + Kiosk

Table 4-26: MC Session Configuration Parameters

Parameter	Description
View Connection Server Address	Enter the IP address or the fully qualified domain name (FQDN) of the View Connection Server.
Use Kiosk Custom Username	When enabled, the login name is presented as "Custom-<*XXX*>", where "*XXX*" is the value of the **Kiosk Mode Custom Username**. When disabled, clients use the MAC-based username of the form "CM-AA:BB:CC:DD:EE:FF."
Kiosk Mode Custom Username	When **Use Kiosk Custom Username** is configured to use a custom username of the form "Custom-<*XXX*>", enter the value for the "*XXX*" component. This field is limited to 13 characters.
Kiosk Mode Password	Enter the password to use to access a virtual desktop in Kiosk mode. Note: This setting is optional.
Server Port	By default, port 443 is used to communicate with the connection server. If your network is set up to use a non-standard port for secure connections, enter the port number.
Enable View Connection Server SSL	When enabled, enables SSL communication with the connection server. Note: This property has no effect on devices running firmware version 4.0.0 or greater because SSL communication with the connection server is always enabled.

Parameter	Description
Certification Check Mode	Select the level of verification performed on the certificate presented by the connection server: • **Warn if the connection may be insecure (Default)**: Configure the client to display a warning if an unsigned or expired certificate is encountered, or if the certificate is not self-signed and the zero client trust store is empty. • **Reject the unverifiable connection (Secure)**: Configure the client to reject the connection if a trusted, valid certificate is not installed. • **Allow the unverifiable connection (Not Secure)**: Configure the client to allow all connections.
Certification Check Lockout Mode	Select whether to lock or unlock Certification Check Mode: • **Unlocked**: Select this option to allow users to change the Certification Check Mode setting using the OSD or AWI. • **Locked**: Select this option to prevent users from changing the Certification Check Mode setting.
Clear Trusted Connection Server Cache	When enabled, clears the trusted connection server cache.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.

Parameter	Description
Disconnect Dialog Display Mode	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Session Lost Timeout	Enter the timeout (in seconds) for the connection of the active session. The valid timeout range for this field is 5 to 60 seconds. The session will be disconnected when this timeout period expires.
Custom Session SNI	When enabled, sets a customized Server Name Indication (SNI) string on authorized man-in-the-middle-enabled clients. The SNI string is appended to the SSL/TLS HELLO when the client initates an SSL connection with the host.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.7 MC: View Connection Server + Imprivata OneSign Session Settings

Select the **View Connection Server + Imprivata OneSign** session connection type from the MC to configure a profile to authenticate through the Imprivata OneSign system in addition to a View Connection Server when clients connect to a virtual desktop.

This selection requires a device restart after being changed.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

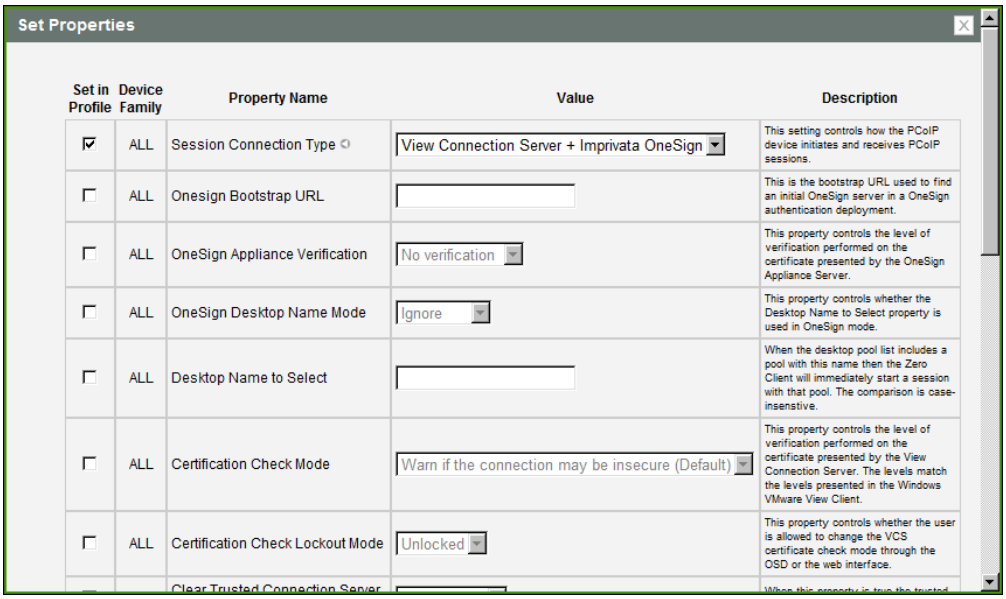


Figure 4-19: MC Session Connection Type – View Connection Server + Imprivata OneSign

Table 4-27: MC Session Configuration Parameters

Parameter	Description
View Connection Server Address	Enter the IP address or the fully qualified domain name (FQDN) of the View Connection Server.
Onesign Bootstrap URL	Enter the bootstrap URL used to find an initial OneSign server in a OneSign authentication deployment.
Onesign Appliance Verification	Select the level of verification performed on the certificate presented by the OneSign appliance server: • **No verification: Connect to any appliance** • **Full verification: Only connect to appliances with verified certificates**
Onesign Desktop Name Mode	Select whether the **Desktop Name to Select** property is used in OneSign Mode: • **Ignore** • **Use If Set**
Desktop Name to Select	Enter the desktop name. When the desktop pool list includes a pool with this name, the client will immediately start a session with that pool. Note: This field is case-insensitive.

Parameter	Description
Certification Check Mode	Select the level of verification performed on the certificate presented by the connection server: • **Warn if the connection may be insecure (Default)**: Configure the client to display a warning if an unsigned or expired certificate is encountered, or if the certificate is not self-signed and the zero client trust store is empty. • **Reject the unverifiable connection (Secure)**: Configure the client to reject the connection if a trusted, valid certificate is not installed. • **Allow the unverifiable connection (Not Secure)**: Configure the client to allow all connections.
Certification Check Lockout Mode	Select whether to lock or unlock Certification Check Mode: • **Unlocked**: Select this option to allow users to change the Certification Check Mode setting using the OSD or AWI. • **Locked**: Select this option to prevent users from changing the Certification Check Mode setting.
Clear Trusted Connection Server Cache	When enabled, clears the trusted connection server cache.
Enable Login Username Caching	When enabled, the username text box automatically populates with the last username entered.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.
Prefer GSC-IS Over PIV Endpoint	When selected, the GSC-IS interface is used if a smart card supports more than one interface such as CAC (GSC-IS) and PIV endpoint. If a smart card supports only one interface, such as either CAC or PIV endpoint, then only the CAC or PIV endpoint interface is used regardless of this setting. This only affects smart card access performed outside of PCoIP sessions.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.

Parameter	Description
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.
Proximity Reader Beep Mode	Configure whether the proximity card reader beeps when a valid card is tapped on the reader in OneSign mode: • **Use Existing Setting**: Uses the existing setting (affects only devices runing firmware 4.1.0 or greater) • **Disabled**: Disables the feature. • **Enabled**: Enables the feature.

Parameter	Description
Disconnect Dialog Display Mode	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Session Lost Timeout	Enter the timeout (in seconds) for the connection of the active session. The valid timeout range for this field is 5 to 60 seconds. The session will be disconnected when this timeout period expires.
Custom Session SNI	When enabled, sets a customized Server Name Indication (SNI) string on authorized man-in-the-middle-enabled clients. The SNI string is appended to the SSL/TLS HELLO when the client initates an SSL connection with the host.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.8 MC: Connection Management Interface Settings

Select the **Connection Management Interface** session connection type from the MC to configure a profile to use an external connection manager as the connection broker.

This selection requires a device restart after being changed.

Note: External connection managers can simplify the administration effort for large, complex systems. In a managed connection, an external connection manager server communicates with a device, and can remotely control and configure it. The connection manager can also locate an appropriate peer for the device to connect to, and then initiate the connection.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

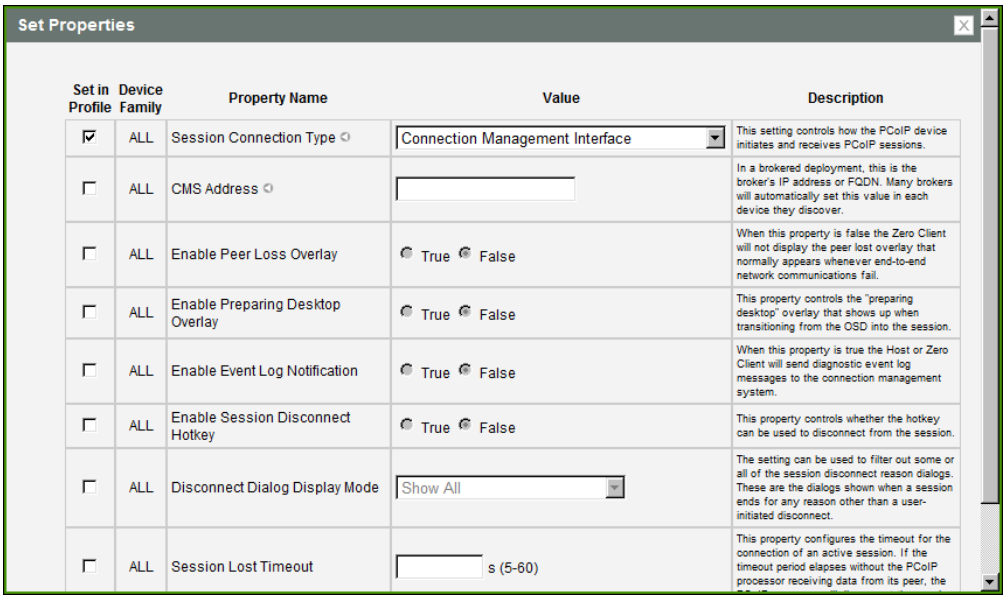


Figure 4-20: MC Session Connection Type – Connection Management Interface

Table 4-28: MC Session Configuration Parameters

Parameter	Description
CMS Address	Enter the IP address or fully qualified domain name (FQDN) of the connection manager. Note: Many connection managers will automatically set this value in each device they discover.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Event Log Notification	When enabled, the client sends the contents of its event log to the connection management server.

Parameter	Description
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.

Parameter	Description
Disconnect Dialog Display Mode	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Session Lost Timeout	Enter the timeout (in seconds) for the connection of the active session. The valid timeout range for this field is 5 to 60 seconds. The session will be disconnected when this timeout period expires.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.9 MC: PCoIP Connection Manager Session Settings

Select the **PCoIP Connection Manager** session connection type from the MC to configure a profile to use a PCoIP Connection Manager as the broker when connecting Tera2clients to a Teradici solution, such as the Teradici Arch™ published desktop solution.

This selection requires a device restart after being changed.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

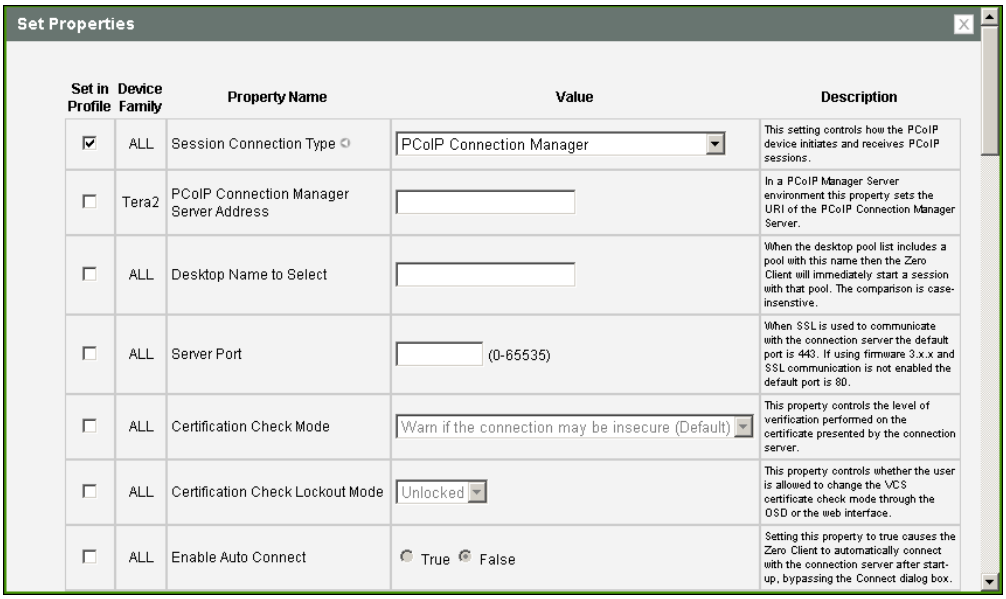


Figure 4-21: MC Session Connection Type – PCoIP Connection Manager

Table 4-29: MC Session Configuration Parameters

Parameter	Description
PCoIP Connection Manager Server Address	Enter the IP address or the fully qualified domain name (FQDN) of the PCoIP Connection Manager.
Desktop Name to Select	Enter the pool or desktop name used by the client when starting a session. Note: This setting is optional.
Server Port	By default, port 443 is used to communicate with the connection server. If your network is set up to use a non-standard port for secure connections, enter the port number.
Certification Check Mode	Select the level of verification performed on the certificate presented by the connection server: • **Warn if the connection may be insecure (Default)**: Configure the client to display a warning if an unsigned or expired certificate is encountered, or if the certificate is not self-signed and the zero client trust store is empty. • **Reject the unverifiable connection (Secure)**: Configure the client to reject the connection if a trusted, valid certificate is not installed. • **Allow the unverifiable connection (Not Secure)**: Configure the client to allow all connections.

Parameter	Description
Certification Check Lockout Mode	Select whether to lock or unlock Certification Check Mode: • **Unlocked**: Select this option to allow users to change the Certification Check Mode setting using the OSD or AWI. • **Locked**: Select this option to prevent users from changing the Certification Check Mode setting.
Enable Auto Connect	When enabled, the client automatically connects with the connection server after startup, bypassing the OSD **Connect** page.
Connection Server Cache Mode	This field determines whether a connection server is dynamically added to the **Server** drop-down menu on the OSD **Connect** page when a user types in a valid server address, or whether it appears in a read-only list for the user to select. • **Last servers used**: Select this option if you want a list of cached servers that a user has typed in to appear in the **Server** drop-down menu on the OSD **Connect** page. • **Read-only**: Select this option if you want users to select a connection server from a read-only list.
PCM Server Cache Entry (1 to 25)	Enable the desired number of fields (up to 25) that may appear in the cache on a user's OSD **Connect** page, and for each one, enter a PCoIP Connection Server IP address or FQDN to which a user is allowed to connect. • If **Last servers used** is selected in the **Connection Server Cache Mode** field, a new connection server is added to the **Server** drop-down menu whenever the user types in a valid server IP address or FQDN. • If **Read-only** is selected, a user can only select a server from a read-only list in the **Server** drop-down menu.
Self Help Link Mode	When enabled, enables the Self Help Link on user authentication screens. For a description of this feature, see Enabling the Self Help Link.
Auto Launch If Only One Desktop	When enabled, users are automatically connected to their desktop after user credentials are entered.
Enable Login Username Caching	When enabled, the username text box automatically populates with the last username entered.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.

Parameter	Description
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.

Parameter	Description
Disconnect Dialog Display Mode	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Session Lost Timeout	Enter the timeout (in seconds) for the connection of the active session. The valid timeout range for this field is 5 to 60 seconds. The session will be disconnected when this timeout period expires.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.10 MC: PCoIP Connection Manager + Auto-Logon Session Settings

Select the **PCoIP Connection Manager + Auto-Logon** session connection type from the MC to configure a profile to automatically enter users' login details when a PCoIP Connection Manager is used to connect clients to a Teradici solution, such as the Teradici Arch™ published desktop solution.

This selection requires a device restart after being changed.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

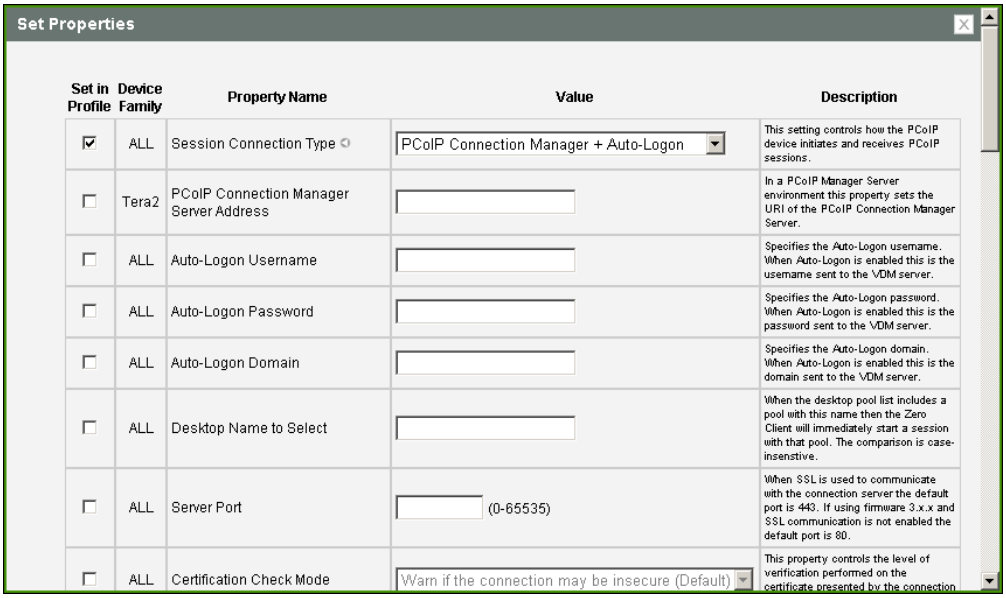


Figure 4-22: MC Session Connection Type – PCoIP Connection Manager + Auto-Logon

Table 4-30: MC Session Configuration Parameters

Parameter	Description
PCoIP Connection Manager Server Address	Enter the IP address or the fully qualified domain name (FQDN) of the PCoIP Connection Manager.
Auto-Logon Username	Enter the username for the client. This username will be sent to the specified connection server.
Auto-Logon Password	Enter the password for the client. This password will be sent to the specified connection server.
Auto-Logon Domain	Enter the domain for the client. This domain will be sent to the specified connection server.
Desktop Name to Select	Enter the pool or desktop name used by the client when starting a session. Note: This setting is optional.
Server Port	By default, port 443 is used to communicate with the connection server. If your network is set up to use a non-standard port for secure connections, enter the port number.

Parameter	Description
Certification Check Mode	Select the level of verification performed on the certificate presented by the connection server: • **Warn if the connection may be insecure (Default)**: Configure the client to display a warning if an unsigned or expired certificate is encountered, or if the certificate is not self-signed and the zero client trust store is empty. • **Reject the unverifiable connection (Secure)**: Configure the client to reject the connection if a trusted, valid certificate is not installed. • **Allow the unverifiable connection (Not Secure)**: Configure the client to allow all connections.
Certification Check Lockout Mode	Select whether to lock or unlock Certification Check Mode: • **Unlocked**: Select this option to allow users to change the Certification Check Mode setting using the OSD or AWI. • **Locked**: Select this option to prevent users from changing the Certification Check Mode setting.
Enable Auto Connect	When enabled, the client automatically connects with the connection server after startup, bypassing the OSD **Connect** page.
Connection Server Cache Mode	This field determines whether a connection server is dynamically added to the **Server** drop-down menu on the OSD **Connect** page when a user types in a valid server address, or whether it appears in a read-only list for the user to select. • **Last servers used**: Select this option if you want a list of cached servers that a user has typed in to appear in the **Server** drop-down menu on the OSD **Connect** page. • **Read-only**: Select this option if you want users to select a connection server from a read-only list.
PCM Server Cache Entry (1 to 25)	Enable the desired number of fields (up to 25) that may appear in the cache on a user's OSD **Connect** page, and for each one, enter a PCoIP Connection Server IP address or FQDN to which a user is allowed to connect. • If **Last servers used** is selected in the **Connection Server Cache Mode** field, a new connection server is added to the **Server** drop-down menu whenever the user types in a valid server IP address or FQDN. • If **Read-only** is selected, a user can only select a server from a read-only list in the **Server** drop-down menu.
Auto Launch If Only One Desktop	When enabled, users are automatically connected to their desktop after user credentials are entered.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.

Parameter	Description
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.

Parameter	Description
Disconnect Dialog Display Mode	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Session Lost Timeout	Enter the timeout (in seconds) for the connection of the active session. The valid timeout range for this field is 5 to 60 seconds. The session will be disconnected when this timeout period expires.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.11 AWI Host: Direct from Client Session Settings

Select the **Direct from Client** session connection type from the **Configuration > Session** page to configure the host to connect directly to a client.

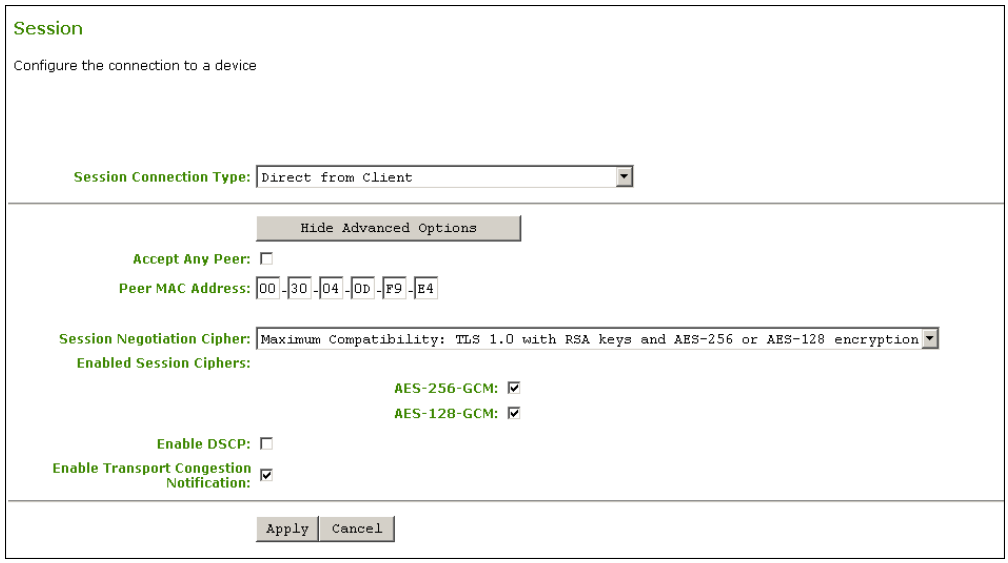


Figure 4-23: AWI Session Connection Type – Direct from Client

Table 4-31: AWI Session Page Parameters

Parameters	Description
Accept Any Peer	When enabled, the host accepts connections from any client. When disabled, you must specify the MAC address of the peer you want the host to accept.
Peer MAC Address	Enter the MAC address of the client that is allowed to connect to the host. If the **Accept Any Peer** option is enabled, this field is not required and not editable.
Session Negotiation Cipher	Configure the Transport Layer Security (TLS) cipher the client will use to negotiate the TLS session between the PCoIP client and the PCoIP host: • **TLS 1.0 with RSA keys and AES-256 or AES-128 encryption**: This option provides maximum compatibility. • **TLS 1.2 with Suite B-compliant 192-bit elliptic curve encryption**. This option provides a higher level of security.
Enabled Session Ciphers	Enable or disable an encryption mode for the device. By default, all encryption modes that pertain to a device are enabled. • **AES-128-GCM** (Tera1 and Tera2): An encryption method implemented in first-generation Tera1 and second-generation Tera2 processors. This method offers the best performance between hardware endpoints for Tera1 devices. AES-128-GCM also may offer improved performance for Tera2 clients when connecting to VMware 4 or later if there is more than about 7 Mbps available on the network. • **AES-256-GCM** (Tera2 only): A more secure encryption method implemented in second-generation Tera2 processors that offers the best performance between hardware endpoints. When connecting to VMware 4 or later, AES-128-GCM is recommended. • **Salsa20-256-Round12** (Tera1 only): A lighter encryption method implemented in firmware that may offer improved performance for Tera1 clients when connecting to VMware View 4 or later if there is more than about 7 Mbps available on the network. Note: For more information about connecting to VMware View virtual desktops, see "Using PCoIP® Zero Clients with VMware View User Guide" (TER0904005). Note: The enabled encryption mode must match between the host and client for a session to be established. If more than one mode is enabled, the firmware selects the following: • Host to Tera1 or Tera2 clients: AES-128-GCM or AES-256-GCM for the PCoIP session. • VMware View 4.5 and later to Tera1 client: SALSA20-256-Round12 for the PCoIP session. • VMware View 4.5 and later to Tera2 client: AES-128-GCM for the PCoIP session.

Parameters	Description
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.12 AWI Client: Direct to Host Session Settings

Select the **Direct to Host** session connection type from the **Configuration > Session** page to configure the client to connect directly to a host.

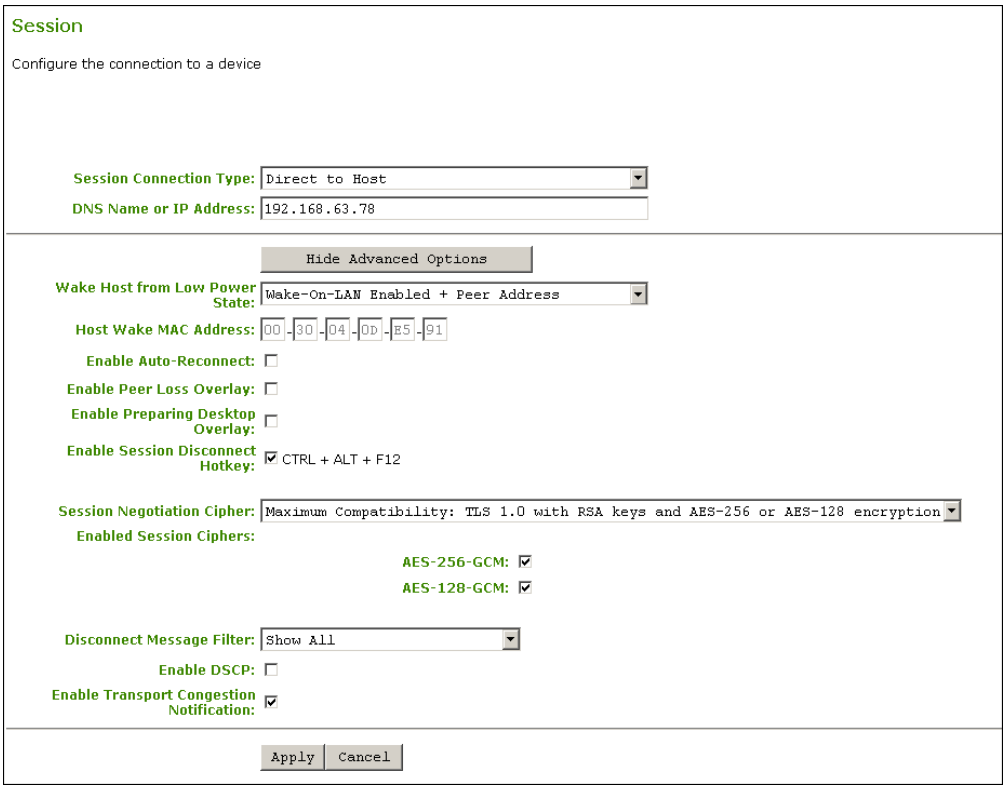


Figure 4-24: AWI Session Connection Type – Direct to Host

Table 4-32: AWI Session Page Parameters

Parameters	Description
DNS Name or IP Address	Enter the IP address or DNS name for the host.

Parameters	Description
Wake Host from Low Power State	Select whether to use the host's MAC address or IP address when configuring the Wake-On-LAN feature for a client. This feature wakes up the host when the user presses the client's remote PC button or clicks the **Connect** button on the **Connect** window. • **Wake-On-LAN Enabled + Peer Address**: When selected, enables the wake-up feature and displays the **Host Wake MAC Address** field so you can enter the host's MAC address. Use this option when the client and host are connected to the same network. • **Wake-On-LAN Enabled + Custom Address**: When selected, enables the wake-up feature and displays the **Host Wake MAC Address** and **Host Wake IP Address** fields so you can enter both addresses for the host. Use this option when the host is connected to a different network from the client. Note: • The feature only works with hardware hosts. It does not work with software hosts as they cannot be put into a low power state. • The hardware host must be able to support waking from low power state (off/hibernate/sleep) when it receives a wake-on-LAN packet. • For Tera2 clients, you can disable the Wake-On-LAN feature from the AWI Power page or the MC Power Permissions. page.
Host Wake MAC Address	Enter the host's MAC address to complete the host wake up configuration when **Wake-On-LAN Enabled + Peer Address** or **Wake-On-LAN Enabled + Custom Address** is selected. The client will send a "magic packet" to this MAC address to wake the host computer from a low power state.
Host Wake IP Address	Enter the host's IP address to complete the host wake up configuration when **Wake-On-LAN Enabled + Custom Address** is selected. The client will send a "magic packet" to this IP address to wake the host computer from a low power state.
Enable Auto-Reconnect	When enabled, lets the client automatically reconnect with the last connected host when a session is lost.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.

Parameters	Description
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.
Session Negotiation Cipher	Configure the Transport Layer Security (TLS) cipher the client will use to negotiate the TLS session between the PCoIP client and the PCoIP host: • **TLS 1.0 with RSA keys and AES-256 or AES-128 encryption**: This option provides maximum compatibility. • **TLS 1.2 with Suite B-compliant 192-bit elliptic curve encryption**. This option provides a higher level of security.
Enabled Session Ciphers	Enable or disable an encryption mode for the device. By default, all encryption modes that pertain to a device are enabled. • **AES-128-GCM** (Tera1 and Tera2): An encryption method implemented in first-generation Tera1 and second-generation Tera2 processors. This method offers the best performance between hardware endpoints for Tera1 devices. AES-128-GCM also may offer improved performance for Tera2 clients when connecting to VMware 4 or later if there is more than about 7 Mbps available on the network. • **AES-256-GCM** (Tera2 only): A more secure encryption method implemented in second-generation Tera2 processors that offers the best performance between hardware endpoints. When connecting to VMware 4 or later, AES-128-GCM is recommended. • **Salsa20-256-Round12** (Tera1 only): A lighter encryption method implemented in firmware that may offer improved performance for Tera1 clients when connecting to VMware View 4 or later if there is more than about 7 Mbps available on the network. Note: For more information about connecting to VMware View virtual desktops, see "Using PCoIP® Zero Clients with VMware View User Guide" (TER0904005). Note: The enabled encryption mode must match between the host and client for a session to be established. If more than one mode is enabled, the firmware selects the following: • Host to Tera1 or Tera2 clients: AES-128-GCM or AES-256-GCM for the PCoIP session. • VMware View 4.5 and later to Tera1 client: SALSA20-256-Round12 for the PCoIP session. • VMware View 4.5 and later to Tera2 client: AES-128-GCM for the PCoIP session.

Parameters	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameters	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.13 AWI Client: Direct to Host + SLP Host Discovery Session Settings

Select the **Direct to Host + SLP Host Discovery** session connection type from the **Configuration > Session** page to configure the client to connect directly to a host and to use Service Location Protocol (SLP) to discover the host automatically.

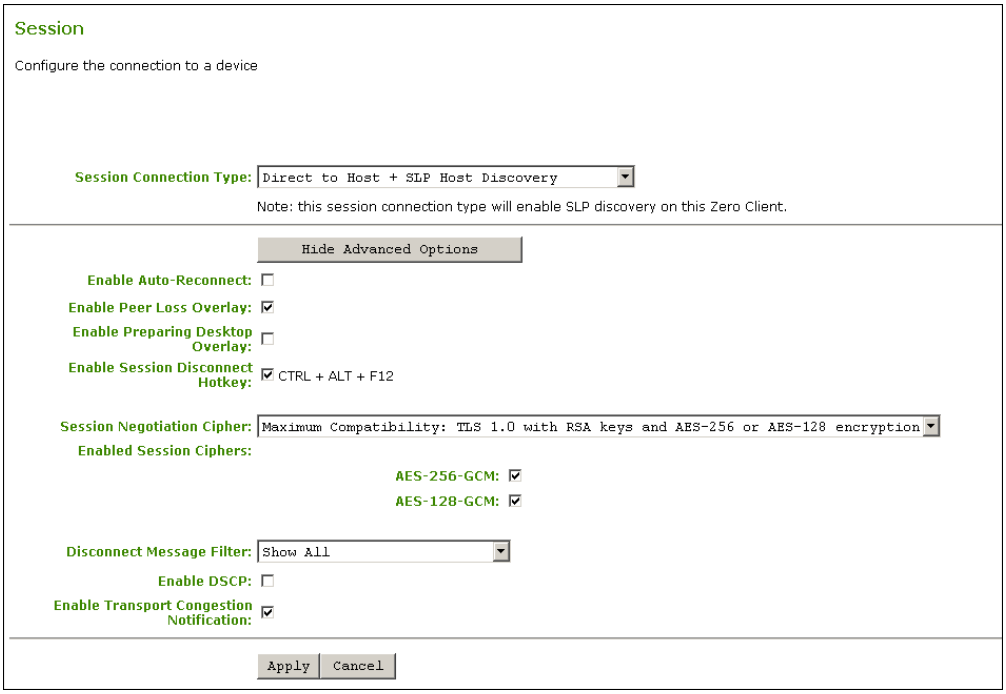


Figure 4-25: AWI Session Connection Type – Direct to Host + SLP Host Discovery

Table 4-33: AWI Session Page Parameters

Parameters	Description
Enable Auto-Reconnect	When enabled, lets the client automatically reconnect with the last connected host when a session is lost.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.

Parameters	Description
Session Negotiation Cipher	Configure the Transport Layer Security (TLS) cipher the client will use to negotiate the TLS session between the PCoIP client and the PCoIP host: • **TLS 1.0 with RSA keys and AES-256 or AES-128 encryption**: This option provides maximum compatibility. • **TLS 1.2 with Suite B-compliant 192-bit elliptic curve encryption**. This option provides a higher level of security.
Enabled Session Ciphers	Enable or disable an encryption mode for the device. By default, all encryption modes that pertain to a device are enabled. • **AES-128-GCM** (Tera1 and Tera2): An encryption method implemented in first-generation Tera1 and second-generation Tera2 processors. This method offers the best performance between hardware endpoints for Tera1 devices. AES-128-GCM also may offer improved performance for Tera2 clients when connecting to VMware 4 or later if there is more than about 7 Mbps available on the network. • **AES-256-GCM** (Tera2 only): A more secure encryption method implemented in second-generation Tera2 processors that offers the best performance between hardware endpoints. When connecting to VMware 4 or later, AES-128-GCM is recommended. • **Salsa20-256-Round12** (Tera1 only): A lighter encryption method implemented in firmware that may offer improved performance for Tera1 clients when connecting to VMware View 4 or later if there is more than about 7 Mbps available on the network. Note: For more information about connecting to VMware View virtual desktops, see "Using PCoIP® Zero Clients with VMware View User Guide" (TER0904005). Note: The enabled encryption mode must match between the host and client for a session to be established. If more than one mode is enabled, the firmware selects the following: • Host to Tera1 or Tera2 clients: AES-128-GCM or AES-256-GCM for the PCoIP session. • VMware View 4.5 and later to Tera1 client: SALSA20-256-Round12 for the PCoIP session. • VMware View 4.5 and later to Tera2 client: AES-128-GCM for the PCoIP session.

Parameters	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameters	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.14 AWI Tera2 Client: PCoIP Connection Manager Session Settings

Select the **PCoIP Connection Manager** session connection type from the **Configuration > Session** page to configure the client to use a PCoIP Connection Manager as the broker when connecting to a Teradici solution, such as the Teradici Arch™ published desktop solution.

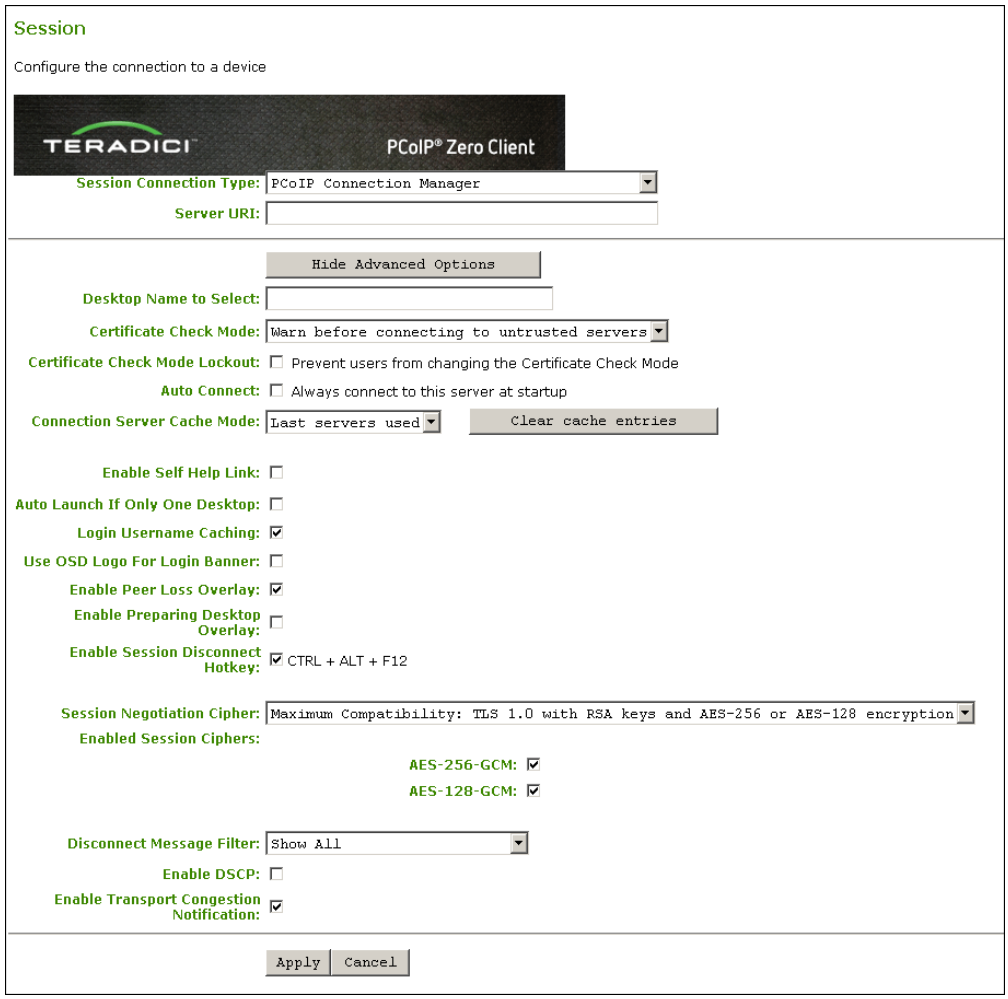


Figure 4-26: AWI Session Connection Type – PCoIP Connection Manager

Table 4-34: AWI Session Page Parameters

Parameter	Description
Server URI	Enter the Uniform Resource Identifier (URI) .for the PCoIP Connection Manager (e.g., *http:/archdesktop.mycompany.com*).
Desktop Name to Select	Enter the pool or desktop name used by the client when starting a session. Note: This setting is optional.

Parameter	Description
Certificate Check Mode	Select the level of verification performed on the certificate presented by the connection server: • **Never connect to untrusted servers**: Configure the client to reject the connection if a trusted, valid certificate is not installed. (This is the most secure option.) • **Warn before connecting to untrusted servers**: Configure the client to display a warning if an unsigned or expired certificate is encountered, or if the certificate is not self-signed and the zero client trust store is empty. (This option is selected by default.) • **Do not verify server identity certificates**: Configure the client to allow all connections. (This option is not secure.)
Certificate Check Mode Lockout	When enabled, prevents users from changing the **Certificate Check Mode** settings from the OSD or AWI.
Auto Connect	When enabled, the client automatically connects with the connection server after startup, bypassing the OSD **Connect** page. Note: After enabling **Auto Connect**, the client must be power-cycled for the change to take effect.
Connection Server Cache Mode	This field determines whether a connection server is dynamically added to the **Server** drop-down menu on the OSD **Connect** page when a user types in a valid server address, or whether it appears in a read-only list for the user to select. • **Last servers used**: Select this option if you want a list of cached servers that a user has typed in to appear in the **Server** drop-down menu on the OSD **Connect** page. • **Read-only**: Select this option if you want users to select a connection server from a read-only list. Note: You can use the PCoIP Management Console to pre-populate the list of available connection servers.
Enable Self Help Link	See Enabling the Self Help Link for details.
Auto Launch If Only One Desktop	When enabled, users are automatically connected to their desktop after user credentials are entered. Note: This feature only applies to users who are entitled to a single desktop. It does not apply to users entitled to multiple virtual desktops.
Login Username Caching	When enabled, the username text box automatically populates with the last username entered.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.

Parameter	Description
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.
Session Negotiation Cipher	Configure the Transport Layer Security (TLS) cipher the client will use to negotiate the TLS session between the PCoIP client and the PCoIP host: • **TLS 1.0 with RSA keys and AES-256 or AES-128 encryption**: This option provides maximum compatibility. • **TLS 1.2 with Suite B-compliant 192-bit elliptic curve encryption**. This option provides a higher level of security.

Parameter	Description
Enabled Session Ciphers	Enable or disable an encryption mode for the device. By default, all encryption modes that pertain to a device are enabled. • **AES-128-GCM** (Tera1 and Tera2): An encryption method implemented in first-generation Tera1 and second-generation Tera2 processors. This method offers the best performance between hardware endpoints for Tera1 devices. AES-128-GCM also may offer improved performance for Tera2 clients when connecting to VMware 4 or later if there is more than about 7 Mbps available on the network. • **AES-256-GCM** (Tera2 only): A more secure encryption method implemented in second-generation Tera2 processors that offers the best performance between hardware endpoints. When connecting to VMware 4 or later, AES-128-GCM is recommended. • **Salsa20-256-Round12** (Tera1 only): A lighter encryption method implemented in firmware that may offer improved performance for Tera1 clients when connecting to VMware View 4 or later if there is more than about 7 Mbps available on the network. Note: For more information about connecting to VMware View virtual desktops, see "Using PCoIP® Zero Clients with VMware View User Guide" (TER0904005). Note: The enabled encryption mode must match between the host and client for a session to be established. If more than one mode is enabled, the firmware selects the following: • Host to Tera1 or Tera2 clients: AES-128-GCM or AES-256-GCM for the PCoIP session. • VMware View 4.5 and later to Tera1 client: SALSA20-256-Round12 for the PCoIP session. • VMware View 4.5 and later to Tera2 client: AES-128-GCM for the PCoIP session.

Parameter	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

Enabling the Self Help Link

The **Self Help Link** option lets you configure a self-help link that will appear on the OSD **Connect** window. When users click this link, they are automatically connected to a specific desktop that can be used as a corporate resource—for example, a desktop containing IT help information. After enabling this option, you then configure all the necessary details to automatically log users in to the desktop that you specify. You also configure the link text that you want to appear on the **Connect** window.

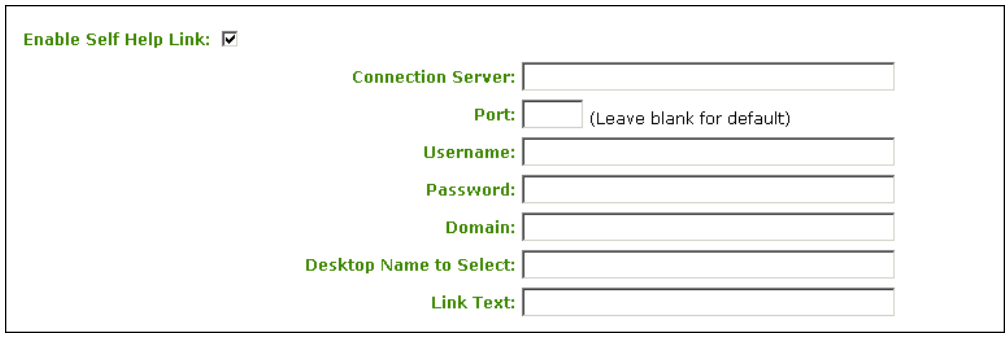


Figure 4-27: Enable Self Help Link Options

When you enable this field, the following options appear:

Parameter	Description
Connection Server	Enter the fully-qualified domain name of the connection server brokering the desktop (e.g., a PCoIP Connection Manager for a PCoIP Connection Manager session connection type, or a View Connection Server for a View Connection Server session connection type).
Port	By default, port 443 is used to communicate with the connection server. If your network is set up to use a non-standard port for secure connections, enter the port number.
Username	To password protect the self-help desktop, enter a username in this field.
Password	To password protect the self-help desktop, enter a password in this field.
Domain	Enter the domain name for the self-help desktop (e.g., *mycompany.com*).
Desktop Name to Select	Enter the pool or desktop name for the self-help desktop.
Link Text	Enter the text that you want to appear as hyperlinked text on the **Connect** window.

5.7.15 AWI Tera2 Client: PCoIP Connection Manager + Auto-Logon Session Settings

Select the **PCoIP Connection Manager + Auto-Logon** session connection type from the **Configuration > Session** page to configure the client to automatically enter a user's login details when a PCoIP Connection Manager is used to connect to a Teradici solution, such as the Teradici Arch™ published desktop solution.

Figure 4-28: AWI Session Connection Type – PCoIP Connection Manager + Auto-Logon

Table 4-35: AWI Session Page Parameters

Parameter	Description
Server URI	Enter the Uniform Resource Identifier (URI) .for the PCoIP Connection Manager (e.g., *http:/archdesktop.mycompany.com*).
Logon Username	Enter the username for the client. This username will be sent to the specified connection server.
Logon Password	Enter the password for the client. This password will be sent to the specified connection server.
Logon Domain Name	Enter the domain for the client. This domain will be sent to the specified connection server.

Parameter	Description
Desktop Name to Select	Enter the pool or desktop name used by the client when starting a session. Note: This setting is optional.
Certificate Check Mode	Select the level of verification performed on the certificate presented by the connection server: • **Never connect to untrusted servers**: Configure the client to reject the connection if a trusted, valid certificate is not installed. (This is the most secure option.) • **Warn before connecting to untrusted servers**: Configure the client to display a warning if an unsigned or expired certificate is encountered, or if the certificate is not self-signed and the zero client trust store is empty. (This option is selected by default.) • **Do not verify server identity certificates**: Configure the client to allow all connections. (This option is not secure.)
Certificate Check Mode Lockout	When enabled, prevents users from changing the **Certificate Check Mode** settings from the OSD or AWI.
Auto Connect	When enabled, the client automatically connects with the connection server after startup, bypassing the OSD **Connect** page. Note: After enabling **Auto Connect**, the client must be power-cycled for the change to take effect.
Connection Server Cache Mode	This field determines whether a connection server is dynamically added to the **Server** drop-down menu on the OSD **Connect** page when a user types in a valid server address, or whether it appears in a read-only list for the user to select. • **Last servers used**: Select this option if you want a list of cached servers that a user has typed in to appear in the **Server** drop-down menu on the OSD **Connect** page. • **Read-only**: Select this option if you want users to select a connection server from a read-only list. Note: You can use the PCoIP Management Console to pre-populate the list of available connection servers.
Auto Launch If Only One Desktop	When enabled, users are automatically connected to their desktop after user credentials are entered. Note: This feature only applies to users who are entitled to a single desktop. It does not apply to users entitled to multiple virtual desktops.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.

Parameter	Description
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.
Session Negotiation Cipher	Configure the Transport Layer Security (TLS) cipher the client will use to negotiate the TLS session between the PCoIP client and the PCoIP host: • **TLS 1.0 with RSA keys and AES-256 or AES-128 encryption**: This option provides maximum compatibility. • **TLS 1.2 with Suite B-compliant 192-bit elliptic curve encryption**. This option provides a higher level of security.

Parameter	Description
Enabled Session Ciphers	Enable or disable an encryption mode for the device. By default, all encryption modes that pertain to a device are enabled. • **AES-128-GCM** (Tera1 and Tera2): An encryption method implemented in first-generation Tera1 and second-generation Tera2 processors. This method offers the best performance between hardware endpoints for Tera1 devices. AES-128-GCM also may offer improved performance for Tera2 clients when connecting to VMware 4 or later if there is more than about 7 Mbps available on the network. • **AES-256-GCM** (Tera2 only): A more secure encryption method implemented in second-generation Tera2 processors that offers the best performance between hardware endpoints. When connecting to VMware 4 or later, AES-128-GCM is recommended. • **Salsa20-256-Round12** (Tera1 only): A lighter encryption method implemented in firmware that may offer improved performance for Tera1 clients when connecting to VMware View 4 or later if there is more than about 7 Mbps available on the network. Note: For more information about connecting to VMware View virtual desktops, see "Using PCoIP® Zero Clients with VMware View User Guide" (TER0904005). Note: The enabled encryption mode must match between the host and client for a session to be established. If more than one mode is enabled, the firmware selects the following: • Host to Tera1 or Tera2 clients: AES-128-GCM or AES-256-GCM for the PCoIP session. • VMware View 4.5 and later to Tera1 client: SALSA20-256-Round12 for the PCoIP session. • VMware View 4.5 and later to Tera2 client: AES-128-GCM for the PCoIP session.

Parameter	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.16 AWI Client: View Connection Server Session Settings

Select the **View Connection Server** session connection type from the **Configuration > Session** page to configure the client to use a VMware View Connection Server as the broker when connecting to a virtual desktop.

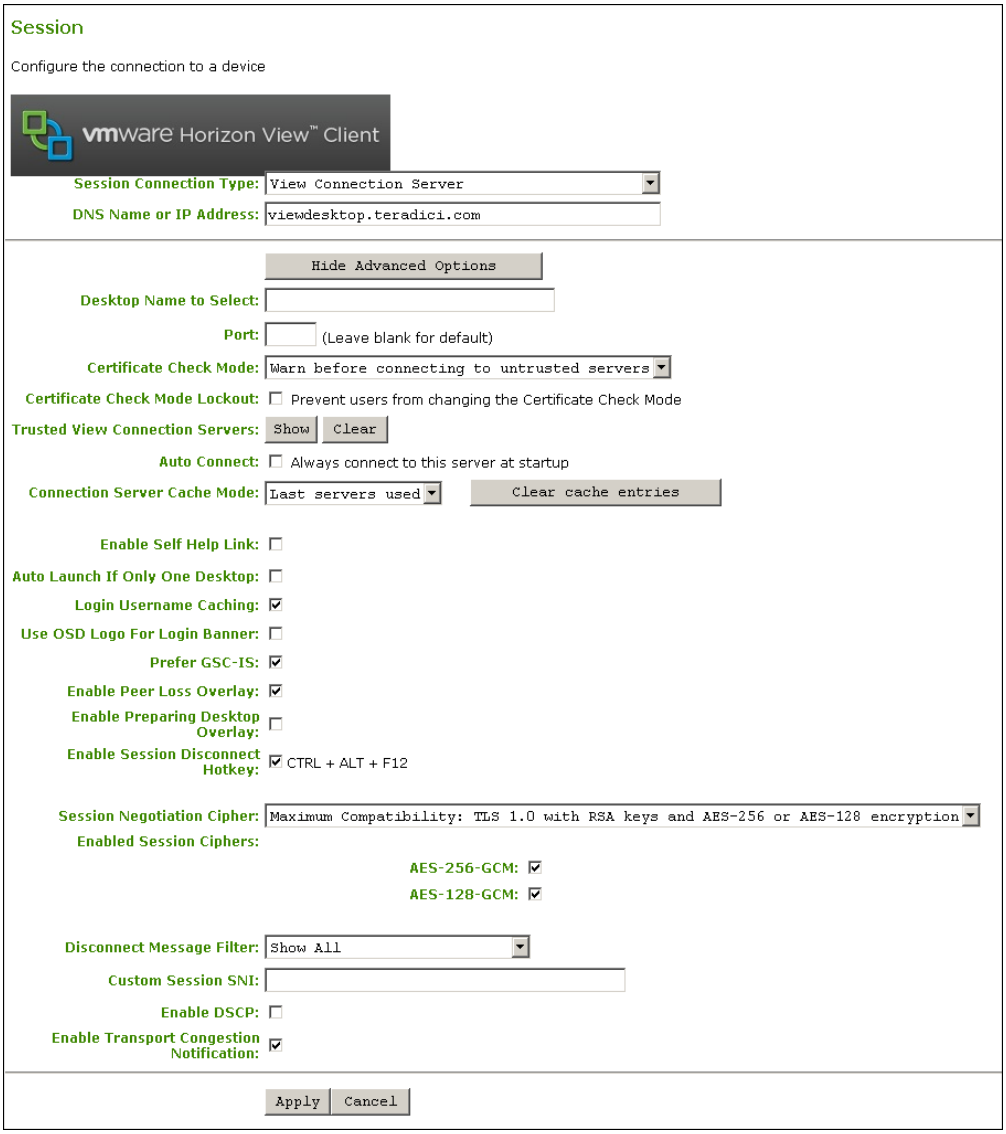


Figure 4-29: AWI Session Connection Type – View Connection Server

Table 4-36: AWI Session Page Parameters

Parameter	Description
DNS Name or IP Address	Enter the VMware View Connection Server's DNS name or IP address.
Desktop Name to Select	Enter the pool or desktop name used by the client when starting a session. Note: This setting is optional.

Parameter	Description
Port	By default, port 443 is used to communicate with the connection server. If your network is set up to use a non-standard port for secure connections, enter the port number.
Certificate Check Mode	Select the level of verification performed on the certificate presented by the connection server: • **Never connect to untrusted servers**: Configure the client to reject the connection if a trusted, valid certificate is not installed. (This is the most secure option.) • **Warn before connecting to untrusted servers**: Configure the client to display a warning if an unsigned or expired certificate is encountered, or if the certificate is not self-signed and the zero client trust store is empty. (This option is selected by default.) • **Do not verify server identity certificates**: Configure the client to allow all connections. (This option is not secure.)
Certificate Check Mode Lockout	When enabled, prevents users from changing the **Certificate Check Mode** settings from the OSD or AWI.
Trusted View Connection Servers	Click the **Show** button to display VMware View Connection Servers for which the client has received a valid certificate. Click the **Clear** button to clear this cache.
Auto Connect	When enabled, the client automatically connects with the connection server after startup, bypassing the OSD **Connect** page. Note: After enabling **Auto Connect**, the client must be power-cycled for the change to take effect.
Connection Server Cache Mode	This field determines whether a connection server is dynamically added to the **Server** drop-down menu on the OSD **Connect** page when a user types in a valid server address, or whether it appears in a read-only list for the user to select. • **Last servers used**: Select this option if you want a list of cached servers that a user has typed in to appear in the **Server** drop-down menu on the OSD **Connect** page. • **Read-only**: Select this option if you want users to select a connection server from a read-only list. Note: You can use the PCoIP Management Console to pre-populate the list of available connection servers.
Enable Self Help Link	See Enabling the Self Help Link for details.
Auto Launch If Only One Desktop	When enabled, users are automatically connected to their desktop after user credentials are entered. Note: This feature only applies to users who are entitled to a single desktop. It does not apply to users entitled to multiple virtual desktops.
Login Username Caching	When enabled, the username text box automatically populates with the last username entered.

Parameter	Description
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.
Prefer GSC-IS	When selected, the GSC-IS interface is used if a smart card supports more than one interface such as CAC (GSC-IS) and PIV endpoint. If a smart card supports only one interface, such as either CAC or PIV endpoint, then only the CAC or PIV endpoint interface is used regardless of this setting. This only affects smart card access performed outside of PCoIP sessions.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.
Session Negotiation Cipher	Configure the Transport Layer Security (TLS) cipher the client will use to negotiate the TLS session between the PCoIP client and the PCoIP host: • **TLS 1.0 with RSA keys and AES-256 or AES-128 encryption**: This option provides maximum compatibility. • **TLS 1.2 with Suite B-compliant 192-bit elliptic curve encryption**. This option provides a higher level of security.

Parameter	Description
Enabled Session Ciphers	Enable or disable an encryption mode for the device. By default, all encryption modes that pertain to a device are enabled. • **AES-128-GCM** (Tera1 and Tera2): An encryption method implemented in first-generation Tera1 and second-generation Tera2 processors. This method offers the best performance between hardware endpoints for Tera1 devices. AES-128-GCM also may offer improved performance for Tera2 clients when connecting to VMware 4 or later if there is more than about 7 Mbps available on the network. • **AES-256-GCM** (Tera2 only): A more secure encryption method implemented in second-generation Tera2 processors that offers the best performance between hardware endpoints. When connecting to VMware 4 or later, AES-128-GCM is recommended. • **Salsa20-256-Round12** (Tera1 only): A lighter encryption method implemented in firmware that may offer improved performance for Tera1 clients when connecting to VMware View 4 or later if there is more than about 7 Mbps available on the network. Note: For more information about connecting to VMware View virtual desktops, see "Using PCoIP® Zero Clients with VMware View User Guide" (TER0904005). Note: The enabled encryption mode must match between the host and client for a session to be established. If more than one mode is enabled, the firmware selects the following: • Host to Tera1 or Tera2 clients: AES-128-GCM or AES-256-GCM for the PCoIP session. • VMware View 4.5 and later to Tera1 client: SALSA20-256-Round12 for the PCoIP session. • VMware View 4.5 and later to Tera2 client: AES-128-GCM for the PCoIP session.

Parameter	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Custom Session SNI	When enabled, sets a customized Server Name Indication (SNI) string on authorized man-in-the-middle-enabled clients. The SNI string is appended to the SSL/TLS HELLO when the client initates an SSL connection with the host.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

Enabling the Self Help Link

The **Self Help Link** option lets you configure a self-help link that will appear on the OSD **Connect** window. When users click this link, they are automatically connected to a specific desktop that can be used as a corporate resource—for example, a desktop containing IT help information. After enabling this option, you then configure all the necessary details to automatically log users in to the desktop that you specify. You also configure the link text that you want to appear on the **Connect** window.

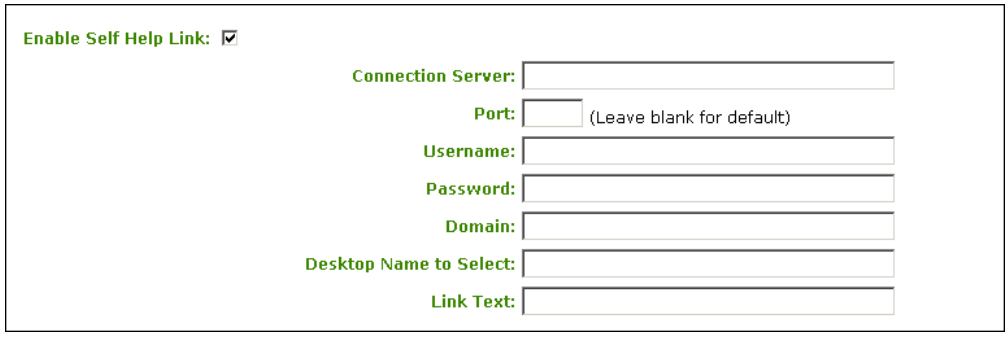


Figure 4-30: Enable Self Help Link Options

When you enable this field, the following options appear:

Parameter	Description
Connection Server	Enter the fully-qualified domain name of the connection server brokering the desktop (e.g., a PCoIP Connection Manager for a PCoIP Connection Manager session connection type, or a View Connection Server for a View Connection Server session connection type).
Port	By default, port 443 is used to communicate with the connection server. If your network is set up to use a non-standard port for secure connections, enter the port number.
Username	To password protect the self-help desktop, enter a username in this field.
Password	To password protect the self-help desktop, enter a password in this field.
Domain	Enter the domain name for the self-help desktop (e.g., *mycompany.com*).
Desktop Name to Select	Enter the pool or desktop name for the self-help desktop.
Link Text	Enter the text that you want to appear as hyperlinked text on the **Connect** window.

5.7.17 AWI Client: View Connection Server + Auto-Logon Session Settings

Select the **View Connection Server + Auto-Logon** session connection type from the **Configuration > Session** page to configure the client to automatically enter a user's login details when a VMware View Connection Server is used to connect to a virtual desktop.

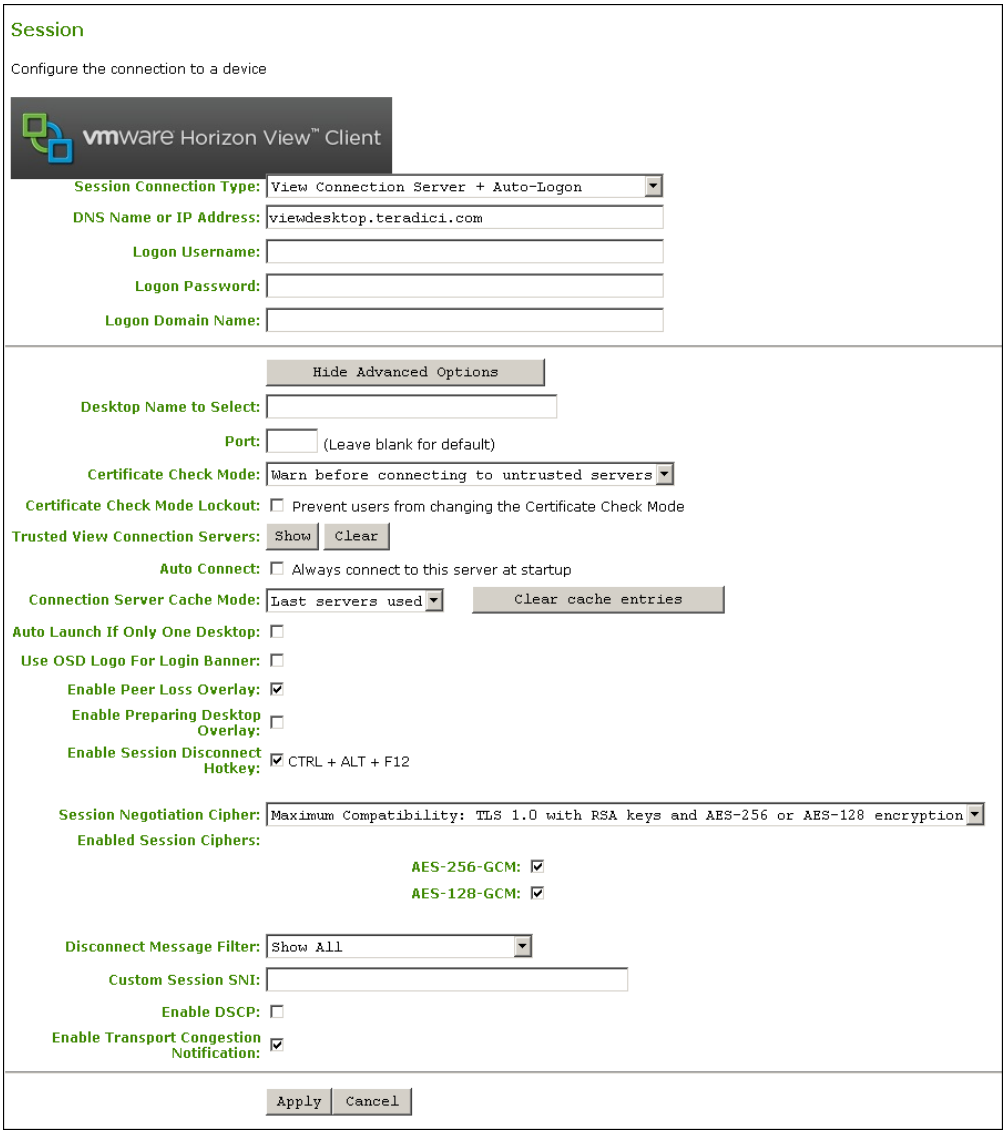


Figure 4-31: AWI Session Connection Type – View Connection Server + Auto-Logon

Table 4-37: AWI Session Page Parameters

Parameter	Description
DNS Name or IP Address	Enter the VMware View Connection Server's DNS name or IP address.
Logon Username	Enter the username for the client. This username will be sent to the specified connection server.
Logon Password	Enter the password for the client. This password will be sent to the specified connection server.

Parameter	Description
Logon Domain Name	Enter the domain for the client. This domain will be sent to the specified connection server.
Desktop Name to Select	Enter the pool or desktop name used by the client when starting a session. Note: This setting is optional.
Port	By default, port 443 is used to communicate with the connection server. If your network is set up to use a non-standard port for secure connections, enter the port number.
Certificate Check Mode	Select the level of verification performed on the certificate presented by the connection server: • **Never connect to untrusted servers**: Configure the client to reject the connection if a trusted, valid certificate is not installed. (This is the most secure option.) • **Warn before connecting to untrusted servers**: Configure the client to display a warning if an unsigned or expired certificate is encountered, or if the certificate is not self-signed and the zero client trust store is empty. (This option is selected by default.) • **Do not verify server identity certificates**: Configure the client to allow all connections. (This option is not secure.)
Certificate Check Mode Lockout	When enabled, prevents users from changing the **Certificate Check Mode** settings from the OSD or AWI.
Trusted View Connection Servers	Click the **Show** button to display VMware View Connection Servers for which the client has received a valid certificate. Click the **Clear** button to clear this cache.
Auto Connect	When enabled, the client automatically connects with the connection server after startup, bypassing the OSD **Connect** page. Note: After enabling **Auto Connect**, the client must be power-cycled for the change to take effect.
Connection Server Cache Mode	This field determines whether a connection server is dynamically added to the **Server** drop-down menu on the OSD **Connect** page when a user types in a valid server address, or whether it appears in a read-only list for the user to select. • **Last servers used**: Select this option if you want a list of cached servers that a user has typed in to appear in the **Server** drop-down menu on the OSD **Connect** page. • **Read-only**: Select this option if you want users to select a connection server from a read-only list. Note: You can use the PCoIP Management Console to pre-populate the list of available connection servers.

Parameter	Description
Auto Launch If Only One Desktop	When enabled, users are automatically connected to their desktop after user credentials are entered. Note: This feature only applies to users who are entitled to a single desktop. It does not apply to users entitled to multiple virtual desktops.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.
Session Negotiation Cipher	Configure the Transport Layer Security (TLS) cipher the client will use to negotiate the TLS session between the PCoIP client and the PCoIP host: • **TLS 1.0 with RSA keys and AES-256 or AES-128 encryption**: This option provides maximum compatibility. • **TLS 1.2 with Suite B-compliant 192-bit elliptic curve encryption**. This option provides a higher level of security.

Parameter	Description
Enabled Session Ciphers	Enable or disable an encryption mode for the device. By default, all encryption modes that pertain to a device are enabled. • **AES-128-GCM** (Tera1 and Tera2): An encryption method implemented in first-generation Tera1 and second-generation Tera2 processors. This method offers the best performance between hardware endpoints for Tera1 devices. AES-128-GCM also may offer improved performance for Tera2 clients when connecting to VMware 4 or later if there is more than about 7 Mbps available on the network. • **AES-256-GCM** (Tera2 only): A more secure encryption method implemented in second-generation Tera2 processors that offers the best performance between hardware endpoints. When connecting to VMware 4 or later, AES-128-GCM is recommended. • **Salsa20-256-Round12** (Tera1 only): A lighter encryption method implemented in firmware that may offer improved performance for Tera1 clients when connecting to VMware View 4 or later if there is more than about 7 Mbps available on the network. Note: For more information about connecting to VMware View virtual desktops, see "Using PCoIP® Zero Clients with VMware View User Guide" (TER0904005). Note: The enabled encryption mode must match between the host and client for a session to be established. If more than one mode is enabled, the firmware selects the following: • Host to Tera1 or Tera2 clients: AES-128-GCM or AES-256-GCM for the PCoIP session. • VMware View 4.5 and later to Tera1 client: SALSA20-256-Round12 for the PCoIP session. • VMware View 4.5 and later to Tera2 client: AES-128-GCM for the PCoIP session.

Parameter	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Custom Session SNI	When enabled, sets a customized Server Name Indication (SNI) string on authorized man-in-the-middle-enabled clients. The SNI string is appended to the SSL/TLS HELLO when the client initates an SSL connection with the host.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.18 AWI Client: View Connection Server + Kiosk Session Settings

Select the **View Connection Server + Kiosk** session connection type from the **Configuration > Session** page to configure the client to use Kiosk mode when a VMware View Connection Server is used to connect to a virtual desktop.

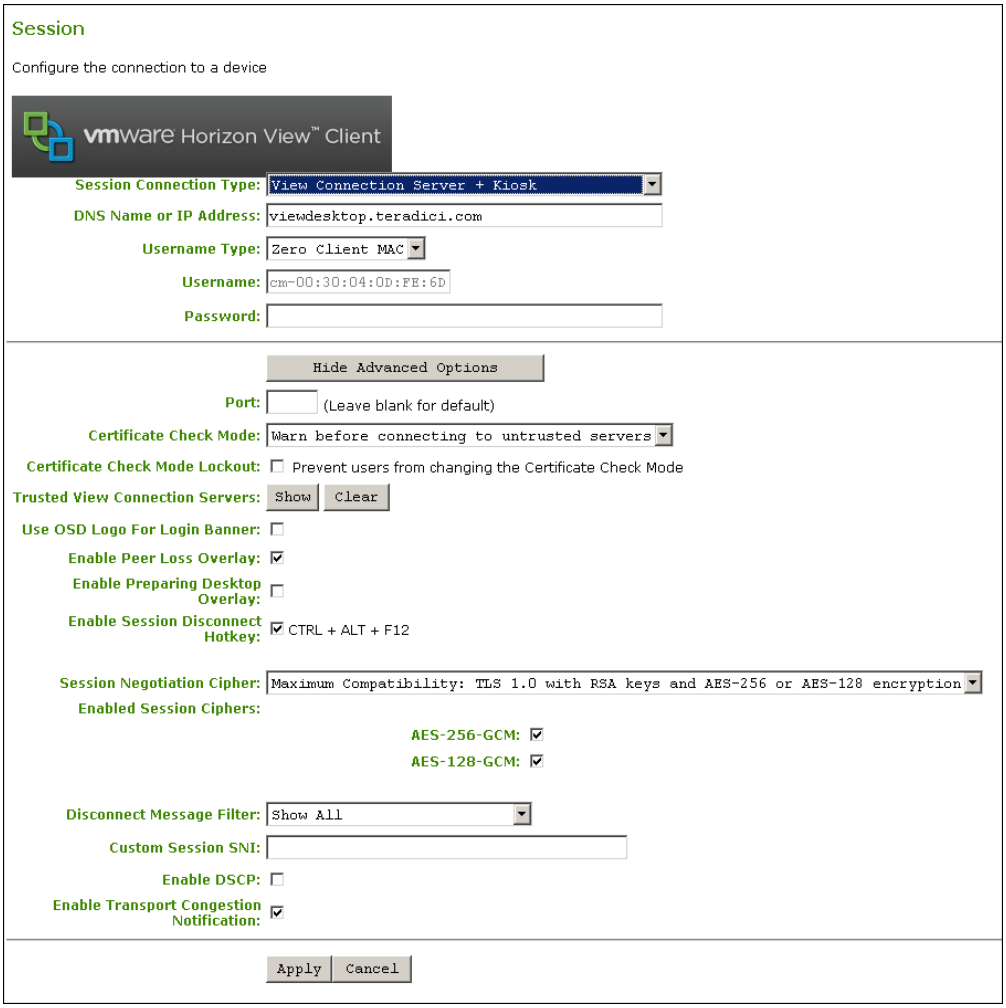


Figure 4-32: AWI Session Connection Type – View Connection Server + Kiosk

Table 4-38: AWI Session Page Parameters

Parameter	Description
DNS Name or IP Address	Enter the VMware View Connection Server's DNS name or IP address.
Username Type	Select the type of username that matches the naming you use for the devices on the View Connection Server. • **Zero Client MAC**: Select this option to automatically populate the **Username** field with the MAC address of the zero client. • **Custom**: Enter the username for the zero client. This username has the prefix "Custom."
Username	When **Custom** is selected as the username type, enter the value for this component of the custom username. This field is limited to 13 characters.

Parameter	Description
Password	To password protect the virtual machine for the kiosk, enter a password in this field. This password must match the one entered for the device in the View Connection Server.
Port	By default, port 443 is used to communicate with the connection server. If your network is set up to use a non-standard port for secure connections, enter the port number.
Certificate Check Mode	Select the level of verification performed on the certificate presented by the connection server: • **Never connect to untrusted servers**: Configure the client to reject the connection if a trusted, valid certificate is not installed. (This is the most secure option.) • **Warn before connecting to untrusted servers**: Configure the client to display a warning if an unsigned or expired certificate is encountered, or if the certificate is not self-signed and the zero client trust store is empty. (This option is selected by default.) • **Do not verify server identity certificates**: Configure the client to allow all connections. (This option is not secure.)
Certificate Check Mode Lockout	When enabled, prevents users from changing the **Certificate Check Mode** settings from the OSD or AWI.
Trusted View Connection Servers	Click the **Show** button to display VMware View Connection Servers for which the client has received a valid certificate. Click the **Clear** button to clear this cache.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.

Parameter	Description
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.
Session Negotiation Cipher	Configure the Transport Layer Security (TLS) cipher the client will use to negotiate the TLS session between the PCoIP client and the PCoIP host: • **TLS 1.0 with RSA keys and AES-256 or AES-128 encryption**: This option provides maximum compatibility. • **TLS 1.2 with Suite B-compliant 192-bit elliptic curve encryption**. This option provides a higher level of security.
Enabled Session Ciphers	Enable or disable an encryption mode for the device. By default, all encryption modes that pertain to a device are enabled. • **AES-128-GCM** (Tera1 and Tera2): An encryption method implemented in first-generation Tera1 and second-generation Tera2 processors. This method offers the best performance between hardware endpoints for Tera1 devices. AES-128-GCM also may offer improved performance for Tera2 clients when connecting to VMware 4 or later if there is more than about 7 Mbps available on the network. • **AES-256-GCM** (Tera2 only): A more secure encryption method implemented in second-generation Tera2 processors that offers the best performance between hardware endpoints. When connecting to VMware 4 or later, AES-128-GCM is recommended. • **Salsa20-256-Round12** (Tera1 only): A lighter encryption method implemented in firmware that may offer improved performance for Tera1 clients when connecting to VMware View 4 or later if there is more than about 7 Mbps available on the network. Note: For more information about connecting to VMware View virtual desktops, see "Using PCoIP® Zero Clients with VMware View User Guide" (TER0904005). Note: The enabled encryption mode must match between the host and client for a session to be established. If more than one mode is enabled, the firmware selects the following: • Host to Tera1 or Tera2 clients: AES-128-GCM or AES-256-GCM for the PCoIP session. • VMware View 4.5 and later to Tera1 client: SALSA20-256-Round12 for the PCoIP session. • VMware View 4.5 and later to Tera2 client: AES-128-GCM for the PCoIP session.

Parameter	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Custom Session SNI	When enabled, sets a customized Server Name Indication (SNI) string on authorized man-in-the-middle-enabled clients. The SNI string is appended to the SSL/TLS HELLO when the client initates an SSL connection with the host.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.19 AWI Client: View Connection Server + Imprivata OneSign Session Settings

Select the **View Connection Server + Imprivata OneSign** session connection type from the **Configuration > Session** page to configure the client to authenticate through the Imprivata OneSign system in addition to a View Connection Server when connecting to a virtual desktop.

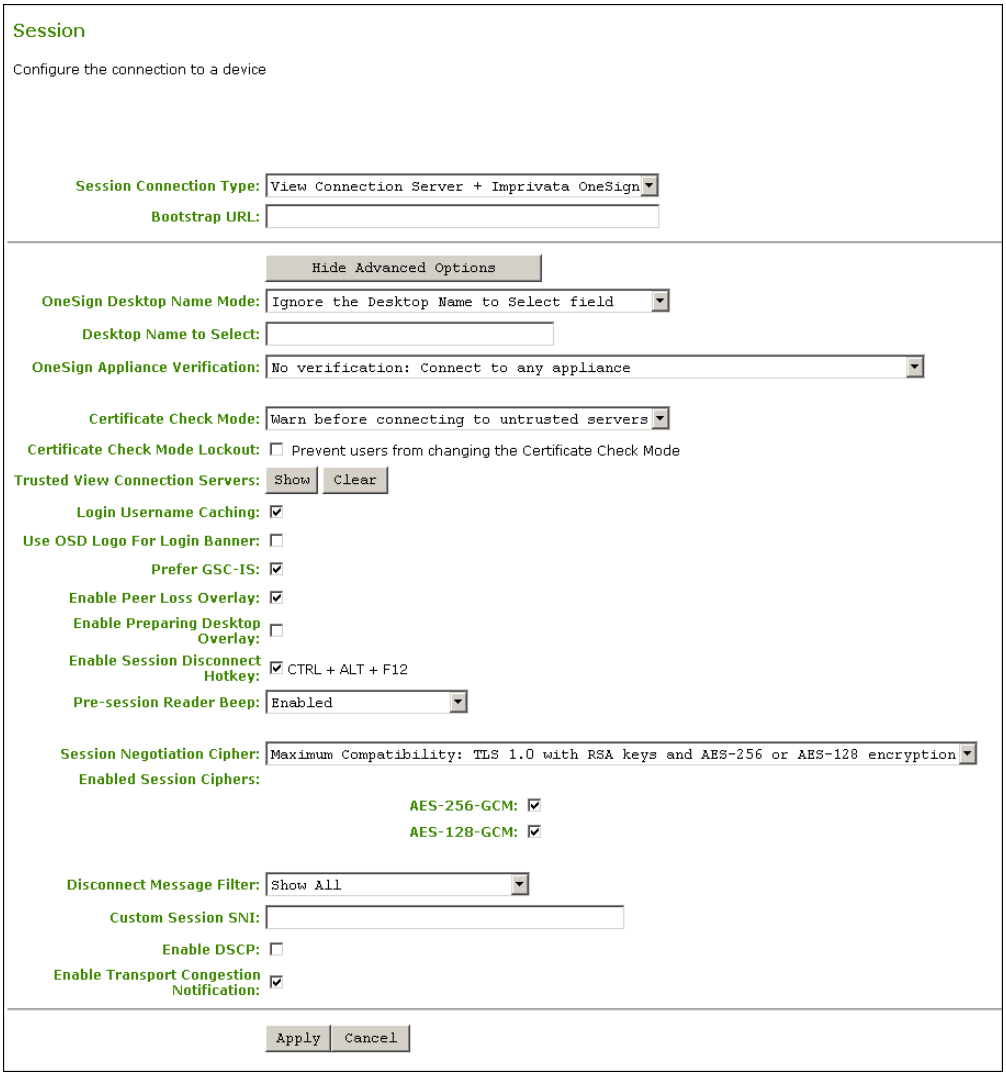


Figure 4-33: AWI Session Connection Type – View Connection Server + Imprivata OneSign

Table 4-39: AWI Session Page Parameters

Parameter	Description
DNS Name or IP Address	Enter the VMware View Connection Server's DNS name or IP address.
Bootstrap URL	Enter the bootstrap URL used to find an initial OneSign server in a OneSign authentication deployment.
Onesign Desktop Name Mode	Select whether the **Desktop Name to Select** property is used in OneSign Mode: • **Ignore** • **Use If Set**

Parameter	Description
Desktop Name to Select	Enter the desktop name. When the desktop pool list includes a pool with this name, the client will immediately start a session with that pool. Note: This field is case-insensitive.
Onesign Appliance Verification	Select the level of verification performed on the certificate presented by the OneSign appliance server: • **No verification: Connect to any appliance** • **Full verification: Only connect to appliances with verified certificates**
Certificate Check Mode	Select the level of verification performed on the certificate presented by the connection server: • **Never connect to untrusted servers**: Configure the client to reject the connection if a trusted, valid certificate is not installed. (This is the most secure option.) • **Warn before connecting to untrusted servers**: Configure the client to display a warning if an unsigned or expired certificate is encountered, or if the certificate is not self-signed and the zero client trust store is empty. (This option is selected by default.) • **Do not verify server identity certificates**: Configure the client to allow all connections. (This option is not secure.)
Certificate Check Mode Lockout	When enabled, prevents users from changing the **Certificate Check Mode** settings from the OSD or AWI.
Trusted View Connection Servers	Click the **Show** button to display VMware View Connection Servers for which the client has received a valid certificate. Click the **Clear** button to clear this cache.
Login Username Caching	When enabled, the username text box automatically populates with the last username entered.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.
Prefer GSC-IS	When selected, the GSC-IS interface is used if a smart card supports more than one interface such as CAC (GSC-IS) and PIV endpoint. If a smart card supports only one interface, such as either CAC or PIV endpoint, then only the CAC or PIV endpoint interface is used regardless of this setting. This only affects smart card access performed outside of PCoIP sessions.

Parameter	Description
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.
Pre-session Reader Beep	Configure whether the proximity card reader beeps when a valid card is tapped on the reader in OneSign mode: • **Use Existing Setting**: Uses the existing setting (affects only devices runing firmware 4.1.0 or greater) • **Disabled**: Disables the feature. • **Enabled**: Enables the feature.
Session Negotiation Cipher	Configure the Transport Layer Security (TLS) cipher the client will use to negotiate the TLS session between the PCoIP client and the PCoIP host: • **TLS 1.0 with RSA keys and AES-256 or AES-128 encryption**: This option provides maximum compatibility. • **TLS 1.2 with Suite B-compliant 192-bit elliptic curve encryption**. This option provides a higher level of security.

Parameter	Description
Enabled Session Ciphers	Enable or disable an encryption mode for the device. By default, all encryption modes that pertain to a device are enabled. • **AES-128-GCM** (Tera1 and Tera2): An encryption method implemented in first-generation Tera1 and second-generation Tera2 processors. This method offers the best performance between hardware endpoints for Tera1 devices. AES-128-GCM also may offer improved performance for Tera2 clients when connecting to VMware 4 or later if there is more than about 7 Mbps available on the network. • **AES-256-GCM** (Tera2 only): A more secure encryption method implemented in second-generation Tera2 processors that offers the best performance between hardware endpoints. When connecting to VMware 4 or later, AES-128-GCM is recommended. • **Salsa20-256-Round12** (Tera1 only): A lighter encryption method implemented in firmware that may offer improved performance for Tera1 clients when connecting to VMware View 4 or later if there is more than about 7 Mbps available on the network. Note: For more information about connecting to VMware View virtual desktops, see "Using PCoIP® Zero Clients with VMware View User Guide" (TER0904005). Note: The enabled encryption mode must match between the host and client for a session to be established. If more than one mode is enabled, the firmware selects the following: • Host to Tera1 or Tera2 clients: AES-128-GCM or AES-256-GCM for the PCoIP session. • VMware View 4.5 and later to Tera1 client: SALSA20-256-Round12 for the PCoIP session. • VMware View 4.5 and later to Tera2 client: AES-128-GCM for the PCoIP session.

Parameter	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Custom Session SNI	When enabled, sets a customized Server Name Indication (SNI) string on authorized man-in-the-middle-enabled clients. The SNI string is appended to the SSL/TLS HELLO when the client initates an SSL connection with the host.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.20 AWI Host: Connection Management Interface Session Settings

Select the **Connection Management Interface** session connection type from the **Configuration > Session** page to configure an external connection manager as the connection broker for the host to use.

Note: External connection managers can simplify the administration effort for large, complex systems. In a managed connection, an external connection manager server communicates with a device, and can remotely control and configure it. The connection manager can also locate an appropriate peer for the device to connect to, and then initiate the connection.

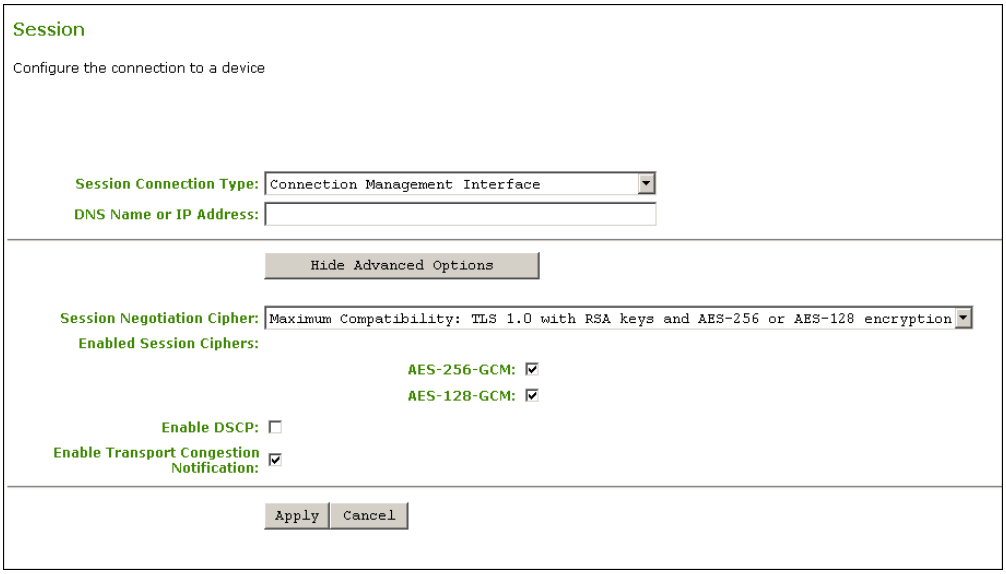


Figure 4-34: AWI Session Connection Type – Connection Management Interface (Host)

Table 4-40: AWI Session Page Parameters

Parameter	Description
DNS Name or IP Address	Enter the DNS name or IP address of the connection manager.
Session Negotiation Cipher	Configure the Transport Layer Security (TLS) cipher the client will use to negotiate the TLS session between the PCoIP client and the PCoIP host: • **TLS 1.0 with RSA keys and AES-256 or AES-128 encryption**: This option provides maximum compatibility. • **TLS 1.2 with Suite B-compliant 192-bit elliptic curve encryption**. This option provides a higher level of security.

Parameter	Description
Enabled Session Ciphers	Enable or disable an encryption mode for the device. By default, all encryption modes that pertain to a device are enabled. • **AES-128-GCM** (Tera1 and Tera2): An encryption method implemented in first-generation Tera1 and second-generation Tera2 processors. This method offers the best performance between hardware endpoints for Tera1 devices. AES-128-GCM also may offer improved performance for Tera2 clients when connecting to VMware 4 or later if there is more than about 7 Mbps available on the network. • **AES-256-GCM** (Tera2 only): A more secure encryption method implemented in second-generation Tera2 processors that offers the best performance between hardware endpoints. When connecting to VMware 4 or later, AES-128-GCM is recommended. • **Salsa20-256-Round12** (Tera1 only): A lighter encryption method implemented in firmware that may offer improved performance for Tera1 clients when connecting to VMware View 4 or later if there is more than about 7 Mbps available on the network. Note: For more information about connecting to VMware View virtual desktops, see "Using PCoIP® Zero Clients with VMware View User Guide" (TER0904005). Note: The enabled encryption mode must match between the host and client for a session to be established. If more than one mode is enabled, the firmware selects the following: • Host to Tera1 or Tera2 clients: AES-128-GCM or AES-256-GCM for the PCoIP session. • VMware View 4.5 and later to Tera1 client: SALSA20-256-Round12 for the PCoIP session. • VMware View 4.5 and later to Tera2 client: AES-128-GCM for the PCoIP session.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.21 AWI Client: Connection Management Interface Session Settings

Select the **Connection Management Interface** session connection type from the **Configuration > Session** page to configure an external connection manager other than VMware View Connection Server as the connection broker for the client to use.

Note: External connection managers can simplify the administration effort for large, complex systems. In a managed connection, an external connection manager server communicates with a device, and can remotely control and configure it. The connection manager can also locate an appropriate peer for the device to connect to, and then initiate the connection.

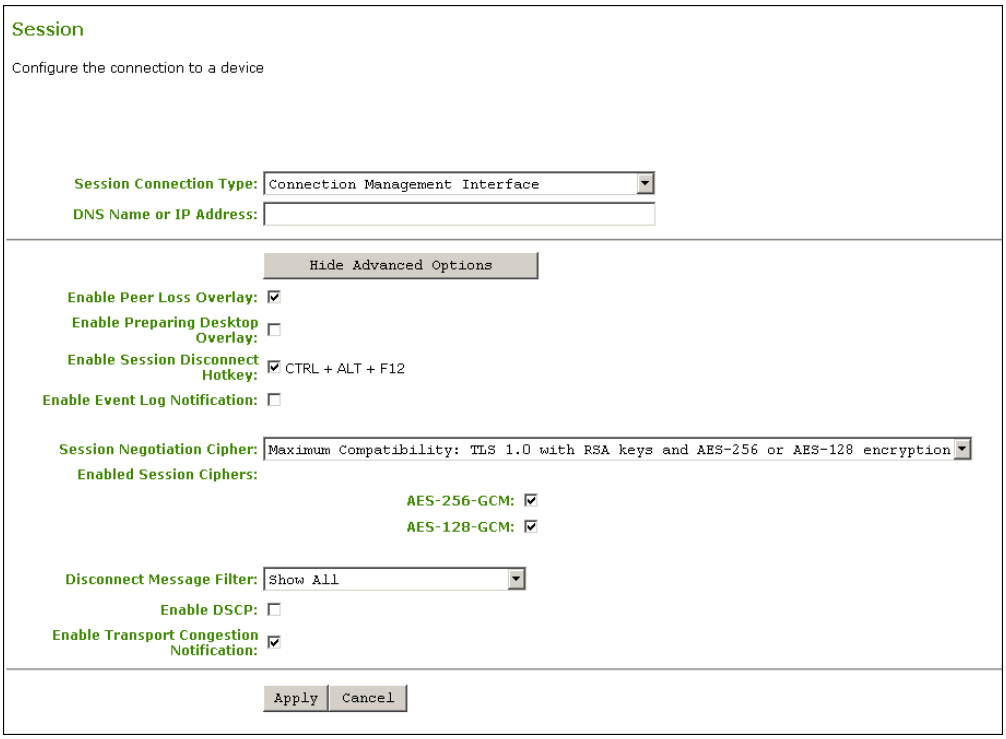


Figure 4-35: AWI Session Connection Type – Connection Management Interface (Client)

Table 4-41: AWI Session Page Parameters

Parameter	Description
DNS Name or IP Address	Enter the DNS name or IP address of the connection manager.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.

Parameter	Description
Enable Session Disconnect Hotkey	When enabled, users can press the Ctrl+Alt+F12 hotkey sequence to pop up the "Zero Client Control Panel" overlay, which lets them disconnect the current session on the workstation or power off the workstation. Note: Before users can use this disconnect hotkey sequence, certain other configuration options must be in place. See Disconnecting from a Session for details.
Enable Event Log Notification	When enabled, the client sends the contents of its event log to the connection management server.
Session Negotiation Cipher	Configure the Transport Layer Security (TLS) cipher the client will use to negotiate the TLS session between the PCoIP client and the PCoIP host: • **TLS 1.0 with RSA keys and AES-256 or AES-128 encryption**: This option provides maximum compatibility. • **TLS 1.2 with Suite B-compliant 192-bit elliptic curve encryption**. This option provides a higher level of security.
Enabled Session Ciphers	Enable or disable an encryption mode for the device. By default, all encryption modes that pertain to a device are enabled. • **AES-128-GCM** (Tera1 and Tera2): An encryption method implemented in first-generation Tera1 and second-generation Tera2 processors. This method offers the best performance between hardware endpoints for Tera1 devices. AES-128-GCM also may offer improved performance for Tera2 clients when connecting to VMware 4 or later if there is more than about 7 Mbps available on the network. • **AES-256-GCM** (Tera2 only): A more secure encryption method implemented in second-generation Tera2 processors that offers the best performance between hardware endpoints. When connecting to VMware 4 or later, AES-128-GCM is recommended. • **Salsa20-256-Round12** (Tera1 only): A lighter encryption method implemented in firmware that may offer improved performance for Tera1 clients when connecting to VMware View 4 or later if there is more than about 7 Mbps available on the network. Note: For more information about connecting to VMware View virtual desktops, see "Using PCoIP® Zero Clients with VMware View User Guide" (TER0904005). Note: The enabled encryption mode must match between the host and client for a session to be established. If more than one mode is enabled, the firmware selects the following: • Host to Tera1 or Tera2 clients: AES-128-GCM or AES-256-GCM for the PCoIP session. • VMware View 4.5 and later to Tera1 client: SALSA20-256-Round12 for the PCoIP session. • VMware View 4.5 and later to Tera2 client: AES-128-GCM for the PCoIP session.

Parameter	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.
Enable DSCP	When enabled, the device populates the Differentiated Services Code Point (DSCP) field in the IP header, allowing intermediate network nodes to prioritize PCoIP traffic accordingly.
Enable Transport Congestion Notification	When enabled, transport congestion notification is enabled to allow PCoIP endpoints to react accordingly if an intermediate network node sets the congestion notification bit in either the IP header or PCoIP transport header. Note: For more information about the PCoIP transport header, see PCoIP Packet Format.

5.7.22 OSD: Direct to Host Session Settings

Select the **Direct to Host** session connection type from the **Options > Configuration > Session** page to configure a client to connect directly to a host.

Click the **Advanced** button to configure advanced settings for this option.

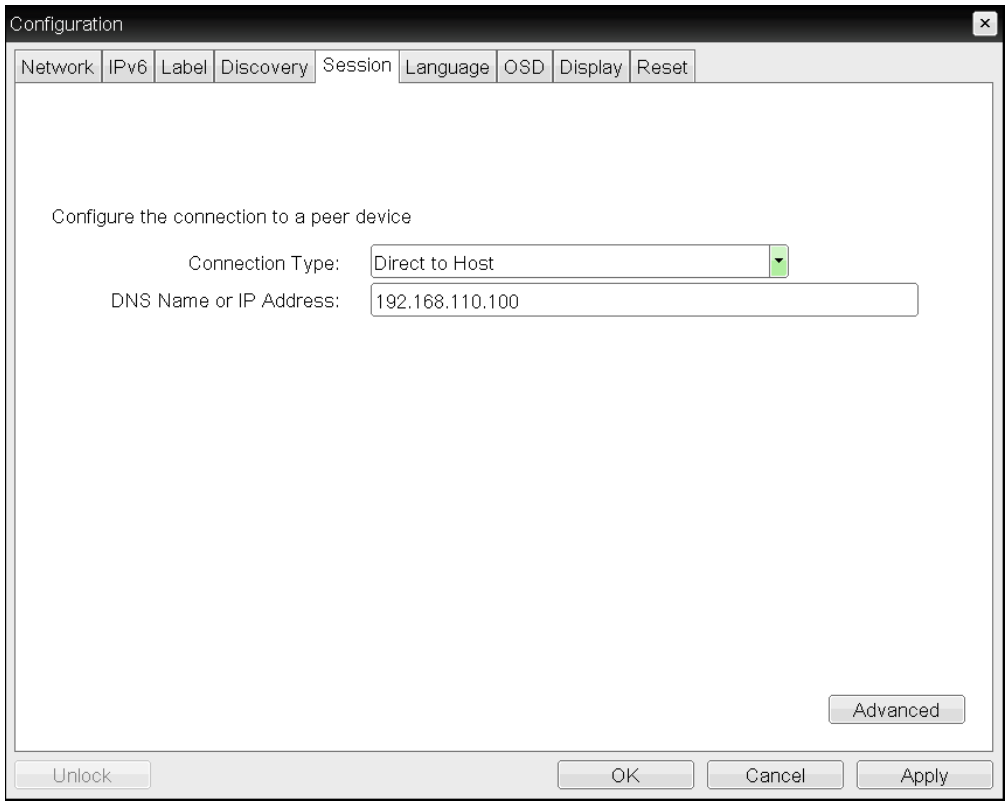


Figure 4-36: OSD Session Connection Type – Direct to Host

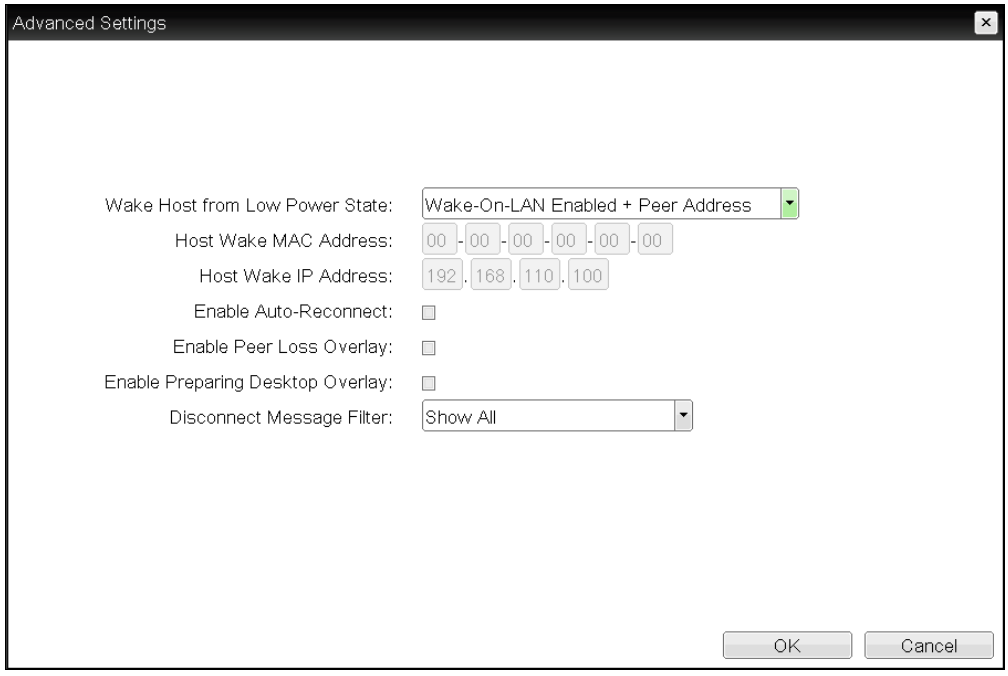


Figure 4-37: Advanced Settings

Table 4-42: OSD Session Page Parameters

Parameters	Description
DNS Name or IP Address	Enter the IP address or DNS name for the host.
Wake Host from Low Power State	Select whether to use the host's MAC address or IP address when configuring the Wake-On-LAN feature for a client. This feature wakes up the host when the user presses the client's remote PC button or clicks the **Connect** button on the **Connect** window. • **Wake-On-LAN Enabled + Peer Address**: When selected, enables the wake-up feature and displays the **Host Wake MAC Address** field so you can enter the host's MAC address. Use this option when the client and host are connected to the same network. • **Wake-On-LAN Enabled + Custom Address**: When selected, enables the wake-up feature and displays the **Host Wake MAC Address** and **Host Wake IP Address** fields so you can enter both addresses for the host. Use this option when the host is connected to a different network from the client. Note: • The feature only works with hardware hosts. It does not work with software hosts as they cannot be put into a low power state. • The hardware host must be able to support waking from low power state (off/hibernate/sleep) when it receives a wake-on-LAN packet. • For Tera2 clients, you can disable the Wake-On-LAN feature from the AWI Power page or the MC Power Permissions. page.
Host Wake MAC Address	Enter the host's MAC address to complete the host wake up configuration when **Wake-On-LAN Enabled + Peer Address** or **Wake-On-LAN Enabled + Custom Address** is selected. The client will send a "magic packet" to this MAC address to wake the host computer from a low power state.
Host Wake IP Address	Enter the host's IP address to complete the host wake up configuration when **Wake-On-LAN Enabled + Custom Address** is selected. The client will send a "magic packet" to this IP address to wake the host computer from a low power state
Enable Auto-Reconnect	When enabled, lets the client automatically reconnect with the last connected host when a session is lost.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.

Parameters	Description
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.

Parameters	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameters	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.

5.7.23 OSD: Direct to Host + SLP Host Discovery Session Settings

Select the **Direct to Host + SLP Host Discovery** session connection type from the **Options > Configuration > Session** page to configure a client to connect directly to a host and to use Service Location Protocol (SLP) to discover the host automatically.

Click the **Advanced** button to configure advanced settings for this option.

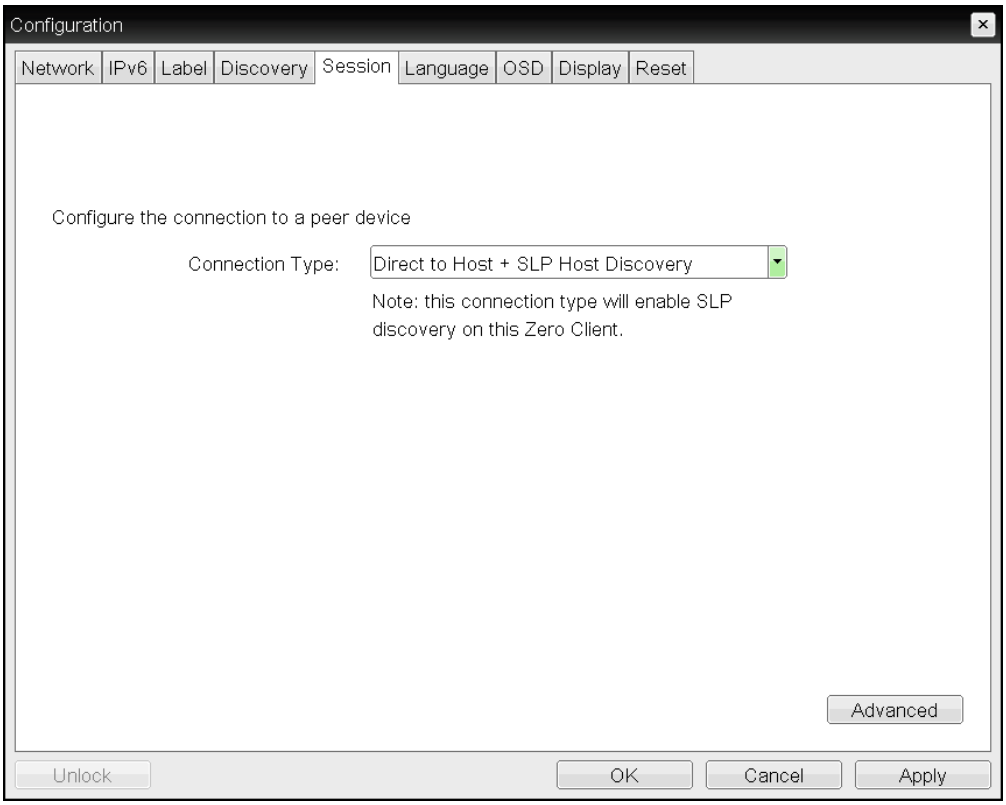


Figure 4-38: OSD Session Connection Type – Direct to Host + SLP Host Discovery

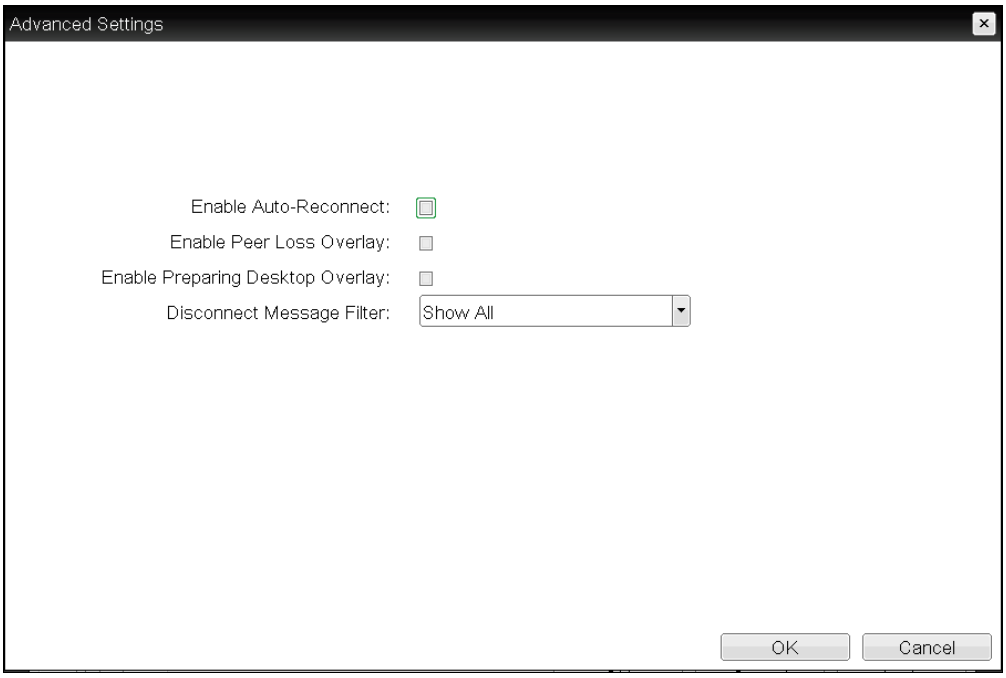


Figure 4-39: Advanced Settings

Table 4-43: OSD Session Page Parameters

Parameters	Description
Enable Auto-Reconnect	When enabled, lets the client automatically reconnect with the last connected host when a session is lost.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.

Parameters	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameters	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.

5.7.24 OSD Tera2: PCoIP Connection Manager Session Settings

Select the **PCoIP Connection Manager** session connection type from the **Options > Configuration > Session** page to configure the client to use a PCoIP Connection Manager as the broker when connecting to a Teradici solution, such as the Teradici Arch™ published desktop solution.

Click the **Advanced** button to configure advanced settings for this option.

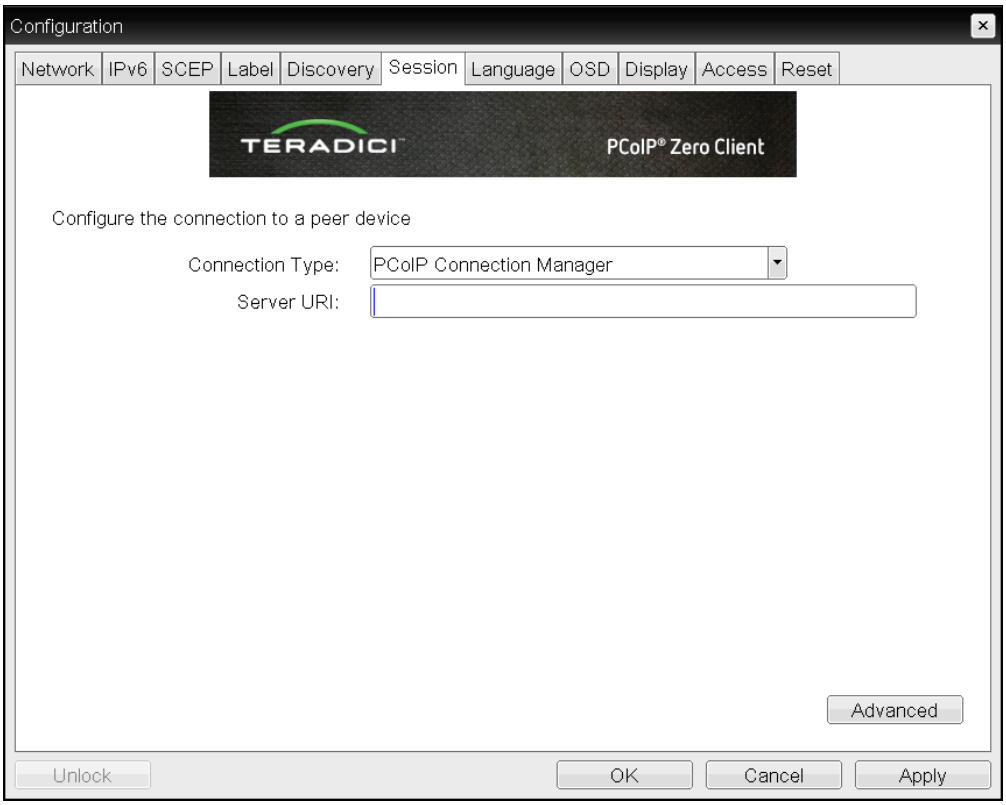


Figure 4-40: OSD Session Connection Type – PCoIP Connection Manager

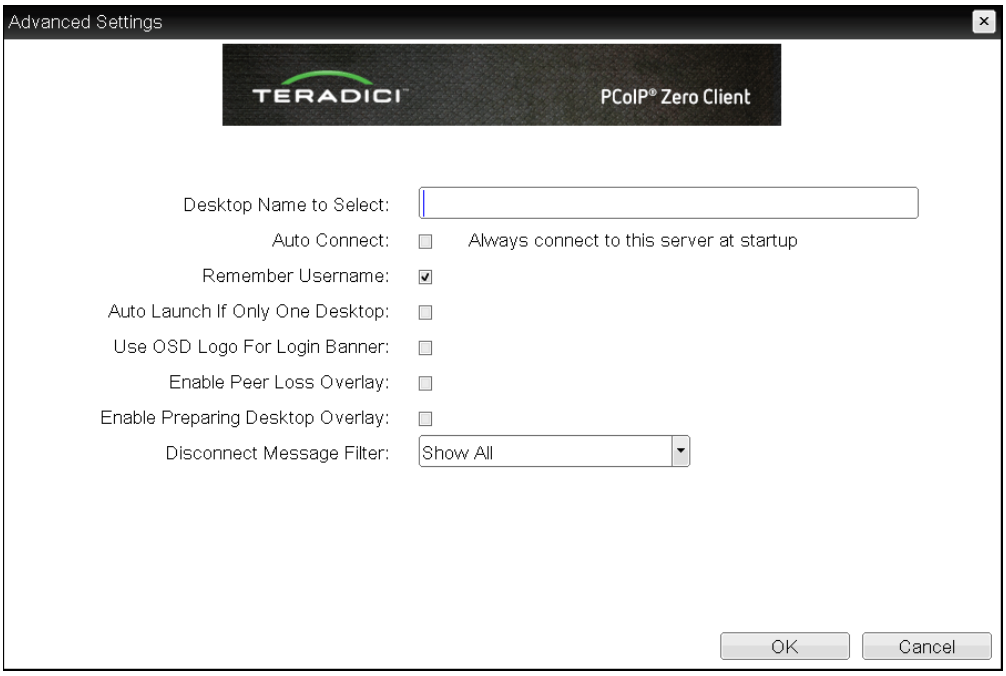


Figure 4-41: Advanced Settings

Table 4-44: OSD Session Page Parameters

Parameter	Description
Server URI	Enter the Uniform Resource Identifier (URI) .for the PCoIP Connection Manager (e.g., *http:/archdesktop.mycompany.com*).
Desktop Name to Select	Enter the pool or desktop name used by the client when starting a session. Note: This setting is optional.
Auto Connect	When enabled, the client automatically connects with the connection server after startup, bypassing the OSD **Connect** page. Note: After enabling **Auto Connect**, the client must be power-cycled for the change to take effect.
Remember Username	When enabled, the username text box automatically populates with the last username entered.
Auto Launch If Only One Desktop	When enabled, users are automatically connected to their desktop after user credentials are entered. Note: This feature only applies to users who are entitled to a single desktop. It does not apply to users entitled to multiple virtual desktops.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.

Parameter	Description
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.

Parameter	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.

5.7.25 OSD Tera2: PCoIP Connection Manager + Auto-Logon Session Settings

Select the **PCoIP Connection Manager + Auto-Logon** session connection type from the **Options > Configuration > Session** page to configure a client to automatically enter a user's login details when a PCoIP Connection Manager is used to connect a client to a Teradici solution, such as the Teradici Arch™ published desktop solution.

Click the **Advanced** button to configure advanced settings for this option.

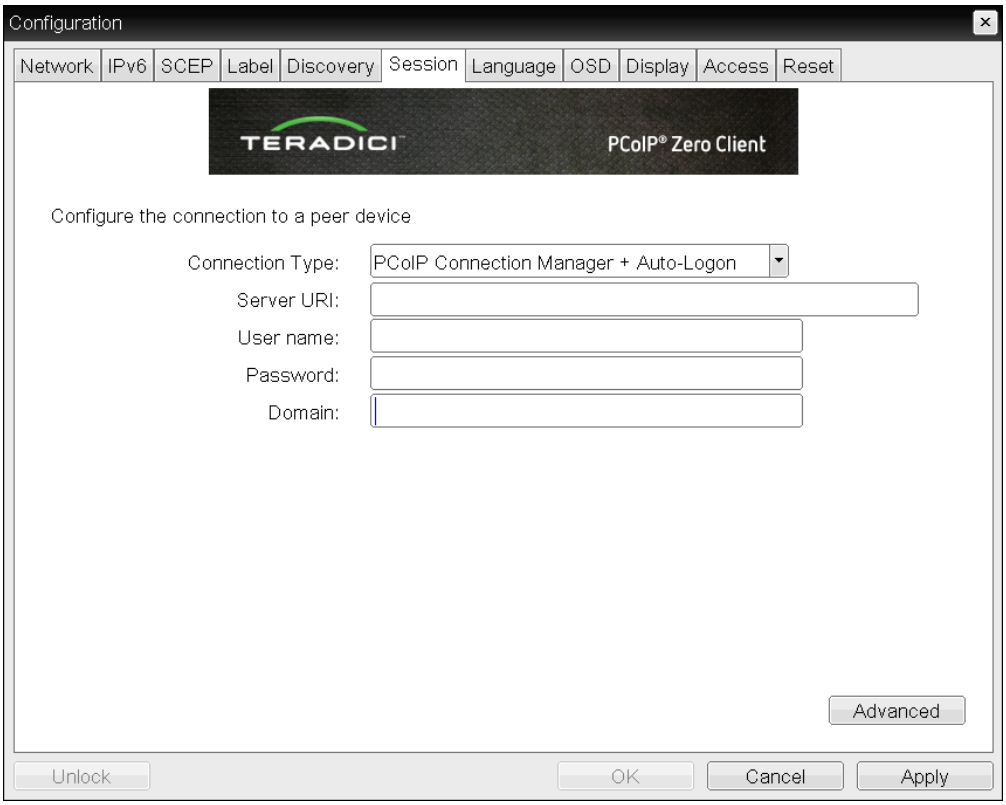


Figure 4-42: OSD Session Connection Type – PCoIP Connection Manager + Auto-Logon

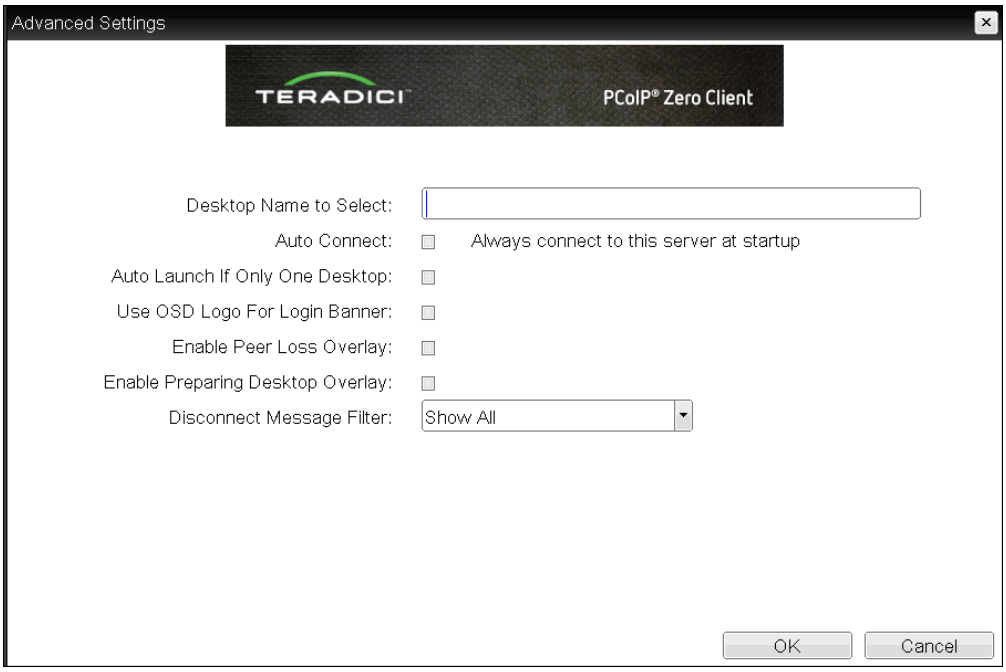


Figure 4-43: Advanced Settings

Table 4-45: OSD Session Page Parameters

Parameter	Description
Server URI	Enter the Uniform Resource Identifier (URI) .for the PCoIP Connection Manager (e.g., *http:/archdesktop.mycompany.com*).
User name	Enter the username for the client. This username will be sent to the specified connection server.
Password	Enter the password for the client. This password will be sent to the specified connection server.
Domain	Enter the domain for the client. This domain will be sent to the specified connection server.
Desktop Name to Select	Enter the pool or desktop name used by the client when starting a session. Note: This setting is optional.
Auto Connect	When enabled, the client automatically connects with the connection server after startup, bypassing the OSD **Connect** page. Note: After enabling **Auto Connect**, the client must be power-cycled for the change to take effect.

Parameter	Description
Auto Launch If Only One Desktop	When enabled, users are automatically connected to their desktop after user credentials are entered. Note: This feature only applies to users who are entitled to a single desktop. It does not apply to users entitled to multiple virtual desktops.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.

Parameter	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.

5.7.26 OSD: View Connection Server Session Settings

Select the **View Connection Server** session connection type from the **Options > Configuration > Session** page to configure a client to use a VMware View Connection Server as the broker when connecting to a virtual desktop.

Click the **Advanced** button to configure advanced settings for this option.

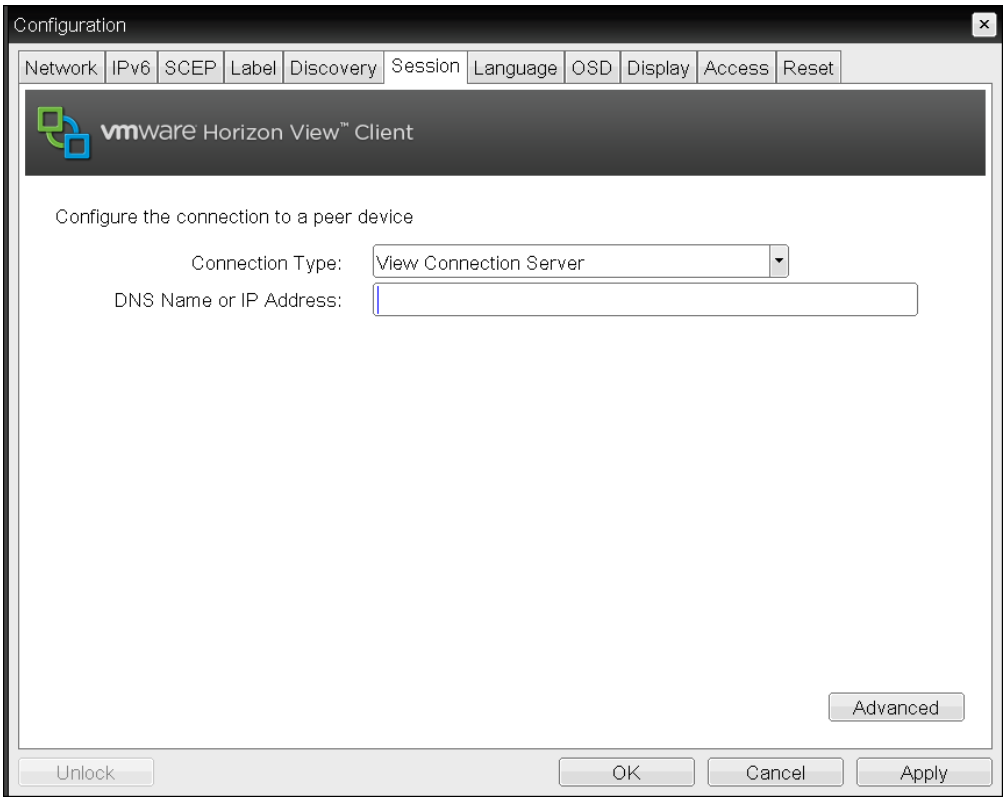


Figure 4-44: OSD Session Connection Type – View Connection Server

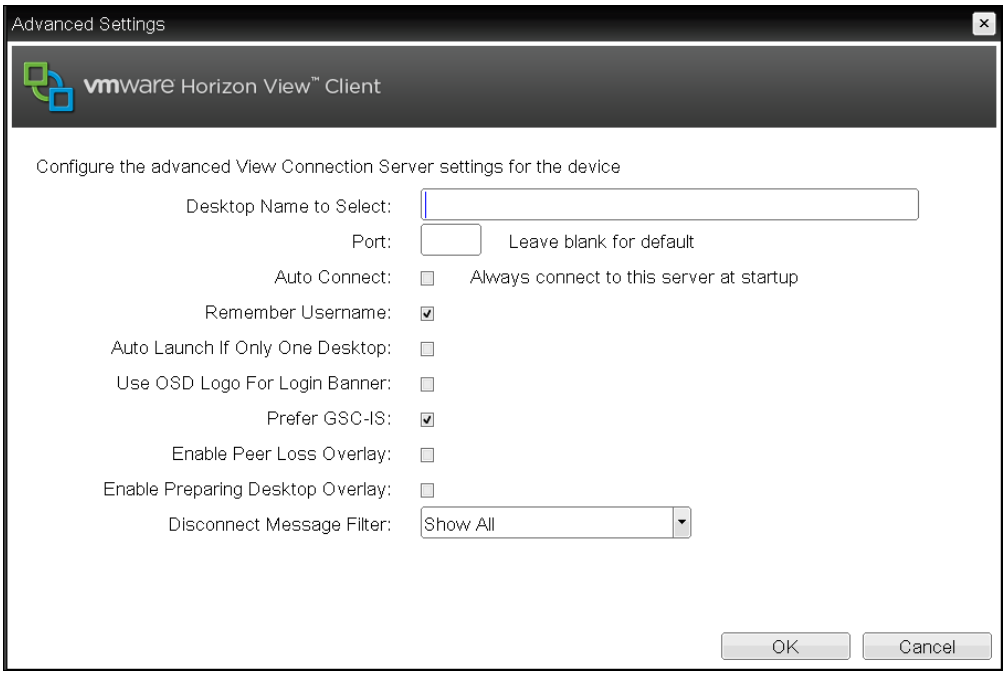


Figure 4-45: Advanced Settings

Table 4-46: OSD Session Page Parameters

Parameter	Description
DNS Name or IP Address	Enter the VMware View Connection Server's DNS name or IP address.
Desktop Name to Select	Enter the pool or desktop name used by the client when starting a session. Note: This setting is optional.
Port	By default, port 443 is used to communicate with the connection server. If your network is set up to use a non-standard port for secure connections, enter the port number.
Auto Connect	When enabled, the client automatically connects with the connection server after startup, bypassing the OSD **Connect** page. Note: After enabling **Auto Connect**, the client must be power-cycled for the change to take effect.
Remember Username	When enabled, the username text box automatically populates with the last username entered.
Auto Launch If Only One Desktop	When enabled, users are automatically connected to their desktop after user credentials are entered. Note: This feature only applies to users who are entitled to a single desktop. It does not apply to users entitled to multiple virtual desktops.

Parameter	Description
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.
Prefer GSC-IS	When selected, the GSC-IS interface is used if a smart card supports more than one interface such as CAC (GSC-IS) and PIV endpoint. If a smart card supports only one interface, such as either CAC or PIV endpoint, then only the CAC or PIV endpoint interface is used regardless of this setting. This only affects smart card access performed outside of PCoIP sessions.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.

Parameter	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.

5.7.27 OSD: View Connection Server + Auto-Logon Session Settings

Select the **View Connection Server + Auto-Logon** session connection type from the **Options > Configuration > Session** page to configure a client to automatically enter a user's login details when a VMware View Connection Server is used to connect to a virtual desktop.

Click the **Advanced** button to configure advanced settings for this option.

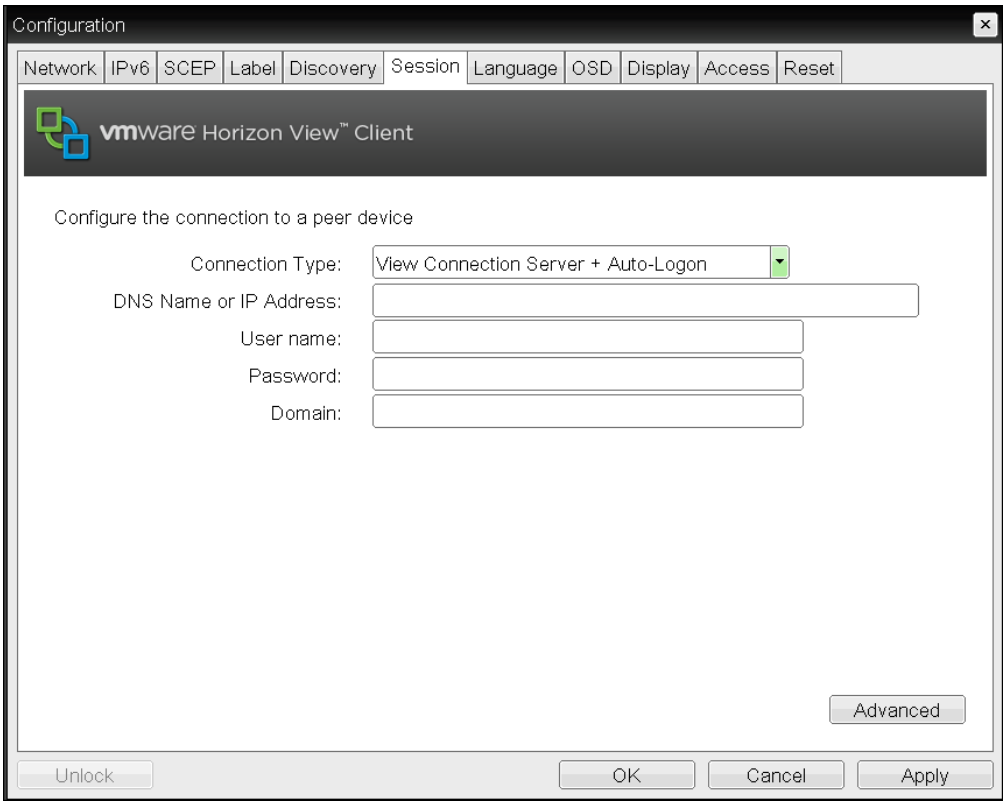


Figure 4-46: OSD Session Connection Type – View Connection Server + Auto-Logon

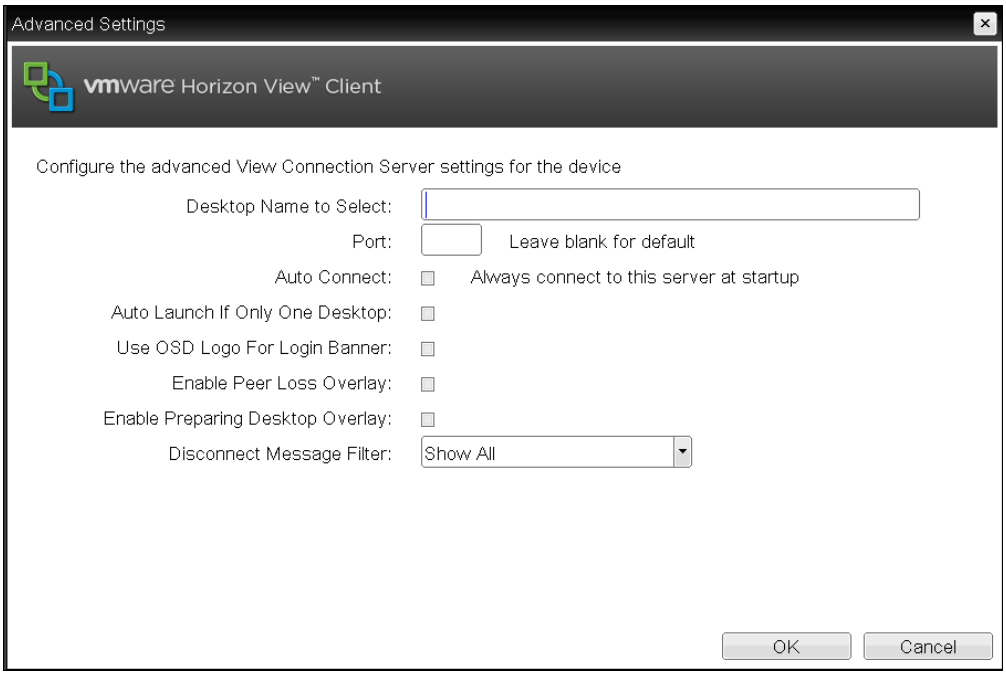


Figure 4-47: Advanced Settings

Table 4-47: OSD Session Page Parameters

Parameter	Description
DNS Name or IP Address	Enter the VMware View Connection Server's DNS name or IP address.
User name	Enter the username for the client. This username will be sent to the specified connection server.
Password	Enter the password for the client. This password will be sent to the specified connection server.
Domain	Enter the domain for the client. This domain will be sent to the specified connection server.
Desktop Name to Select	Enter the pool or desktop name used by the client when starting a session. Note: This setting is optional.
Port	By default, port 443 is used to communicate with the connection server. If your network is set up to use a non-standard port for secure connections, enter the port number.
Auto Connect	When enabled, the client automatically connects with the connection server after startup, bypassing the OSD **Connect** page. Note: After enabling **Auto Connect**, the client must be power-cycled for the change to take effect.

Parameter	Description
Auto Launch If Only One Desktop	When enabled, users are automatically connected to their desktop after user credentials are entered. Note: This feature only applies to users who are entitled to a single desktop. It does not apply to users entitled to multiple virtual desktops.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.

Parameter	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.

5.7.28 OSD: View Connection Server + Kiosk Session Settings

Select the **View Connection Server + Kiosk** session connection type from the **Options > Configuration > Session** page to configure a client to use Kiosk mode when connecting to a virtual desktop via a VMware View Connection Server.

Click the **Advanced** button to configure advanced settings for this option.

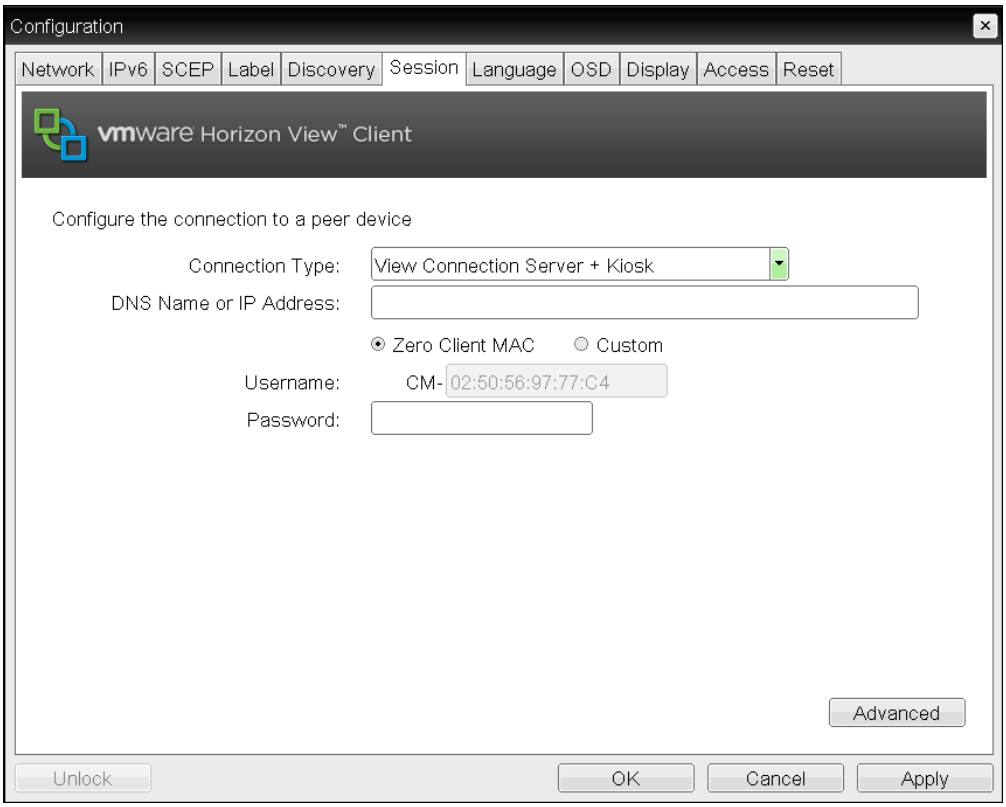


Figure 4-48: OSD Session Connection Type – View Connection Server + Kiosk

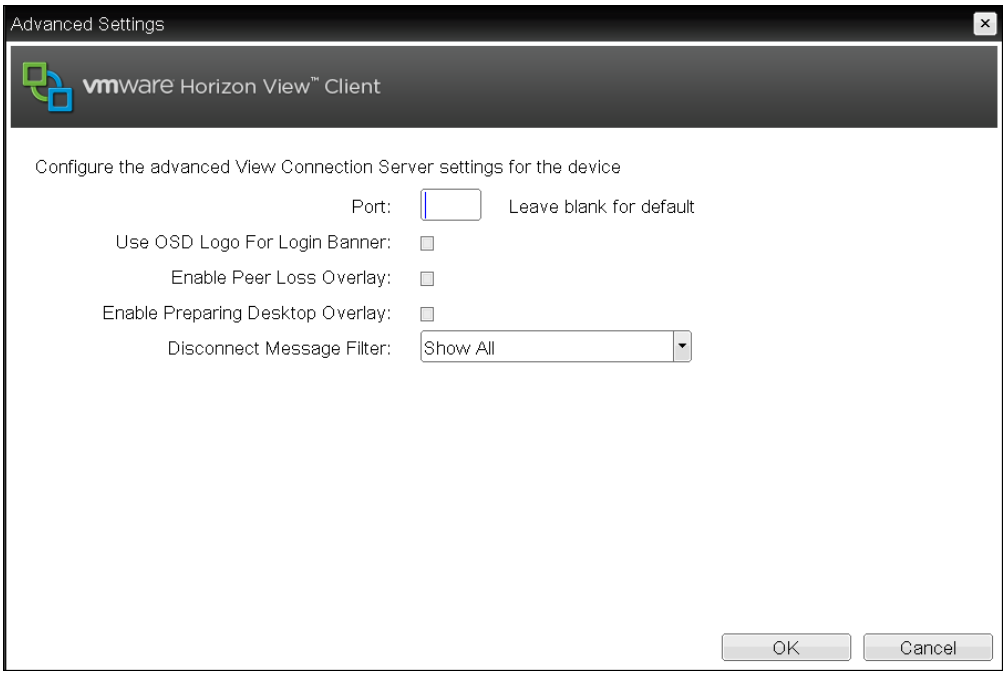


Figure 4-49: Advanced Settings

Table 4-48: OSD Session Page Parameters

Parameter	Description
DNS Name or IP Address	Enter the VMware View Connection Server's DNS name or IP address.
Username	Select the type of username that matches the naming you use for the devices on the View Connection Server. • **Zero Client MAC**: Select this option to automatically populate the **Username** field with the MAC address of the zero client. • **Custom**: Enter the username for the zero client. This username has the prefix "Custom." When **Custom** is selected as the username type, enter the value for this component of the custom username. This field is limited to 13 characters.
Password	To password protect the virtual machine for the kiosk, enter a password in this field. This password must match the one entered for the device in the View Connection Server.
Port	By default, port 443 is used to communicate with the connection server. If your network is set up to use a non-standard port for secure connections, enter the port number.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.

Parameter	Description
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.

Parameter	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.

5.7.29 OSD: View Connection Server + Imprivata OneSign Session Settings

Select the **View Connection Server + Imprivata OneSign** session connection type from the **Options > Configuration > Session** page to configure a client to authenticate through the Imprivata OneSign system in addition to a View Connection Server when connecting to a virtual desktop.

Click the **Advanced** button to configure advanced settings for this option.

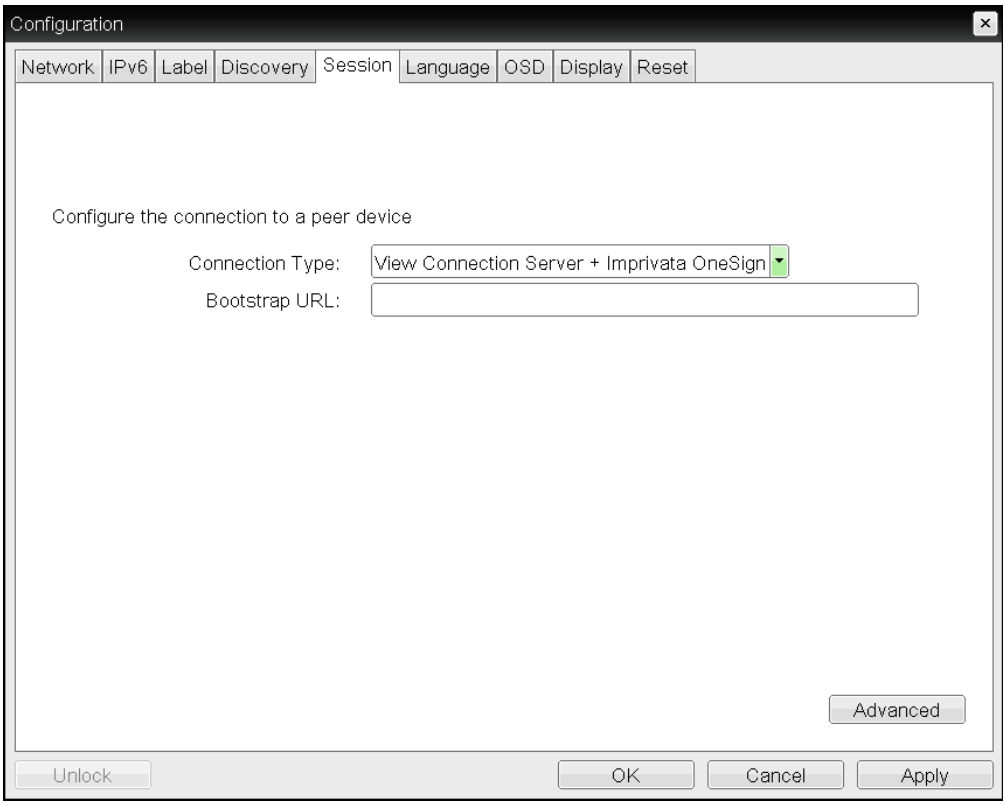


Figure 4-50: OSD Session Connection Type – View Connection Server + Imprivata OneSign

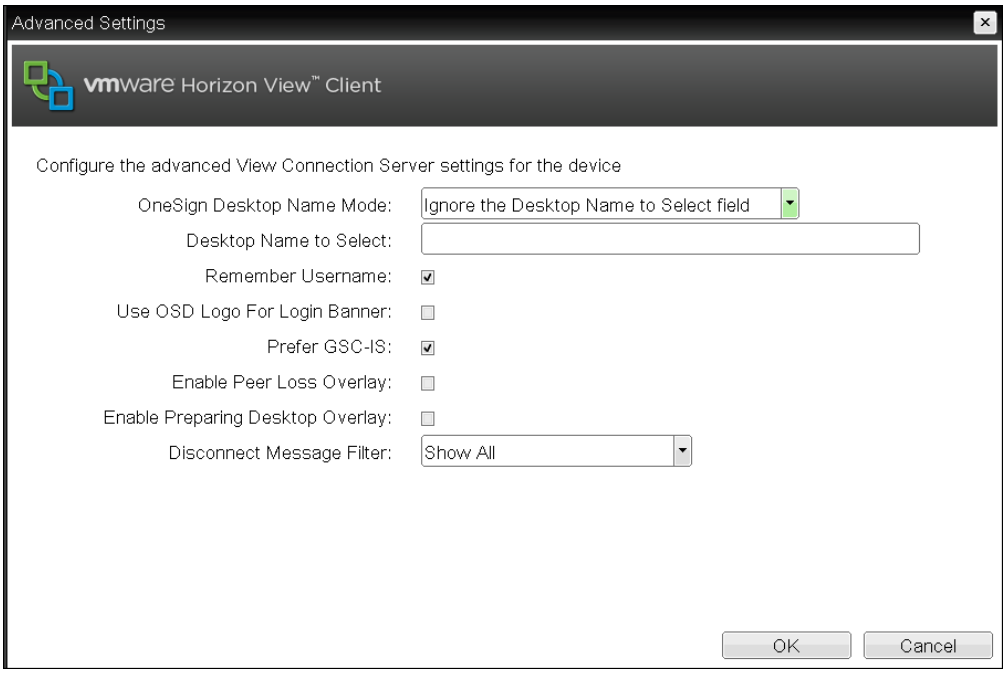


Figure 4-51: Advanced Settings

Table 4-49: OSD Session Page Parameters

Parameter	Description
DNS Name or IP Address	Enter the VMware View Connection Server's DNS name or IP address.
Bootstrap URL	Enter the bootstrap URL used to find an initial OneSign server in a OneSign authentication deployment.
Onesign Desktop Name Mode	Select whether the **Desktop Name to Select** property is used in OneSign Mode: • **Ignore the Desktop Name to Select field** • **Use the Desktop Name to Select field if set**
Desktop Name to Select	Enter the desktop name. When the desktop pool list includes a pool with this name, the client will immediately start a session with that pool. Note: This field is case-insensitive.
Remember Username	When enabled, the username text box automatically populates with the last username entered.
Use OSD Logo for Login Banner	When enabled, the OSD logo banner appears at the top of login screens in place of the default banner. You can upload an OSD logo from the OSD Logo Upload page.

Parameter	Description
Prefer GSC-IS	When selected, the GSC-IS interface is used if a smart card supports more than one interface such as CAC (GSC-IS) and PIV endpoint. If a smart card supports only one interface, such as either CAC or PIV endpoint, then only the CAC or PIV endpoint interface is used regardless of this setting. This only affects smart card access performed outside of PCoIP sessions.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.

Parameter	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.

5.7.30 OSD: Connection Management Interface Session Settings

Select the **Connection Management Interface** session connection type from the **Options > Configuration > Session** page to configure an external connection manager as the connection broker for the client to use.

Note: External connection managers can simplify the administration effort for large, complex systems. In a managed connection, an external connection manager server communicates with a device, and can remotely control and configure it. The connection manager can also locate an appropriate peer for the device to connect to, and then initiate the connection.

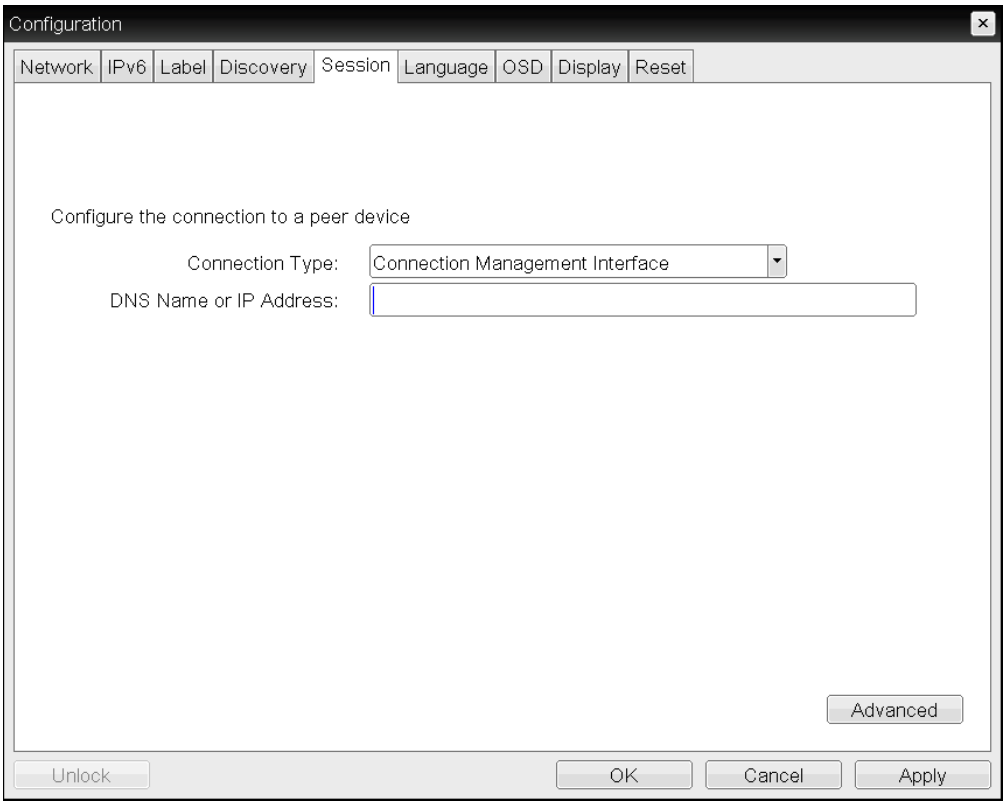


Figure 4-52: OSD Session Connection Type – Connection Management Interface

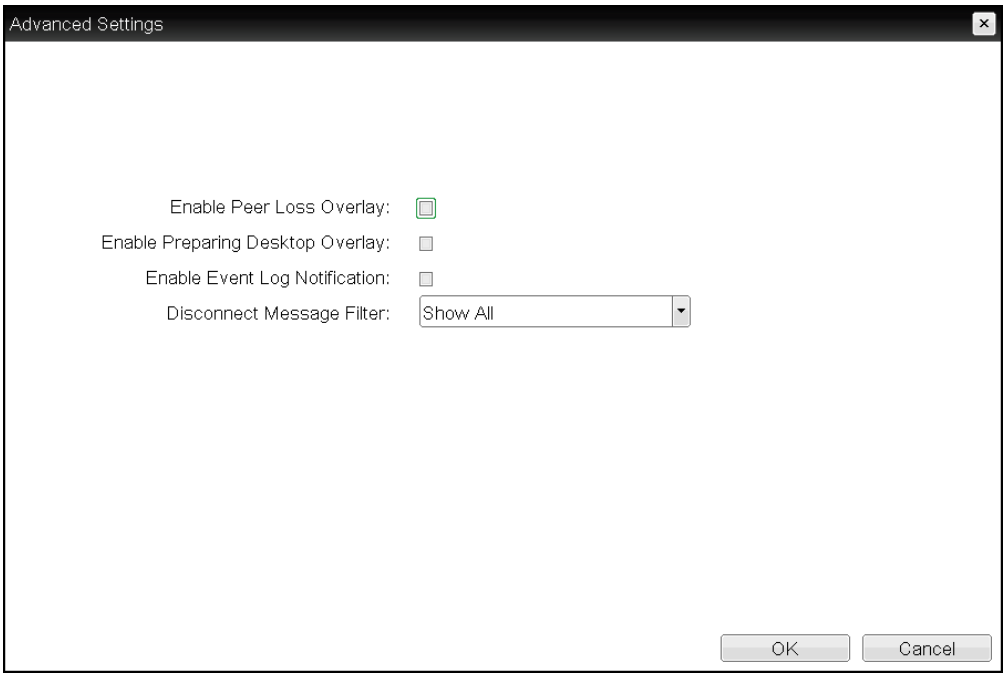


Figure 4-53: Advanced Settings

Table 4-50: AWI Session Page Parameters

Parameter	Description
DNS Name or IP Address	Enter the DNS name or IP address of the connection manager.
Enable Peer Loss Overlay	When enabled, the “Network Connection Lost” overlay appears on the display(s) when a loss of network connectivity is detected. Normal hypervisor scheduling delays can falsely trigger this message. Note: This option is only available for a zero client. Desktop applications that require the peer loss notification should re-enable the feature through the OSD, AWI, or MC.
Enable Preparing Desktop Overlay	When enabled, the "Preparing Desktop" overlay appears on the display(s) when users log in. Note: This overlay provides assurance that login is proceeding if the desktop takes more than a few seconds to appear.
Enable Event Log Notification	When enabled, the client sends the contents of its event log to the connection management server.

Parameter	Description
Disconnect Message Filter	This field lets you control what type of messages appear when a session is disconnected. There are three categories: **Information:** User- or administrator-initiated actions affecting the session: • You have been disconnected because you logged in from another location or your host was shut down or restarted. • You have been disconnected because an administrator disconnected you. • You have been disconnected because you logged in from another location. • You have been disconnected because you disconnected from your workstation. **Warning:** System-initiated, but expected actions affecting the session: • You have been disconnected because your session timed out. **Error:** Unexpected system-initiated actions causing session to fail: • You have been disconnected. • Unable to connect (0x1001). Please contact your IT administrator. • Unable to connect (0x1002). Please contact your IT administrator. • Session closed remotely. • Session closed remotely (unknown cause). • You have been disconnected due to a configuration error (0x100). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x201). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x300). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x301). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x302). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x303). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x305). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x400). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x401). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x402). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x403). Please contact your IT administrator for assistance. • You have been disconnected due to a configuration error (0x404). Please contact your IT administrator for assistance. Note: For detailed information about the above session disconnect codes, please see Knowledge Base Knowledge Base topic 15134-872 on the Teradici support site.

Parameter	Description
	You can choose to display: 1. **Show All** messages – This option shows all disconnect messages including Info, Warning, and Error messages. 2. **Show Error and Warnings Only** – This option hides info messages and displays only error and warning messages. 3. **Show Error Only** – This option hides Info and Warning messages and displays only Error messages. 4. **Show None** – Don't show any disconnect messages.

5.8 Configuring Session Encryption

5.8.1 MC: Encryption Settings

The settings on this page let you configure a profile with the Transport Layer Security (TLS) level to use for negotiating PCoIP sessions between clients and hosts, and also with the encryption scheme that devices will use. At least one encryption scheme must be enabled.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

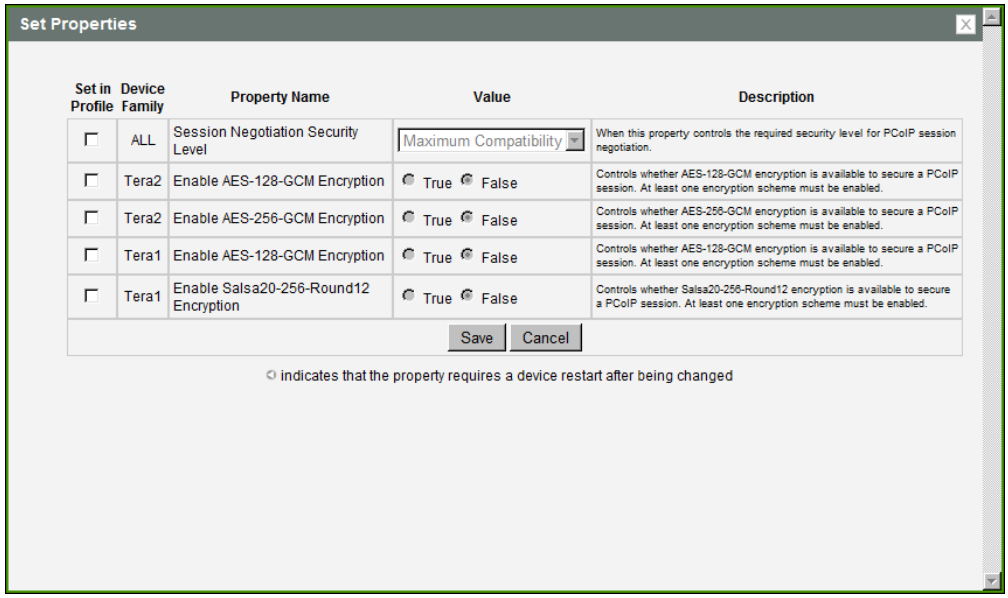


Figure 4-54: MC Encryption Configuration

Table 4-51: MC Encryption Configuration Parameters

Parameter	Description
Session Negotiation Security Level	Configure the required security level for PCoIP session negotiation: • **Maximum Compatibility** • **Suite B**: This option provides a higher level of security.
Enable AES-128-GCM Encryption (Tera2)	When enabled, uses the AES-128-GCM encryption scheme to secure a PCoIP session.
Enable AES-256-GCM Encryption (Tera2)	When enabled, uses the AES-256-GCM encryption scheme to secure a PCoIP session. Note: This method offers the best performance between hardware endpoints for Tera2 devices.
Enable AES-128-GCM Encryption (Tera1)	When enabled, uses the AES-128-GCM encryption scheme to secure a PCoIP session. Note: This method offers the best performance between hardware endpoints for Tera1 devices.
Enable Salsa20-256-Round12 Encryption (Tera1)	When enabled, uses the Salsa20-256-Round12 encryption scheme to secure a PCoIP session. Note: This method may offer improved performance for Tera1 clients when connecting to VMware 4 or later if there is more than about 7 Mbps available on the network

5.8.2 AWI: Help for Encryption Settings

Encryption settings for the host and client AWI are located on the **Configuration > Session** page for each session connection type. For details, please refer to the field descriptions in the following topics:

- AWI Host: Direct from Client Session Settings
- AWI Client: Direct to Host Session Settings
- AWI Client: Direct to Host + SLP Host Discovery Session Settings
- AWI Tera2 Client: PCoIP Connection Manager Settings
- AWI Tera2 Client: PCoIP Connection Manager + Auto-Logon Settings
- AWI Client: View Connection Server Session Settings
- AWI Client: View Connection Server + Auto-Logon Session Settings
- AWI Client: View Connection Server + Kiosk Session Settings
- AWI Client: View Connection Server + Imprivata OneSign Session Settings

5.9 Configuring Session Bandwidth

5.9.1 MC: Bandwidth Settings

The settings on this page let you configure a profile with the bandwidth parameters for hosts and clients to use during a PCoIP session.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

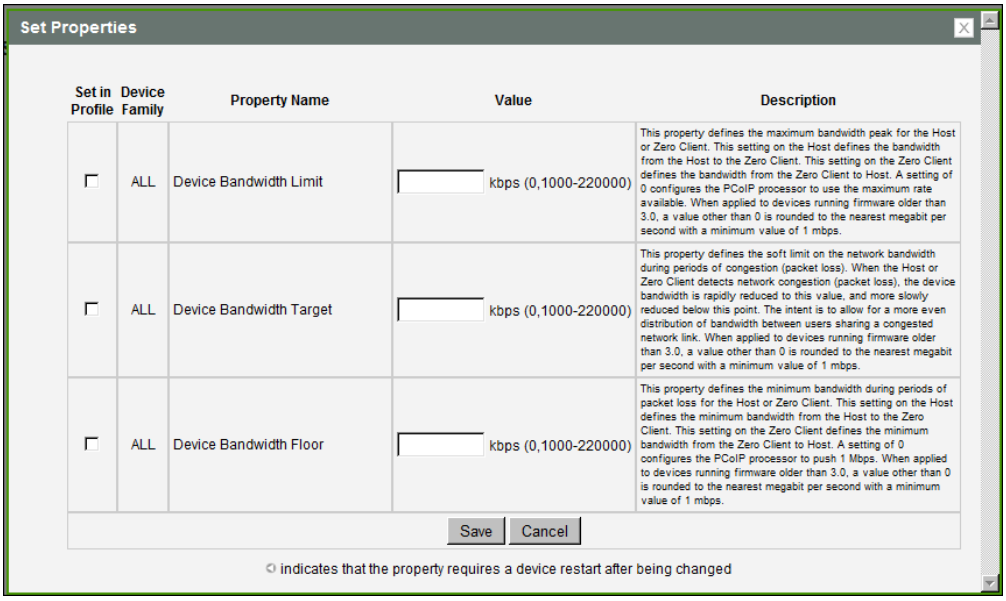


Figure 4-55: MC Bandwidth Configuration

Table 4-52: MC Bandwidth Configuration Parameters

Parameter	Description
Device Bandwidth Limit	Enter the maximum bandwidth peak for hosts or clients. When configuring hosts, this setting defines the bandwidth from the host to the client (e.g., graphics data). When configuring clients, it defines the bandwidth from the client to the host (e.g., USB data). The usable range of the device bandwidth is 1000 to 220000 Kbps. The PCoIP processor only uses the required bandwidth up to the **Device Bandwidth Limit** maximum, and dynamically adjusts the bandwidth in response to network congestion. Setting this field to 0 configures the PCoIP processor to use the maximum rate available in the network at any time. We recommend setting this field to the limit of the network connected to the client and host. Note: When applied to devices running firmware older than 3.0, a value other than 0 is rounded to the nearest Megabit per second, with a minimum value of 1 Mbps.
Device Bandwidth Target	Enter the temporary limit on the network bandwidth during periods of congestion. When the host or client detects packet loss, the device bandwidth is rapidly reduced to this value, and then more slowly reduced below it.This allows for a more even distribution of bandwidth between users sharing a congested network link. Note: When applied to devices running firmware older than 3.0, a value other than 0 is rounded to the nearest Megabit per second, with a minimum value of 1 Mbps.

Parameter	Description
Device Bandwidth Floor	Enter the minimum bandwidth when congestion is present and bandwidth is required. This allows you to optimize performance for a network with understood congestion or packet loss. If the bandwidth is not required, the bandwidth used drops below the floor. When configuring hosts, this setting defines the minimum bandwidth from the host to the client (e.g., graphics data).When configuring clients, it defines the minimum bandwidth from the client to the host (e.g., USB data). A setting of 0 configures the PCoIP processor to reduce bandwidth to 1000 Kbps during these network impairments. You should have a good understanding of the network topology before setting this to a non-zero value. Note: The firmware implements a slow-start algorithm that increases the bandwidth used until the required bandwidth is reached, network congestion is detected, or the **Device Bandwidth Limit** is met. It begins at the lesser of the **Device Bandwidth Limit** and 8000 Kbps, and increases the bandwidth used within seconds. The slow-start algorithm allows a graceful session startup for low bandwidth scenarios (e.g., WAN scenarios). After initiating a PCoIP session, users may temporarily notice low bandwidth video artifacts as the algorithm ramps up bandwidth use. Note: When applied to devices running firmware older than 3.0, a value other than 0 is rounded to the nearest Megabit per second, with a minimum value of 1 Mbps.

5.9.2 AWI: Bandwidth Settings

The settings on this page let you control the bandwidth used by a host or client during a PCoIP session. You can display this page for a host or client from the **Configuration > Bandwidth** menu. The parameters on this page are applied immediately after you click **Apply**.

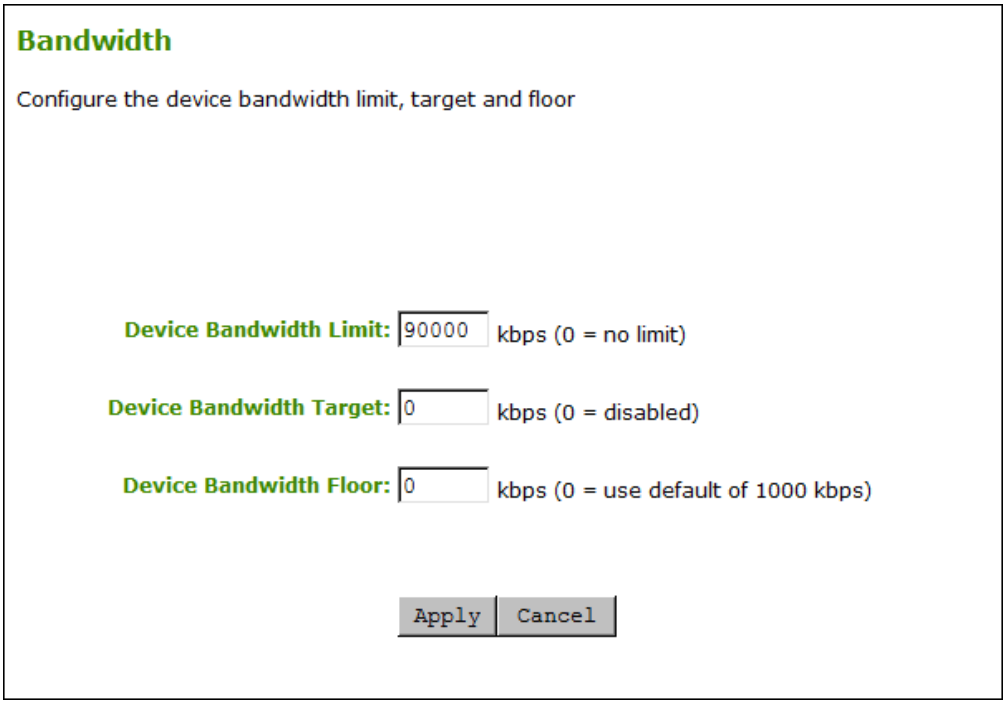


Figure 4-56: AWI Bandwidth Page

Table 4-53: AWI Bandwidth Parameters

Parameter	Description
Device Bandwidth Limit	Enter the maximum bandwidth peak for hosts or clients. When configuring hosts, this setting defines the bandwidth from the host to the client (e.g., graphics data). When configuring clients, it defines the bandwidth from the client to the host (e.g., USB data). The usable range of the device bandwidth is 1000 to 220000 Kbps. The PCoIP processor only uses the required bandwidth up to the **Device Bandwidth Limit** maximum, and dynamically adjusts the bandwidth in response to network congestion. Setting this field to 0 configures the PCoIP processor to use the maximum rate available in the network at any time. We recommend setting this field to the limit of the network connected to the client and host. Note: When applied to devices running firmware older than 3.0, a value other than 0 is rounded to the nearest Megabit per second, with a minimum value of 1 Mbps.

Parameter	Description
Device Bandwidth Target	Enter the temporary limit on the network bandwidth during periods of congestion. When the host or client detects packet loss, the device bandwidth is rapidly reduced to this value, and then more slowly reduced below it.This allows for a more even distribution of bandwidth between users sharing a congested network link. Note: When applied to devices running firmware older than 3.0, a value other than 0 is rounded to the nearest Megabit per second, with a minimum value of 1 Mbps.
Device Bandwidth Floor	Enter the minimum bandwidth when congestion is present and bandwidth is required. This allows you to optimize performance for a network with understood congestion or packet loss. If the bandwidth is not required, the bandwidth used drops below the floor. When configuring hosts, this setting defines the minimum bandwidth from the host to the client (e.g., graphics data).When configuring clients, it defines the minimum bandwidth from the client to the host (e.g., USB data). A setting of 0 configures the PCoIP processor to reduce bandwidth to 1000 Kbps during these network impairments. You should have a good understanding of the network topology before setting this to a non-zero value. Note: The firmware implements a slow-start algorithm that increases the bandwidth used until the required bandwidth is reached, network congestion is detected, or the **Device Bandwidth Limit** is met. It begins at the lesser of the **Device Bandwidth Limit** and 8000 Kbps, and increases the bandwidth used within seconds. The slow-start algorithm allows a graceful session startup for low bandwidth scenarios (e.g., WAN scenarios). After initiating a PCoIP session, users may temporarily notice low bandwidth video artifacts as the algorithm ramps up bandwidth use. Note: When applied to devices running firmware older than 3.0, a value other than 0 is rounded to the nearest Megabit per second, with a minimum value of 1 Mbps.

5.10 Configuring the Language

5.10.1 MC: Language Settings

The settings on this page let you configure a profile with the language to use in the OSD user interface.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

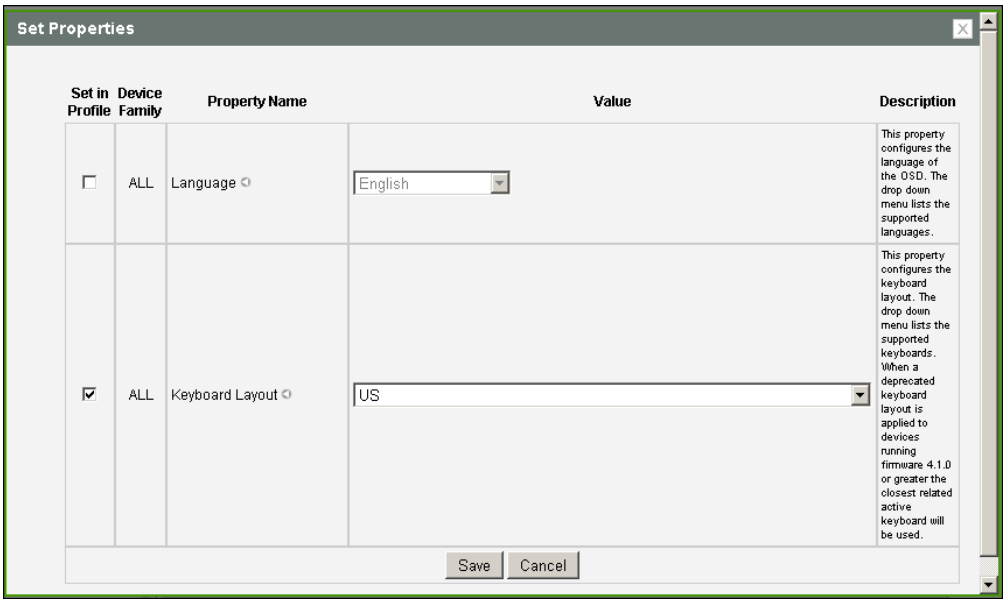


Figure 4-57: MC Language Configuration

Table 4-54: MC Language Configuration Parameters

Parameter	Description
Language	Configure for the OSD user interface. Note: This does not affect the language setting for the actual user session. Note: This property requires a device restart after being changed.
Keyboard Layout	Change the layout of the keyboard. When the user starts a session, this setting is pushed to the virtual machine. If the PCoIP "Use Enhanced Keyboard on Windows Client if available" GPO is set to allow the keyboard layout setting, it is used during the user's session. If this GPO is not set to allow the setting, it is dropped. Note: This property requires a device restart after being changed.

5.10.2 AWI Client: Language Settings

The settings on this page let you configure the language used in the OSD user interface. You can display this page from the **Configuration > Language** menu.

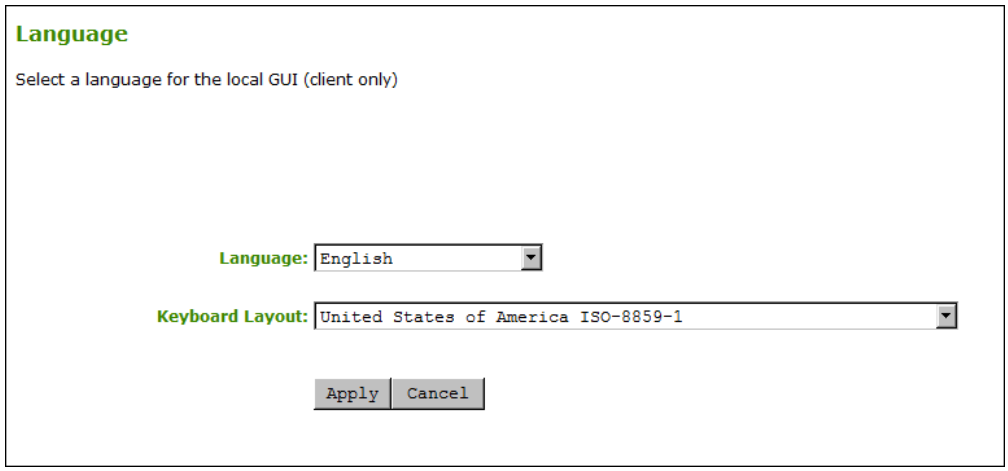


Figure 4-58: AWI Client Language Page

Table 4-55: AWI Client Language Parameters

Parameter	Description
Language	Configure for the OSD user interface. Note: This does not affect the language setting for the actual user session.
Keyboard Layout	Change the layout of the keyboard. When the user starts a session, this setting is pushed to the virtual machine. If the PCoIP "Use Enhanced Keyboard on Windows Client if available" GPO is set to allow the keyboard layout setting, it is used during the user's session. If this GPO is not set to allow the setting, it is dropped.

5.10.3 OSD: Language Settings

The settings on this page let you configure the language used in the OSD user interface. You can display this page from the **Options > Configuration > Language** menu.

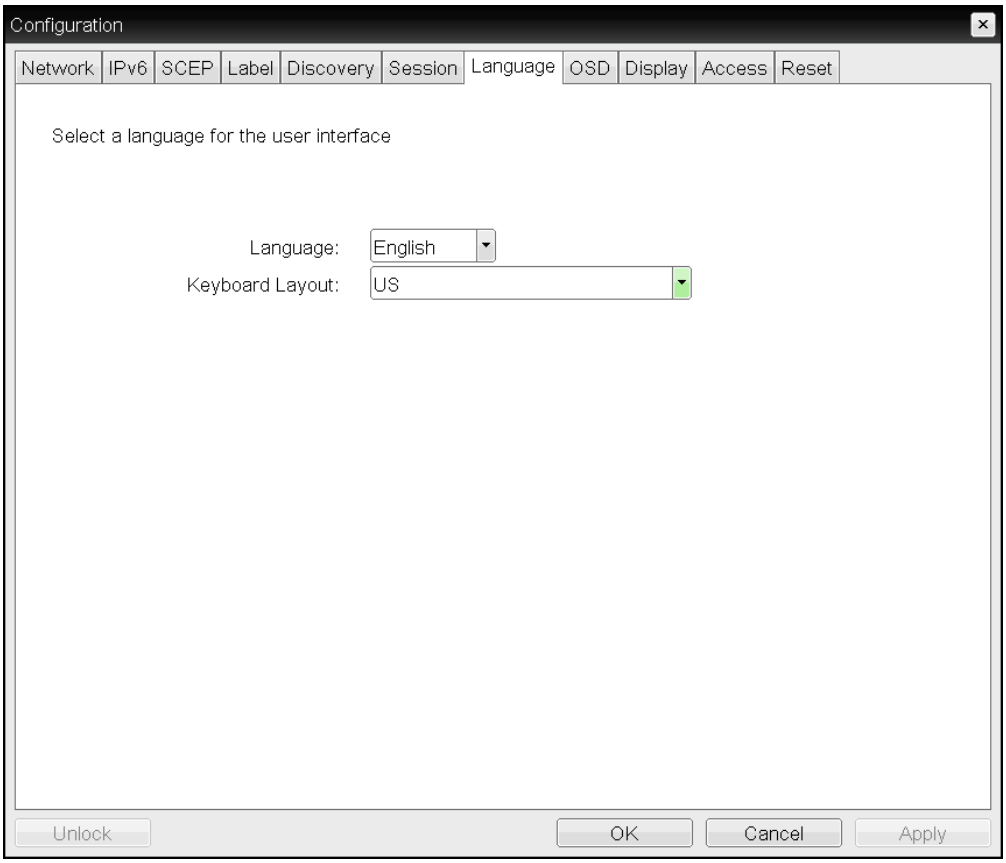


Figure 4-59: OSD Language Page

Table 4-56: OSD Language Parameters

Parameter	Description
Language	Configure for the OSD user interface. Note: This does not affect the language setting for the actual user session.
Keyboard Layout	Change the layout of the keyboard. When the user starts a session, this setting is pushed to the virtual machine. If the PCoIP "Use Enhanced Keyboard on Windows Client if available" GPO is set to allow the keyboard layout setting, it is used during the user's session. If this GPO is not set to allow the setting, it is dropped.

5.11 Configuring OSD Parameters

5.11.1 MC: OSD Settings

The settings on this page let you configure a profile with the screen-saver timeout value to use on a device's OSD, and also to control which menus and menu items are hidden in the OSD.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

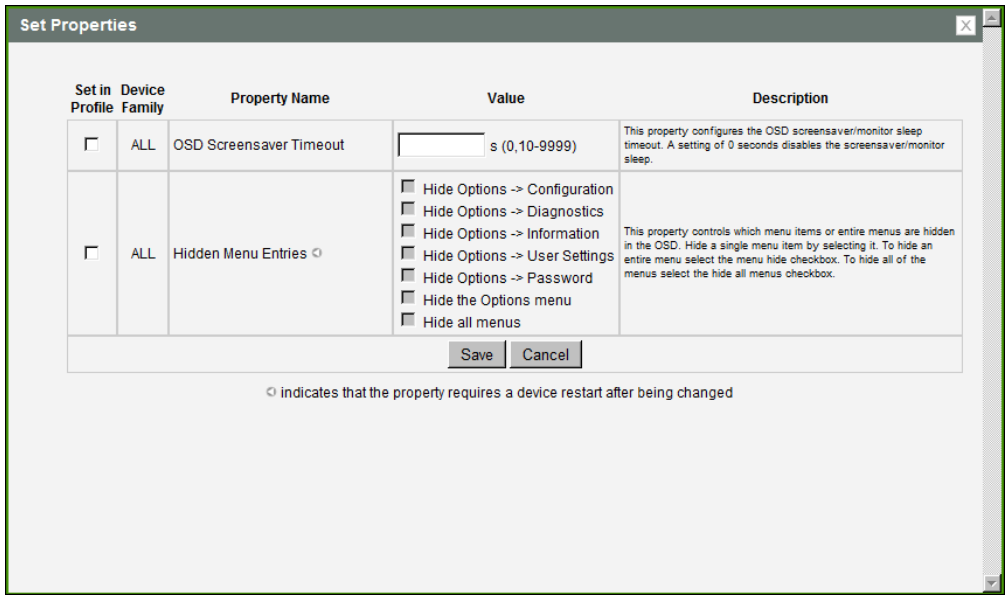


Figure 4-60: MC OSD Configuration

Table 4-57: MC Language Configuration Parameters

Parameter	Description
OSD Screensaver Timeout	Configure the screen saver timeout with the number of seconds to wait (10 to 9999) after a period of inactivity before the attached displays are put into low-power mode. A setting of 0 seconds disables the screen saver.
Hidden Menu Entries	Select the items that you do not want to appear on the OSD local GUI. You can hide a single menu item, the entire **Options** menu, or all menus. Note: This property requires a device restart after being changed.

5.11.2 AWI Client: Help for OSD Settings

The OSD screen-saver timeout setting is located on the **Configuration > Power** page for the following clients:

- Tera2 zero client Power page
- Tera1 zero client Power page

5.11.3 OSD: OSD Settings

The settings on this page let you set the monitor screen-saver timeout for the local OSD. You can display this page from the **Options > Configuration > OSD** menu.

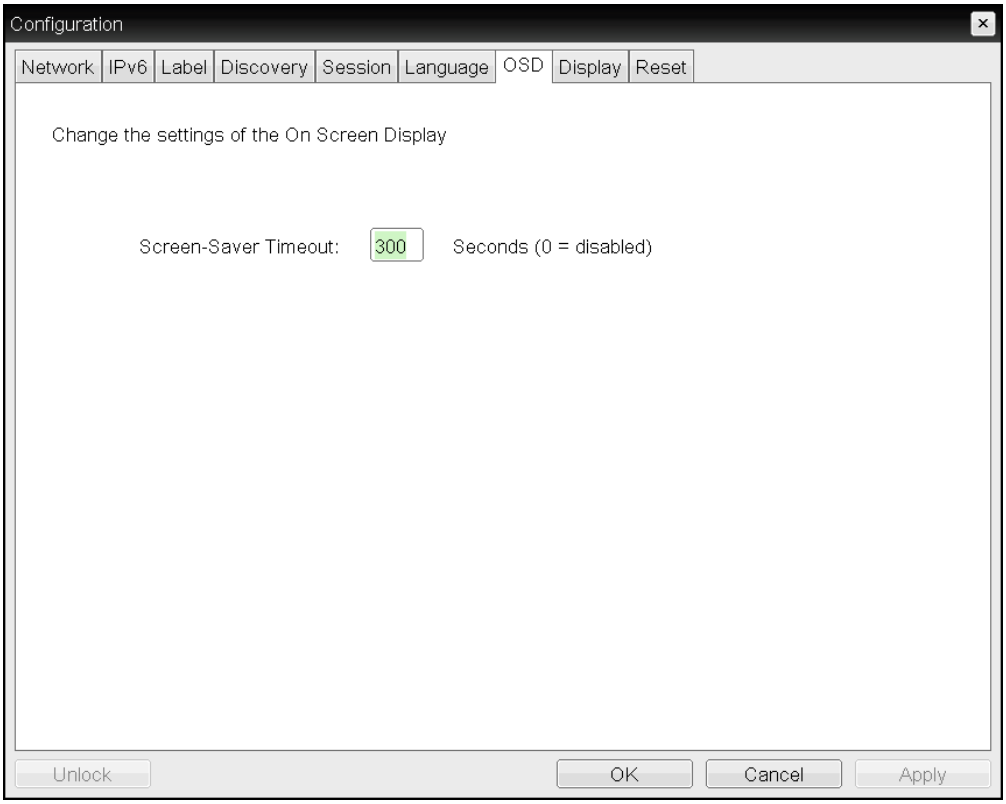


Figure 4-61: OSD OSD Page

Table 4-58: OSD OSD Parameters

Parameter	Description
Screen-Saver Timeout	Configure the screen saver timeout with the number of seconds to wait (10 to 9999) after a period of inactivity before the attached displays are put into low-power mode. A setting of 0 seconds disables the screen saver.

5.12 Configuring Image Quality

5.12.1 MC: Image Settings

The **Image** page lets you configure a profile to make changes to the image quality of the PCoIP session.

Note: This setting applies only to sessions between zero clients and hosts.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

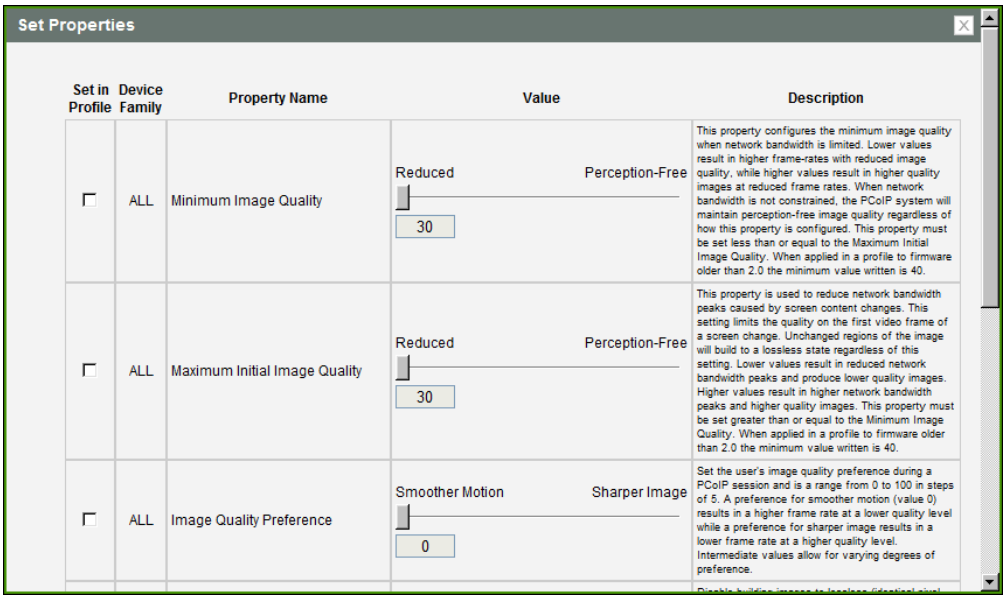


Figure 4-62: MC Image Configuration

Table 4-59: MC Image Configuration Parameters

Parameter	Description
Minimum Image Quality	Lets you compromise between image quality and frame rate when network bandwidth is limited. Some use cases may require lower-quality images at a higher frame rate while others need higher-quality images at a lower frame rate. In environments where the network bandwidth is constrained, move the slider towards **Reduced** to allow higher frame rates. Move the slider towards **Perception-Free** to allow for higher image quality. When network bandwidth is not constrained, the PCoIP system maintains perception-free quality regardless of the **Minimum Image Quality** parameter. Note: The **Maximum Initial Image Quality** must be greater than or equal to the **Minimum Image Quality**.
Maximum Initial Image Quality	Move the slider towards **Reduced** to reduce the network bandwidth peaks caused by screen content changes, but produce lower quality images. Move the slider towards **Perception-Free** to produce higher quality images but also higher bandwidth peaks. This parameter limits the initial quality on the first display frame of a screen change. Unchanged regions of the image are built to a lossless state regardless of this parameter. Note: The **Maximum Initial Image Quality** must be greater than or equal to the **Minimum Image Quality**.

Parameter	Description
Image Quality Preference	Move the slider towards **Smoother Motion** to result in a higher frame rate at a lower quality level. Move the slider towards **Sharper Image** to result in a lower frame rate at a higher quality level. The range is from 0 to 100 in steps of 5. Note: This setting does not work in PCoIP sessions with VMware View virtual desktops running release 5.0 or earlier.
Disable Build to Lossless	Leave this field unchecked to retain the PCoIP protocol's build-to-lossless feature, where images continue to be refined in the background until they reach a fully lossless state (i.e., identical pixel-for-pixel rendering when compared to the host image source). This is the default (recommended) setting. **Warning:** Turning on the **Disable Build to Lossless** field will degrade the image presented to the user by the zero client. Do not turn on this field unless it has been determined by the administrator of the zero client that users do not require optimal image quality to perform critical functions. It is the sole responsibility of the zero client administrator to make this determination. If you do choose to turn on this field, the PCoIP protocol rapidly builds the client image to a high quality image that may be perceptually lossless, but is not a fully lossless state. This may provide some bandwidth savings, but is not recommended for use cases that require images and desktop content to be truly lossless. If you have any questions about this field setting, contact Teradici support. Note: This setting does not work in PCoIP sessions with VMware View virtual desktops running release 5.0 or earlier.
Enable Client Image Settings	When enabled, allows the host the option of using the client's image settings for the session. When disabled, the host's image settings take effect. Note: The Image Quality Preference setting is exempt from this rule.
Maximum Frame Rate	The maximum frame rate helps you manage multiple PCoIP sessions over a single network link. This setting determines the limit that your users can reach. Set this field to 0 to set no frame limit. If you set a value, a single user is limited to that value. This helps to control the user experience for all your users. Note: This setting does not work in PCoIP sessions with VMware View virtual desktops running release 5.0 or earlier.

5.12.2 AWI Host: Image Settings

The **Image** page lets you make changes to the image quality of the PCoIP session. You can display this page from the **Configuration > Image** menu.

Note: This setting applies only to sessions between zero clients and hosts.

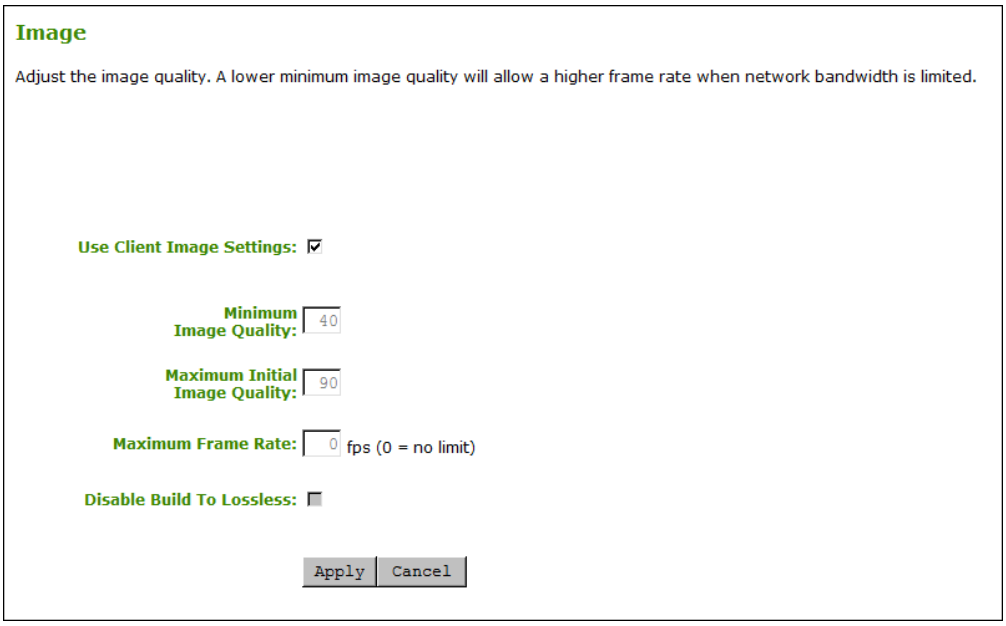


Figure 4-63: AWI Host Image Page

Note: When the **Use Client Image Settings** field is not selected, the text boxes on this page are replaced with sliders, as shown below.

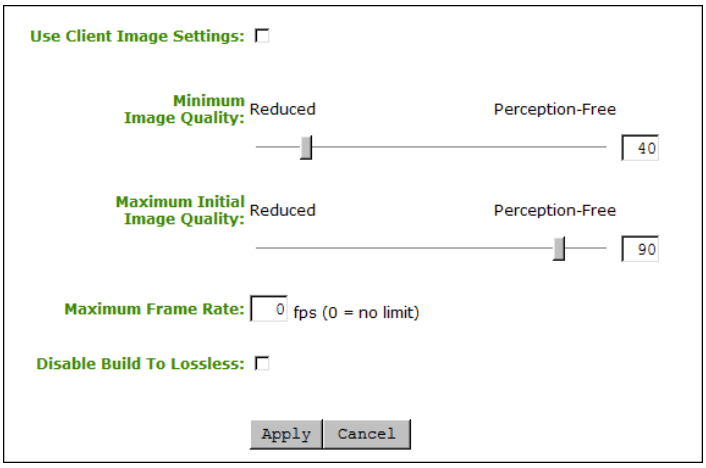


Figure 4-64: AWI Host Image Page – Use Client Image Settings Disabled

Table 4-60: AWI Host Image Page Parameters

Parameter	Description
Use Client Image Settings	When enabled, the image settings on this page are not editable. The settings that appear (grayed out) are those stored for the host in flash. When disabled, the image settings are editable and are applied to any current sessions.

Parameter	Description
Minimum Image Quality	Lets you compromise between image quality and frame rate when network bandwidth is limited. Some use cases may require lower-quality images at a higher frame rate while others need higher-quality images at a lower frame rate. In environments where the network bandwidth is constrained, move the slider towards **Reduced** to allow higher frame rates. Move the slider towards **Perception-Free** to allow for higher image quality. When network bandwidth is not constrained, the PCoIP system maintains perception-free quality regardless of the **Minimum Image Quality** parameter. Note: The **Maximum Initial Image Quality** must be greater than or equal to the **Minimum Image Quality**.
Maximum Initial Image Quality	Move the slider towards **Reduced** to reduce the network bandwidth peaks caused by screen content changes, but produce lower quality images. Move the slider towards **Perception-Free** to produce higher quality images but also higher bandwidth peaks. This parameter limits the initial quality on the first display frame of a screen change. Unchanged regions of the image are built to a lossless state regardless of this parameter. Note: The **Maximum Initial Image Quality** must be greater than or equal to the **Minimum Image Quality**.
Maximum Frame Rate	The maximum frame rate helps you manage multiple PCoIP sessions over a single network link. This setting determines the limit that your users can reach. Set this field to 0 to set no frame limit. If you set a value, a single user is limited to that value. This helps to control the user experience for all your users. Note: This setting does not work in PCoIP sessions with VMware View virtual desktops running release 5.0 or earlier.
Disable Build to Lossless	Leave this field unchecked to retain the PCoIP protocol's build-to-lossless feature, where images continue to be refined in the background until they reach a fully lossless state (i.e., identical pixel-for-pixel rendering when compared to the host image source). This is the default (recommended) setting. **Warning:** Turning on the **Disable Build to Lossless** field will degrade the image presented to the user by the zero client. Do not turn on this field unless it has been determined by the administrator of the zero client that users do not require optimal image quality to perform critical functions. It is the sole responsibility of the zero client administrator to make this determination. If you do choose to turn on this field, the PCoIP protocol rapidly builds the client image to a high quality image that may be perceptually lossless, but is not a fully lossless state. This may provide some bandwidth savings, but is not recommended for use cases that require images and desktop content to be truly lossless. If you have any questions about this field setting, contact Teradici support. Note: This setting does not work in PCoIP sessions with VMware View virtual desktops running release 5.0 or earlier.

5.12.3 AWI Client: Image Settings

The **Image** page lets you make changes to the image quality of the PCoIP session. You can display this page from the **Configuration > Image** menu.

Note: This setting applies only to sessions between zero clients and hosts.

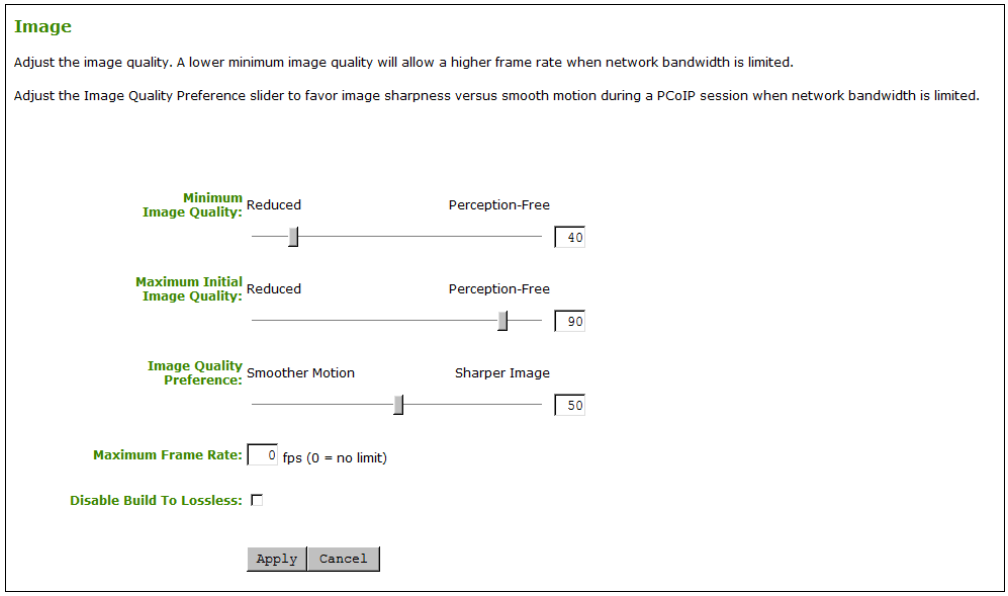


Figure 4-65: AWI Client Image Page

Table 4-61: AWI Client Image Page Parameters

Parameter	Description
Minimum Image Quality	Lets you compromise between image quality and frame rate when network bandwidth is limited. Some use cases may require lower-quality images at a higher frame rate while others need higher-quality images at a lower frame rate. In environments where the network bandwidth is constrained, move the slider towards **Reduced** to allow higher frame rates. Move the slider towards **Perception-Free** to allow for higher image quality. When network bandwidth is not constrained, the PCoIP system maintains perception-free quality regardless of the **Minimum Image Quality** parameter. Note: The **Maximum Initial Image Quality** must be greater than or equal to the **Minimum Image Quality**.

Parameter	Description
Maximum Initial Image Quality	Move the slider towards **Reduced** to reduce the network bandwidth peaks caused by screen content changes, but produce lower quality images. Move the slider towards **Perception-Free** to produce higher quality images but also higher bandwidth peaks. This parameter limits the initial quality on the first display frame of a screen change. Unchanged regions of the image are built to a lossless state regardless of this parameter. Note: The **Maximum Initial Image Quality** must be greater than or equal to the **Minimum Image Quality**.
Image Quality Preference	Move the slider towards **Smoother Motion** to result in a higher frame rate at a lower quality level. Move the slider towards **Sharper Image** to result in a lower frame rate at a higher quality level. The range is from 0 to 100 in steps of 5. Note: This setting does not work in PCoIP sessions with VMware View virtual desktops running release 5.0 or earlier.
Maximum Frame Rate	The maximum frame rate helps you manage multiple PCoIP sessions over a single network link. This setting determines the limit that your users can reach. Set this field to 0 to set no frame limit. If you set a value, a single user is limited to that value. This helps to control the user experience for all your users. Note: This setting does not work in PCoIP sessions with VMware View virtual desktops running release 5.0 or earlier.
Disable Build to Lossless	Leave this field unchecked to retain the PCoIP protocol's build-to-lossless feature, where images continue to be refined in the background until they reach a fully lossless state (i.e., identical pixel-for-pixel rendering when compared to the host image source). This is the default (recommended) setting. **Warning:** Turning on the **Disable Build to Lossless** field will degrade the image presented to the user by the zero client. Do not turn on this field unless it has been determined by the administrator of the zero client that users do not require optimal image quality to perform critical functions. It is the sole responsibility of the zero client administrator to make this determination. If you do choose to turn on this field, the PCoIP protocol rapidly builds the client image to a high quality image that may be perceptually lossless, but is not a fully lossless state. This may provide some bandwidth savings, but is not recommended for use cases that require images and desktop content to be truly lossless. If you have any questions about this field setting, contact Teradici support. Note: This setting does not work in PCoIP sessions with VMware View virtual desktops running release 5.0 or earlier.

5.12.4 OSD: Image Settings

The **Image** page lets you make changes to the image quality of the PCoIP session. You can display this page from the **Options > User Settings > Image** menu.

Note: This setting applies only to sessions between zero clients and hosts.

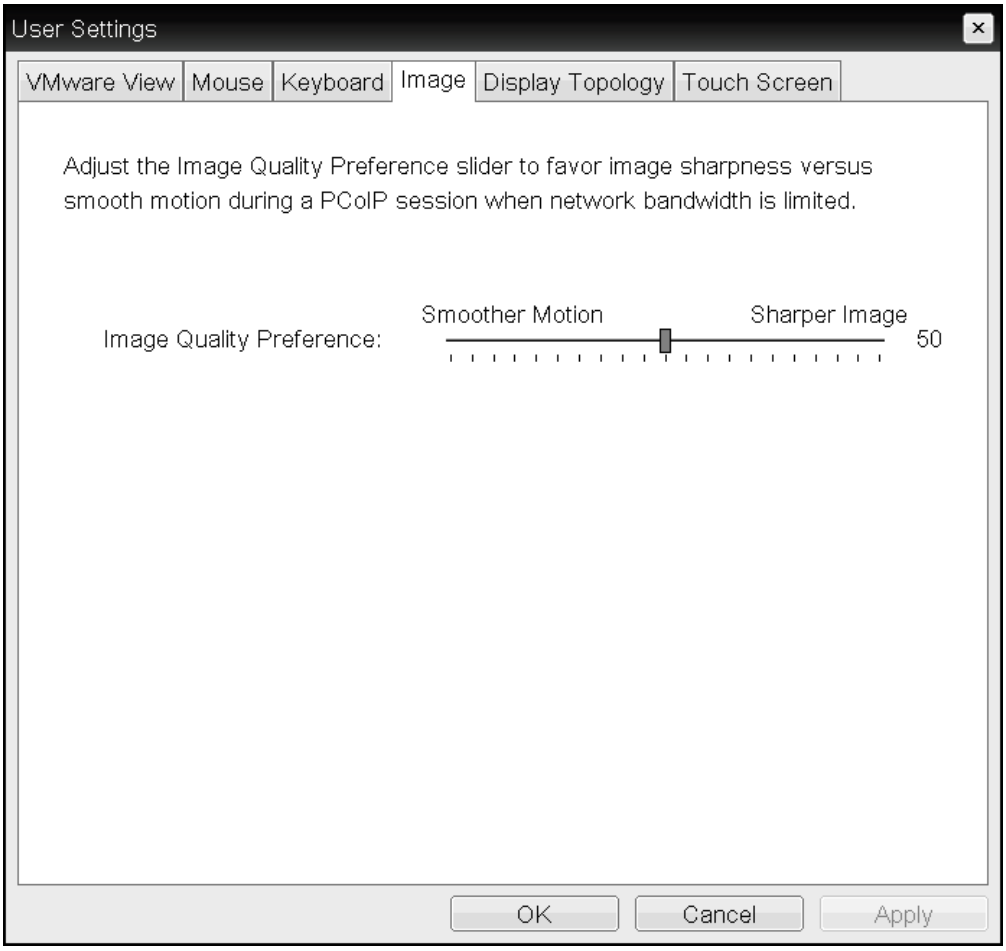


Figure 4-66: OSD Image Page

Note: In the OSD, this page is available from the **Options->User Settings** menu.

Table 4-62: OSD Image Page Parameters

Parameter	Description
Image Quality Preference	Move the slider towards **Smoother Motion** to result in a higher frame rate at a lower quality level. Move the slider towards **Sharper Image** to result in a lower frame rate at a higher quality level. The range is from 0 to 100 in steps of 5. Note: This setting does not work in PCoIP sessions with VMware View virtual desktops running release 5.0 or earlier.

5.13 Configuring Monitor Emulation Display Settings

5.13.1 MC: Display Settings

The **Display** page lets you configure a profile to enable or disable the monitor emulation feature. It also allows you to enable display cloning for TERA2321 zero client profiles.

Some PCs and workstations do not boot if a display is not attached. Monitor emulation presents a generic display to ensure the boot process completes. When a session is connected, the client display information is sent to the host.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

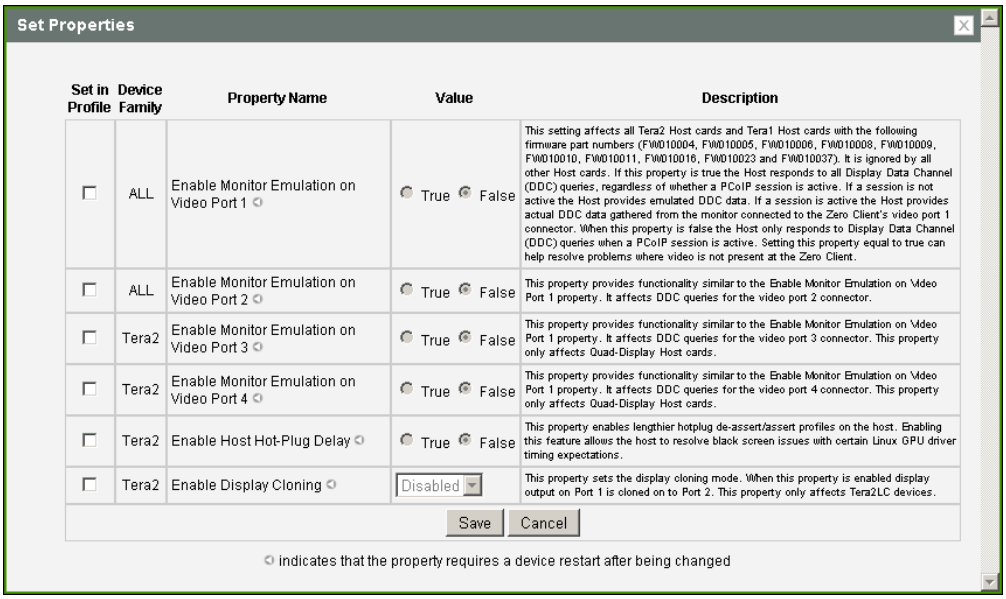


Figure 4-67: MC Monitor Emulation Page

Table 4-63: MC Monitor Parameters

Parameter	Description
Enable Monitor Emulation on Video Port 1	When enabled, the host responds to all Display Data Channel (DDC) queries, regardless of whether a PCoIP session is active. If a session is not active, the host provides emulated DDC data. If a session is active, the host provides actual DDC data gathered from the monitor connected to the client's port 1 connector. When disabled, the host only responds to Display Data Channel (DDC) queries when a PCoIP session is active. Note: Enabling this field can help resolve problems where video is not present at the client. Note: This property requires a device restart after being changed.

Parameter	Description
Enable Monitor Emulation on Video Port 2	This field affects DDC queries for the port 2 connector, and provides functionality similar to that for the port 1 connector. Note: This property requires a device restart after being changed.
Enable Monitor Emulation on Video Port 3	This field affects DDC queries for the port 3 connector, and provides functionality similar to that for the port 1 connector. Note: This property requires a device restart after being changed.
Enable Monitor Emulation on Video Port 4	This field affects DDC queries for the port 4 connector, and provides functionality similar to that for the port 1 connector. Note: This property requires a device restart after being changed.
Enable Host Hot-Plug Delay	When enabled, allows lengthier hot plug de-assert/assert profiles on the host. Enabling this feature allows the host to resolve black screen issues with certain Linux GPU driver timing expectations.
Enable Display Cloning (TERA2321 zero clients only)	When enabled, display output on Port 1 is cloned on Port 2 so that both displays show the same content. Note: If you are connecting a TERA2321 zero client to a host workstation that does not have the PCoIP host software installed and the host driver function enabled, *and* you are using monitor emulation on the host card, you may experience black screens on the cloned displays. To remedy the problem, you can either install and enable the host software, or you can disable monitor emulation on the video port for the secondary display only.

5.13.2 AWI Tera1 Host: Monitor Emulation

The **Monitor Emulation** page lets you enable or disable the monitor emulation feature. This page is only available on host cards still using monitor emulation. It is disabled and non-editable on the client.

Some PCs and workstations do not boot if a display is not attached. Monitor emulation presents a generic display to ensure the boot process completes. When a session is connected, the client display information is sent to the host.

You can display this page from the **Configuration > Monitor Emulation** menu.

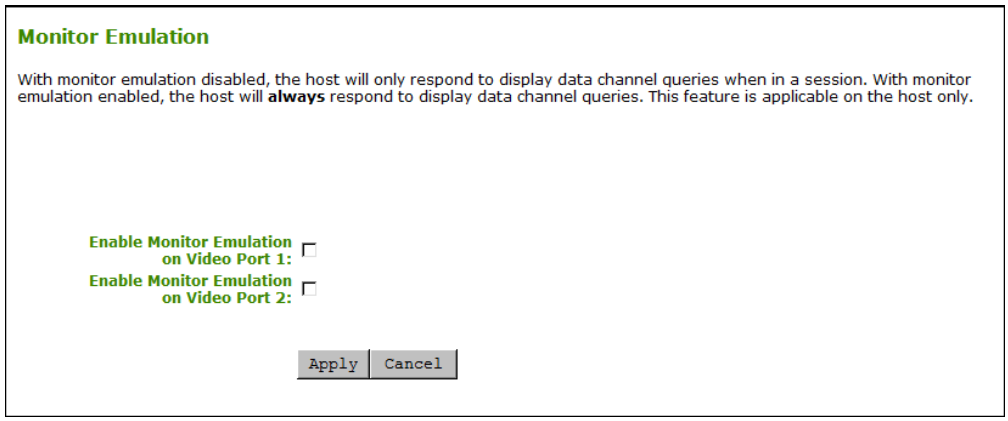


Figure 4-68: AWI Tera1 Host Monitor Emulation Page

Table 4-64: AWI Tera1 Host Monitor Parameters

Parameter	Description
Enable Monitor Emulation on DVI-1	When enabled, the host responds to all Display Data Channel (DDC) queries, regardless of whether a PCoIP session is active. If a session is not active, the host provides emulated DDC data. If a session is active, the host provides actual DDC data gathered from the monitor connected to the client's port 1 connector. When disabled, the host only responds to Display Data Channel (DDC) queries when a PCoIP session is active. Note: Enabling this field can help resolve problems where video is not present at the client.
Enable Monitor Emulation on DVI-2	This field affects DDC queries for the port 2 connector, and provides functionality similar to that for the port 1 connector.

5.13.3 AWI Tera2 Host: Monitor Emulation

The **Monitor Emulation** page lets you enable or disable the monitor emulation feature. This page is only available on host cards still using monitor emulation. It is disabled and non-editable on the client.

Some PCs and workstations do not boot if a display is not attached. Monitor emulation presents a generic display to ensure the boot process completes. When a session is connected, the client display information is sent to the host.

You can display this page from the **Configuration > Monitor Emulation** menu.

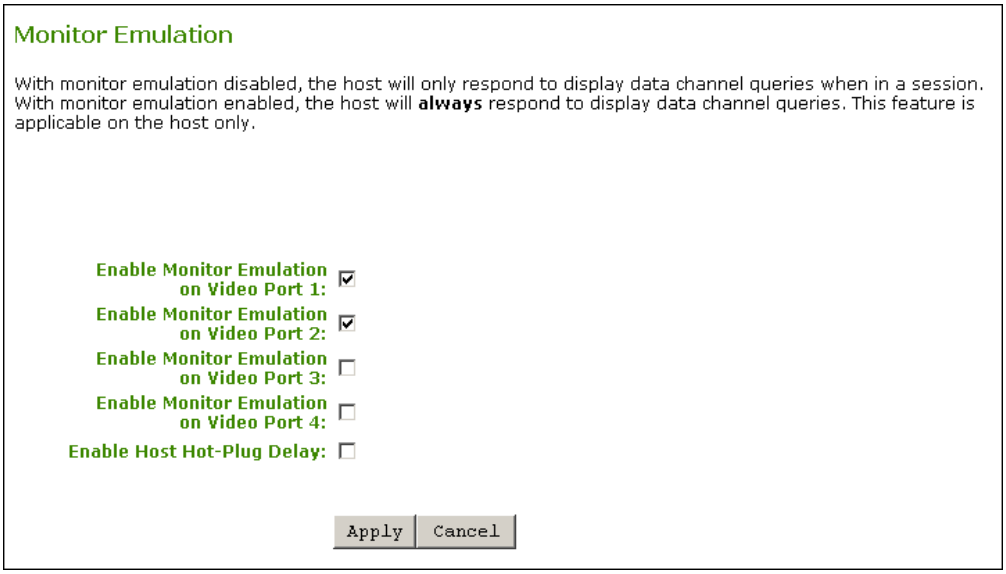


Figure 4-69: AWI Tera2 Host Monitor Emulation Page

Table 4-65: AWI Tera2 Host Monitor Parameters

Parameter	Description
Enable Monitor Emulation on Video Port 1	When enabled, the host responds to all Display Data Channel (DDC) queries, regardless of whether a PCoIP session is active. If a session is not active, the host provides emulated DDC data. If a session is active, the host provides actual DDC data gathered from the monitor connected to the client's port 1 connector. When disabled, the host only responds to Display Data Channel (DDC) queries when a PCoIP session is active. Note: Enabling this field can help resolve problems where video is not present at the client.
Enable Monitor Emulation on Video Port 2	This field affects DDC queries for the port 2 connector, and provides functionality similar to that for the port 1 connector.
Enable Monitor Emulation on Video Port 3	This field affects DDC queries for the port 3 connector, and provides functionality similar to that for the port 1 connector.
Enable Monitor Emulation on Video Port 4	This field affects DDC queries for the port 4 connector, and provides functionality similar to that for the port 1 connector.
Enable Host Hot-Plug Delay	When enabled, allows lengthier hot plug de-assert/assert profiles on the host. Enabling this feature allows the host to resolve black screen issues with certain Linux GPU driver timing expectations.

5.14 Configuring Time

5.14.1 MC: Time Settings

The **Time** page lets you configure a profile with the Network Time Protocol (NTP) parameters to use to allow the host and client event logs to be time-stamped based on NTP time.

Note: If the client is configured for DHCP and the DHCP server provides an NTP server address, this address will override any manually configured NTP server. It will also enable NTP if it is disabled.

Note: The client does not get time zone or Daylight Saving Time (DST) information from the NTP server.

Note: To simplify system troubleshooting, set the NTP parameters to allow user events to correlate with the relevant diagnostic event log entries.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

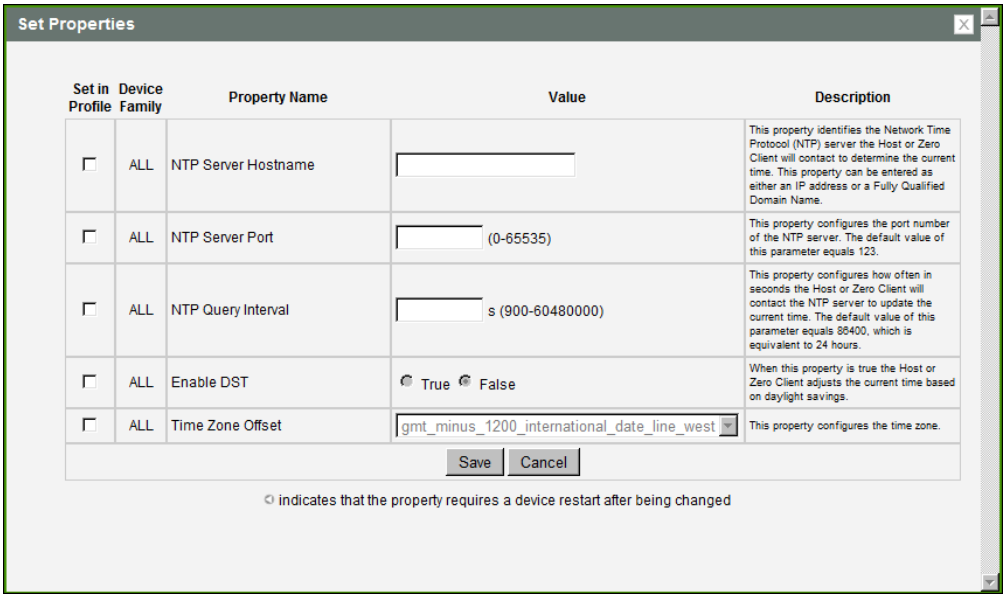


Figure 4-70: MC Time Configuration

Table 4-66: MC Time Configuration Parameters

Parameter	Description
NTP Server Hostname	Configure the IP address or fully qualified domain name (FQDN) of the NTP server that the host or client will contact to determine the current time.

Parameter	Description
NTP Server Port	Configure the port number of the NTP server. The default NTP server port value is 123.
NTP Query Interval	Configure how often (in seconds) the host or client will contact the NTP server to update the current time. The default query interval is 86400 seconds, which is equivalent to 24 hours.
Enable DST	Enable or disable the automatic adjustment for Daylight Saving Time (DST).
Time Zone Offset	Select the desired time zone.

5.14.2 AWI: Time Settings

The **Time** page lets you configure Network Time Protocol (NTP) parameters to allow the host and client event logs to be time-stamped based on NTP time.

Note: If the client is configured for DHCP and the DHCP server provides an NTP server address, this address will override any manually configured NTP server. It will also enable NTP if it is disabled.

Note: The client does not get time zone or Daylight Saving Time (DST) information from the NTP server.

Note: To simplify system troubleshooting, set the NTP parameters to allow user events to correlate with the relevant diagnostic event log entries.

You can display this page for the host or client from the **Configuration > Time** menu.

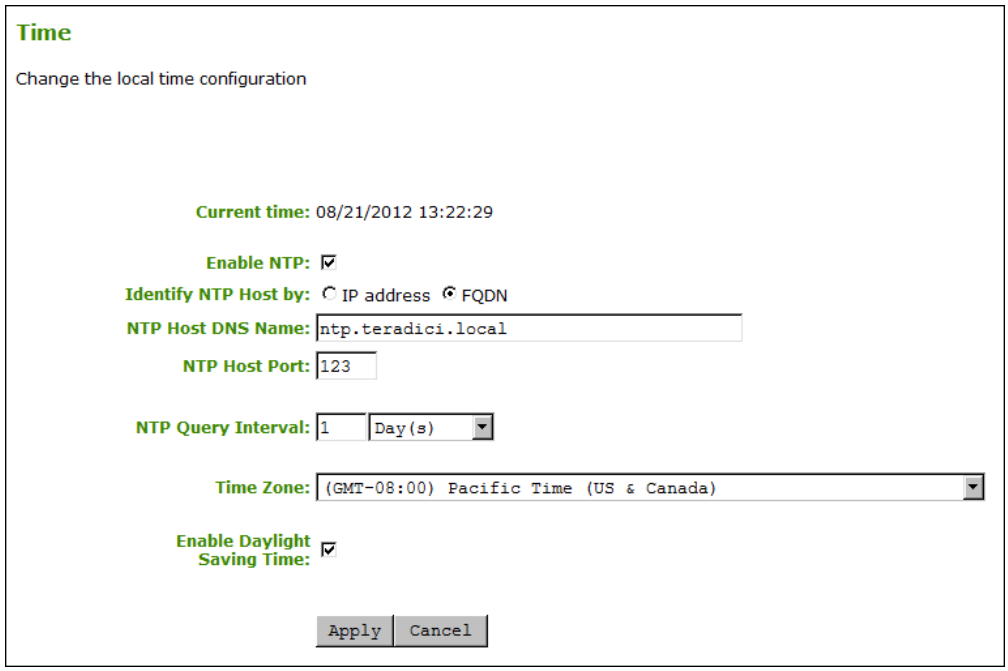


Figure 4-71: AWI Time Page

Table 4-67: AWI Time Page Parameters

Parameter	Description
Current Time	Displays the time based on the NTP.
Enable NTP	Enable or disable the NTP feature.
Identify NTP Host by	Select if the NTP host is identified by IP address or by fully qualified domain name (FQDN). If NTP is disabled, this field is not required and is not editable. If you enter an invalid IP address or DNS name, a message appears to prompt you to correct it. The parameter depends on which method you choose. • **IP Address**: Shows the NTP Host IP address • **FQDN**: Shows the NTP Host DNS name
NTP Host Port	Configure the port number of the NTP server. The default NTP server port value is 123.
NTP Query Interval	Configure the query interval. The first field is for the interval period and the second field is for the time unit in minutes, hours, days, or weeks.
Time Zone	Select the local time zone.
Enable Daylight Savings Time	Enable or disable the automatic adjustment for Daylight Saving Time (DST).

5.15 Configuring Security

5.15.1 MC: Security Settings

The settings on this page let you configure a profile with the security parameters to use for hosts and clients.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

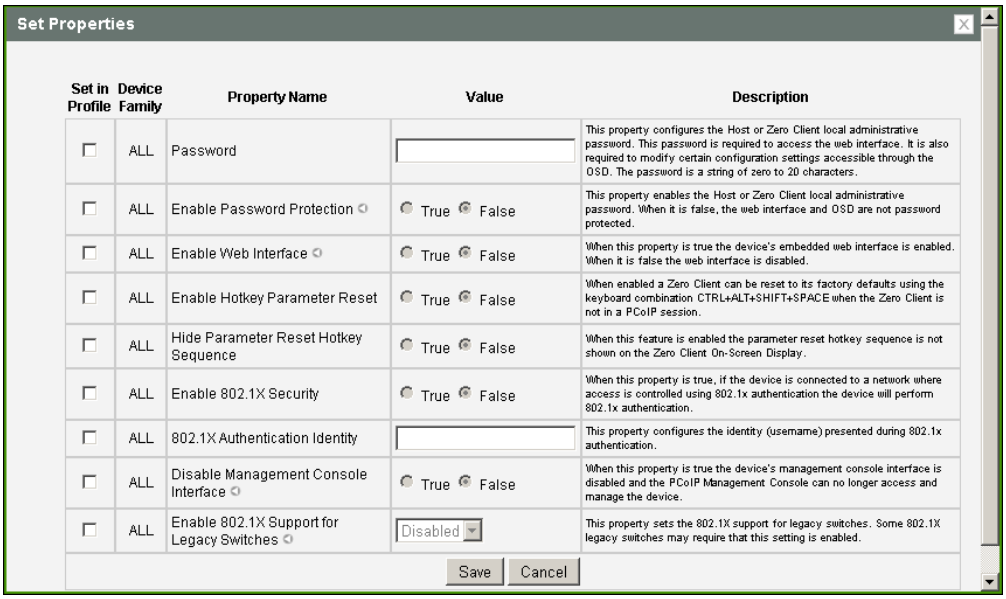


Figure 4-72: MC Security Configuration

Table 4-68: MC Security Configuration Parameters

Parameter	Description
Password	Enter the password for the host or client Administrative Web Interface (AWI). This password is also required to modify certain configuration settings accessible through the client On Screen Display (OSD). This field accepts a string of zero to 20 characters.
Enable Password Protection	When enabled, the host or client AWI password is required. When disabled, the AWI and OSD are not password protected.
Enable Web Interface	When enabled, the host or client can be accessed and managed using the AWI is enabled. When disabled, the device cannot be accessed or managed using the AWI.
Enable Hotkey Parameter Reset	When enabled, the client can be reset to its factory defaults using the keyboard combination Ctrl+Alt+Shift+Space when the client is not in a PCoIP session.
Hide Parameter Reset Hotkey Sequence	When enabled, the reset hotkey sequence is not shown on the client OSD.
Enable 802.1X Security	When enabled, the device will perform 802.1x authentication if it is connected to a network where access is controlled using 802.1x authentication.
802.1X Authentication Identity	Configure the username to present for 802.1x authentication.

Parameter	Description
Disable Management Console Interface	When enabled, the management console interface is disabled, and the device cannot be accessed or managed by the MC (or any other PCoIP device management tool).
Enable 802.1X Legacy Support	When enabled, allows greater 802.1x compatability for older switches on the network.

5.15.2 AWI: Help for Security Settings

The following 802.1x security settings for the AWI are located on the Network page (accessed from the **Configuration > Network** menu):

- Enable 802.1x Security
- Authentication
- Identity
- Client Certificate
- Enable 802.1x Legacy Support

The following administrative access security settings for the AWI are located on the Access page (accessed from the **Configuration > Access** menu):

- Disable Management Console Interface
- Disable Administrative Web Interface
- Force password change on next login

5.15.3 OSD: Help for Security Settings

The following administrative access security settings for the OSD are located on the Access page (accessed from the **Options > Configuration > Access** menu):

- Disable Management Console Interface
- Disable Administrative Web Interface
- Force password change on next login

5.16 Configuring Audio Permissions

5.16.1 MC: Audio Permissions

The settings on this page let you configure a profile with the audio parameters to use for hosts and clients.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

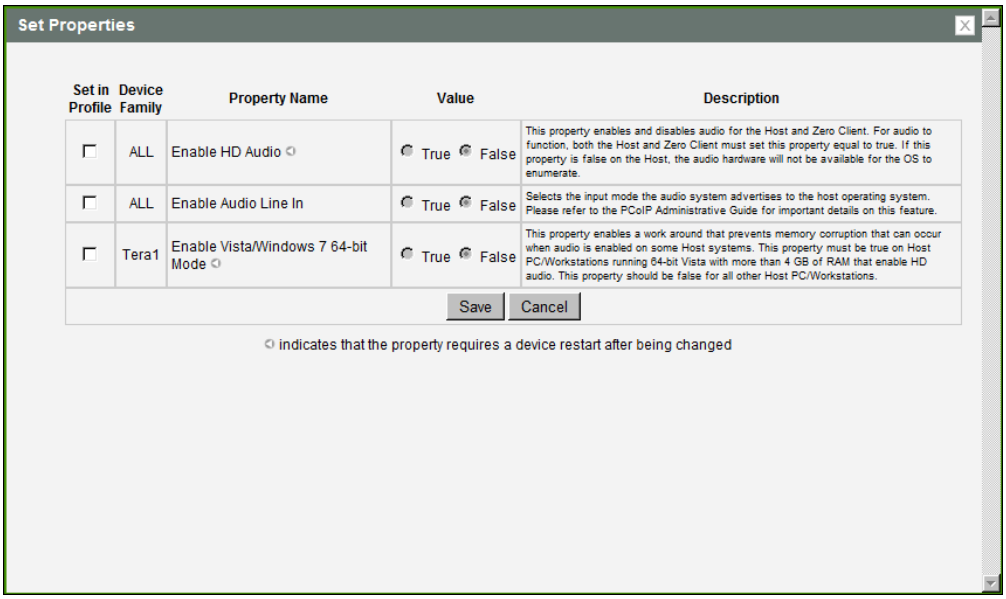


Figure 4-73: MC Audio Permissions

Table 4-69: MC Audio Permissions Parameters

Parameter	Description
Enable HD Audio	Enable to configure audio support on the device. Note: This property must be enabled on both the host and the client. When disabled, the audio hardware is not available for the host operating system to enumerate. Note: This property requires a device restart after being changed.
Enable Audio Line In	This property determines the input mode the audio system advertises to the host operating system. When enabled, the line-in connector found on the client is used as a standard line-in input. When disabled, the line-in connector found on the client is used as a microphone input.
Enable Microsoft Windows Vista 64-bit Mode	Enable this option for Windows Vista 64-bit and Windows 7 64-bit version operation systems. Warning: Do NOT use this mode with Windows XP 64 or 32-bit operating systems. You do not have to enable the 64-bit mode for Linux 64-bit operating systems. Linux kernels should be compiled with the latest PCoIP audio CODEC support. Note: This property requires a device restart after being changed.

5.16.2 AWI Tera1 Host: Audio Permissions

You can configure the audio permissions from the **Initial Setup** page when you start your first session.

For subsequent sessions, use the **Audio** page (accessed from the **Permissions > Audio** menu) to configure the audio permissions for the device. After you update the options on this page, click **Apply** to save your changes.

To display the **Audio** page from the Administrative Web Interface, select the **Permissions** menu, and then click **Audio**.

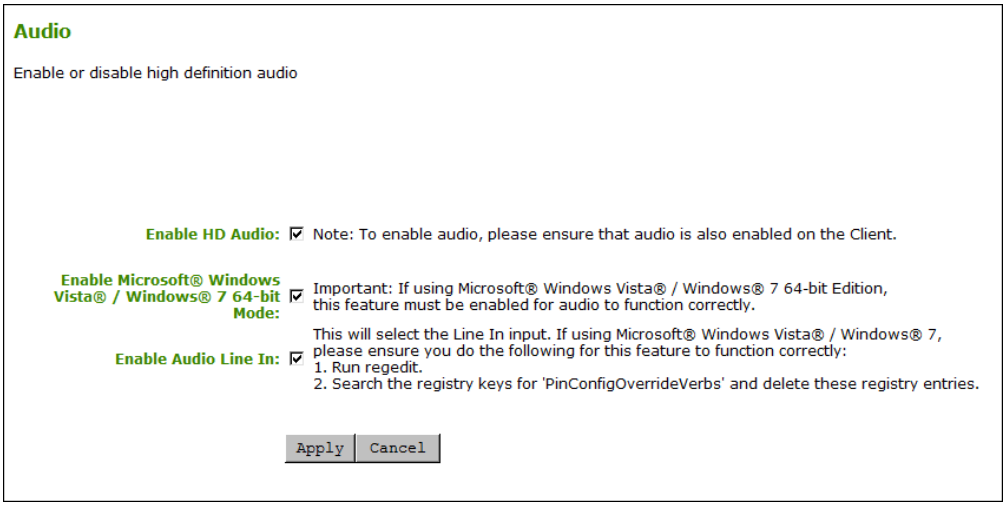


Figure 4-74: AWI Tera1 Host Audio Page

Table 4-70: AWI Tera1 Host Audio Page Parameters

Parameter	Description
Enable HD Audio	Enable to configure audio support on the device. Note: This property must be enabled on both the host and the client. When disabled, the audio hardware is not available for the host operating system to enumerate.
Enable Microsoft® Windows Vista® / Windows® 7 64-bit Mode	Enable this option for Windows Vista 64-bit and Windows 7 64-bit version operation systems. Warning: Do NOT use this mode with Windows XP 64 or 32-bit operating systems. You do not have to enable the 64-bit mode for Linux 64-bit operating systems. Linux kernels should be compiled with the latest PCoIP audio CODEC support.
Enable Audio Line In	This property determines the input mode the audio system advertises to the host operating system. When enabled, the line-in connector found on the client is used as a standard line-in input. When disabled, the line-in connector found on the client is used as a microphone input. Note: Follow the onscreen instructions if you have Windows Vista or Windows 7 installed on the device.

5.16.3 AWI Tera2 Host: Audio Permissions

You can configure the audio permissions from the **Initial Setup** page when you start your first session.

For subsequent sessions, use the **Audio** page (accessed from the **Permissions > Audio** menu) to configure the audio permissions for the device. After you update the options on this page, click **Apply** to save your changes.

To display the **Audio** page from the Administrative Web Interface, select the **Permissions** menu, and then click **Audio**.

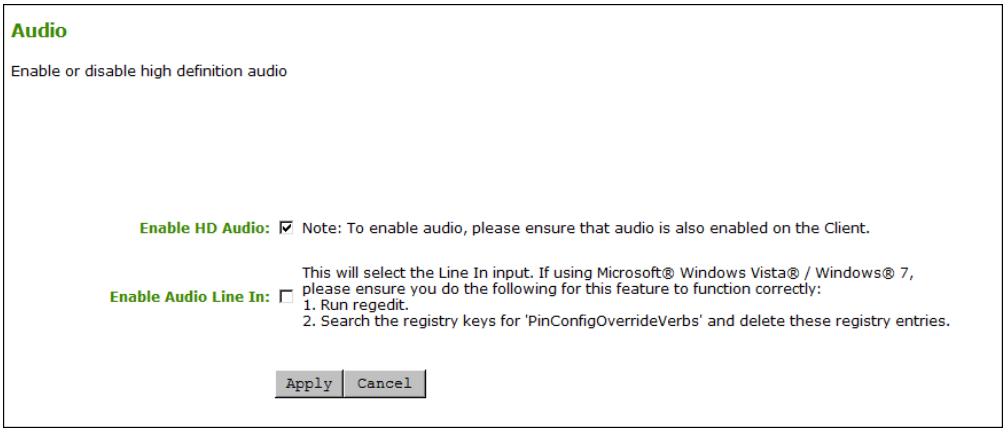


Figure 4-75: AWI Tera2 Host Audio Page

Table 4-71: AWI Tera2 Host Audio Page Parameters

Parameter	Description
Enable HD Audio	Enable to configure audio support on the device. Note: This property must be enabled on both the host and the client. When disabled, the audio hardware is not available for the host operating system to enumerate.
Enable Audio Line In	This property determines the input mode the audio system advertises to the host operating system. When enabled, the line-in connector found on the client is used as a standard line-in input. When disabled, the line-in connector found on the client is used as a microphone input. Note: Follow the onscreen instructions if you have Windows Vista or Windows 7 installed on the device.

5.16.4 AWI Client: Audio Permissions

You can configure the audio permissions from the **Initial Setup** page when you start your first session.

For subsequent sessions, use the **Audio** page (accessed from the **Permissions > Audio** menu) to configure the audio permissions for the device. After you update the options on this page, click **Apply** to save your changes.

To display the **Audio** page from the Administrative Web Interface, select the **Permissions** menu, and then click **Audio**.

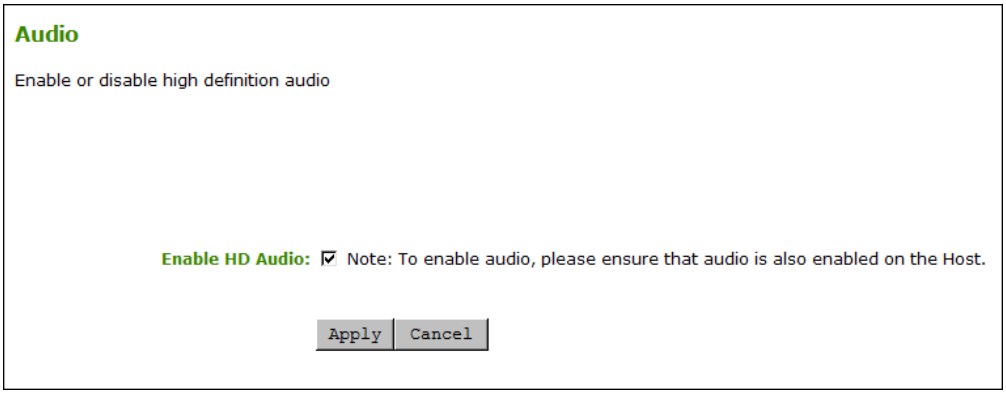


Figure 4-76: AWI Client Audio Page

Table 4-72: AWI Client Audio Page Parameters

Parameter	Description
Enable HD Audio	Enable to configure audio support on the device. Note: This property must be enabled on both the host and the client. When disabled, the audio hardware is not available for the host operating system to enumerate.

5.17 Configuring Power Settings

5.17.1 MC: Power Permissions

The settings on this page let you configure a profile with power permissions for hosts and clients.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

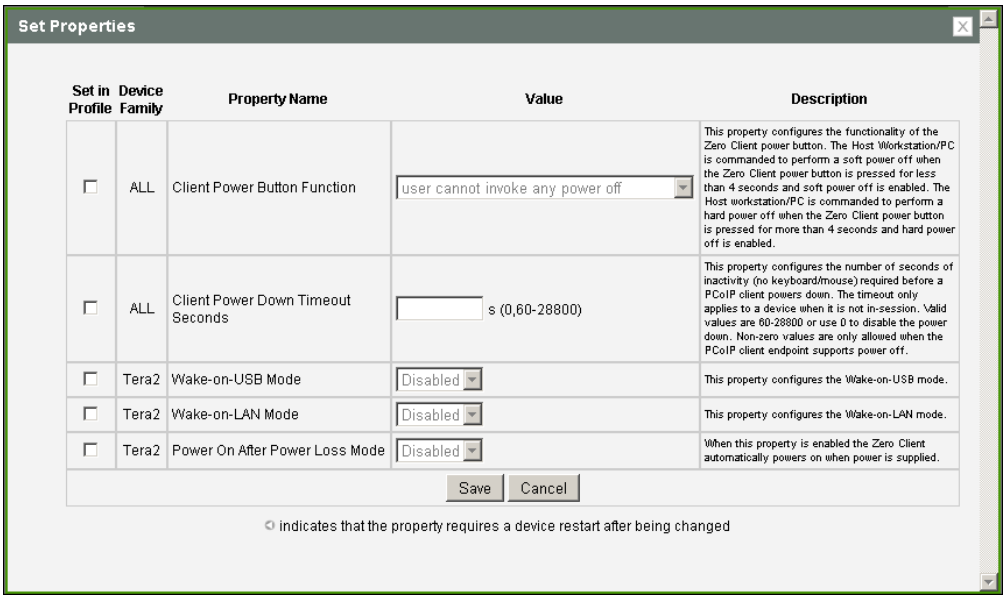


Figure 4-77: MC Power Permissions

Table 4-73: MC Power Permissions Parameters

Parameter	Description
Client Power Button Function	Configure the functionality of the client's remote PC button. The host is commanded to perform a soft power off (i.e., to go into sleep mode) when the client's remote PC button is pressed for less than four seconds and soft power off is enabled. The host is commanded to perform a hard power off (i.e., to shut down) when the client's remote PC button is pressed for more than four seconds and hard power off is enabled. Select from the following options: • **user cannot invoke any power off**: Users cannot shut down the host or put it in sleep mode. • **user can only invoke a hard power off**: Users can shut down the host but not put it in sleep mode. • **user can only invoke a soft power off**: Users can put the host in sleep mode but not shut it down. • **user can invoke soft and hard power offs**: Users can put the host in sleep mode and shut it down.
Client Power Down Timeout Seconds	Configure the number of seconds of inactivity (i.e., no keyboard or mouse action) required before a PCoIP client powers down. The timeout only applies to a device when it is not in a session. Valid values are 60 to 28800 seconds, or use 0 to disable the power down. Note: Non-zero values are only allowed when the PCoIP client supports powering off.
Wake-on-USB Mode	When enabled, configures the host to wake up from sleep mode when the user moves the mouse or presses a key on the keyboard.

Parameter	Description
Wake-on-LAN Mode	When enabled, configures the host to wake up from sleep mode when the user sends Wake-on-LAN magic packets to the host by pressing the client's remote PC button or clicking the OSD **Connect** button on the OSD **Connect** window.
Power On After Power Loss Mode	When enabled, the client automatically powers back on when power is supplied.

5.17.2 AWI Tera2 Host: Power Settings

The **Power** page lets you configure power settings for the host. You can access this page from the **Configuration > Power** menu.

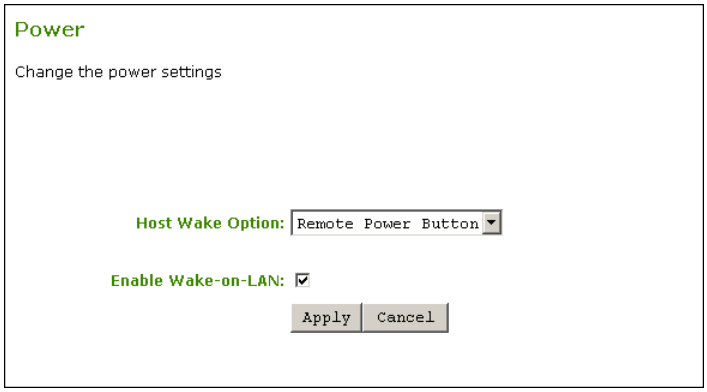


Figure 4-78: AWI Tera2 Host Power Page

Table 4-74: AWI Tera2 Host Power Page Parameters

Parameter	Description
Host Wake Options	Configure the wake method used on the host when it is in sleep mode and a Wake-on-LAN magic packet is detected: • **Remote Power Button**: If the host has the host card power button cable installed, select this option to route Wake-on-LAN packets to the host card via the host PC's front panel power button. • **PCIe Wake Input**: If the host PC cannot provide sufficient standby power to the host card, select this option to route Wake-on-LAN packets first to the host PC, and then to the host card via the PCIe bus. Note: For more information, see Knowledge Base support topic 15134-201 on the Teradici support site.
Enable Wake-on-LAN	When enabled, configures the host to wake up from sleep mode when the user sends Wake-on-LAN magic packets to the host by pressing the client's remote PC button or clicking the OSD **Connect** button on the OSD **Connect** window.

5.17.3 AWI Tera1 Client: Power Settings

The **Power** page lets you configure timeout and power settings for the client. You can access this page from the **Configuration > Power** menu.

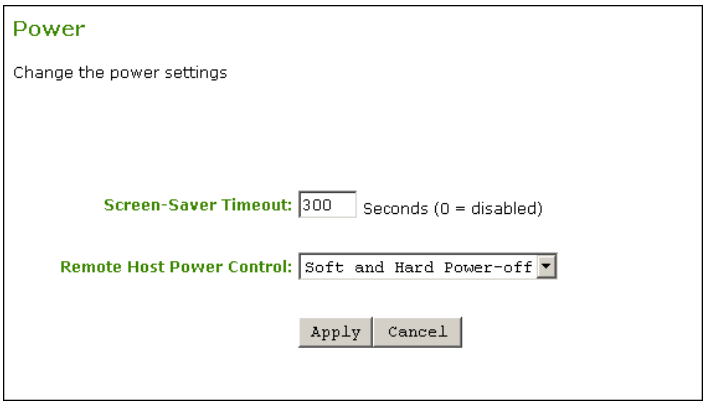


Figure 4-79: AWI Tera1 Client Power Page

Table 4-75: AWI Tera1 Client Power Page Parameters

Parameter	Description
Screen-Saver Timeout	Configure the screen saver timeout with the number of seconds to wait (10 to 9999) after a period of inactivity before the attached displays are put into low-power mode. A setting of 0 seconds disables the screen saver.
Remote Host Power Control	Configure the functionality of the client's remote PC button. The host is commanded to perform a soft power off (i.e., to go into sleep mode) when the client's remote PC button is pressed for less than four seconds and soft power off is enabled. The host is commanded to perform a hard power off (i.e., to shut down) when the client's remote PC button is pressed for more than four seconds and hard power off is enabled. Select from the following options: • **Power-off not permitted**: Users cannot shut down the host or put it in sleep mode. • **Soft Power-off only**: Users can put the host in sleep mode but not shut it down. • **Hard Power-off only**: Users can shut down the host but not put it in sleep mode. • **Soft and Hard Power-off**: Users can put the host in sleep mode and shut it down.

5.17.4 AWI Tera2 Client: Power Permissions

The **Power** page lets you configure timeout and power settings for the client. You can access this page from the **Configuration > Power** menu.

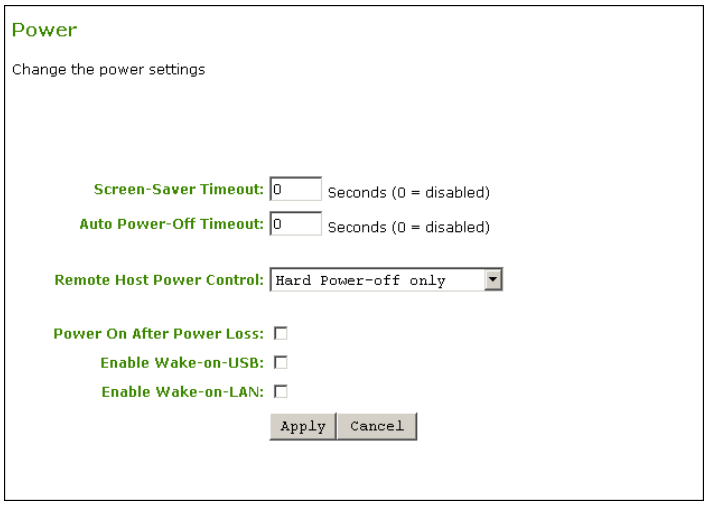


Figure 4-80: AWI Tera2 Client Power Page

Table 4-76: AWI Tera2 Client Power Page Parameters

Parameter	Description
Screen-Saver Timeout	Configure the screen saver timeout with the number of seconds to wait (10 to 9999) after a period of inactivity before the attached displays are put into low-power mode. A setting of 0 seconds disables the screen saver.
Auto Power-Off Timeout	Configure the number of seconds of inactivity (i.e., no keyboard or mouse action) required before a PCoIP client powers down. The timeout only applies to a device when it is not in a session. Valid values are 60 to 28800 seconds, or use 0 to disable the power down. Note: Non-zero values are only allowed when the PCoIP client supports powering off.
Remote Host Power Control	Configure the functionality of the client's remote PC button. Select from the following options: • **Power-off not permitted**: Users cannot shut down the host or put it in sleep mode. • **Hard Power-off only**: Users can shut down the host but not put it in sleep mode.
Power On After Power Loss	When enabled, the client automatically powers back on when power is supplied.
Enable Wake-on-USB	When enabled, configures the host to wake up from sleep mode when the user moves the mouse or presses a key on the keyboard.
Enable Wake-on-LAN	When enabled, configures the host to wake up from sleep mode when the user sends Wake-on-LAN magic packets to the host by pressing the client's remote PC button or clicking the OSD **Connect** button on the OSD **Connect** window.

5.18 Configuring the Host Driver Function

5.18.1 MC: Host Driver Function

The setting on this page lets you configure a profile to enable or disable the PCoIP host software UI on the host computer.

Note: For information about how to install and use the PCoIP host software, see the "PCoIP® Host Software for Windows User Guide" (TER1008001).

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

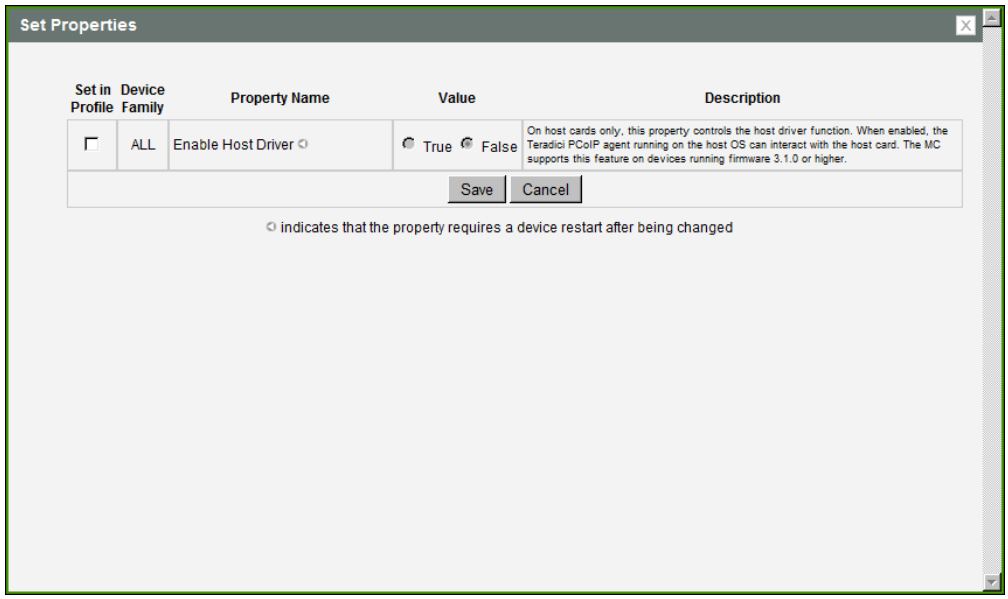


Figure 4-81: MC Host Driver Configuration

Table 4-77: MC Host Driver Configuration Parameters

Parameter	Description
Enable Host Driver	When enabled, lets you access the PCoIP host software UI on the host computer. This software lets users enable features such as the following: • Using the local cursor and keyboard feature • Locking the host PC when a session is terminated • Using the Wake-on-LAN function • Viewing host and client network parameters • Disconnecting a session • Viewing host statistics and connection information • Using the client display topology settings on the host When disabled, you do not have access to the PCoIP host software UI on the host computer. Note: This property requires a device restart after being changed.

5.18.2 AWI Host: Host Driver Function

The setting on this page lets you enable or disable the PCoIP host software UI on the host computer. You can access this page from the **Configuration > Host Driver Function** menu.

Note: For information about how to install and use the PCoIP host software, see the "PCoIP® Host Software for Windows User Guide" (TER1008001).

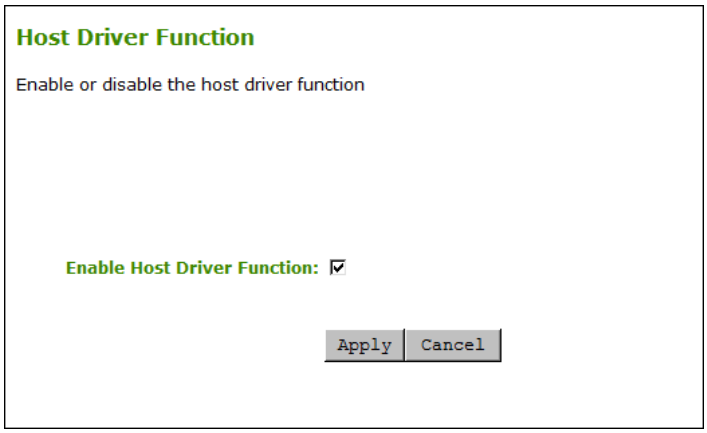


Figure 4-82: AWI Host Driver Function Page

Table 4-78: AWI Host Driver Function Parameters

Parameter	Description
Enable Host Driver Function	When enabled, lets you access the PCoIP host software UI on the host computer. This software lets users enable features such as the following: • Using the local cursor and keyboard feature • Locking the host PC when a session is terminated • Using the Wake-on-LAN function • Viewing host and client network parameters • Disconnecting a session • Viewing host statistics and connection information • Using the client display topology settings on the host When disabled, you do not have access to the PCoIP host software UI on the host computer.

5.19 Configuring the Event Log

5.19.1 MC: Event Log Settings

The settings on this page let you configure a profile with event log messaging to use for a host or client, and to set the log filtering mode on a device.

You can also enable and configure syslog as the logging protocol to use for collecting and reporting events.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

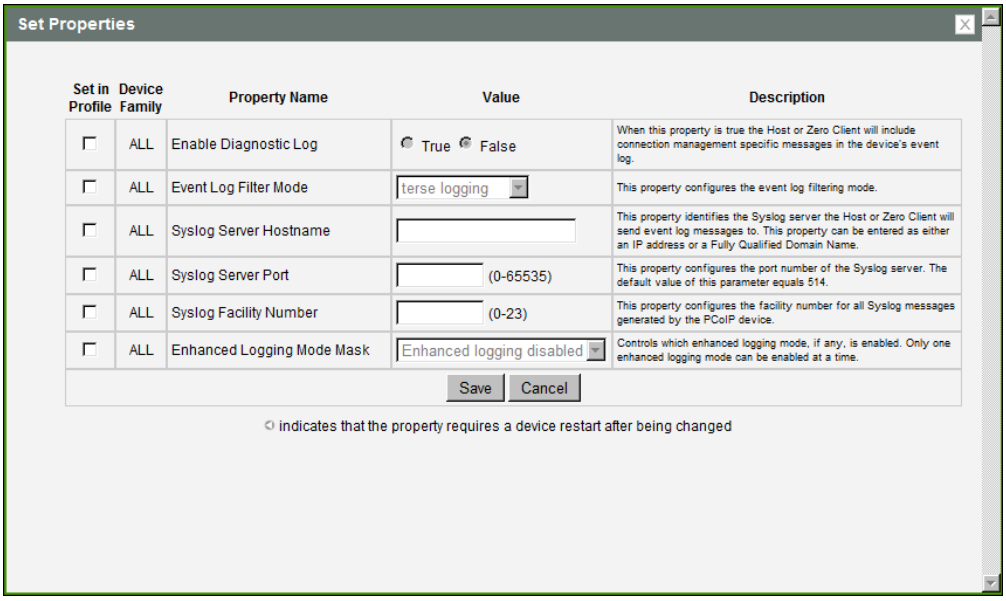


Figure 4-83: MC Event Log Control

Table 4-79: MC Event Log Control Parameters

Parameter	Description
Enable Diagnostic Log	When enabled, the device will include connection management-specific messages in the device's event log.
Event Log Filter Mode	Configure the event log filtering mode as terse or verbose.
Syslog Server Hostname	Enter the IP address or fully qualified domain name of the syslog server to which the host or client will send event log messages.
Syslog Server Port	Enter port number of the syslog server. Note: The default port number value is 514.
Syslog Facility Number	Enter the facility number for all syslog messages generated by the device.
Enhanced Logging Mode Mask	To enable enhanced logging mode, select an enhanced log category. Enhanced logging may be enabled for only one category at a time.

5.19.2 AWI: Event Log Settings

The **Event Log** page lets you view and clear event log messages from the host or client, and set the log filtering mode on the device. You can also enable and configure syslog as the logging protocol to use for collecting and reporting events.

You can access this page for the host or client from the **Diagnostics > Event Log** menu.

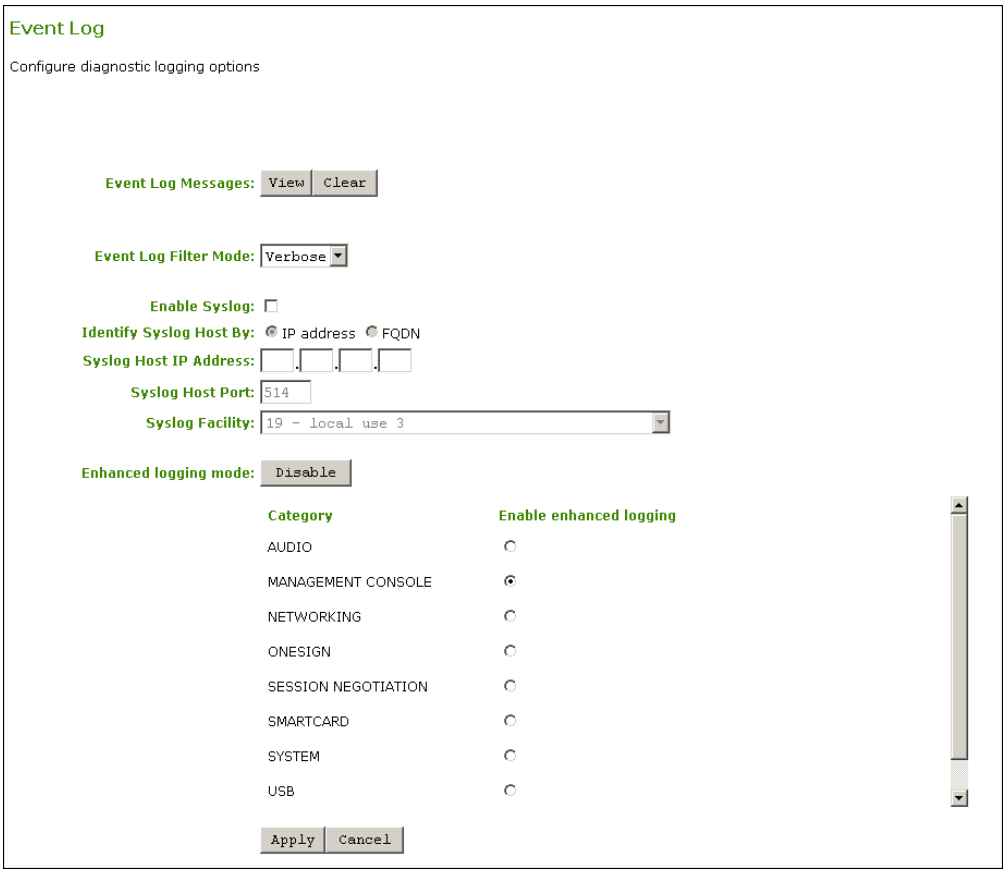


Figure 4-84: AWI Event Log Page – Event Log Selected

Table 4-80: AWI Event Log Page Parameters

Parameter	Description
Event log Messages	**View:** Click to open a browser page that displays the event log messages (with timestamp information) stored on the device. Press **F5** to refresh the browser page log information. **Clear:** Click to delete all event log messages stored on the device.
Event Log Filter Mode	Click the pull-down menu to select an event log filtering mode: • **Verbose** (default settings) • **Terse**
Enable Syslog	Enable or disable the syslog standard as the logging mechanism for the device. Note: If syslog is enabled, you must configure the remaining fields. If syslog is disabled, these fields are non-editable.
Identify Syslog Host By	Choose if the syslog server host is identified by IP address or by fully qualified domain name (FQDN).

Parameter	Description
Syslog Host IP Address / Syslog Host DNS name	The parameter that displays depends on which option you choose to identify the syslog server host: • **IP Address**: Enter the IP address for the syslog server host. • **FQDN:** Enter the DNS name for the syslog server host. Note: If you enter an invalid IP address or DNS name, a message appears to prompt you to correct it.
Syslog Host Port	Enter port number of the syslog server. Note: The default port number value is 514.
Syslog Facility	The facility is a number attached to every syslog message used to categorize the source of the syslog messages. The facility is part of the standard syslog header and can be interpreted by all syslog servers. Enter a facility to suit your logging needs. For example, you could configure devices as follows: • Zero clients to use facility 19 • Cisco routers to use facility 20 • VMware ESX hosts to use facility 21 Note: The default facility is set to “19 – local use 3”. Cisco routers default to “23 – local use 7”.
Enhanced logging mode	To enable enhanced logging mode, select an enhanced log category. Enhanced logging may be enabled for only one category at a time.

5.19.3 OSD: Event Log Settings

The **Event Log** page lets you view, refresh, and clear event log messages from the client. You can access this page from the **Options > Diagnostics > Event Log** menu.

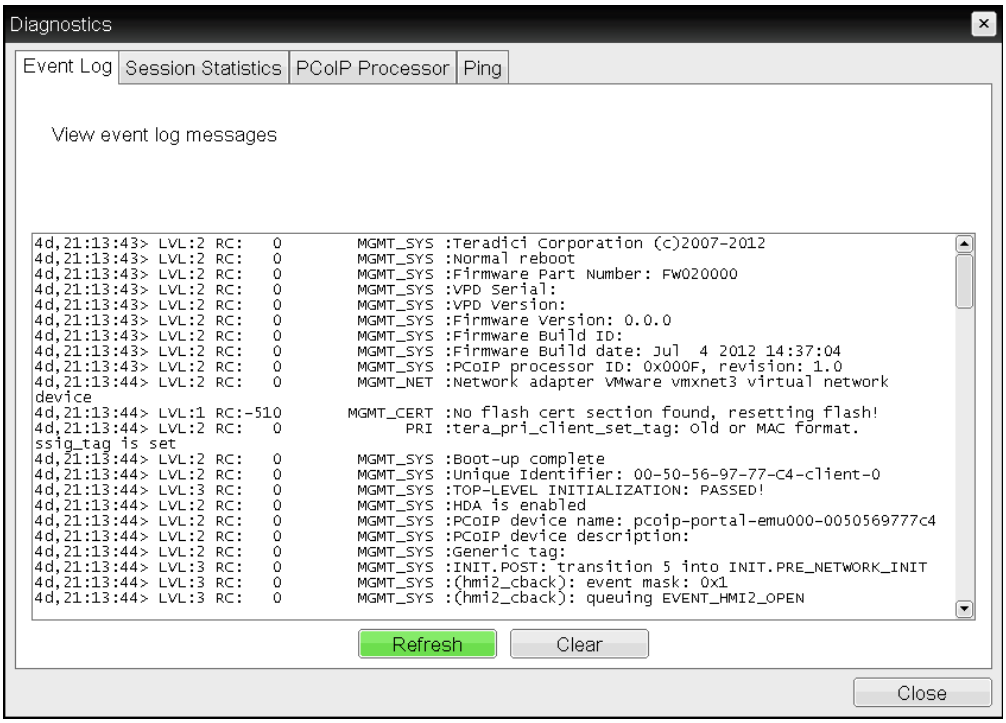


Figure 4-85: OSD Event Log Page

Table 4-81: OSD Event Log Page Parameters

Parameter	Description
Refresh	Click to refresh the log information displayed on this page.
Clear	Click to delete all event log messages stored on the device.

5.20 Configuring Peripherals

5.20.1 MC: Peripheral Settings

The setting on this page lets you configure a profile to enable or disable USB Enhanced Host Controller Interface (EHCI) mode on selected devices.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

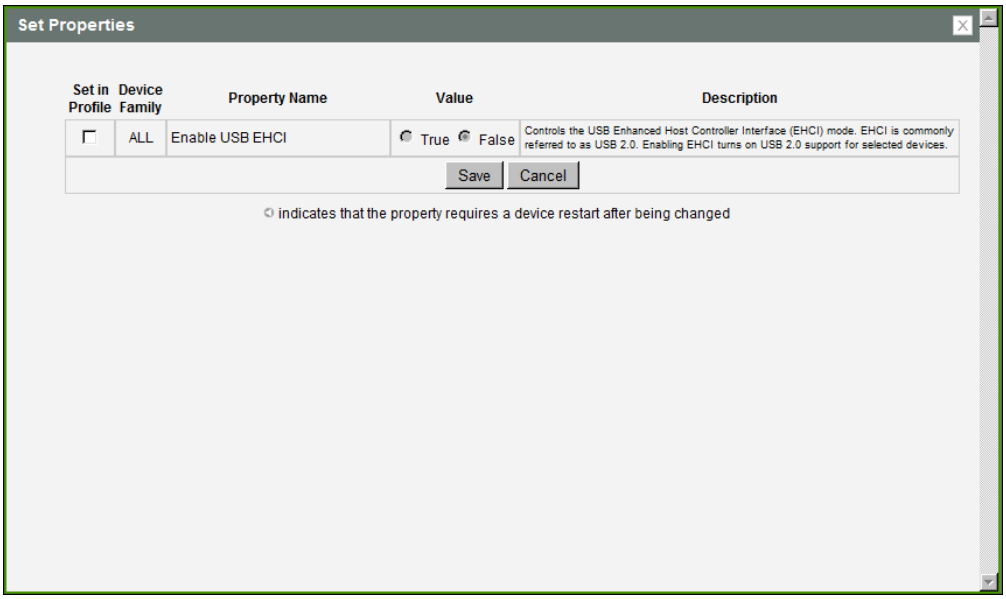


Figure 4-86: MC Peripheral Configuration

Table 4-82: MC Peripheral Configuration Parameters

Parameter	Description
Enable USB EHCI	When enabled, configures EHCI (USB 2.0) for devices connected directly to zero client USB ports for sessions with a host running VMware View 4.6 or later. Note: This feature cannot be enabled on clients with less than 128 MB of RAM. Devices with isochronous endpoints will not operate at USB 2.0 speeds.

5.20.2 AWI Client: Help for Peripheral Settings

Peripheral USB EHCI settings for the AWI are located on the AWI Client: USB Permissions page (accessed from the **Permissions > USB** menu).

5.21 Configuring IPv6

5.21.1 MC: IPv6 Settings

The settings on this page let you configure a profile to enable IPv6 for PCoIP devices connected to an IPv6 network.

Note: IPv6 is not currently supported by VMware View.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

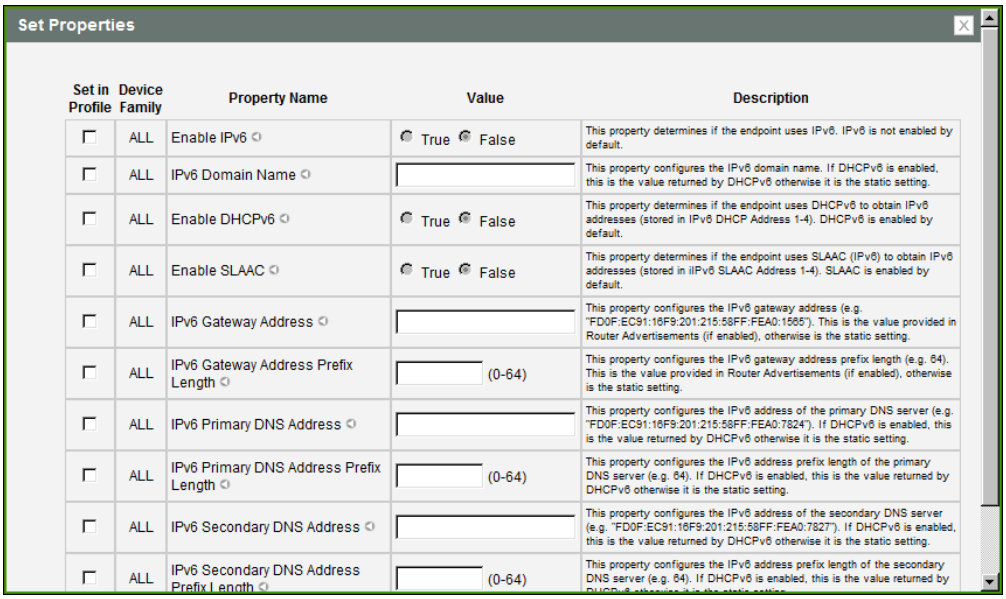


Figure 4-87: MC IPv6 Configuration

Table 4-83: MC IPv6 Configuration Parameters

Parameter	Description
Enable IPv6	This property determines if the device uses IPv6. IPv6 is not enabled by default. Note: This property requires a device restart after being changed.
IPv6 Domain Name	If DHCPv6 is enabled, this is the value returned by DHCPv6; otherwise, it is the static setting. Note: This property requires a device restart after being changed.
Enable DHCPv6	Determines if the device uses DHCPv6 to obtain IPv6 addresses (stored in IPv6 DHCP Address 1-4). DHCPv6 is enabled by default. Note: This property requires a device restart after being changed.
Enable SLAAC	Determines if the endpoint uses Stateless Address Auto-configuration (SLAAC IPv6) to obtain IPv6 addresses (stored in IPv6 SLAAC Address 1-4). SLAAC is enabled by default. Note: This property requires a device restart after being changed.
IPv6 Gateway Address	Configures the IPv6 gateway address (e.g., "FD0F:EC91:16F9:201:215:58FF:FEA0:1565"). This is the value provided in Router Advertisements (if enabled); otherwise, it is the static setting. Note: This property requires a device restart after being changed.

Parameter	Description
IPv6 Gateway Address Prefix Length	Configures the IPv6 gateway address prefix length (e.g., 64). This is the value provided in Router Advertisements (if enabled); otherwise, it is the static setting. Note: This property requires a device restart after being changed.
IPv6 Primary DNS Address	Configures the IPv6 address of the primary DNS server (e.g., "FD0F:EC91:16F9:201:215:58FF:FEA0:7824"). If DHCPv6 is enabled, this is the value returned by DHCPv6; otherwise, it is the static setting. Note: This property requires a device restart after being changed.
IPv6 Primary DNS Address Prefix Length	Configures the IPv6 address prefix length of the primary DNS server (e.g., 64). If DHCPv6 is enabled, this is the value returned by DHCPv6; otherwise, it is the static setting. Note: This property requires a device restart after being changed.
IPv6 Secondary DNS Address	Configures the IPv6 address of the secondary DNS server (e.g., "FD0F:EC91:16F9:201:215:58FF:FEA0:7827"). If DHCPv6 is enabled, this is the value returned by DHCPv6; otherwise, it is the static setting. Note: This property requires a device restart after being changed.
IPv6 Secondary DNS Address Prefix Length	Configures the IPv6 address prefix length of the secondary DNS server (e.g., 64). If DHCPv6 is enabled, this is the value returned by DHCPv6; otherwise, it is the static setting. Note: This property requires a device restart after being changed.

5.21.2 AWI: IPv6 Settings

The settings on this page let you enable IPv6 for PCoIP devices connected to an IPv6 network.

Note: IPv6 is not currently supported by VMware View.

You can access this page for the host or client from the **Configuration > IPv6** menu.

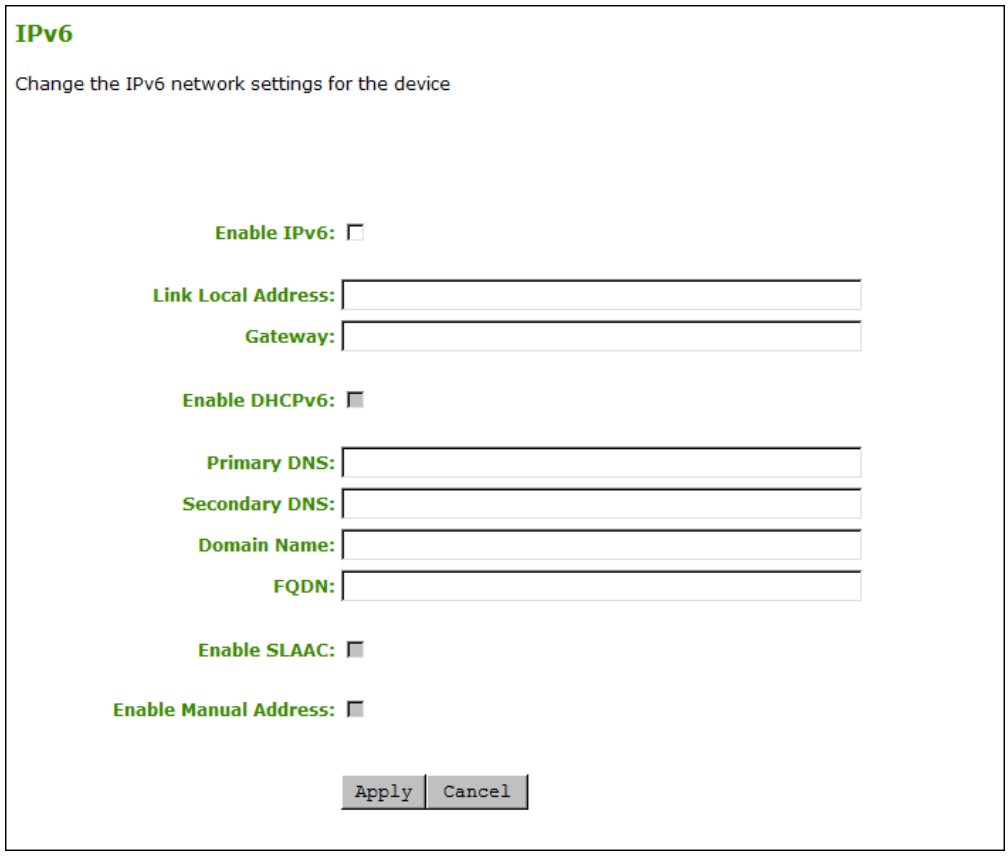


Figure 4-88: AWI IPv6 Page

Note: When you make a change to one of the settings on this page, you must reboot your device for the change to take effect.

Table 4-84: AWI IPv6 Page Parameters

Parameter	Description
Enable IPv6	Enable this field to enable IPv6 for your PCoIP devices.
Link Local Address	This field is automatically populated.
Gateway	Enter the IPv6 gateway address.
Enable DHCPv6	Enable this field to set up Dynamic Host Configuration Protocol version 6 (DHCPv6) for your device.
DHCPv6 Addresses	When DHCPv6 is enabled and the device is rebooted, the server automatically populates these fields with addresses for the device.
Primary DNS	The device's primary DNS IP address. If DHCPv6 is enabled, this field is automatically populated by the DHCPv6 server.

Parameter	Description
Secondary DNS	The device's secondary DNS IP address. If DHCPv6 is enabled, this field is automatically populated by the DHCPv6 server.
Domain Name	The domain name used (e.g., "domain.local") for the host or client. If DHCPv6 is enabled, this field is automatically populated by the DHCPv6 server.
FQDN	The fully qualified domain name for the host or client. If DHCPv6 is enabled, this field is automatically populated by the DHCPv6 server.
Enable SLAAC	Enable this field to set up Stateless Address Auto-configuration (SLAAC) for your devices.
SLAAC Addresses	When SLAAC is enabled and the device is rebooted, these fields are automatically populated.
Enable Manual Address	Enable this field to set up a manual (static) address for the device.
Manual Address	Enter the IP address for the device.

5.21.3 OSD: IPv6 Settings

The settings on this page let you enable IPv6 for PCoIP devices connected to an IPv6 network.

Note: IPv6 is not currently supported by VMware View.

You can access this page from the **Options > Configuration > IPv6** menu.

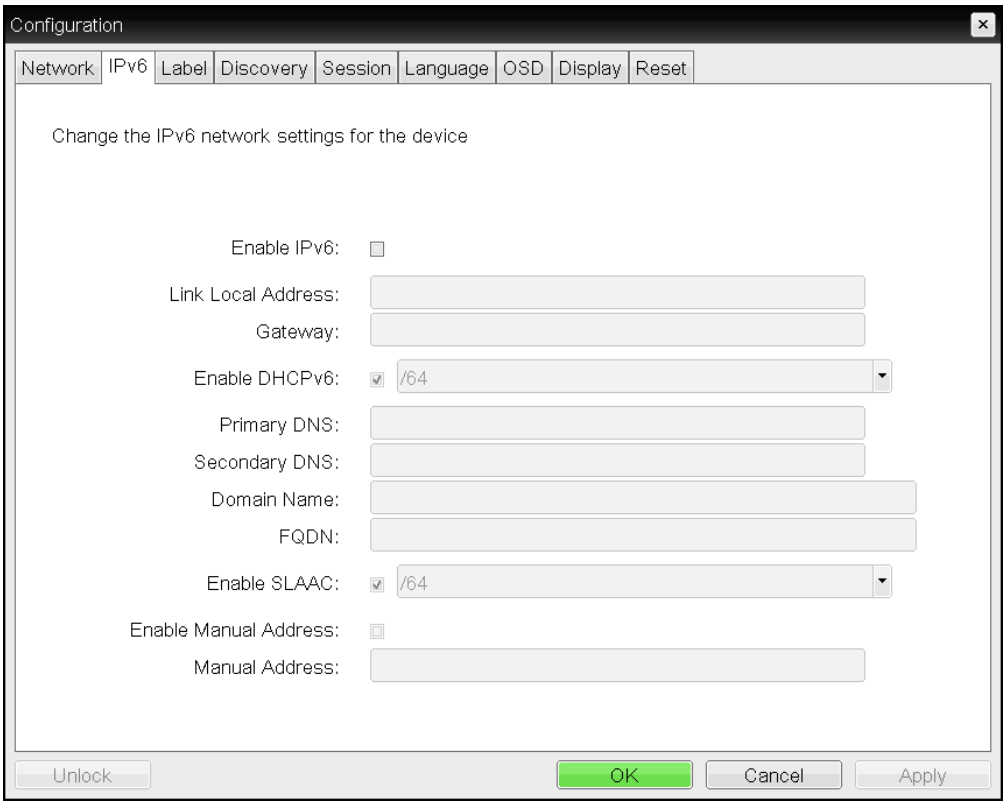


Figure 4-89: OSD IPv6 Page

Note: When you make a change to one of the settings on this page, you must reboot your device for the change to take effect.

Table 4-85: OSD IPv6 Page Parameters

Parameter	Description
Enable IPv6	Enable this field to enable IPv6 for your PCoIP devices.
Link Local Address	This field is automatically populated.
Gateway	Enter the IPv6 gateway address.
Enable DHCPv6	Enable this field to set up Dynamic Host Configuration Protocol version 6 (DHCPv6) for your device.
DHCPv6 Addresses	When DHCPv6 is enabled and the device is rebooted, the server automatically populates these fields with addresses for the device.
Primary DNS	The device's primary DNS IP address. If DHCPv6 is enabled, this field is automatically populated by the DHCPv6 server.
Secondary DNS	The device's secondary DNS IP address. If DHCPv6 is enabled, this field is automatically populated by the DHCPv6 server.

Parameter	Description
Domain Name	The domain name used (e.g., "domain.local") for the host or client. If DHCPv6 is enabled, this field is automatically populated by the DHCPv6 server.
FQDN	The fully qualified domain name for the host or client. If DHCPv6 is enabled, this field is automatically populated by the DHCPv6 server.
Enable SLAAC	Enable this field to set up Stateless Address Auto-configuration (SLAAC) for your devices.
SLAAC Addresses	When SLAAC is enabled and the device is rebooted, these fields are automatically populated.
Enable Manual Address	Enable this field to set up a manual (static) address for the device.
Manual Address	Enter the IP address for the device.

5.22 Configuring SCEP

5.22.1 MC: SCEP Settings

Simple Certificate Enrollment Protocol (SCEP) lets you simplify the retrieval and installation of digital certificates by allowing devices to obtain certificates automatically from a SCEP server. This feature is available for Tera2 zero clients only.

The settings on this page let you configure a profile with SCEP settings. When the profile is applied, the zero clients will submit a request for certificates to the specified SCEP server.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

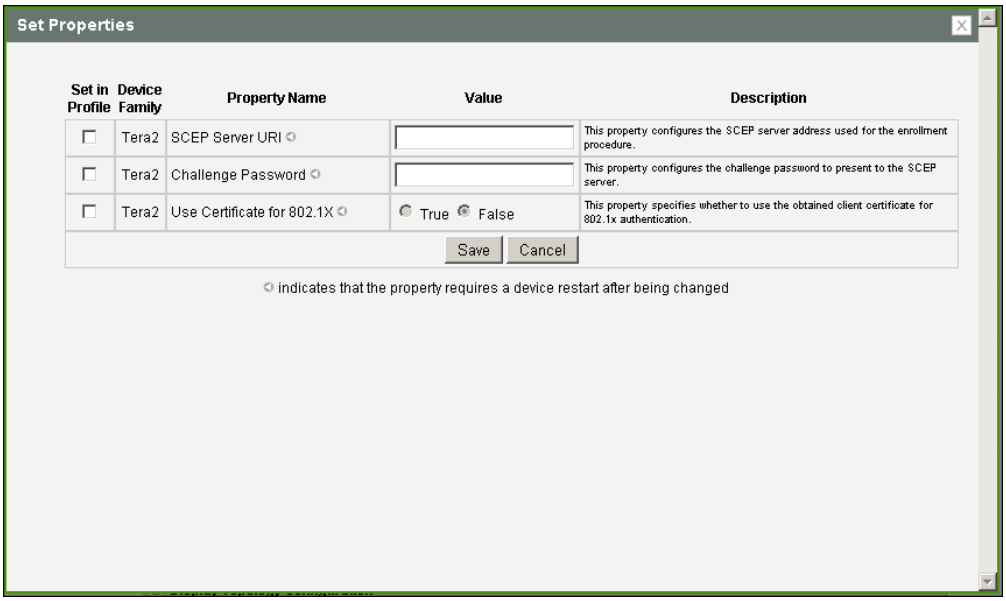


Figure 4-90: MC SCEPConfiguration

Table 4-86: MC SCEP Configuration Parameters

Parameter	Description
SCEP Server URI	Enter the URL for the SCEP server that is configured to issue certificates for the device.
Challenge Password	Enter the password to present to the SCEP server. Note: This password will be used for all the zero clients associated with this profile.
Use Certificate for 802.1X	Specify whether or not the obtained client certificate will be used for 802.1x authentication.

5.22.2 AWI Tera2 Client: SCEP Settings

Simple Certificate Enrollment Protocol (SCEP) lets you simplify the retrieval and installation of digital certificates by allowing devices to obtain certificates automatically from a SCEP server. This feature is available for Tera2 zero clients only.

You can access this page from the **Configuration > SCEP** menu.

To retrieve certificates for a device, enter the URL and password for the SCEP server, and then click **Request Certificates**. Root CA and 802.1x certificates display after these certificates are installed.

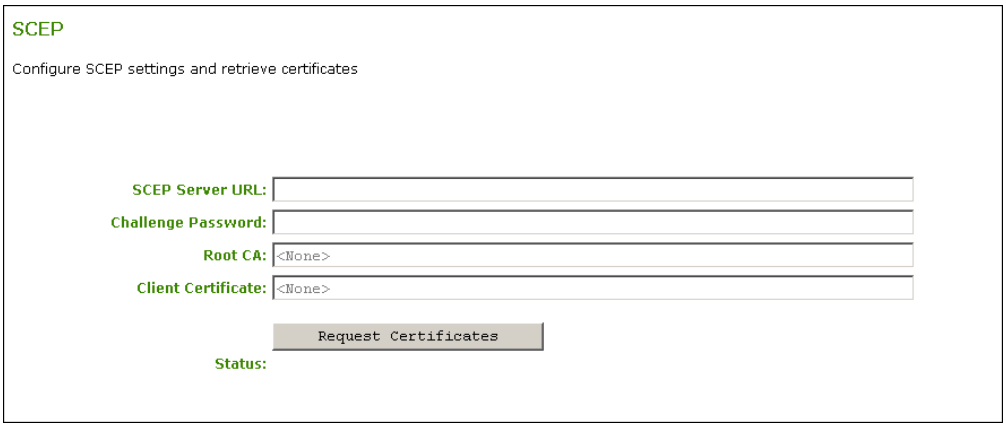


Figure 4-91: AWI SCEP Page

Table 4-87: AWI SCEP Parameters

Parameter	Description
SCEP Server URL	Enter the URL for the SCEP server that is configured to issue certificates for the device.
Challenge Password	Enter the password to present to the SCEP server.
Root CA	Displays the name of the root CA certificate that has been installed in the device.
Client Certificate	Displays the name of the client certificate that has been installed in the device.
Request Certificates	After entering the SCEP server address and password, click this button to retrieve certificates.
Status	Displays the status of the request (e.g., in progress, successful, failed).

5.22.3 OSD Tera2: SCEP Settings

Simple Certificate Enrollment Protocol (SCEP) lets you simplify the retrieval and installation of digital certificates by allowing devices to obtain certificates automatically from a SCEP server. This feature is available for Tera2 zero clients only.

You can access this page from the **Options > Configuration > SCEP** menu.

To retrieve certificates for a device, enter the URL and password for the SCEP server, and then click **Request Certificates**. Root CA and 802.1x certificates display after these certificates are installed.

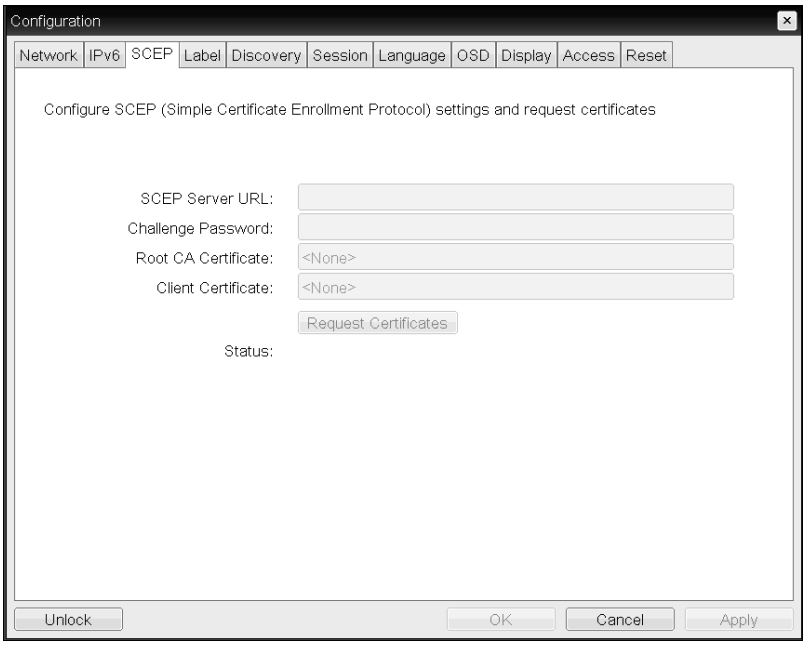


Figure 4-92: OSD Tera2 SCEP Page

Table 4-88: OSD Tera2 SCEP Page Parameters

Parameter	Description
SCEP Server URL	Enter the URL for the SCEP server that is configured to issue certificates for the device.
Challenge Password	Enter the password to present to the SCEP server.
Root CA	Displays the name of the root CA certificate that has been installed in the device.
Client Certificate	Displays the name of the client certificate that has been installed in the device.
Request Certificates	After entering the SCEP server address and password, click this button to retrieve certificates.
Status	Displays the status of the request (e.g., in progress, successful, failed).

5.23 Configuring the Display Topology

5.23.1 MC: Display Topology Settings

The settings on this page let you configure a profile with the display topology to use for Tera1 and Tera2 clients.

Note: Use the Dual-Display Zero Client layout for TERA2321 zero client devices.

Note: To enable a property in the MC, click the **Set in Profile** checkbox and configure the fields as indicated. After you update the properties on this page, click **Save** to save your changes.

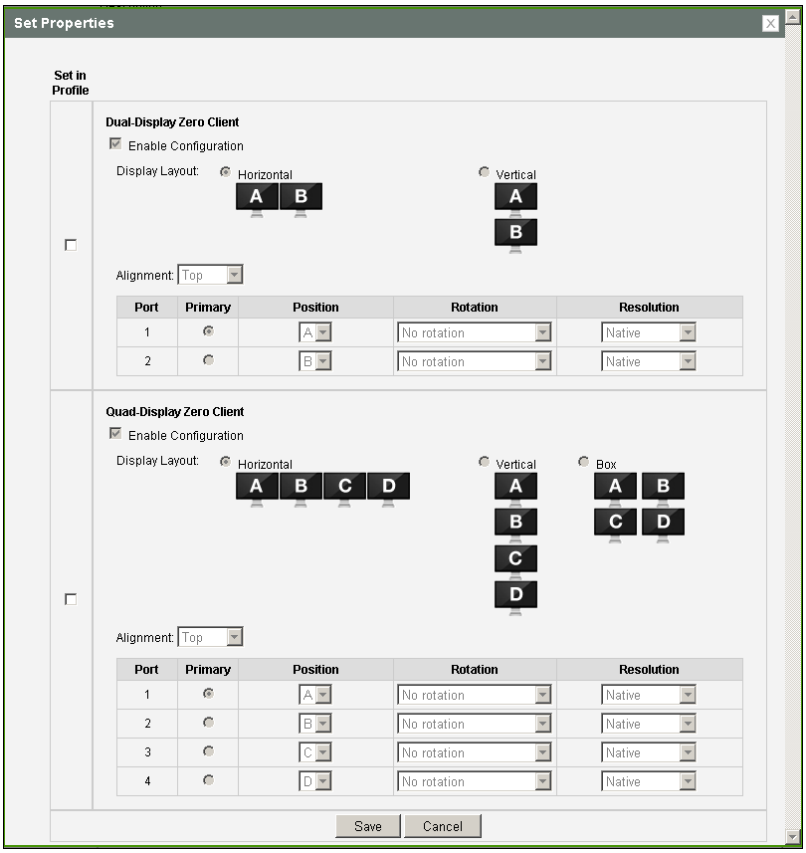


Figure 4-93: MC Display Topology Configuration

Table 4-89: MC Display Topology Configuration Parameters

Parameter	Description
Dual-Display Zero Client	
Enable Configuration	Enable to configure a device that supports two displays per PCoIP chipset.
Display Layout	Select the layout for the displays (A and B). This setting should reflect the physical layout of the displays on the desk. • **Horizontal**: Select to arrange displays horizontally, as indicated in the diagram. • **Vertical**: Select to arrange displays vertically, as indicated in the diagram.

Parameter	Description
Alignment	Select how you want displays aligned when they are different sizes. Note: This setting affects which area of the screen to use when users move the cursor from one display to the other. The alignment options that appear in the drop-down list depend on the selected display layout. **Horizontal layout**: • **Top**: Select to align displays at the top. With this setting, use the top area of the screen when navigating between displays of different sizes. • **Center**: Select to horizontally center displays. With this setting, use the center area of the screen when navigating between displays of different sizes. • **Bottom**: Select to align displays at the bottom. With this setting, use the bottom area of the screen when navigating between displays of different sizes. **Vertical layout**: • **Left**: Select to align displays on the left. With this setting, use the left area of the screen when navigating between displays of different sizes. • **Center**: Select to vertically center displays. With this setting, use the center area of the screen when navigating between displays of different sizes. • **Right**: Select to align displays on the right. With this setting, use the right area of the screen when navigating between displays of different sizes.
Primary	Configure which video port on the zero client you want as the primary port. Note: The display that is connected to the primary port becomes the primary display (i.e., the display that contains the OSD menus before you initiate a PCoIP session and the display that is requested for the Windows taskbar after you initiate the session). • **Port 1**: Select to configure port 1 on the zero client as the primary port. • **Port 2**: Select to configure port 2 on the zero client as the primary port.
Position	Specify which display is physically connected to each port.
Rotation	Configure the rotation of the display in each port: • **No rotation** • **90° clockwise** • **180° rotation** • **90° counter-clockwise**

Parameter	Description
Resolution	The display resolution can be configured for a PCoIP session between a virtual machine or host and a zero client. The zero client detects the supported display resolutions of the monitor and populates them to the drop-down menu. By default, the display's native resolution is used.
Quad-Display Zero Client	
Enable Configuration	Enable to configure a device that supports four displays per PCoIP chipset.
Display Layout	Select the layout for the displays (A, B, C, and D). This setting should reflect the physical layout of the displays on the desk. • **Horizontal**: Select to arrange displays horizontally, as indicated in the diagram. • **Vertical**: Select to arrange displays vertically, as indicated in the diagram. • **Box**: Select to arrange displays in a box formation, as indicated in the diagram.
Alignment	Select how you want displays aligned when they are different sizes. Note: This setting affects which area of the screen to use when users move the cursor from one display to the other. The alignment options that appear in the drop-down list depend on the selected display layout. **Horizontal layout**: • **Top**: Select to align displays at the top. With this setting, use the top area of the screen when navigating between displays of different sizes. • **Center**: Select to horizontally center displays. With this setting, use the center area of the screen when navigating between displays of different sizes. • **Bottom**: Select to align displays at the bottom. With this setting, use the bottom area of the screen when navigating between displays of different sizes. **Vertical layout**: • **Left**: Select to align displays on the left. With this setting, use the left area of the screen when navigating between displays of different sizes. • **Center**: Select to vertically center displays. With this setting, use the center area of the screen when navigating between displays of different sizes. • **Right**: Select to align displays on the right. With this setting, use the right area of the screen when navigating between displays of different sizes.

Parameter	Description
Primary	Configure which video port on the zero client that you want as the primary port. Note: The display that is connected to the primary port becomes the primary display (i.e., the display that contains the OSD menus before you initiate a PCoIP session and the display that is requested for the Windows taskbar after you initiate the session). • **Port 1**: Select to configure port 1 on the zero client as the primary port. • **Port 2**: Select to configure port 2 on the zero client as the primary port. • **Port 3**: Select to configure port 3 on the zero client as the primary port. • **Port 4**: Select to configure port 4 on the zero client as the primary port.
Position	Specify which display is physically connected to each port.
Rotation	Configure the rotation of the display in each port: • **No rotation** • **90° clockwise** • **180° rotation** • **90° counter-clockwise**
Resolution	The display resolution can be configured for a PCoIP session between a virtual machine or host and a zero client. The zero client detects the supported display resolutions of the monitor and populates them to the drop-down menu. By default, the display's native resolution is used.

5.23.2 OSD Dual-display: Display Topology Settings

The **Display Topology** page lets users change the display topology for a PCoIP session. You can access this page from the **Options > User Settings > Display Topology** menu on your client OSD.

To apply the display topology feature to a PCoIP session between a client and a VMware View virtual desktop, you must have VMware View 4.5 or later. To apply the display topology feature to a PCoIP session between a client and a PCoIP host, you must have the PCoIP host software installed on the host.

Note: Always change the display topology settings using this OSD **Display Topology** page. Do not try to change these settings using the Windows Display Settings in a virtual machine when using VMware View.

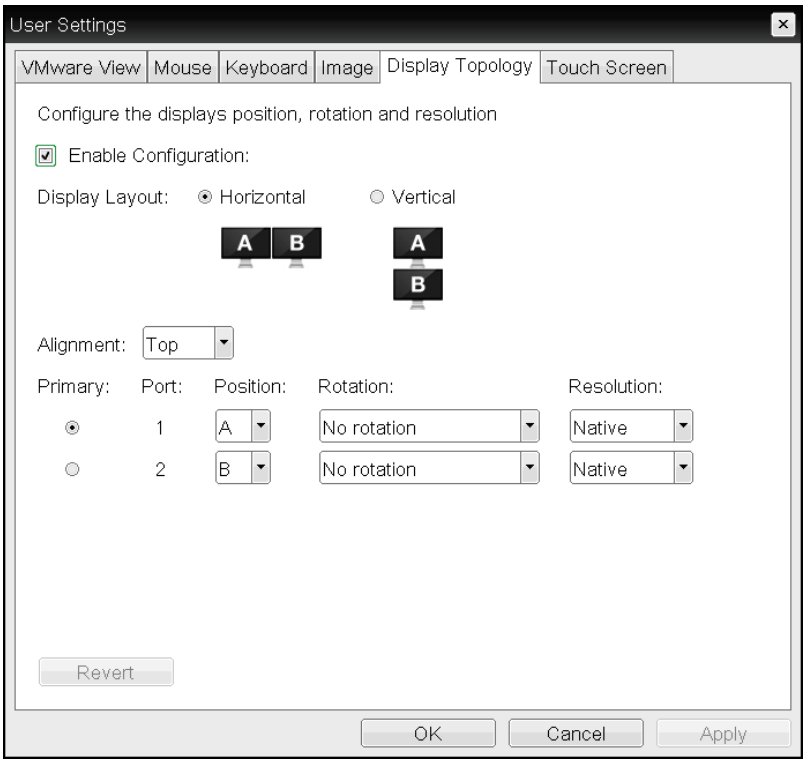


Figure 4-94: OSD Tera1 Display Topology Page

Table 4-90: OSD Tera1 Display Topology Page Parameters

Parameter	Description
Enable Configuration	Enable to configure a device that supports two displays per PCoIP chipset.
Display Layout	Select the layout for the displays (A and B). This setting should reflect the physical layout of the displays on the desk. • **Horizontal**: Select to arrange displays horizontally, as indicated in the diagram. • **Vertical**: Select to arrange displays vertically, as indicated in the diagram.

Parameter	Description
Alignment	Select how you want displays aligned when they are different sizes. Note: This setting affects which area of the screen to use when users move the cursor from one display to the other. The alignment options that appear in the drop-down list depend on the selected display layout. **Horizontal layout**: • **Top**: Select to align displays at the top. With this setting, use the top area of the screen when navigating between displays of different sizes. • **Center**: Select to horizontally center displays. With this setting, use the center area of the screen when navigating between displays of different sizes. • **Bottom**: Select to align displays at the bottom. With this setting, use the bottom area of the screen when navigating between displays of different sizes. **Vertical layout**: • **Left**: Select to align displays on the left. With this setting, use the left area of the screen when navigating between displays of different sizes. • **Center**: Select to vertically center displays. With this setting, use the center area of the screen when navigating between displays of different sizes. • **Right**: Select to align displays on the right. With this setting, use the right area of the screen when navigating between displays of different sizes.
Primary	Configure which video port on the zero client you want as the primary port. Note: The display that is connected to the primary port becomes the primary display (i.e., the display that contains the OSD menus before you initiate a PCoIP session and the display that is requested for the Windows taskbar after you initiate the session). • **Port 1**: Select to configure port 1 on the zero client as the primary port. • **Port 2**: Select to configure port 2 on the zero client as the primary port.
Position	Specify which display is physically connected to each port.
Rotation	Configure the rotation of the display in each port: • **No rotation** • **90° clockwise** • **180° rotation** • **90° counter-clockwise**

Parameter	Description
Resolution	The display resolution can be configured for a PCoIP session between a virtual machine or host and a zero client. The zero client detects the supported display resolutions of the monitor and populates them to the drop-down menu. By default, the display's native resolution is used.

5.23.3 OSD Quad-display: Display Topology Settings

The **Display Topology** page lets users change the display topology for a PCoIP session. You can access this page from the **Options > User Settings > Display Topology** menu on your client OSD.

To apply the display topology feature to a PCoIP session between a client and a VMware View virtual desktop, you must have VMware View 4.5 or later. To apply the display topology feature to a PCoIP session between a client and a PCoIP host, you must have the PCoIP host software installed on the host.

Note: Always change the display topology settings using this OSD **Display Topology** page. Do not try to change these settings using the Windows Display Settings in a virtual machine when using VMware View.

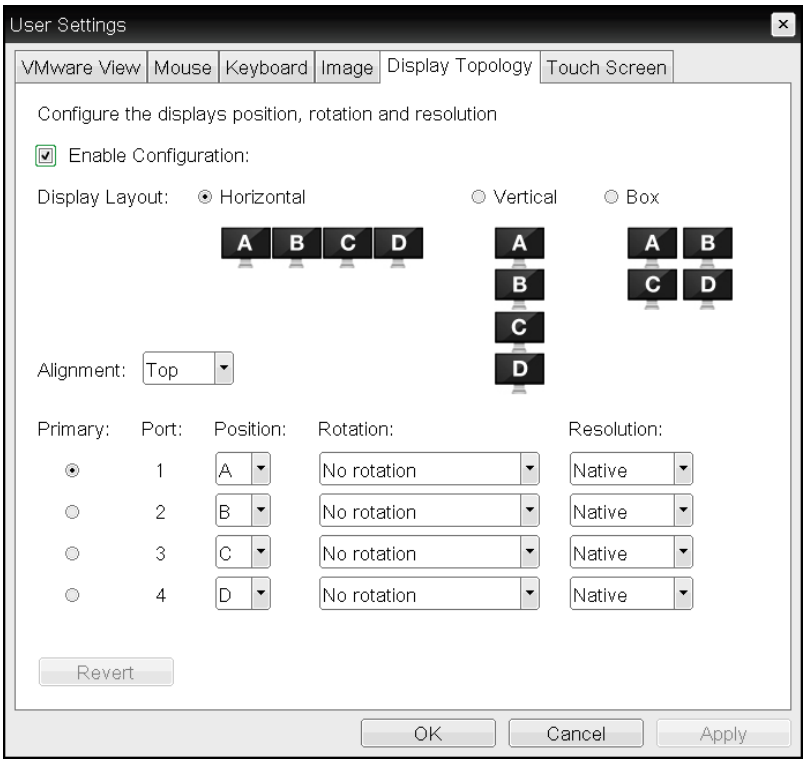


Figure 4-95: OSD Tera2 Display Topology Page

Table 4-91: OSD Tera2 Display Topology Page Parameters

Parameter	Description
Enable Configuration	Enable to configure a device that supports four displays per PCoIP chipset.
Display Layout	Select the layout for the displays (A, B, C, and D). This setting should reflect the physical layout of the displays on the desk. • **Horizontal**: Select to arrange displays horizontally, as indicated in the diagram. • **Vertical**: Select to arrange displays vertically, as indicated in the diagram. • **Box**: Select to arrange displays in a box formation, as indicated in the diagram.
Alignment	Select how you want displays aligned when they are different sizes. Note: This setting affects which area of the screen to use when users move the cursor from one display to the other. The alignment options that appear in the drop-down list depend on the selected display layout. **Horizontal layout**: • **Top**: Select to align displays at the top. With this setting, use the top area of the screen when navigating between displays of different sizes. • **Center**: Select to horizontally center displays. With this setting, use the center area of the screen when navigating between displays of different sizes. • **Bottom**: Select to align displays at the bottom. With this setting, use the bottom area of the screen when navigating between displays of different sizes. **Vertical layout**: • **Left**: Select to align displays on the left. With this setting, use the left area of the screen when navigating between displays of different sizes. • **Center**: Select to vertically center displays. With this setting, use the center area of the screen when navigating between displays of different sizes. • **Right**: Select to align displays on the right. With this setting, use the right area of the screen when navigating between displays of different sizes.

Parameter	Description
Primary	Configure which video port on the zero client that you want as the primary port. Note: The display that is connected to the primary port becomes the primary display (i.e., the display that contains the OSD menus before you initiate a PCoIP session and the display that is requested for the Windows taskbar after you initiate the session). • **Port 1**: Select to configure port 1 on the zero client as the primary port. • **Port 2**: Select to configure port 2 on the zero client as the primary port. • **Port 3**: Select to configure port 3 on the zero client as the primary port. • **Port 4**: Select to configure port 4 on the zero client as the primary port.
Position	Specify which display is physically connected to each port.
Rotation	Configure the rotation of the display in each port: • **No rotation** • **90° clockwise** • **180° rotation** • **90° counter-clockwise**
Resolution	The display resolution can be configured for a PCoIP session between a virtual machine or host and a zero client. The zero client detects the supported display resolutions of the monitor and populates them to the drop-down menu. By default, the display's native resolution is used.

5.24 Uploading an OSD Logo

5.24.1 MC: OSD Logo Settings

The **Profile OSD Logo** section is located towards the bottom of the **Manage Profiles** page on the Management Console. It lets you upload an image to a profile that will display on the **Connect** page of a user's local On Screen Display (OSD) GUI.

Note: From the AWI, you can configure the login screen on the OSD to display this logo instead of the default banner by enabling **Use OSD Logo for Login Banner** in the **Session > PCoIP Connection Manager** and **Session > View Connection Server** advanced options.

Figure 4-96: MC Profile OSD Logo Configuration

When you click **Set OSD Logo**, the following screen displays from which you can upload an image file.

Figure 4-97: MC Add OSD Logo Configuration

Table 4-92: MC Add OSD Logo Configuration Parameters

Parameter	Description
Filename	Specify the filename of the logo image you want to upload. You can browse to the target file using the **Browse** button. The file must be accessible to the web browser (i.e., it must be on a local or accessible network drive). The 24 bpp (bits per pixel) image must be in BMP format, and its dimensions cannot exceed 256 pixels in width and 64 pixels in height. If the file extension is incorrect, an error message appears.
Upload	Click **Upload** to transfer the specified image file to the client. A message to confirm the upload appears.

5.24.2 AWI Client: OSD Logo Settings

The **OSD Logo** page lets you upload an image to display on the **Connect** page of the local On Screen Display (OSD) GUI. You can access the **OSD Logo** page from the **Upload > OSD Logo** menu.

Note: From the AWI, you can configure the login screen on the OSD to display this logo instead of the default banner by enabling **Use OSD Logo for Login Banner** in the **Session > PCoIP Connection Manager** and **Session > View Connection Server** advanced options.

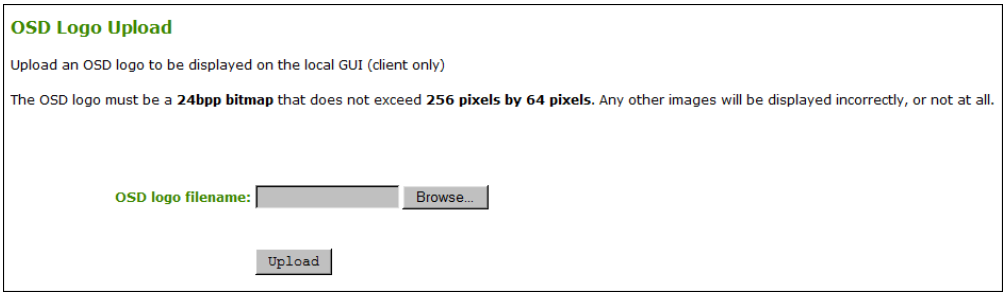


Figure 4-98: AWI Client OSD Logo Upload Page

Table 4-93: AWI Client OSD Logo Upload Page Parameters

Parameter	Description
OSD logo filename	Specify the filename of the logo image you want to upload. You can browse to the target file using the **Browse** button. The file must be accessible to the web browser (i.e., it must be on a local or accessible network drive). The 24 bpp (bits per pixel) image must be in BMP format, and its dimensions cannot exceed 256 pixels in width and 64 pixels in height. If the file extension is incorrect, an error message appears.
Upload	Click **Upload** to transfer the specified image file to the client. A message to confirm the upload appears.

5.25 Uploading Firmware

5.25.1 MC: Firmware Management

The **Profile Firmware** section is located towards the bottom of the **Manage Profiles** page on the Management Console. It lets you assign a firmware file to a profile and configure the upgrade criteria that must be met before the firmware is pushed to each device.

Note: Before you can assign a firmware file to a profile, you must first ensure that the file has been imported into the MC from the **Update > Import Firmware** menu. For more information, see the "PCoIP® Management Console User Manual" (TER0812002).

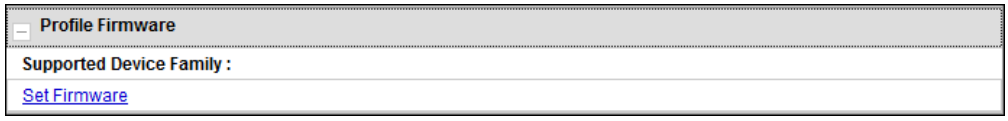


Figure 4-99: MC Profile Firmware Configuration

When you click **Set Firmware**, the following screen displays.

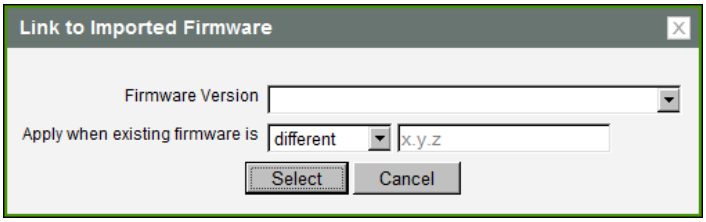


Figure 4-100: MC Link to Imported Firmware

Select the firmware version from the drop-down menu, and then choose whether the firmware will be overwritten on the device if its version is different from this firmware version or if it is less than the firmware version you enter in the text entry field. Click **Select** when you are finished.

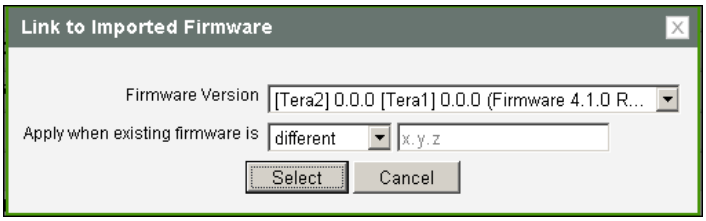


Figure 4-101: MC Link to Imported Firmware – Configured

Table 4-94: MC Link to Imported Firmware Parameters

Parameter	Description
Firmware Version	Select the firmware file that you want to assign to the profile. Note: The firmware file must first be imported into the MC from the **Update > Import Firmware** menu. For more information, see the "PCoIP® Management Console User Manual" (TER0812002).
Apply when existing firmware is	Configure one of the following options from the drop-down menu: • **different**: Select this option if you want to overwrite the firmware on the device only if its version is different from the firmware version you selected. • **less than**: Select this option if you want to overwrite the firmware on the device only if its version is less than the firmware version in the *x.y.z* field, and then enter the version in this field (e.g., 4.1.0).

5.25.2 AWI: Firmware Upload Settings

The **Firmware** page lets you upload a new firmware build to the host or client. You can access this page from the **Upload > Firmware** menu.

Note: The host and client must have the same firmware release version installed.

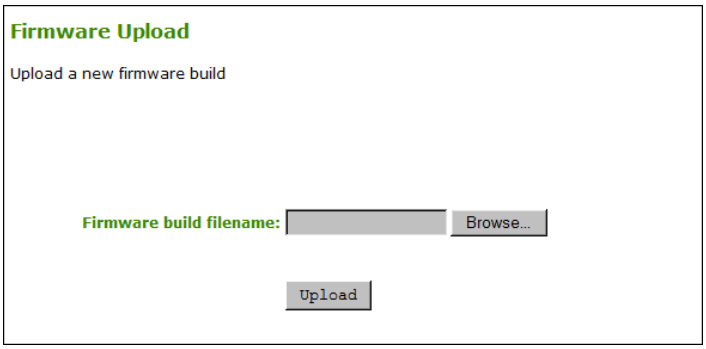


Figure 4-102: AWI Firmware Upload Page

Table 4-95: AWI Firmware Upload Page Parameters

Parameter	Description
Firmware build filename	The filename of the firmware image to be uploaded. You can browse to the file using the **Browse** button. The file must be accessible to the web browser (i.e., it must be on a local or accessible network drive). The firmware image must be an ".all" file.
Upload	Click the **Upload** button to transfer the specified file to the device. The AWI prompts you to confirm this action to avoid accidental uploads. Note: It's important to ensure that both the host and client have the same firmware release.

See Uploading Firmware in the "How To" section for information on how to use the AWI to upload a firmware release to a zero client or host.

5.26 Configuring USB Permissions

5.26.1 MC: USB Permissions

The **Profile Zero Client USB** sections are located towards the bottom of the **Manage Profiles** page on the Management Console. These sections let you configure a profile to retain the USB settings that are configured on clients, to disable the settings, or to add to them.

Note: USB Enhanced Host Controller Interface (EHCI) mode is configured in the Management Console on the MC Peripheral Configuration page.

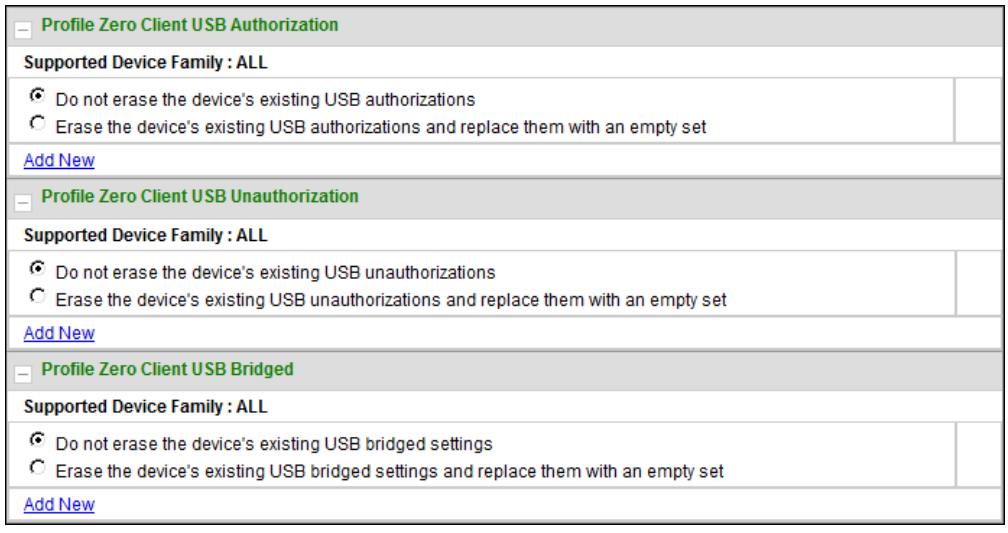


Figure 4-103: MC Profile Zero Client USB Configuration

Table 4-96: MC Profile Zero Client USB Configuration Parameters

Parameter	Description
Profile Zero Client USB Authorization	Choose one of the following: • **Do not erase the device's existing USB authorizations**: Select this option if you want to use the existing USB authorization settings that are configured on the client. • **Erase the device's existing USB authorizations and replace them with an empty set**: Select this option if you want to remove all USB authorization settings that are configured on the client. • **Add New**: Click this link if you want to add a new USB authorization entry to the existing settings that are configured on the client.
Profile Zero Client USB Unauthorization	Choose one of the following: • **Do not erase the device's existing USB unauthorizations**: Select this option if you want to use the existing USB unauthorization settings that are configured on the client. • **Erase the device's existing USB unauthorizations and replace them with an empty set**: Select this option if you want to disable all USB devices that are configured on the client. • **Add New**: Click this link if you want to add a new USB unauthorization entry to the existing unauthorization settings that are configured on the client.
Profile Zero Client USB Bridged	Choose one of the following: • **Do not erase the device's existing USB bridged settings**: Select this option if you want to use the existing USB bridged settings that are configured on the client. • **Erase the device's existing USB bridged settings and replace them with an empty set**: Select this option if you want to disable all USB bridged settings that are configured on the client. • **Add New**: Click this link if you want to add a new USB bridged entry to the existing settings that are configured on the client.

When you click **Add New** for a USB authorization, unauthorization, or bridged entry, the following screens display, respectively.

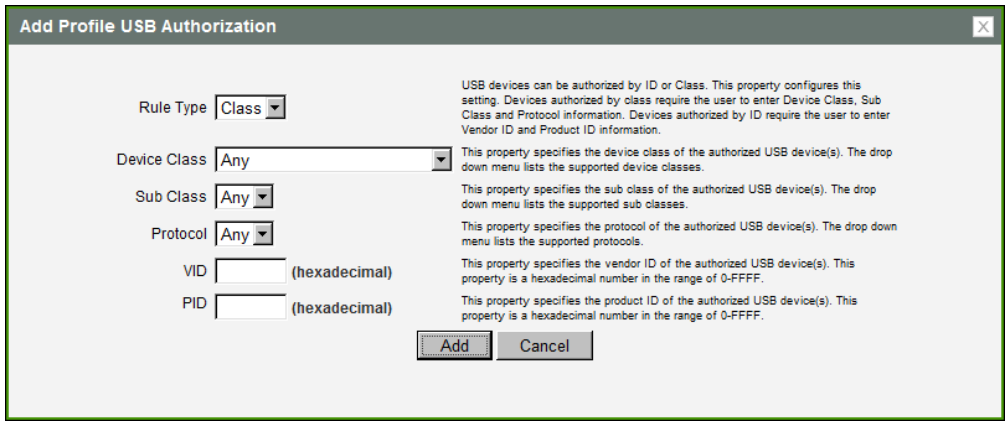


Figure 4-104: USB Authorization – Add New

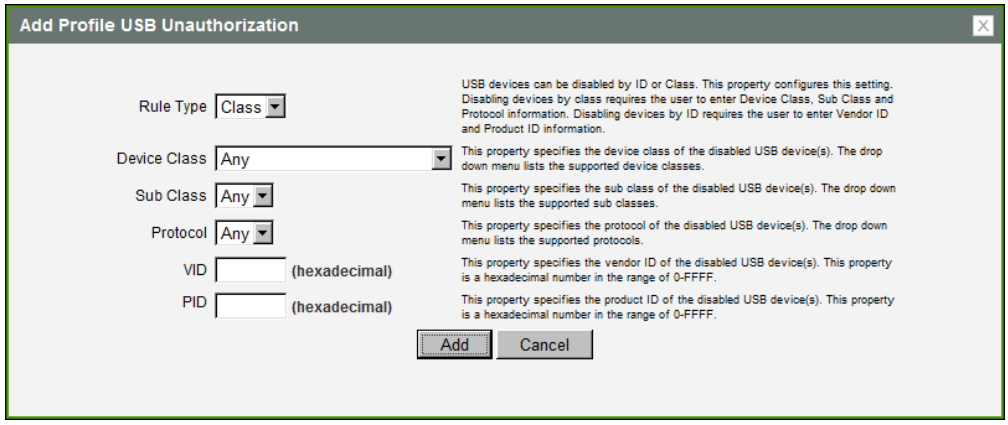


Figure 4-105: USB Unauthorization – Add New

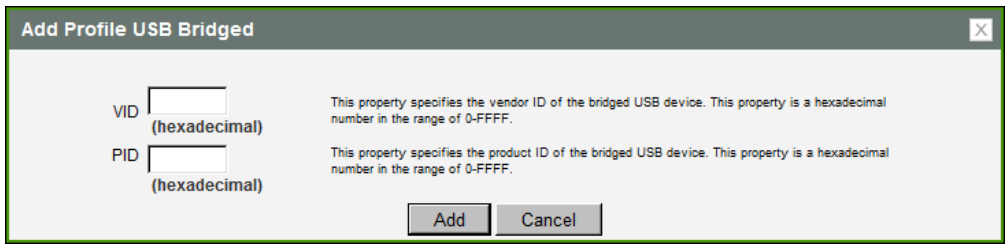


Figure 4-106: USB Bridged – Add New

Table 4-97: Add Profile USB – Add New Parameters

Parameter	Description
Rule Type	When adding a new USB authorization or unauthorization entry, select one of the following: • **Class**: The USB device is authorized by its device class, sub-class, and protocol information. • **ID**:The USB device is authorized by its vendor ID and product ID information.
Device Class	This field is enabled when **Class** is selected. Select a supported device class from the drop-down menu, or select **Any** to authorize or unauthorize (disable) any device class.
Sub Class	This field is enabled when **Class** is selected. Select a supported device sub class from the drop-down menu, or select **Any** to authorize or unauthorize (disable) any sub-class. Note: If **Any** is selected as the device class, this will be the only selection available.
Protocol	This field is enabled when **Class** is selected. Select a supported protocol from the drop-down menu, or select **Any**. Note: If **Any** is selected as the device class or sub-class, this will be the only selection available.
VID	This field is enabled when **ID** is selected, or when you are adding a new USB bridged entry. Enter the vendor ID of the authorized, unauthorized, or bridged device. The valid range is hexadecimal 0-FFFF.
PID	This field is enabled when **ID** is selected, or when you are adding a new USB bridged entry. Enter the product ID of the authorized, unauthorized, or bridged device. The valid range is hexadecimal 0-FFFF.

5.26.2 AWI Host: USB Permissions

The **USB** page is accessed from the **Permissions > USB** menu. It allows you to authorize a "white list" of USB devices and to unauthorize a "black list" of USB devices based on ID or Class. You can use wildcards (or specify "any") to reduce the number of entries needed to define all devices.

USB plug events are blocked in the PCoIP zero client hardware for unauthorized USB devices. The host (PCoIP host card or the host virtual desktop) cannot see or access the device for an additional layer of security.

The **USB** page is available on the host and client but the host USB permissions have a higher priority and update the client USB permissions. It is strongly recommended you only set the USB permissions on the host when connecting to a PCoIP host card. The following rules apply:

- If the host has permissions programmed (authorized and/or unauthorized), the permissions are sent to the client. If the client has any unauthorized devices, they are added to the host's unauthorized devices and the consolidated list is used.
- If the host does not have permissions programmed, the client's permissions are used.

The factory defaults have no USB permissions configured on the host. The factory defaults for the client USB permissions are "any, any, any" (that is, authorized USB devices). Depending on the host implementation (for example, hardware PCoIP host or software PCoIP host), you can configure the USB permissions as required on the client and/or host.

The host USB permissions are only updated at the start of a PCoIP session. They are authorized in the following order of priority (from highest to lowest):

- Unauthorized Vendor ID/Product ID
- Authorized Vendor ID/Product ID
- Unauthorized Device Class/Sub Class/Protocol
- Authorized Device Class/Sub Class/Protocol

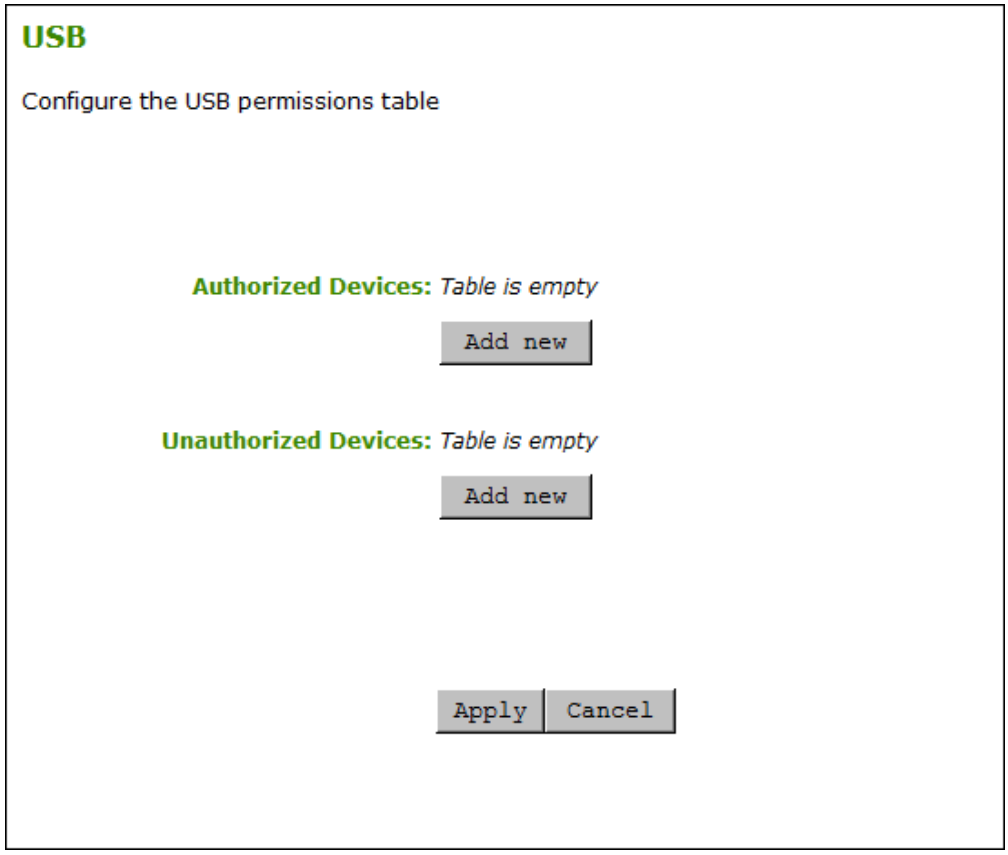


Figure 4-107: AWI Host USB Page

Table 4-98: AWI Host USB Page Parameters

Parameter	Description
Authorized Devices	Specify the authorized USB devices for the device: **Add New:** add a new device or device group to the list. This allows USB authorization by ID or Class: • **ID**: The USB device is authorized by its Vendor ID and Product ID. • **Class**: The USB device is authorized by Device Class, Sub Class, and Protocol. **Remove:** Delete a rule for a device or device group from the list.
Unauthorized Devices	Specify the unauthorized USB devices for the device. **Add New:** add a new device or device group to the list. This allows USB devices to be unauthorized by ID or Class: • **ID**: The USB device is unauthorized by its Vendor ID and Product ID • **Class**: The USB device is unauthorized by Device Class, Sub Class, and Protocol. **Remove:** Delete a rule for a device or device group from the list.

When you add a new USB authorized or unauthorized entry, the following parameters display depending on whether you describe the device by **Class** or **ID**.

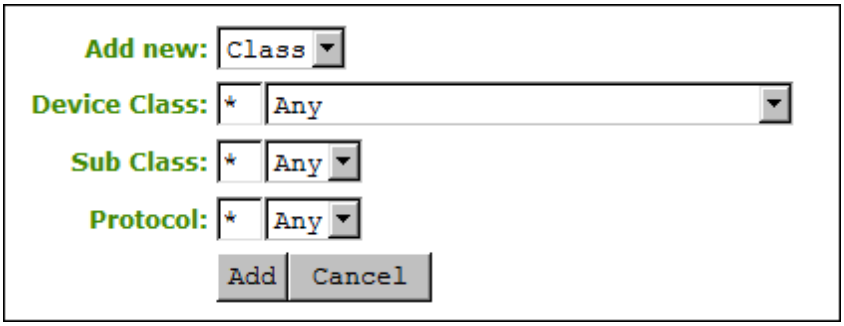


Figure 4-108: Device Class Parameters

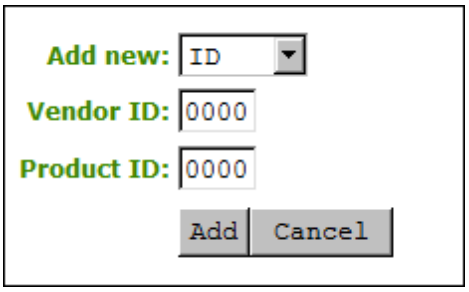


Figure 4-109: Device ID Parameters

Table 4-99: USB Authorized/Unauthorized Devices Parameters

Parameter	Description
Add new	When adding a new USB authorization or unauthorization entry, select one of the following: • **Class**: The USB device is authorized by its device class, sub-class, and protocol information. • **ID**:The USB device is authorized by its vendor ID and product ID information.
Device Class	This field is enabled when **Class** is selected. Select a supported device class from the drop-down menu, or select **Any** to authorize or unauthorize (disable) any device class.
Sub Class	This field is enabled when **Class** is selected. Select a supported device sub class from the drop-down menu, or select **Any** to authorize or unauthorize (disable) any sub-class. Note: If **Any** is selected as the device class, this will be the only selection available.
Protocol	This field is enabled when **Class** is selected. Select a supported protocol from the drop-down menu, or select **Any**. Note: If **Any** is selected as the device class or sub-class, this will be the only selection available.
Vendor ID	This field is enabled when **ID** is selected. Enter the vendor ID of the authorized (or unauthorized) device. The valid range is hexadecimal 0-FFFF.
Protocol ID	This field is enabled when **ID** is selected. Enter the product ID of the (authorized or unauthorized) device. The valid range is hexadecimal 0-FFFF.

5.26.3 AWI Client: USB Permissions

The **USB** page is accessed from the **Permissions > USB** menu. It allows you to authorize a "white list" of USB devices and to unauthorize a "black list" of USB devices based on ID or Class. You can use wildcards (or specify "any") to reduce the number of entries needed to define all devices.

You can also configure devices that need to be bridged to the host, and enable USB 2.0 Enhanced Host Controller Interface (EHCI) mode for certain USB devices.

USB plug events are blocked in the PCoIP zero client hardware for unauthorized USB devices. The host (PCoIP host card or the host virtual desktop) cannot see or access the device for an additional layer of security.

The **USB** page is available on the host and client but the host USB permissions have a higher priority and update the client USB permissions. It is strongly recommended you only

set the USB permissions on the host when connecting to a PCoIP host card. The following rules apply:

- If the host has permissions programmed (authorized and/or unauthorized), the permissions are sent to the client. If the client has any unauthorized devices, they are added to the host's unauthorized devices and the consolidated list is used.
- If the host does not have permissions programmed, the client's permissions are used.

The factory defaults have no USB permissions configured on the host. The factory defaults for the client USB permissions are "any, any, any" (that is, authorized USB devices). Depending on the host implementation (for example, hardware PCoIP host or software PCoIP host), you can configure the USB permissions as required on the client and/or host.

The host USB permissions are only updated at the start of a PCoIP session. They are authorized in the following order of priority (from highest to lowest):

- Unauthorized Vendor ID/Product ID
- Authorized Vendor ID/Product ID
- Unauthorized Device Class/Sub Class/Protocol
- Authorized Device Class/Sub Class/Protocol

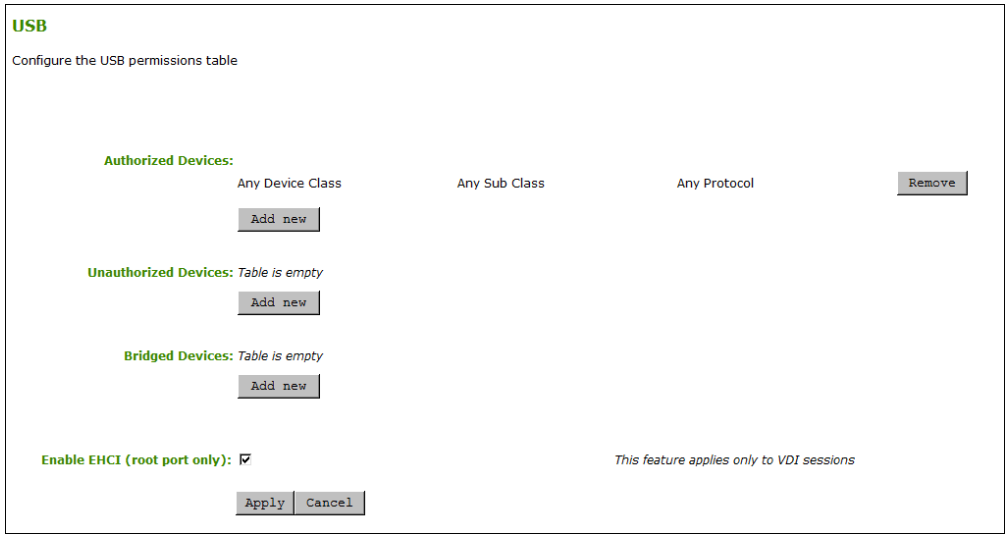


Figure 4-110: AWI Client USB Page

Table 4-100: AWI Client USB Page Parameters

Parameter	Description
Authorized Devices	Specify the authorized USB devices for the device: **Add New:** add a new device or device group to the list. This allows USB authorization by ID or Class: • **ID**: The USB device is authorized by its Vendor ID and Product ID. • **Class**: The USB device is authorized by Device Class, Sub Class, and Protocol. **Remove:** Delete a rule for a device or device group from the list.
Unauthorized Devices	Specify the unauthorized USB devices for the device. **Add New:** add a new device or device group to the list. This allows USB devices to be unauthorized by ID or Class: • **ID**: The USB device is unauthorized by its Vendor ID and Product ID • **Class**: The USB device is unauthorized by Device Class, Sub Class, and Protocol. **Remove:** Delete a rule for a device or device group from the list.
Bridged Devices	PCoIP zero clients locally terminate HID devices when connecting to VMware View virtual desktops. However, some devices advertise as HID but use different drivers. These devices may need to be bridged to the host rather than locally terminated. This setting lets you force the zero client to bridge specific USB devices so that they use the drivers on the virtual desktop. **Add New:** Add a device or device group to the list. This lets you bridge USB devices by their Vendor ID and Product ID. **Remove:** Delete a rule for a device or device group from the list. Note: Bridging is a feature supported in firmware 3.3.0 or higher. This rule only affects sessions between a zero client and a soft host running VMware View 4.6 or higher.
Enable EHCI (root port only)	Enable this field to configure EHCI (USB 2.0) for devices connected directly to zero client USB ports for sessions with a host running VMware View 4.6 or later. Note: This feature cannot be enabled on clients with less than 128 MB of RAM. Devices with isochronous endpoints will not operate at USB 2.0 speeds.

When you add a new USB authorized or unauthorized entry, the following parameters display depending on whether you describe the device by **Class** or **ID**.

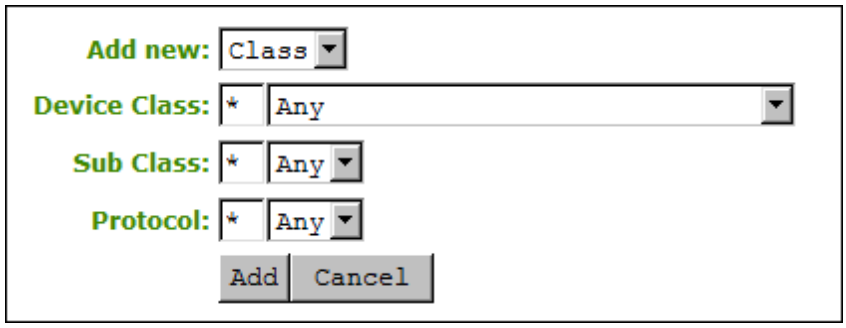


Figure 4-111: Device Class Parameters

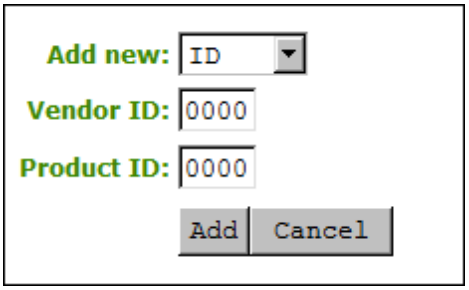


Figure 4-112: Device ID Parameters

Table 4-101: USB Authorized/Unauthorized Devices Parameters

Parameter	Description
Add new	When adding a new USB authorization or unauthorization entry, select one of the following: • **Class**: The USB device is authorized by its device class, sub-class, and protocol information. • **ID**:The USB device is authorized by its vendor ID and product ID information.
Device Class	This field is enabled when **Class** is selected. Select a supported device class from the drop-down menu, or select **Any** to authorize or unauthorize (disable) any device class.
Sub Class	This field is enabled when **Class** is selected. Select a supported device sub class from the drop-down menu, or select **Any** to authorize or unauthorize (disable) any sub-class. Note: If **Any** is selected as the device class, this will be the only selection available.
Protocol	This field is enabled when **Class** is selected. Select a supported protocol from the drop-down menu, or select **Any**. Note: If **Any** is selected as the device class or sub-class, this will be the only selection available.

Parameter	Description
Vendor ID	This field is enabled when **ID** is selected. Enter the vendor ID of the authorized (or unauthorized) device. The valid range is hexadecimal 0-FFFF.
Protocol ID	This field is enabled when **ID** is selected. Enter the product ID of the (authorized or unauthorized) device. The valid range is hexadecimal 0-FFFF.

When you add a new USB bridged entry, the following parameters display.

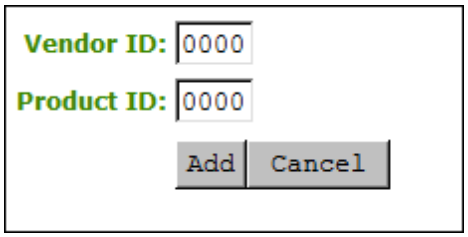


Figure 4-113: USB Bridged Parameters

Table 4-102: USB Bridged Devices Parameters

Parameter	Description
Vendor ID	Enter the vendor ID of the bridged device. The valid range is hexadecimal 0-FFFF.
Protocol ID	Enter the product ID of the bridged device. The valid range is hexadecimal 0-FFFF.

5.27 Configuring the Certificate Store

5.27.1 MC: Certificate Store Management

The **Certificate Store** section is located at the bottom of the **Manage Profiles** page on the Management Console. This section lets you configure a profile to retain the certificate settings that are configured on a device, to disable the settings, or to upload a new certificate file to the profile.

The maximum size for a certificate that you can upload to a profile from the MC is 8,176 bytes. You can upload up to 16 certificates to a profile providing you do not exceed the maximum storage size of 98,112 bytes. The available storage field indicates the remaining number of certificates and how much space is left in the certificate store.

Note: If SCEP is enabled, you can only upload a maximum of 14 additional certificates since two slots are reserved for SCEP server certificates.

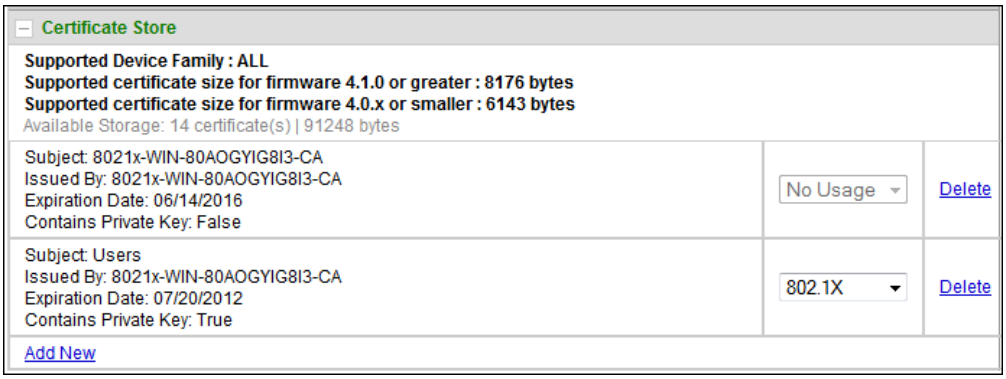


Figure 4-114: MC Certificate Store Configuration

Table 4-103: MC Certificate Store Configuration Parameters

Parameter	Description
Do not erase the device's existing certificates	Select this option if you want the profile to use the existing certificate settings that are configured on the device.
Erase the device's existing Certificates and replace them with an empty set	Select this option if you want the profile to disable all certificates that are configured on the device.
Add New	Lets you upload a new certificate file to the profile.

When you click **Add New**, the following screen displays.

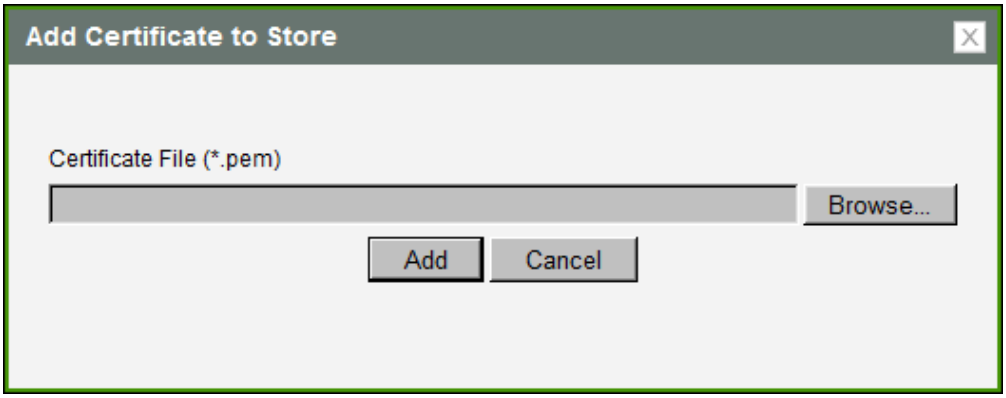


Figure 4-115: MC Add Certificate to Store

Table 4-104: MC Add Certificate to Store Parameters

Parameter	Description
Certificate File (*.pem)	Use the **Browse** button to locate the certificate file, and then click **Add**.

After adding a certificate to the certificate store, you can then select a usage from the drop-down menu in the **Certificate Store** section. This field indicates how the device will use the certificate.

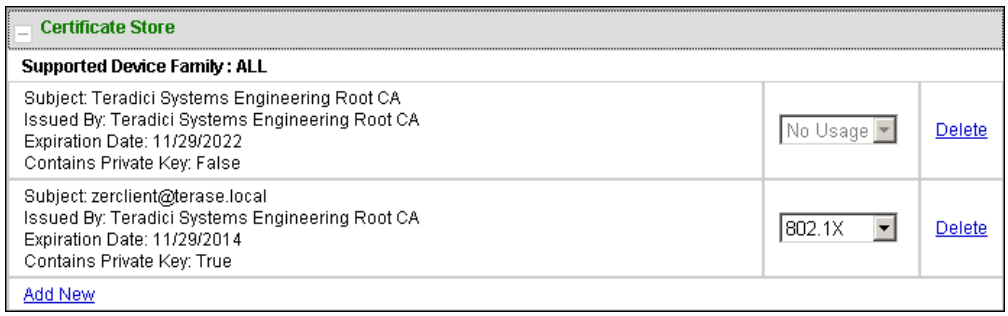


Figure 4-116: MC Certificate Store

Parameter	Description
No Usage	Select this option when you are adding a certificate that does not contain a private key (e.g., a certificate used to verify a View Connection Server or a PCoIP Connection Manager).
802.1X	Select this option when you are adding a certificate that contains a private key. Note: This option only appears in the drop-down list if the certificate contains a private key.

5.27.2 AWI: Certificate Upload Settings

The **Certificate Upload** page lets you upload and manage your CA root and client certificates for host cards and zero clients. You can access this page from the **Upload > Certificate** menu.

The maximum size for a certificate that you can upload from the AWI is 10,239 bytes. You can upload up to 16 certificates providing you do not exceed the maximum storage size of 98,112 bytes. The available storage field lets you know how much space is left in the certificate store.

Note: If SCEP is enabled, you can only upload a maximum of 14 additional certificates since two slots are reserved for SCEP server certificates.

Note: The PCoIP protocol reads just one 802.1x client certificate for 802.1x compliant networks. Make sure you include all the security information for your PCoIP devices in that client certificate. For more information about uploading certificates, see Knowledge Base support topic 15134-1063 on the Teradici support site. For information on 802.1x certificate authentication, see Configuring 802.1x Network Device Authentication.

The following are some general guidelines when using 802.1x authentication.

- 802.1x authentication requires two certificates—an 802.1x client certificate and an 802.1x server CA root certificate.
- The 802.1x client certificate must be in .pem format and contain a private key that uses RSA encryption. If the certificate is in a different format, you must first convert the certificate, including the private key, to .pem format before uploading it.
- After uploading the 802.1x client certificate from the **Certificate Upload** page, you must configure 802.1x authentication from the **Network** page. This entails enabling 802.1x authentication, entering an identity string for the device, selecting the correct 802.1x client certificate from the drop-down list, and then applying your settings.
- The 802.1x server CA root certificate must be in .pem format, but should not need to contain a private key. If the certificate is in a different format, you must convert it to .pem format before uploading it. This certificate does not require configuration from the **Network** page.
- Both the 802.1x client certificate and the 802.1x server CA root certificate must be less than 10,240 bytes; otherwise, you will not be able to upload them. Some certificate files may contain multiple certificates. If your certificate file is too large and it has multiple certificates within, you can open the file in a text editor, then copy and save each certificate to its own file.

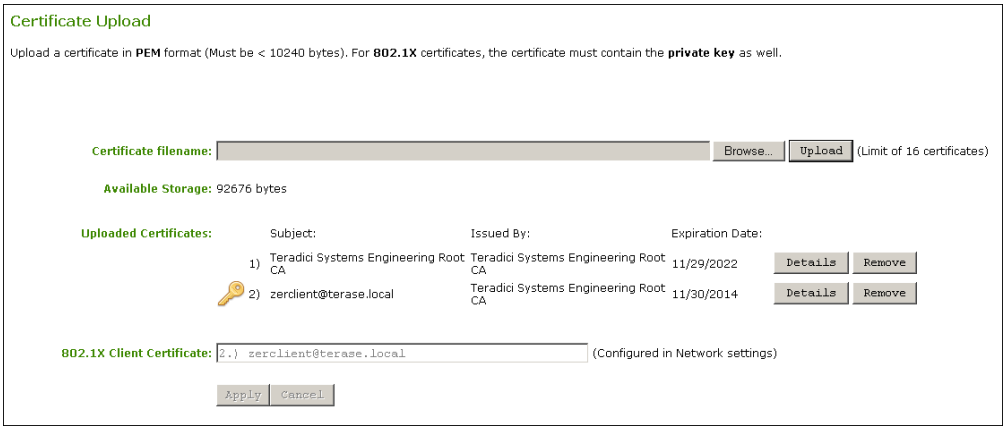


Figure 4-117: AWI Certificate Upload Page

Table 4-105: AWI Certificate Upload Page Parameters

Parameter	Description
Certificate filename	Upload up to a maximum of 16 root and client certificates.

Parameter	Description
Uploaded Certificates	This displays any uploaded certificates. To delete an uploaded certificate, click the **Remove** button. The deletion process occurs after the device is rebooted. To view the details of a certificate, click the **Detail** button. These certificates appear as options in the **Client Certificate** drop-down menu on the **Network** page.
802.1X Client Certificate	This is a read-only field. It is linked to the **Client Certificate** field on the **Network** page.

5.28 Configuring OSD Display Settings

5.28.1 OSD Dual-display: Display Settings

The **Display** page lets you enable the Extended Display Identification Data (EDID) override mode.

Note: This function is only available through the OSD.

Under normal operation, the GPU in the host computer queries a monitor attached to the zero client to determine the monitor's capabilities. These are reported in the EDID information. In some situations, a monitor may be connected to a client in a way that prevents the client from reading the EDID information, such as when connecting through certain KVM devices. The **Enable Attached Display Override** feature in this page allows you to configure the client to advertise default EDID information to the GPU.

Warning: You should only enable the **Enable Attached Display Override** feature when there is no valid EDID information and your monitor display characteristics are understood. In the case of an EDID read failure, the drop-down list may contain resolutions that are not actually supported by your display. If the display stays black or shows a "Timing Out of Range" message for more than 30 seconds after you set a preferred resolution, you can unplug and re-plug the video cable to reset your display resolution back to its previous value.

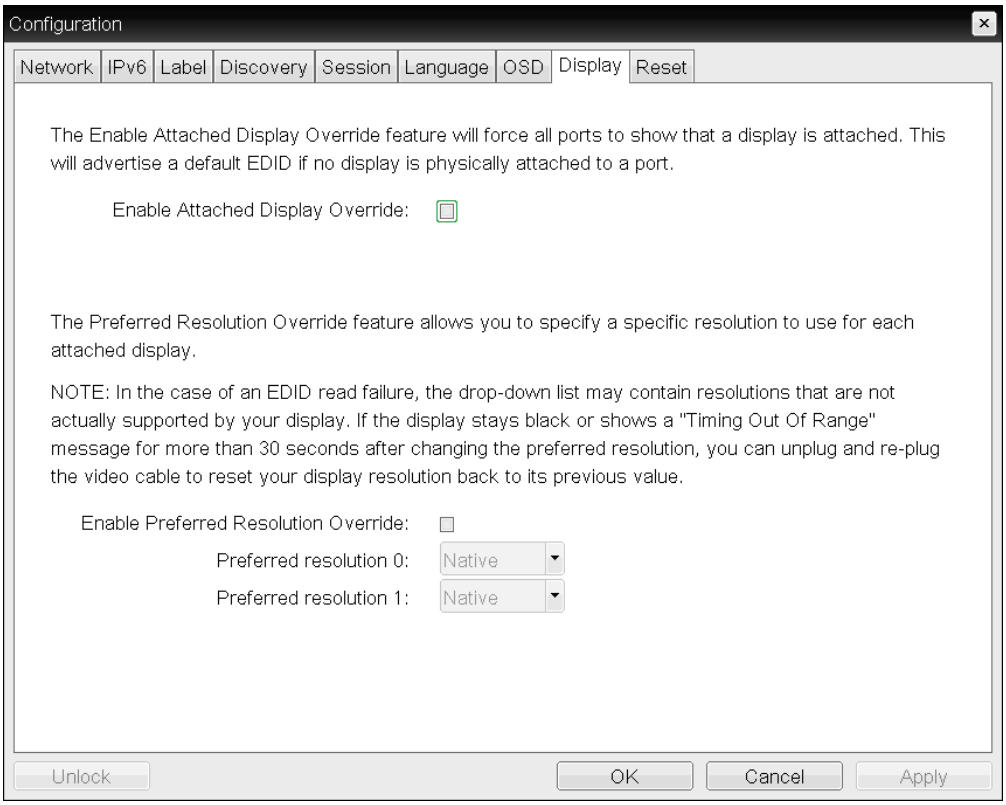


Figure 4-118: OSD Tera1Display Page

Table 4-106: OSD Tera1 Display Page Parameters

Parameter	Description
Enable Attached Display Override	This option is intended for legacy systems. It configures the client to send default EDID information to the host when a monitor cannot be detected or is not attached to the client. In versions of Windows prior to Windows 7, once the host had no EDID information, it would assume no monitors were attached and would never recheck. This option ensures that the host always has EDID information when the client is in session. The following default resolutions are advertised when this option is enabled: • 2560x1600 @60 Hz • 2048x1152 @60 Hz • 1920x1440 @60 Hz • 1920x1200 @60 Hz • 1920x1080 @60 Hz • 1856x1392 @60 Hz • 1792x1344 @60 Hz • 1680x1050 @60 Hz • 1600x1200 @60 Hz • 1600x900 @60 Hz • 1440x900 @60 Hz • 1400x1050 @60 Hz • 1366x768 @60 Hz • 1360x768 @60 Hz • 1280x1024 @60 Hz • 1280x960 @60 Hz • 1280x800 @60 Hz • 1280x768 @60 Hz • 1280x720 @60 Hz • 1024x768 @60 Hz • 848x480 @60 Hz • 800x600 @60 Hz • 640x480 @60 Hz Any displays attached to the client will be set to the native resolution of 1024x768 when this option is enabled.

Parameter	Description
Enable Preferred Resolution Override	Enable this option when a display is attached but cannot be detected by the system, and you want to specify a preferred resolution for the display. The same default list of resolutions as above will be advertised, except the preferred resolution you configure here for a display will be sent as the native resolution instead of the default native resolution of 1024x768. • **Preferred resolution 0**: Select the preferred resolution of the display connected to port 1 on the zero client. • **Preferred resolution 1**: Select the preferred resolution of the display connected to port 2 on the zero client. Any displays attached to the client will be set to their specified preferred resolutions when this option is enabled.

5.28.2 OSD Quad-display: Display Settings

The **Display** page lets you enable the Extended Display Identification Data (EDID) override mode.

Note: This function is only available through the OSD.

Under normal operation, the GPU in the host computer queries a monitor attached to the zero client to determine the monitor's capabilities. These are reported in the EDID information. In some situations, a monitor may be connected to a client in a way that prevents the client from reading the EDID information, such as when connecting through certain KVM devices. The **Enable Attached Display Override** feature in this page allows you to configure the client to advertise default EDID information to the GPU.

Warning: You should only enable the **Enable Attached Display Override** feature when there is no valid EDID information and your monitor display characteristics are understood. In the case of an EDID read failure, the drop-down list may contain resolutions that are not actually supported by your display. If the display stays black or shows a "Timing Out of Range" message for more than 30 seconds after you set a preferred resolution, you can unplug and re-plug the video cable to reset your display resolution back to its previous value.

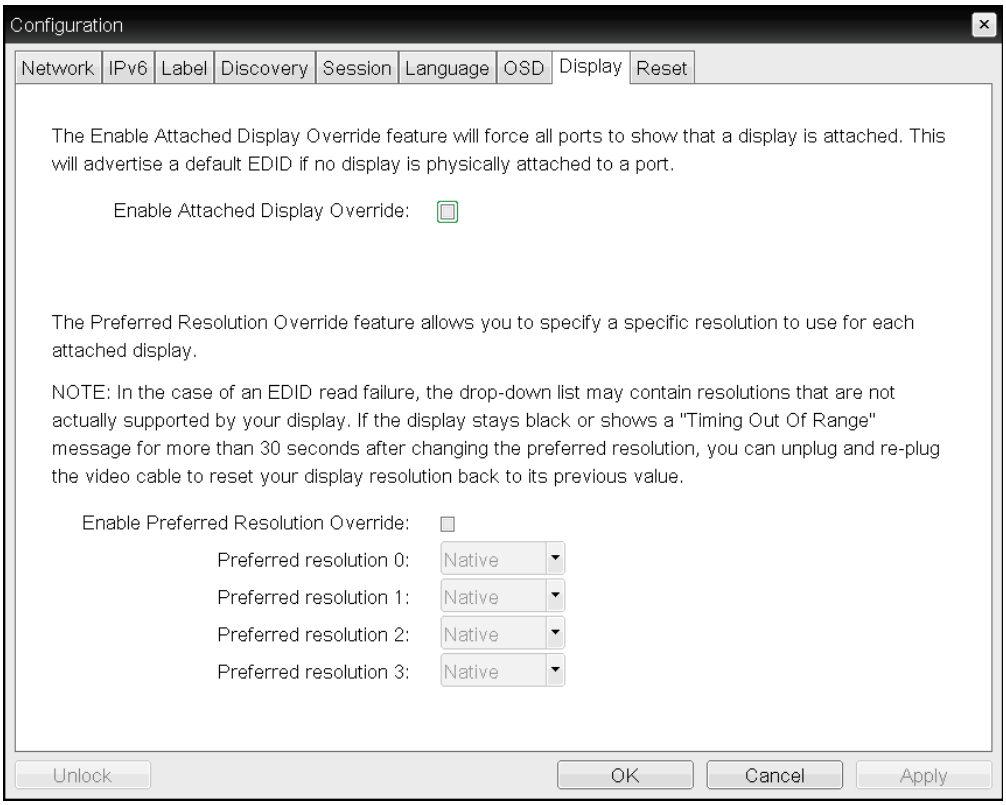


Figure 4-119: OSD Tera2 Display Page

Table 4-107: OSD Tera2 Display Page Parameters

Parameter	Description
Enable Attached Display Override	This option is intended for legacy systems. It configures the client to send default EDID information to the host when a monitor cannot be detected or is not attached to the client. In versions of Windows prior to Windows 7, once the host had no EDID information, it would assume no monitors were attached and would never recheck. This option ensures that the host always has EDID information when the client is in session. The following default resolutions are advertised when this option is enabled: • 2560x1600 @60 Hz • 2048x1152 @60 Hz • 1920x1440 @60 Hz • 1920x1200 @60 Hz • 1920x1080 @60 Hz • 1856x1392 @60 Hz • 1792x1344 @60 Hz • 1680x1050 @60 Hz • 1600x1200 @60 Hz • 1600x900 @60 Hz • 1440x900 @60 Hz • 1400x1050 @60 Hz • 1366x768 @60 Hz • 1360x768 @60 Hz • 1280x1024 @60 Hz • 1280x960 @60 Hz • 1280x800 @60 Hz • 1280x768 @60 Hz • 1280x720 @60 Hz • 1024x768 @60 Hz • 848x480 @60 Hz • 800x600 @60 Hz • 640x480 @60 Hz Any displays attached to the client will be set to the native resolution of 1024x768 when this option is enabled.

Parameter	Description
Enable Preferred Resolution Override	Enable this option when a display is attached but cannot be detected by the system, and you want to specify a preferred resolution for the display. The same default list of resolutions as above will be advertised, except the preferred resolution you configure here for a display will be sent as the native resolution instead of the default native resolution of 1024x768. • **Preferred resolution 0**: Select the preferred resolution of the display connected to port 1 on the zero client. • **Preferred resolution 1**: Select the preferred resolution of the display connected to port 2 on the zero client. • **Preferred resolution 2**: Select the preferred resolution of the display connected to port 3 on the zero client. • **Preferred resolution 3**: Select the preferred resolution of the display connected to port 4 on the zero client. Any displays attached to the client will be set to their specified preferred resolutions when this option is enabled.

5.28.3 OSD TERA2321: Display Settings

The **Display** page lets you enable the Extended Display Identification Data (EDID) override mode.

Note: This function is only available through the OSD.

Under normal operation, the GPU in the host computer queries a monitor attached to the zero client to determine the monitor's capabilities. These are reported in the EDID information. In some situations, a monitor may be connected to a client in a way that prevents the client from reading the EDID information, such as when connecting through certain KVM devices. The **Enable Attached Display Override** feature in this page allows you to configure the client to advertise default EDID information to the GPU.

Warning: You should only enable the **Enable Attached Display Override** feature when there is no valid EDID information and your monitor display characteristics are understood. In the case of an EDID read failure, the drop-down list may contain resolutions that are not actually supported by your display. If the display stays black or shows a "Timing Out of Range" message for more than 30 seconds after you set a preferred resolution, you can unplug and re-plug the video cable to reset your display resolution back to its previous value.

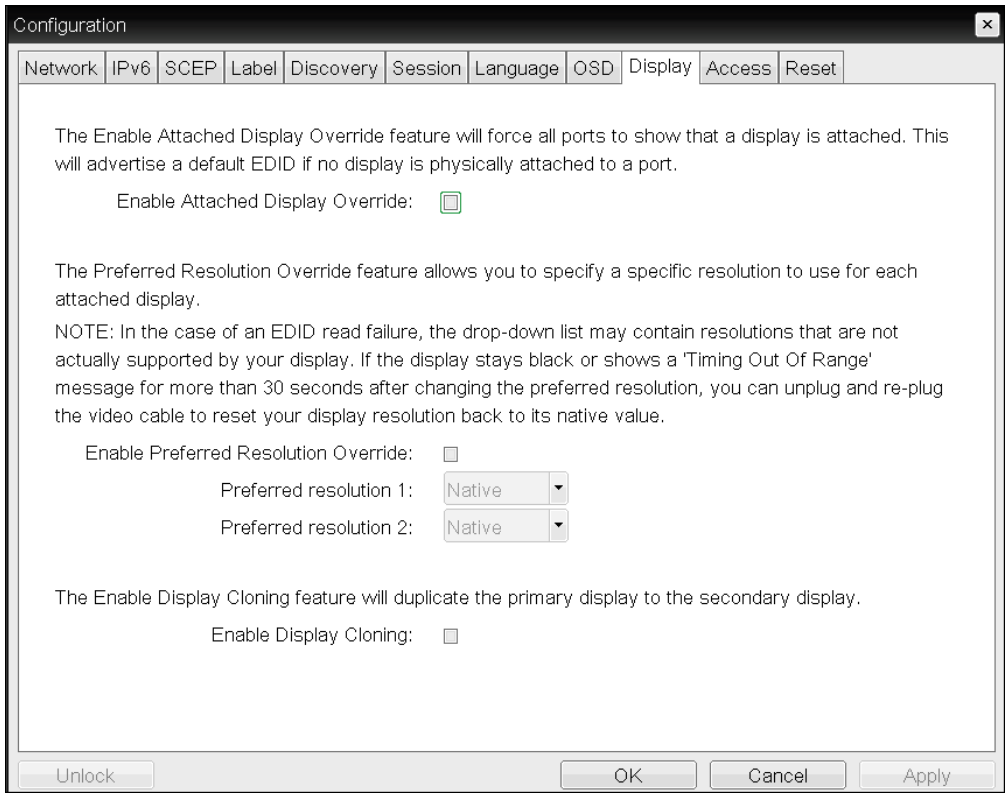


Figure 4-120: OSD Tera1Display Page

Table 4-108: OSD Tera1 Display Page Parameters

Parameter	Description
Enable Attached Display Override	This option is intended for legacy systems. It configures the client to send default EDID information to the host when a monitor cannot be detected or is not attached to the client. In versions of Windows prior to Windows 7, once the host had no EDID information, it would assume no monitors were attached and would never recheck. This option ensures that the host always has EDID information when the client is in session. The following default resolutions are advertised when this option is enabled: • 2560x1600 @60 Hz • 2048x1152 @60 Hz • 1920x1440 @60 Hz • 1920x1200 @60 Hz • 1920x1080 @60 Hz • 1856x1392 @60 Hz • 1792x1344 @60 Hz • 1680x1050 @60 Hz • 1600x1200 @60 Hz • 1600x900 @60 Hz • 1440x900 @60 Hz • 1400x1050 @60 Hz • 1366x768 @60 Hz • 1360x768 @60 Hz • 1280x1024 @60 Hz • 1280x960 @60 Hz • 1280x800 @60 Hz • 1280x768 @60 Hz • 1280x720 @60 Hz • 1024x768 @60 Hz • 848x480 @60 Hz • 800x600 @60 Hz • 640x480 @60 Hz Any displays attached to the client will be set to the native resolution of 1024x768 when this option is enabled.

Parameter	Description
Enable Preferred Resolution Override	Enable this option when a display is attached but cannot be detected by the system, and you want to specify a preferred resolution for the display. The same default list of resolutions as above will be advertised, except the preferred resolution you configure here for a display will be sent as the native resolution instead of the default native resolution of 1024x768. • **Preferred resolution 0**: Select the preferred resolution of the display connected to port 1 on the zero client. • **Preferred resolution 1**: Select the preferred resolution of the display connected to port 2 on the zero client. Any displays attached to the client will be set to their specified preferred resolutions when this option is enabled.
Enable Display Cloning	This option is only available for the TERA2321 zero client. Enable the display cloning option if you want the secondary display to mirror the primary display—e.g., for digital signage, trainings, etc. Note: If you are connecting a TERA2321 zero client to a host workstation that does not have the PCoIP host software installed and the host driver function enabled, *and* you are using monitor emulation on the host card, you may experience black screens on the cloned displays. To remedy the problem, you can either install and enable the host software, or you can disable monitor emulation on the video port for the secondary display only.

5.29 Configuring Password Parameters (AWI/OSD)

5.29.1 OSD: Password Settings

The **Password** page lets you update the local administrative password for the device. You can access this page from the **Options > Password** menu.

The password can be a maximum of 20 characters. Some PCoIP devices have password protection disabled by default, and the **Password** page is not available on these devices. You can enable password protection for these devices on the MC's Security Configuration page.

Note: This parameter affects the AWI and the local OSD GUI. Take care when updating the client password as the client may become unusable if the password is lost.

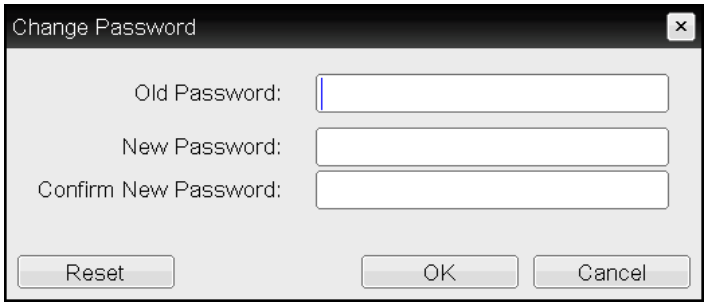


Figure 4-121: OSD Change Password Page

Table 4-109: OSD Change Password Page Parameters

Parameter	Description
Old Password	This field must match the current administrative password before you can update the password.
New Password	The new administrative password for both the AWI and the local OSD GUI.
Confirm New Password	This field must match the **New Password** field for the change to take place.
Reset	If the client password becomes lost, you can click the **Reset** button to request a response code from the zero client vendor. The challenge code is sent to the vendor. The vendor qualifies the request and returns a response code if authorized by Teradici. When the response code is correctly entered, the client's password is reset to an empty string. You must enter a new password. Note: Contact the client vendor for more information when an authorized password reset is required. This option is not available through the AWI. It is only available through the OSD.

5.30 Configuring Reset Parameters (AWI/OSD)

5.30.1 AWI Client: Parameter Reset Settings

The **Reset Parameters** page lets you reset configuration and permissions to factory default values stored in flash memory. You can access this page from the **Configuration > Reset Parameters** menu.

Note: Resetting parameters to factory default values does not revert the firmware or clear the custom OSD logo.

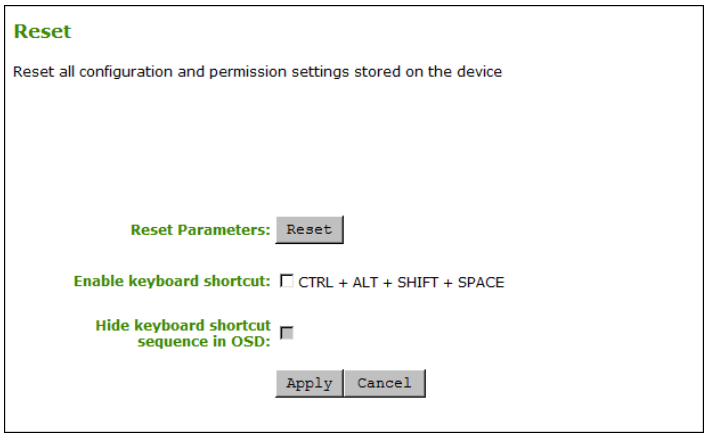


Figure 4-122: AWI Client Reset Page

Table 4-110: AWI Client Reset Parameters

Parameter	Description
Reset Parameters	When you click this button, a prompt appears for confirmation. This is to prevent accidental resets.
Enable Keyboard Shortcut	When enabled, the user can press the specified combination of keys to automatically reset the parameters and permissions for the device.
Hide keyboard shortcut sequence in OSD	When **Enable Keyboard Shortcut** is enabled and this field is disabled, the keyboard sequence appears on the **Reset Parameters** page for the client. When both **Enable Keyboard Shortcut** and this field are enabled, the keyboard sequence does not appear on the **Reset Parameters** page for the client; however, the user can still use the keyboard sequence to reset the parameter.

5.30.2 AWI Host: Parameter Reset Settings

The **Reset Parameters** page lets you reset configuration and permissions to factory default values stored in flash memory. You can access this page from the **Configuration > Reset Parameters** menu.

Note: Resetting parameters to factory default values does not revert the firmware or clear the custom OSD logo.

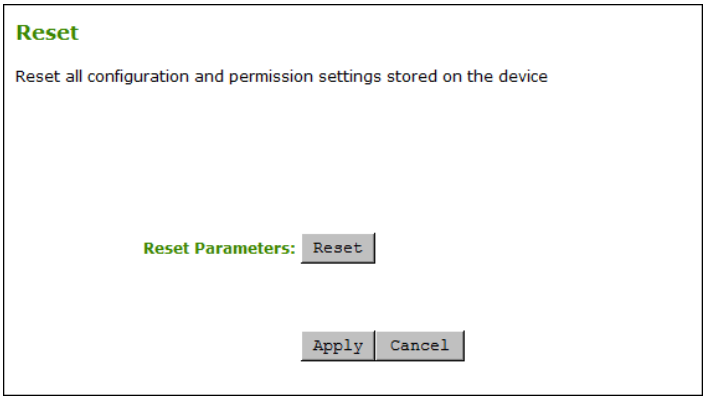


Figure 4-123: AWI Host Reset Page

Table 4-111: AWI Host Reset Parameters

Parameter	Description
Reset Parameters	When you click this button, a prompt appears for confirmation. This is to prevent accidental resets.

5.30.3 OSD: Parameter Reset Settings

The **Reset** page lets you reset configuration and permissions to factory default values stored in flash memory. You can access this page from the **Options > Configuration > Reset** menu.

Note: Resetting parameters to factory default values does not revert the firmware or clear the custom OSD logo.

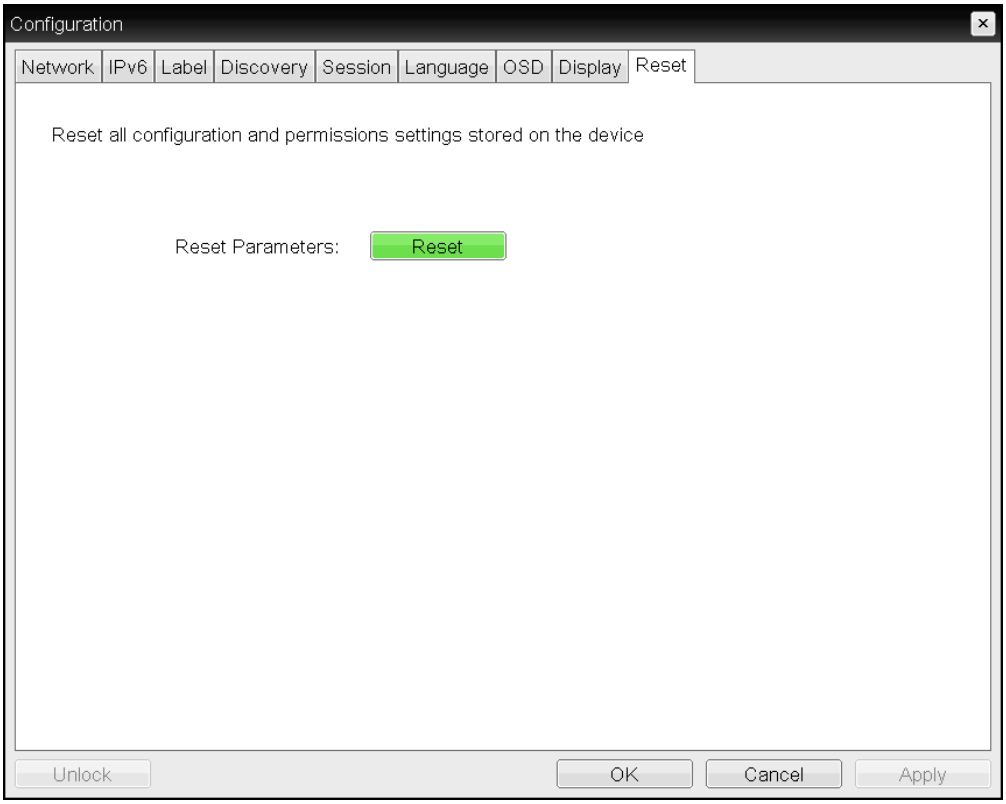


Figure 4-124: OSD Reset Page

Table 4-112: OSD Reset Parameters

Parameter	Description
Reset Parameters	When you click this button, a prompt appears for confirmation. This is to prevent accidental resets.

5.31 Viewing Diagnostics (AWI/OSD)

5.31.1 AWI: Help for Event Log Settings

For information about the AWI's **Event Log** page, see AWI: Event Log Settings.

5.31.2 OSD: Help for Event Log Settings

For information about the OSD's **Event Log** page, see OSD: Event Log Settings.

5.31.3 AWI Host: Session Control Settings

The **Session Control** page lets you view information about a device and also allows you to manually disconnect or connect a session. You can access this page from the **Diagnostics** > **Session Control** menu.

Figure 4-125: AWI Host Session Control Page

Table 4-113: AWI Host Session Control Page Parameters

Parameter	Description
Connection State	This field displays the current state for the session. Options include the following: • **Disconnected** • **Connection Pending** • **Connected** Two buttons appear below the **Connection State** field: • **Connect:**This button is disabled for the host. • **Disconnect:** If the connection state is **Connected** or **Connection Pending**, click this button to end the PCoIP session for the device. If the connection state is **Disconnected**, this button is disabled.
Peer IP	**Peer IP Address:** Displays the IP address for the peer device. When not in session, this field is blank.
Peer MAC Address	**Peer MAC Address:** Displays the MAC address of the peer device. When not in session, this field is blank.

5.31.4 AWI Client: Session Control Settings

The **Session Control** page lets you view information about a device and also allows you to manually disconnect or connect a session. You can access this page from the **Diagnostics** >

Session Control menu.

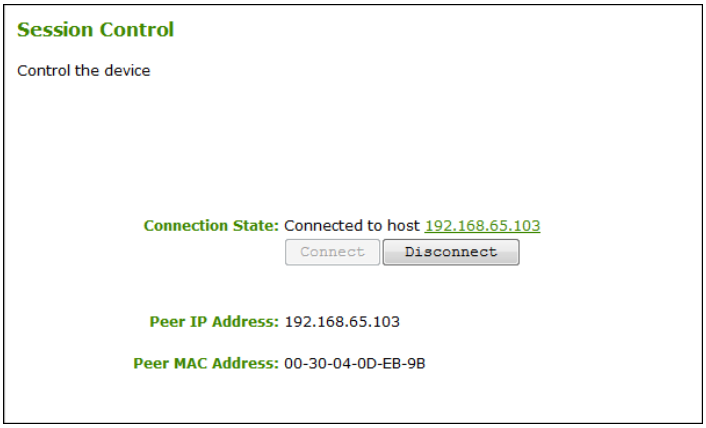


Figure 4-126: AWI Client Session Control Page

Table 4-114: AWI Client Session Control Page Parameters

Parameter	Description
Connection State	This field displays the current state for the session. Options include the following: • **Disconnected** • **Connection Pending** • **Connected** Two buttons appear below the **Connection State** field: • **Connect:** If the connection state is **Disconnected**, click this button to initiate a PCoIP session between the client and its peer device. If the connection state is **Connection Pending** or **Connected**, this button is disabled. • **Disconnect:** If the connection state is **Connected** or **Connection Pending**, click this button to end the PCoIP session for the device. If the connection state is **Disconnected**, this button is disabled.
Peer IP	**Peer IP Address:** Displays the IP address for the peer device. When not in session, this field is blank.
Peer MAC Address	**Peer MAC Address:** Displays the MAC address of the peer device. When not in session, this field is blank.

5.31.5 AWI Host: Session Statistics Settings

The **Session Statistics** page lets you view current statistics when a session is active. If a session is not active, the statistics from the last session will display. You can view this page from the **Diagnostics > Session Statistics** menu.

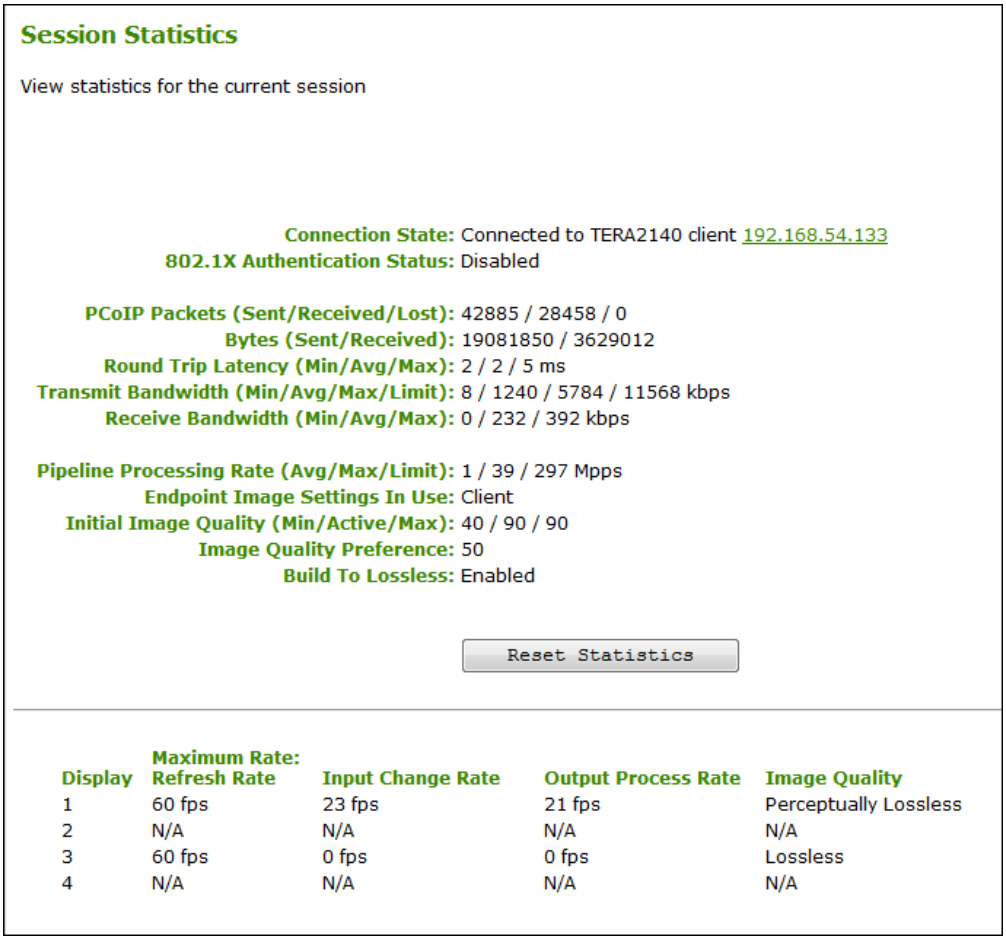


Figure 4-127: AWI Host Session Statistics Page

Note: The above figure shows session statistics for a host card connected to a client with four connected displays. If your deployment uses two displays, information for only two displays will appear in this section.

Table 4-115: AWI Host Session Statistics Page Parameters

Parameters	Description
Connection State	The current (or last) state of the PCoIP session. Values include the following: • **Asleep** • **Canceling** • **Connected** • **Connection Pending** • **Disconnected** • **Waking**

Parameters	Description
802.1X Authentication Status	Indicates whether 802.1x authentication is enabled or disabled on the device.
PCoIP Packets Statistics	**PCoIP Packets Sent:** The total number of PCoIP packets sent in the current/last session. **PCoIP Packets Received:** The total number of PCoIP packets received in the current/last session. **PCoIP Packets Lost:** The total number of PCoIP packets lost in the current/last session.
Bytes	**Bytes Sent:** The total number of bytes sent in the current/last session. **Bytes Received:** The total number of bytes received in the current/last session.
Round Trip Latency	The minimum, average, and maximum round-trip PCoIP system and network latency in milliseconds (+/- 1 ms).
Bandwidth Statistics	**Transmit Bandwidth:** The minimum, average, and maximum traffic transmitted by the Tera processor. The active bandwidth limit is the maximum amount of network traffic the Tera processor may currently generate. The value is derived from the configured bandwidth parameters and the current (or last) network congestion levels. **Receive Bandwidth:** The minimum, average, and maximum traffic received by the Tera processor.
Pipeline Processing Rate	How much image data is currently being processed by the image engine (in megapixels per second).
Endpoint Image Settings In Use	Displays if the image settings being used are configured within the client or within the host. This is based on how the **Use Client Image Settings** field is configured on the **Image** page for the host device.
Initial Image Quality	The minimum and maximum quality setting is taken from the **Image** page for the device. The active setting is what's currently being used in the session and only appears on the host.
Image Quality Preference	This setting is taken from the **Image Quality Preference** field on the **Image** page. The value determines if the image is set to a smoother versus a sharper image.
Build to Lossless	Options that may appear in this field include the following: **Enabled:** The **Disable Build to Lossless** field on the **Image** page is unchecked. **Disabled:** The **Disable Build to Lossless** field is checked.
Reset Statistics	Click this button to reset the statistic information on this page. Note: The **Reset Statistics** button also resets the statistics reported in the **Home** page.

Parameters	Description
Display	The port number for the display.
Maximum Rate	This column shows the refresh rate of the attached display. If the **Maximum Rate** field on the **Image** page is set to 0 (i.e., there is no limit), the maximum rate is taken from the monitor's refresh rate. If the **Maximum Rate** field on the **Image** page is set to a value greater than 0, the refresh rate shows as "User Defined."
Input Change Rate	The rate of content change from the GPU. This includes everything the user is doing (such as cursor movement, email editing, or streaming video).
Output Process Rate	The frame rate currently being sent from the image engine on the host to the client.
Image Quality	Shows the current lossless state of the attached display: • **Lossy** • **Perceptually lossless** • **Lossless**

5.31.6 AWI Client: Session Statistics Settings

The **Session Statistics** page lets you view current statistics when a session is active. If a session is not active, the statistics from the last session will display. You can view this page from the **Diagnostics > Session Statistics** menu.

Figure 4-128: AWI Client Session Statistics Page

Note: The above figure shows session statistics for a client with two connected displays. If your deployment uses four displays, information for all four displays will appear in this section.

Table 4-116: AWI Client Session Statistics Page Parameters

Parameters	Description
Connection State	The current (or last) state of the PCoIP session. Values include the following: • **Asleep** • **Canceling** • **Connected** • **Connection Pending** • **Disconnected** • **Waking**
802.1X Authentication Status	Indicates whether 802.1x authentication is enabled or disabled on the device.
PCoIP Packets Statistics	**PCoIP Packets Sent:** The total number of PCoIP packets sent in the current/last session. **PCoIP Packets Received:** The total number of PCoIP packets received in the current/last session. **PCoIP Packets Lost:** The total number of PCoIP packets lost in the current/last session.
Bytes	**Bytes Sent:** The total number of bytes sent in the current/last session. **Bytes Received:** The total number of bytes received in the current/last session.
Round Trip Latency	The minimum, average, and maximum round-trip PCoIP system and network latency in milliseconds (+/- 1 ms).
Bandwidth Statistics	**Transmit Bandwidth:** The minimum, average, and maximum traffic transmitted by the Tera processor. The active bandwidth limit is the maximum amount of network traffic the Tera processor may currently generate. The value is derived from the configured bandwidth parameters and the current (or last) network congestion levels. **Receive Bandwidth:** The minimum, average, and maximum traffic received by the Tera processor.
Pipeline Processing Rate	How much image data is currently being processed by the image engine (in megapixels per second).
Endpoint Image Settings In Use	Displays if the image settings being used are configured within the client or within the host. This is based on how the **Use Client Image Settings** field is configured on the **Image** page for the host device.
Initial Image Quality	The minimum and maximum quality setting is taken from the **Image** page for the device.

Parameters	Description
Image Quality Preference	This setting is taken from the **Image Quality Preference** field on the **Image** page. The value determines if the image is set to a smoother versus a sharper image.
Build to Lossless	Options that may appear in this field include the following: **Enabled:** The **Disable Build to Lossless** field on the **Image** page is unchecked. **Disabled:** The **Disable Build to Lossless** field is checked.
Reset Statistics	Click this button to reset the statistic information on this page. Note: The **Reset Statistics** button also resets the statistics reported in the **Home** page.
Display	The port number for the display.
Maximum Rate	This column shows the refresh rate of the attached display. If the **Maximum Rate** field on the **Image** page is set to 0 (i.e., there is no limit), the maximum rate is taken from the monitor's refresh rate. If the **Maximum Rate** field on the **Image** page is set to a value greater than 0, the refresh rate shows as "User Defined."
Output Process Rate	The frame rate currently being sent from the image engine on the host to the client.
Image Quality	Shows the current lossless state of the attached display: • **Lossy** • **Perceptually lossless** • **Lossless**

5.31.7 OSD:Session Statistics Settings

The **Session Statistics** page lets you view from the last session. You can view this page from the **Options > Diagnostics > Session Statistics** menu.

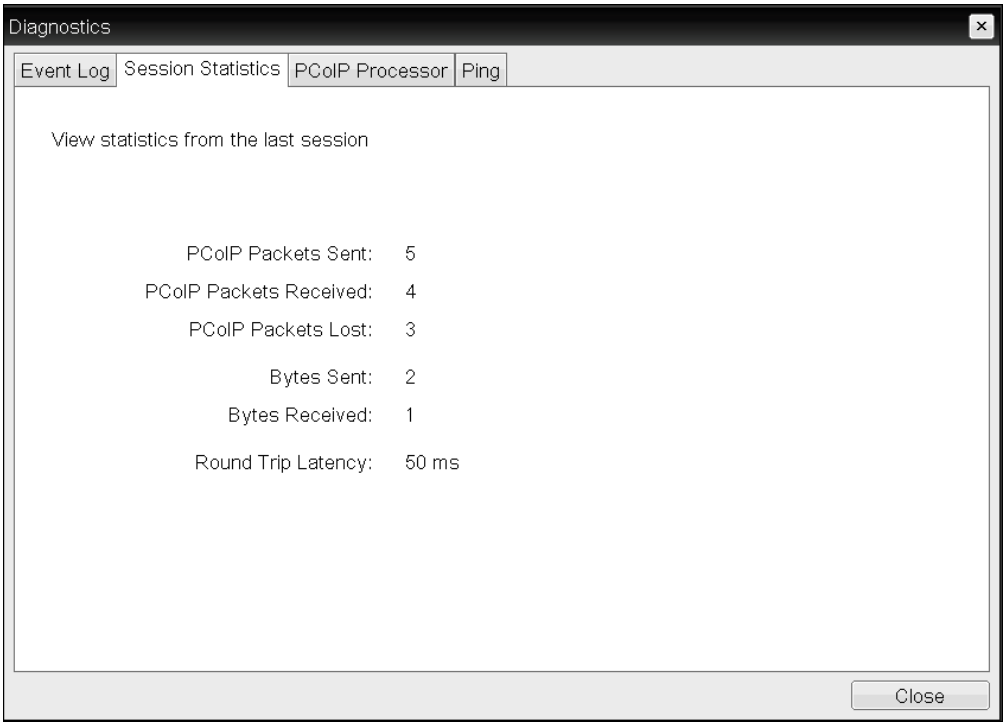


Figure 4-129: OSD Session Statistics Page

Table 4-117: OSD Session Statistics Page Parameters

Parameters	Description
PCoIP Packets Statistics	**PCoIP Packets Sent:** The total number of PCoIP packets sent in the last session. **PCoIP Packets Received:** The total number of PCoIP packets received in the last session. **PCoIP Packets Lost:** The total number of PCoIP packets lost in the last session.
Bytes	**Bytes Sent:** The total number of bytes sent in the last session. **Bytes Received:** The total number of bytes received in the last session.
Round Trip Latency	The minimum, average, and maximum round-trip PCoIP system and network latency in milliseconds (+/- 1 ms).

5.31.8 AWI Host: Host CPU Settings

The **Host CPU** page lets you view the identity string of the host computer, view the current power state, and change the host's power state. You can access this page from the **Diagnostics > Host CPU** menu.

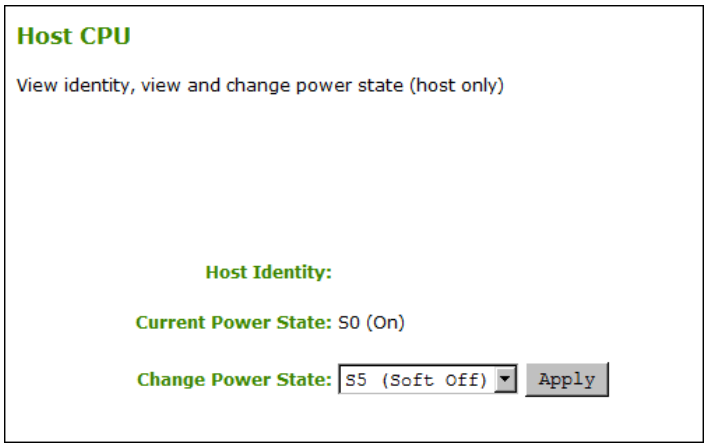


Figure 4-130: AWI Host CPU Page

Table 4-118: AWI Host CPU Page Parameters

Parameters	Description
Host Identity	The identity string of the host computer (if data is available).
Current Power State	The current power state that is configured for the host.
Change Power State	Select one of the following options: • **S5 (Soft Off)**: Configures the client's remote PC button to perform a soft power off of the host (i.e., to put the host in sleep mode) when the button is pressed for less than four seconds. • **S5 (Hard Off)**: Configures the client' remote PC button to perform a hard power off of the host (i.e., a device shutdown) when the button is pressed for more than four seconds. Note: To use this feature, the host must have compatible hardware architecture.

5.31.9 AWI Client: Audio Settings

The **Audio** page lets you generate an audio test tone from the client. You can access this page from the **Diagnostics > Audio** menu.

To generate an audio test tone, click **Start** to start the test tone. Click **Stop** to stop the test.

Note: The **Audio** page functionality is only available on a client when the client is not in a PCoIP session.

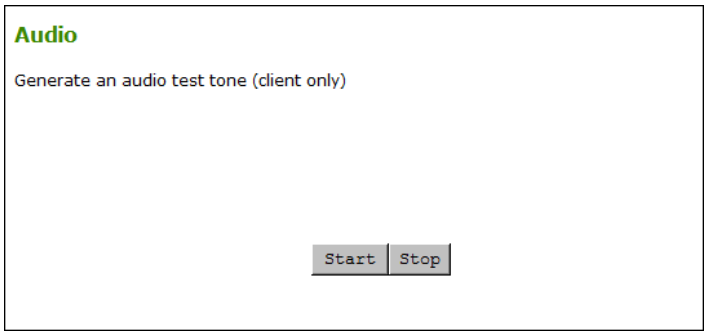


Figure 4-131: AWI Client Audio Page

5.31.10AWI Client: Display Settings

The **Display** page lets you initiate and view a test pattern on the client's display. You can access the page from the **Diagnostics > Display** menu.

Note: The test pattern only appears on the **Display** page when the client is not in a PCoIP session. If you click **Start** when the client is in session, an error message appears.

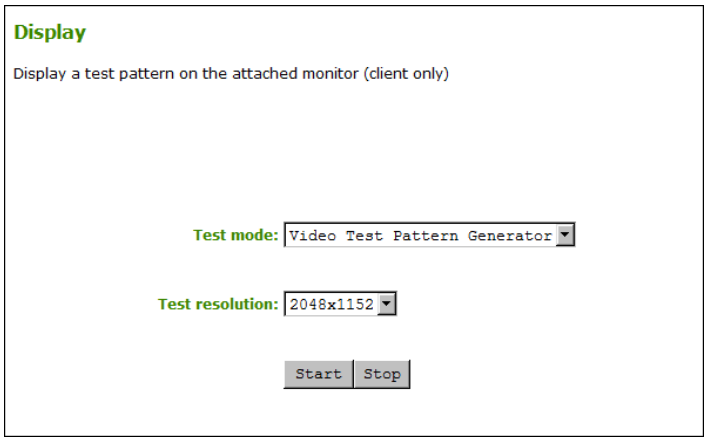


Figure 4-132: AWI Client Display Page

Table 4-119: AWI Client Display Page Parameters

Parameters	Description
Test mode	Set the type of test pattern for the attached monitor(s) as follows: • **Video Test Pattern Generator** • **Pseudo Random Bitstream**
Test resolution	Select the test resolution to use from the drop-down menu.
Start/Stop	Click **Start** to begin the test pattern. Click **Stop** to stop the test.

5.31.11AWI: PCoIP Processor Settings

The **PCoIP Processor** page lets you reset the host or client and view the uptime of the device's PCoIP processor since the last boot. You can access this page from the **Diagnostics > PCoIP Processor** menu.

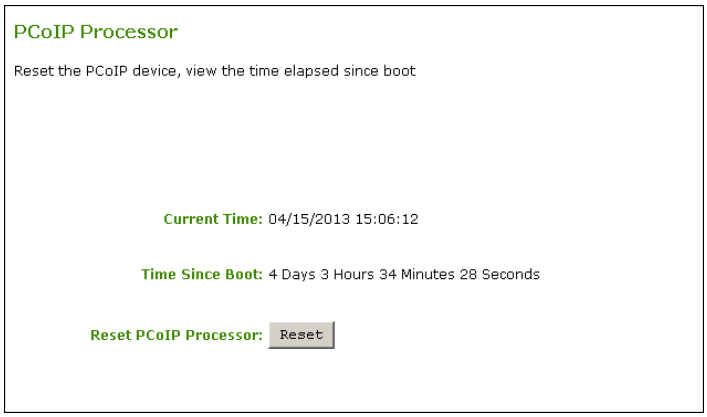


Figure 4-133: AWI PCoIP Processor Page

Table 4-120: AWI PCoIP Processor Page Parameters

Statistics	Description
Current Time	The current time. This feature requires that NTP be enabled and configured.
Time Since Boot (Uptime)	View the uptime of the device's PCoIP processor since the last boot.
Reset PCoIP Processor	Click this button to reset the device.

5.31.12OSD: PCoIP Processor Settings

The **PCoIP Processor** page lets you view the uptime of the device's PCoIP processor since the last boot. You can access this page from the **Options > Diagnostics > PCoIP Processor** menu.

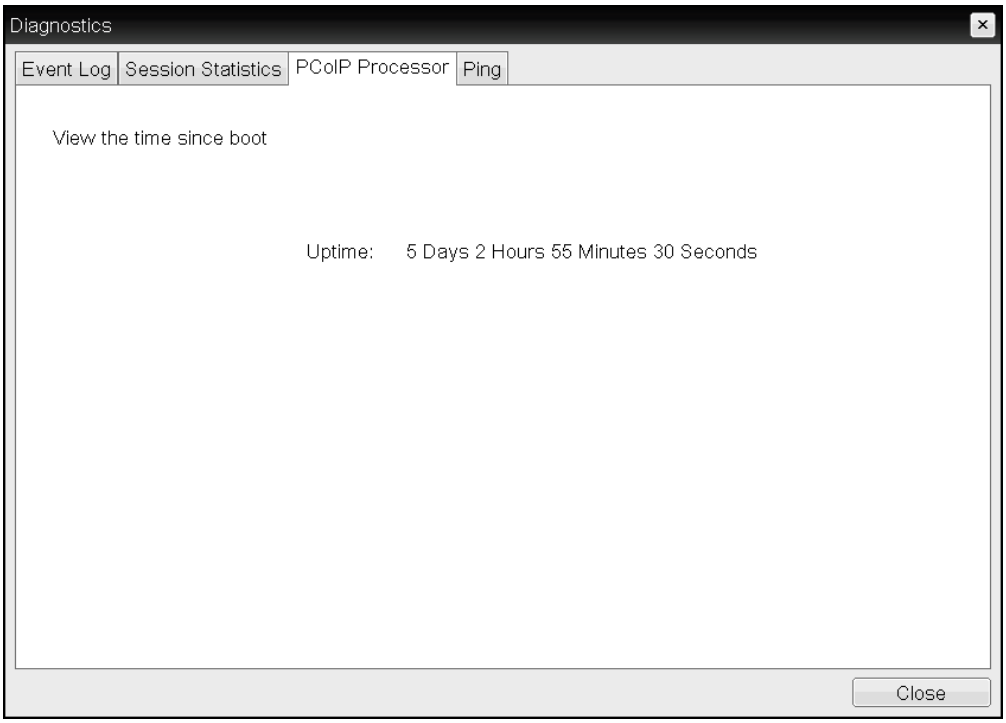


Figure 4-134: OSD PCoIP Processor Page

5.31.13 OSD: Ping Settings

The **Ping** page lets you ping a device to see if it is reachable across the IP network. This may help you determine if a host is reachable. Because firmware releases 3.2.0 and later force the "do not fragment flag" in the ping command, you can also use this feature to determine the maximum MTU size.

You can access this page from the **Options > Diagnostics > Ping** menu.

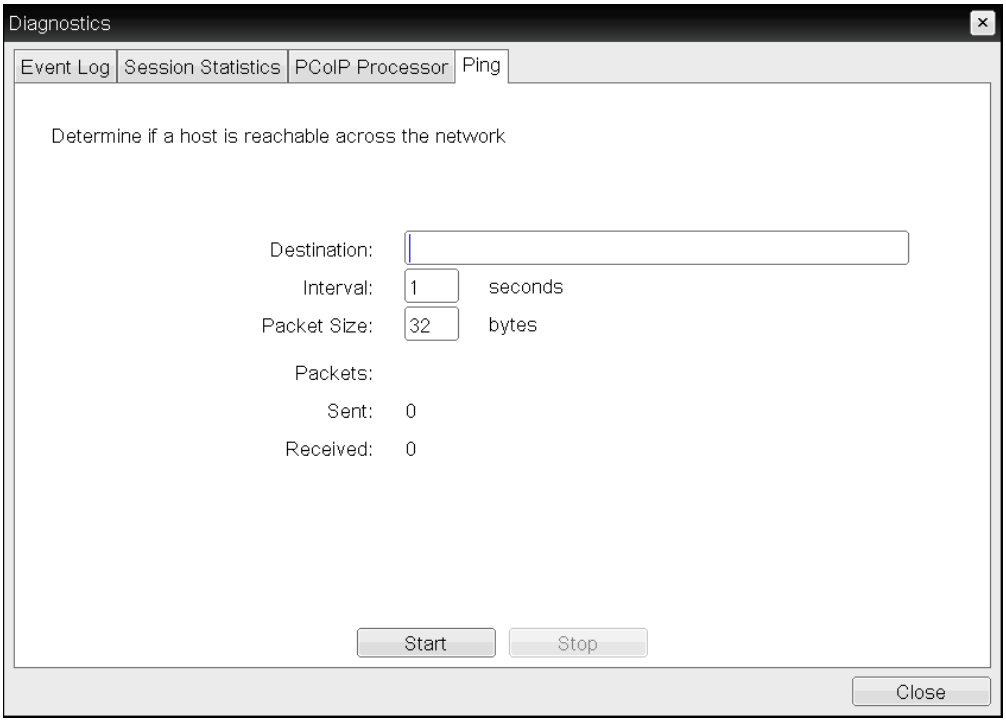


Figure 4-135: OSD Ping Page

Table 4-121: Ping Page Parameters

Parameter	Description
Destination	IP address or fully qualified domain name (FQDN) to ping.
Interval	Interval between ping packets.
Packet Size	Size of the ping packet.
Packets Sent	Number of ping packets transmitted.
Packets Received	Number of ping packets received.

5.32 Viewing Information (AWI/OSD)

5.32.1 AWI: Version Information

The **Version** page lets you view the hardware and firmware version details for a device. You can access this page from the **Info > Version** menu.

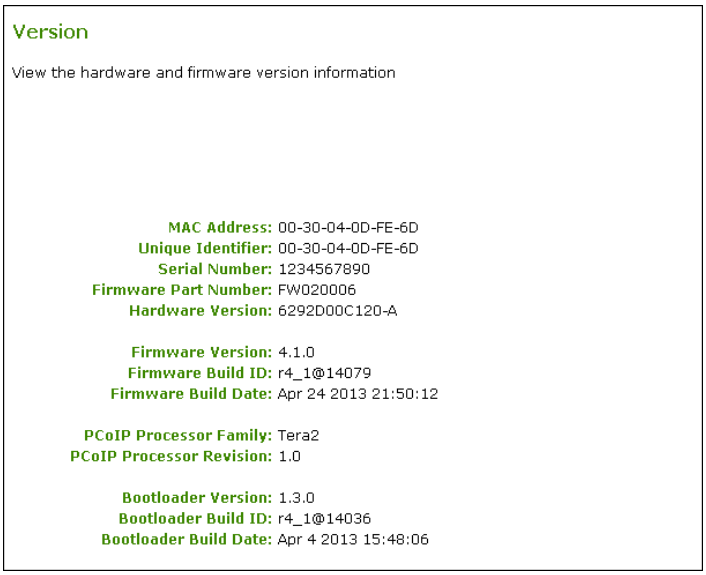


Figure 4-136: AWI Version Page

Table 4-122: AWI Version Page Parameters

Parameters	Description
VPD Information	**(Vital Product Data)**: Information provisioned by the factory to uniquely identify each host or client: • **MAC Address:** Host/client unique MAC address. • **Unique Identifier:** Host/client unique identifier. • **Serial Number:** Host/client unique serial number. • **Firmware Part Number:** Part number of the current firmware. • **Hardware Version:** Host/client hardware version number.
Firmware Information	This information reflects the current firmware details: • **Firmware Version:** Version of the current firmware. • **Firmware Build ID:** Revision code of the current firmware. • **Firmware Build Date:** Build date for the current firmware.
PCoIP Processor Information	This information provides details about the PCoIP processor. • **PCoIP Processor Family**: The processor family—Tera1 or Tera2. • **PCoIP Processor Revision**: The silicon revision of the PCoIP processor. Revision B of the silicon is denoted by a 1.0.
Bootloader Information	This information reflects the current firmware bootloader details: • **Boatloader Version:** Version of the current bootloader. • **Bootloader Build ID:** Revision code of the current bootloader. • **Bootloader Build Date:** Build date of the current bootloader.

5.32.2 Viewing the Version Information

The **Version** page lets you view the hardware and firmware version details for a device. You can access this page from the **Options > Information > Version** menu.

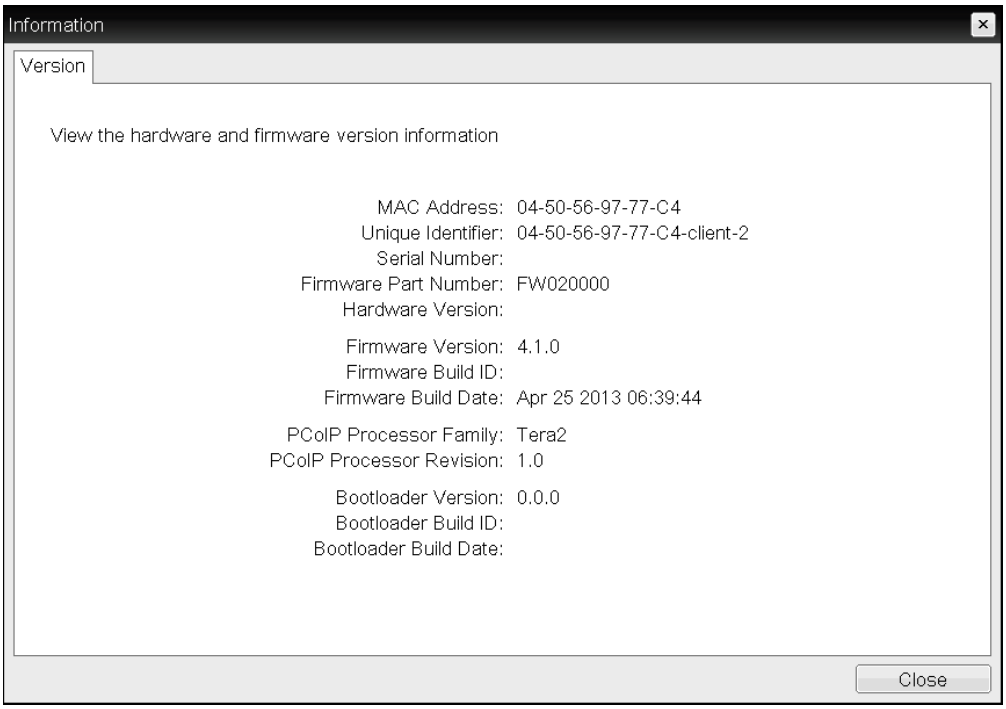


Figure 4-137: OSD Version Page

Table 4-123: OSD Version Page Parameters

Parameters	Description
VPD Information	**(Vital Product Data)**: Information provisioned by the factory to uniquely identify each host or client: • **MAC Address:** Host/client unique MAC address. • **Unique Identifier:** Host/client unique identifier. • **Serial Number:** Host/client unique serial number. • **Firmware Part Number:** Part number of the current firmware. • **Hardware Version:** Host/client hardware version number.
Firmware Information	This information reflects the current firmware details: • **Firmware Version:** Version of the current firmware. • **Firmware Build ID:** Revision code of the current firmware. • **Firmware Build Date:** Build date for the current firmware.

Parameters	Description
PCoIP Processor Information	This information provides details about the PCoIP processor. • **PCoIP Processor Family**: The processor family—Tera1 or Tera2. • **PCoIP Processor Revision**: The silicon revision of the PCoIP processor. Revision B of the silicon is denoted by a 1.0.
Bootloader Information	This information reflects the current firmware bootloader details: • **Boatloader Version:** Version of the current bootloader. • **Bootloader Build ID:** Revision code of the current bootloader. • **Bootloader Build Date:** Build date of the current bootloader.

5.32.3 AWI Host: Attached Devices Information

The **Attached Devices** page lets you see information for the displays that are currently attached to the client.

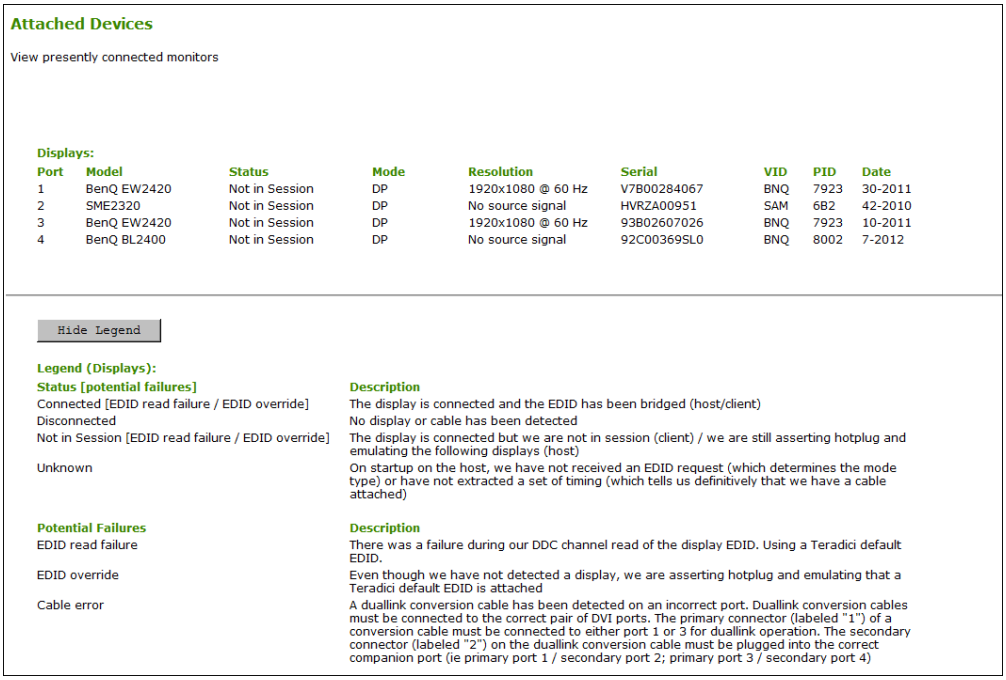


Figure 4-138: AWI Host Attached Devices Page

Note: The above figure shows information for a client with four connected displays. If your deployment uses two displays, information for only two displays will appear on this page.

Table 4-124: AWI Host: Attached Devices Page Information

Statistic	Description
Displays	This section displays the model, status, mode, resolution, serial number, vendor identification (VID), product identification (PID), and date of the display attached to each port. Note: This option is only available when the host is in a PCoIP session.

5.32.4 AWI Client: Attached Devices Information

The **Attached Devices** page lets you see information for the displays that are currently attached to the client.

Figure 4-139: AWI Client Attached Devices Page

Table 4-125: AWI Client: Attached Devices Page Information

Statistic	Description
Displays	This section displays the model, status, mode, resolution, serial number, vendor identification (VID), product identification (PID), and date of the display attached to each port. Note: This option is only available when the host is in a PCoIP session.

Statistic	Description
USB Devices	This section displays the port mode, model, status, device class, sub-class, protocol, vendor identification (VID), and product identification (PID) of the USB device attached to the client.
USB Device Status	Status options include: • **Not Connected**: No device is connected. • **Not in Session**: The device is detected outside of a PCoIP session. • **Not Initialized**: The device is detected in a PCoIP session but the host controller has not initialized the device. • **Failed Authorization**: The device is detected in a PCoIP session but is not authorized. (For more information about USB , see AWI Client: USB Permissions). • **Locally Connected**: The device is detected and authorized but locally terminated in a PCoIP session (for example, a local cursor). • **Connected**: The device is detected and authorized in a PCoIP session.

5.33 Configuring User Settings (OSD)

5.33.1 OSD: Certificate Checking Settings

The **Certificate** page lets users select how the client behaves if it cannot verify a secure connection to the server. You can access this page from the **Options > User Settings > Certificate** menu.

Note: If **Certificate Check Mode Lockout** is enabled from the AWI, users will not be able to modify the settings on this page.

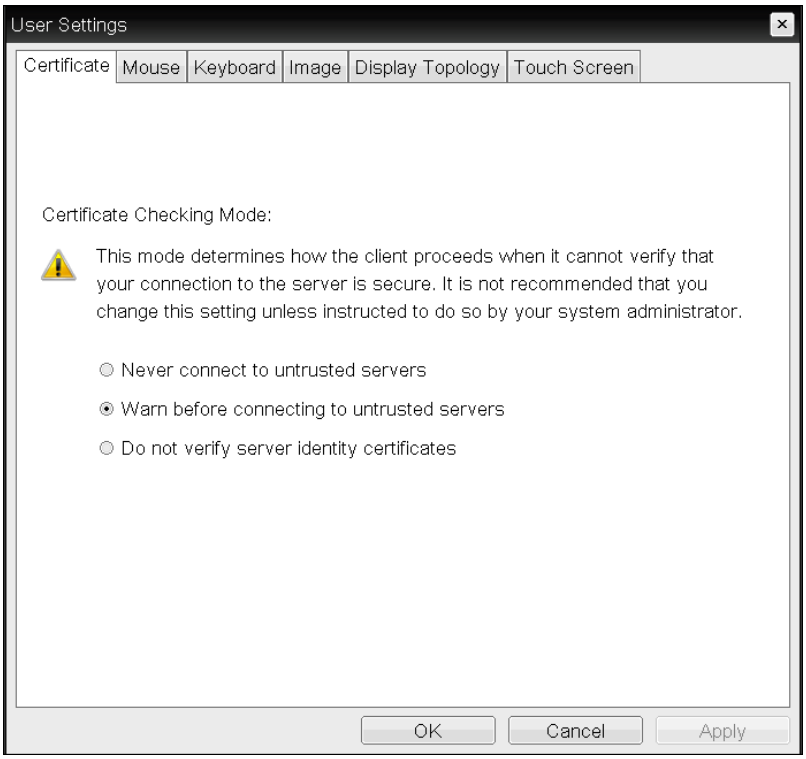


Figure 4-140: OSD VMware View Page

Table 4-126: OSD VMware View Page Parameters

Parameter	Description
Never connect to untrusted servers	Configures the client to reject the connection if a trusted, valid certificate is not installed.
Warn before connecting to untrusted servers	Configures the client to display a warning if an unsigned or expired certificate is encountered, or when the certificate is not self-signed and the client trust store is empty.
Do not verify server identity certificates	Configures the client to allow all connections.

5.33.2 MC: Help for Certificate Checking Settings

Certificate checking settings for the Management Console are described in the following topics:

- PCoIP Connection Manager pages
- View Connection Server pages

5.33.3 AWI Client: Help for Certificate Checking Settings

Certificate checking settings for the AWI are described in the following topics:

- PCoIP Connection Manager pages
- View Connection Server pages

5.33.4 OSD: Mouse Settings

The **Mouse** page lets you change the mouse cursor speed settings for the OSD sessions. You can access this page from the **Options > User Settings > Mouse** menu.

You can also configure the mouse cursor speed through the PCoIP host software. For more information, see the "PCoIP® Host Software for Windows User Guide" (TER1008001).

Note: The OSD mouse cursor speed setting does not affect the mouse cursor settings when a PCoIP session is active unless the **Local Keyboard Host Driver** function is being used (see the "PCoIP® Host Software for Windows User Guide" (TER1008001) for more details). This function is only available through the OSD. It is not available in the AWI.

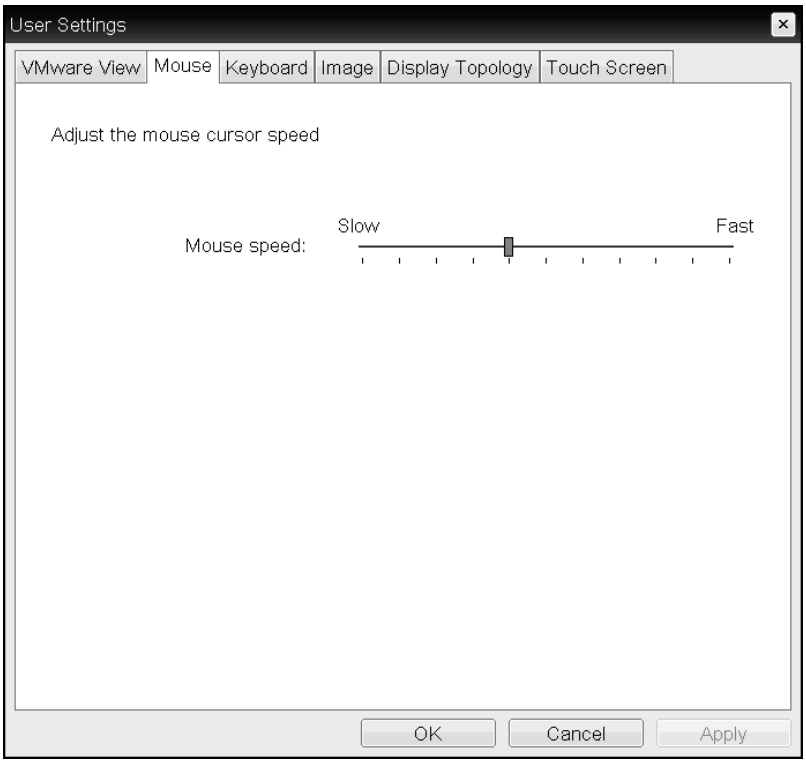


Figure 4-141: OSD Mouse Page

Table 4-127: OSD Mouse Page Parameters

Parameter	Description
Mouse Speed	Move the slider to configure the speed of the mouse cursor.

5.33.5 OSD: Keyboard Settings

The **Keyboard** page lets you change the keyboard character delay and character repeat settings for the OSD session. You can access this page from the **Options > User Settings >**

Keyboard menu.

You can also configure the keyboard repeat settings through the PCoIP host software. For more information, see the "PCoIP® Host Software for Windows User Guide" (TER1008001).

Note: The keyboard settings do not affect the keyboard settings when a PCoIP session is active unless the **Local Keyboard Host Driver** function is used (see the "PCoIP® Host Software for Windows User Guide" (TER1008001) for more details). This function is only available through the OSD. It is not available in the AWI.

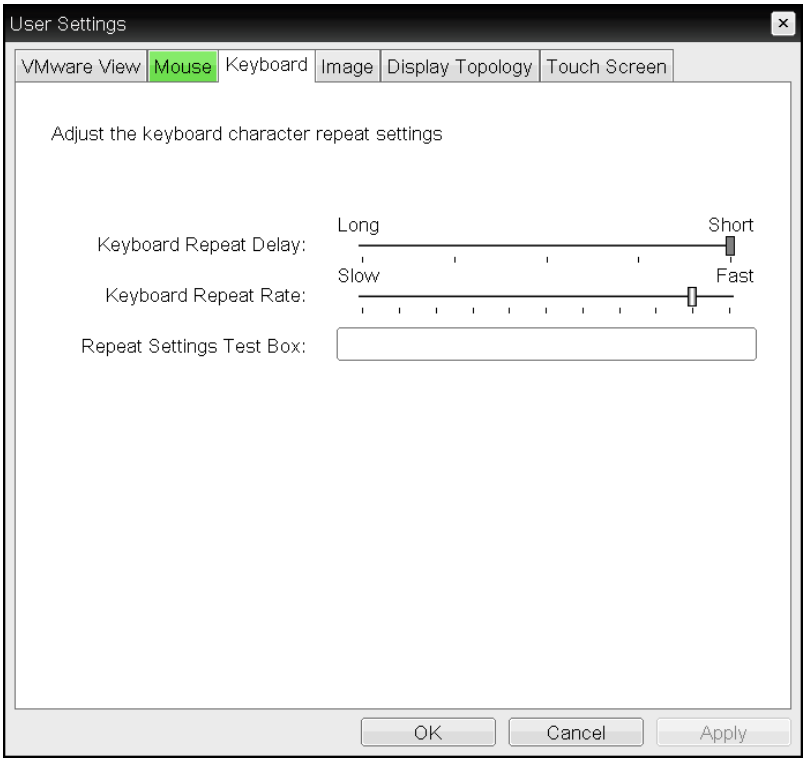


Figure 4-142: OSD Keyboard Page

Table 4-128: OSD Keyboard Page Parameters

Parameter	Description
Keyboard Repeat Delay	Move the slider to configure the time that elapses before a character begins to repeat when it is held down.
Keyboard Repeat Rate	Move the slider to configure the speed at which a character repeats when it is held down.
Repeat Settings Test Box	Type in this box to test the chosen keyboard settings.

5.33.6 OSD: Help for Image Settings

For information about the OSD's **Image** page, see OSD: Image Settings.

5.33.7 OSD: Help for Display Topology Settings

For information about the OSD's **Topology** page, see OSD: Tera1 Display Topology Settings or OSD: Tera2 Display Topology Settings.

5.33.8 OSD: Touch Screen Settings

The **Touch Screen** page lets you configure and calibrate settings for an attached Elo TouchSystems touch screen display. See Setting up a Touch Screen Display for more information about installing and configuring this device.

Note: Elo IntelliTouch and Elo AccuTouch are the only Elo TouchSystems touch screens supported.

You can access this page from the **Options > User Settings > Touch Screen** menu.

Note: The **Touch Screen** page is only available through the OSD. It is not available from the AWI.

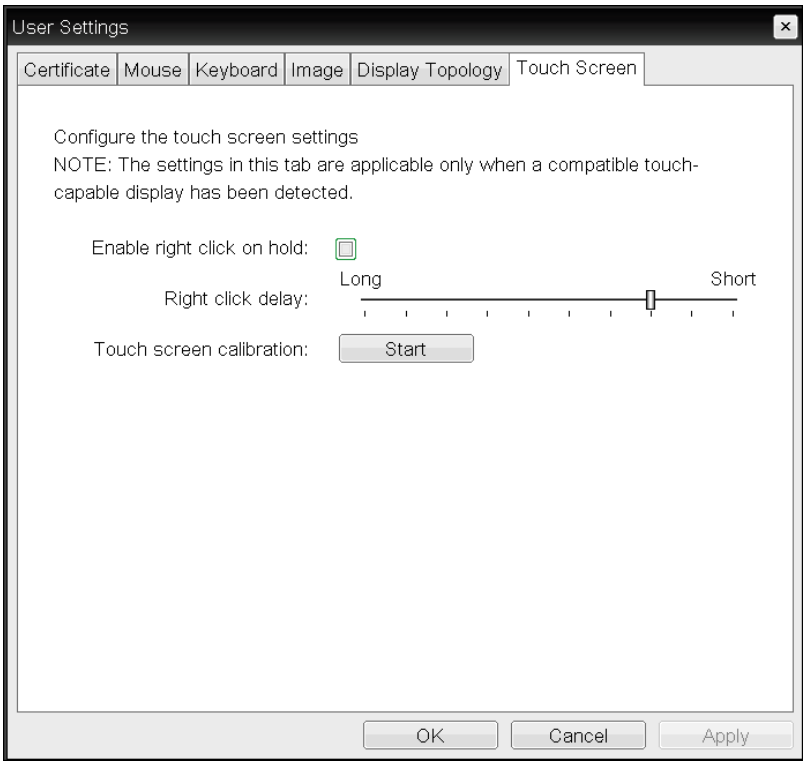


Figure 4-143: OSD Touch Screen Page

Table 4-129: OSD Touch Screen Page Parameters

Parameter	Description
Enable right click on hold	Select this checkbox to let users generate a right-click when they touch the screen and hold it for a few seconds. If disabled, right-clicking is not supported.

Parameter	Description
Right click delay	Slide the pointer to the position (between Long and Short) to determine how long the users must touch and hold the screen to generate a right-click.
Touch screen calibration	When you first connect the touch screen to the zero client, the calibration program starts. At the touch screen, touch each of the three targets as they appear. To test the calibration, run your finger along the monitor and ensure that the cursor follows it. If it is not successful, the calibration program automatically restarts. Once calibrated, the coordinates are stored in flash. To manually start the calibration program, from the OSD **Touch Screen** page, click **Start**. Follow the onscreen prompts.

6 "How To" Topics

6.1 Displaying Processor Information

The **Processor** field on the AWI **Home** page for a host or client displays the name of the device's processor, or chipset.

Figure 4-144: Processor Information on AWI Home Page

The processor family name displays on the AWI Version page for a host or client.

Figure 4-145: Processor Family Information on AWI Version Page

You can also display the processor family name for a zero client on the OSD Version page for the device.

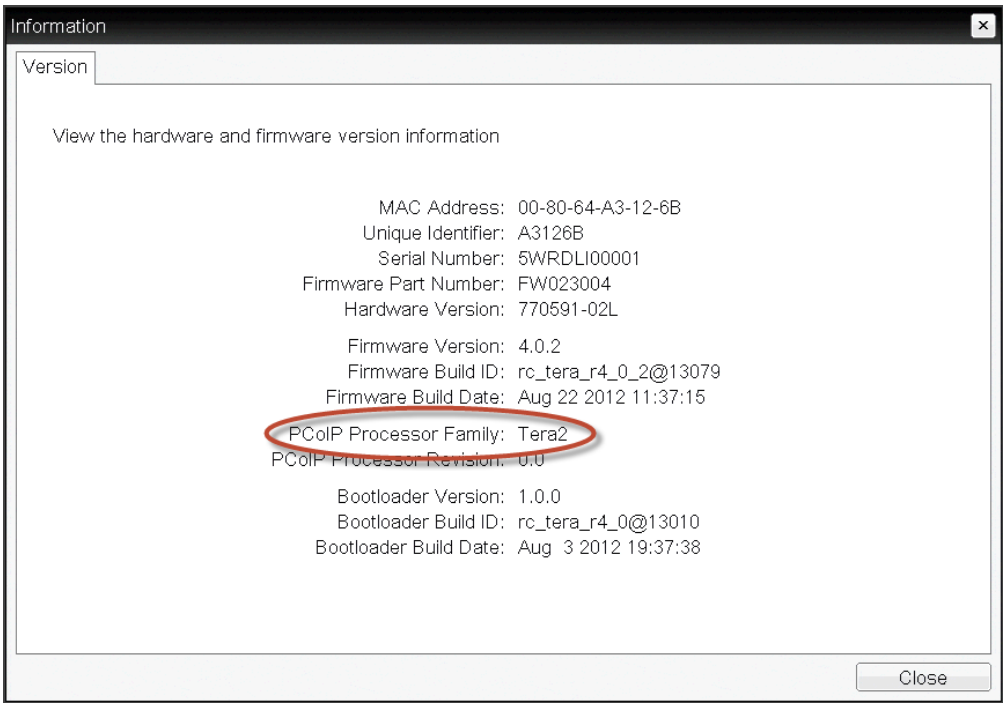


Figure 4-146: Processor Family Information on OSD Version Page

6.2 Configuring Syslog Settings

You can configure syslog settings for a host or zero client from the device's AWI, or you can use the MC to configure settings for a device profile. Both methods are shown below. Configuration involves entering the IP address or fully qualified domain name (FQDN) for the syslog server, and then specifying the port number and facility to use when sending messages to the syslog server.

Teradici uses UDP to send syslog messages to a centralized syslog server. Because most servers use port 514 for incoming messages, Teradici recommends you configure port 514 (the default) as the syslog port to use. However, you can use a different port as long as the syslog server is set to receive syslog messages on the same port as the device is set to send them.

Teradici also uses "19 – local use 3" as the default facility under the assumption that this facility is not commonly used. If it is being used, you can select a different facility.

Note: Cisco IOS devices, CatOS switches, and VPN 3000 concentrators use the “23 – local use 7” facility. Cisco PIX firewalls use the “20 – local use 4” facility.

Note: Ensure that your syslog server can handle the volume of messages sent by a zero client. With some free syslog servers, messages can become lost if the volume is too great.

6.2.1 Setting up Syslog from the AWI

Syslog settings in the AWI are located in the **Event Log** page. To configure syslog settings from the AWI for a single device:

1. From an Internet browser, enter the IP address of the PCoIP zero client or host.
2. Select the **Diagnostics > Event Log** menu to display the **Event Log** page.
3. Check **Enable Syslog**, and then select whether you want to identify the syslog server by its IP address or fully qualified domain name (FQDN).
4. Enter the IP address or FQDN of the syslog server.
5. If the syslog server is configured to receive data on a port other than 514, enter this port number.
6. If you wish the device to use a facility other than the default, select it from the **Syslog Facility** drop-down list.
7. Click **Apply**.
8. At the **Success** page, click **Continue**.

6.2.2 Setting up Syslog from the MC

Syslog settings in the MC are located in the MC's **Event Log** page. To configure syslog settings from the MC for a device profile:

1. From an Internet browser, enter the IP address of the MC.
2. Select the **Profiles** tab.
3. From the **Profile Management** page, click the **Set Properties** link for the desired profile.
4. Expand the **Event Log Control** category, and then click the **Edit Properties** link.
5. Enable **Syslog Server Hostname**, and then enter the IP address or FQDN of the syslog server.
6. Enable **Syslog Server Port**, and then enter the port number used by the syslog server for incoming messages. The device will use this port to send messages.
7. Enable **Syslog Facility Number**, and then enter the facility level number that the device will use when sending messages.
8. Click **Save**.

Note: You must enter a value in both the **Syslog Server Port** and **Syslog Facility Number** fields.

6.3 Uploading Firmware

6.3.1 Uploading a Firmware Release to a Zero Client

To upload a firmware release to a zero client:

1. Log in to the client's AWI.
2. From the **Firmware Upload** page, browse to the folder containing the firmware file. This file will have an ".all" extension.

3. Double-click the correct "*.all" firmware file.
4. Click **Upload**.
5. Click **OK** to confirm that you want to proceed with the upload. The operation may take a few minutes. When completed, the AWI page displays two buttons—**Reset** and **Continue**.
6. Click **Reset**.
7. Click **OK**.

6.3.2 Upload a Firmware Release to a Host

To upload a firmware release to a PCoIP host:

1. Ensure the host PC or workstation is in an idle state (i.e., that all applications are closed).
2. Log into the host's AWI.
3. From the **Firmware Upload** page, browse to the folder containing the firmware file. This file will have an ".all" extension.
4. Double-click the correct "*.all" firmware file.
5. Click **Upload**.
6. Click **OK** to confirm that you want to proceed with the upload. The operation may take a few minutes. When completed, the AWI page displays two buttons—**Reset** and **Continue**.
7. Click **Reset**.
8. Click **OK**.
9. Power off and then power on the host PC or workstation. It is necessary to power off (not just restart) the PC or workstation in order for the changes to take effect on the host card.

For information on using the MC to assign a firmware release to a profile, see MC: Firmware Management.

6.4 Configuring 802.1x Network Device Authentication

6.4.1 Prerequisites

An 802.1x authentication system requires the following components:

- PCoIP zero client with firmware 4.0.3 or newer
- PCoIP Management Console 1.8.1 or newer
- Windows Server 2008 R2 with AD DS (Active Directory Domain Services)
- Windows Server 2008 R2 with AD CS (Active Directory Certificate Services)
- Windows Server 2008 R2 with NPS (Network Policy and Access Services)
- VMware View Connection Server
- A switch with 802.1x support configured

6.4.2 Procedure

Overview

Configuring 802.1x device authentication entails the following steps:

1. In the Windows 2008 server, create a client user.
2. In the Certificate Authority (CA) server, export the root CA certificate.
3. In the CA server, create a certificate template for client authentication.
4. From the SSL browser interface for the certificate server, issue the client certificate.
5. From the machine on which you issued the certificate, export the client certificate.
6. Using OpenSSL, convert the certificate format from .pfx to .pem.
7. In the Windows 2008 server, import the client certificate into the client user account.
8. From the MC or device's AWI, import the certificates.

Note: The instructions in the following sections are based on Windows Server 2008 R2. If you are using a newer version of Windows Server, the steps may vary slightly.

Create a Client User

1. Log in to the Windows 2008 server.
2. Click **Start > Administrative Tools > Server Manager**.
3. Navigate to **Roles > Active Directory Users and Computers > Active Directory Users and Computers > *<domain.local>* > Users**.
4. Right-click **Users**, select **New > User**, and then follow the wizard.

Export the Root CA Certificate

1. Log in to the Certificate Authority (CA) server.
2. Open a Microsoft Management Console window (e.g.,enter **mmc.exe** in the **Start** menu search field).
3. From the console window, select **File > Add/Remove Snap-in.**
4. Add the **Certificates** snap-in, selecting **Computer account** and then **Local computer**.
5. Click **Finish**, and then **OK** to close the **Add or Remove Snap-ins** dialog.
6. From the console, select **Certificates (Local Computer) > Trusted Root Certification Authorities > Certificates**.
7. In the right panel, right-click the certificate, and then select **All Tasks** > **Export**.
8. Follow the wizard to export the certificate:
   a. Select **Base-65 encoded X.509 (.CER)**.
   b. Click **Browse**, specify a name and location for the certificate, and then click **Save**.
   c. Click **Finish**, and then **OK.**

Create a Certificate Template for Client Authentication

1. From the CA server, click **Start > Administrative Tools > Certification Authority**.
2. Expand the tree for your CA.
3. Right-click **Certificate Templates**, and then click **Manage**.

4. Right-click the **Computer** template, and then click **Duplicate Template**.
5. Configure the template as follows:
   a. From the **Compatibility** tab, select **Windows Server 2003**.
   b. From the **General** tab, enter a name for the template (e.g., "zero client 802.1x") and change the validity period to match the organization's security policy.
   c. From the **Request Handling** tab, select **Allow private key to be exported**.
   d. From the **Subject Name** tab, select **Supply in the request**.
   e. From the **Security** tab, select the user who will be requesting the certificate, and then give **Enroll** permission to this user.
   f. Click **OK** and close the **Certificate Templates Console** window.
6. From the **Certification Authority** window, .right-click **Certificate Templates**, select **New**, and then click **Certificate Template to Issue**
7. Select the certificate you just created (i.e., "zero client 802.1x), and then click **OK**. The template will now appear in the **Certificate Templates** list.
8. Close the window.

Issue the Client Certificate

Note: Do not use any other browser except Internet Explorer to log into the certificate server.

1. Using Internet Explorer on your local machine, go to your Certificate Authority URL using the format **https://<*server*>/certsrv/** (e.g., "https://ca.domain.local/certsrv/").
2. Click **Request a certificate** and then **advanced certificate request**.
3. Click **Create and submit a request to this CA**.
4. At the pop-up window, click **Yes**.
5. Fill out the **Advanced Certificate Request** form as follows:
   a. In the **Certificate Template** section, select the certificate for clients (e.g., "Zero Client 802.1x").
   b. In the **Identifying Information for Offline Template** section, fill out all the fields. *Important! The name you enter in the Name field must be the fully qualified domain name of the client user you created in Create a Client User (e.g., "ZeroClient@mydomain.local")*.
   c. In the **Additional Options** section, set the Request Format to **PKCS10**.
   d. If desired, enter a name in the **Friendly Name** field.
   e. Click **Submit**, and then **Yes** at the pop-up window.
   f. At the **Certificate Issued** window, click **Install this certificate**.

Export the Client Certificate

1. From the machine on which you issued the certificate, open a Microsoft Management Console window (e.g., enter **mmc.exe** in the **Start** menu search field).
2. From the console window, select **File > Add/Remove Snap-in**.
3. Add the **Certificates** snap-in, selecting **My user account**.
4. Click **Finish**, and then **OK** to close the **Add or Remove Snap-ins** dialog.
5. Select **Certificates - Current User > Personal > Certificates**.

6. In the right panel, right-click the certificate, and then select **All Tasks** > **Export**.
7. Follow the wizard to export the certificate:
   a. Click **Yes, export the private key**.
   b. Select **Personal Information Exchange - PKCS #12 (.PFX)**.
   c. Enter a password for the certificate.
   d. Click **Browse**, specify a name and location for the certificate, and then click **Save**.
   e. Click **Finish**, and then **OK**.
8. Repeat steps 5 to 7 again to export the zero client certificate, but this time *without* the private key (**No, do not export the private key**), selecting the **DER encoded binary X.509 (.CER)** format instead of the PKCS format.
9. Save this .cer file to a location where it can be accessed by the Windows 2008 server and imported into Active Directory.

Convert the Certificate Format from .pfx to .pem

1. Download and install Windows OpenSSL from **http://www.slproweb.com/products/Win32OpenSSL.html**. (The light version is sufficient.)
2. Copy the .pfx client certificate file you saved above to the **C:\OpenSSL-Win32\bin** directory.
3. Open a command prompt window, and then enter the following command to convert the certificate format from .pfx to .pem:
   C:\OpenSSL-Win32\bin\openssl.exe pkcs12 -in <*client_cert*>.pfx -out <*client_cert*>.pem -nodes
   where <*client_cert*> is the name of the .pfx certificate file you saved to your local machine.
4. When prompted, enter the password for the certificate file.
5. At the command prompt, enter the following command to create an RSA private key file:
   C:\OpenSSL-Win32\bin\openssl.exe rsa –in <*client_cert*>.pem –out < *client_cert*>_rsa.pem
   where <*client_cert*> is the name of the .pem certificate file you created in the previous step.
6. In Notepad:
   a. Open both the original .pem file and the RSA .pem file you just created. The RSA .pem file contains only an RSA private key. Because the zero client certificate requires its private key in RSA format, you need to replace its private key with this RSA private key.
   b. Copy the entire contents of the RSA .pem file (everything from **-----BEGIN RSA PRIVATE KEY** ----- to **-----END RSA PRIVATE KEY-----**), and paste it into the original .pem file, replacing its private key with this RSA private key.

      In other words, make sure that all the text from **-----BEGIN PRIVATE KEY-----** to **-----END PRIVATE KEY** (including the dashes) in the original .pem file is

replaced with the contents of -----**BEGIN RSA PRIVATE KEY** ----- to ----- **END RSA PRIVATE KEY-----** (including the dashes) from the RSA .pem file

c. Save the original .pem file and close it. The certificate is now ready to be uploaded to the zero client.

Import the Client Certificate into the Client User Account

1. Log in to the Windows 2008 server.
2. Click **Start > Administrative Tools > Active Directory Users and Computers**.
3. From the **View** menu, select **Advanced Features**.
4. Navigate to the user you created for the zero client.
5. Right-click the user, and then select **Name Mappings**.
6. In the **X.509 Certificates** section, click **Add**.
7. Locate and select the zero client certificate you exported that does not contain the private key (This file was saved to a network location in Step 9 of Export the Client Certificate.)
8. Leave both identity boxes checked, click **OK**, and then click **OK** again.

Import the Certificates to Client Device

To import the certificates into a profile using the MC:

1. From a browser, log in to the Management Console.
2. From the **Profiles** tab, click **Add New**, and then enter a name for the new profile.
3. Click **Save** to save the profile.
4. Click **Set Properties** to edit the new profile's configuration.
5. In the **Certificate Store** category, click + to expand it, and then click **Add New**.
6. In the **Add Certificate to Store** dialog, click **Browse**, and then upload both the root CA certificate and the certificate with the private key.
7. In the zero client certificate entry, select **802.1X** from the drop-down list.
8. Expand the **Security Configuration** category.
9. Select **Enable 802.1x Security**, and then set the value to **True**.
10. Select **802.1x Authentication Identity**, enter the user name you have defined for the zero client, and then click **Save**.
11. Apply this profile to the desired group.

To import the certificates to a device using the AWI:

1. From a browser, log into the AWI for the zero client or host card.
2. From the AWI menu, select **Upload > Certificate**.
3. Upload both the Root CA certificate and the certificate with the private key, using the **Browse** button to locate each certificate and the **Upload** button to upload them.
4. From the AWI menu, select **Configuration > Network**.
5. Select **Enable 802.1x Security**.
6. Click the **Choose** button beside the **Client Certificate** field.
7. Select the certificate with the private key, and then click **Select**.

8. Enter the identity name of the certificate. This is the fully qualified domain name that appears after **Subject:** (e.g., "zeroclient@mydomain.local").
9. Click **Apply**, and then **Reset**.

For more information about 802.1x, please see the following Knowledge Base topics on the Teradici support site:

- Support for 802.1x on zero clients: 15134-590
- Setting up Windows Server 2008 R2 as an 802.1x authentication server: 15134-1245
- General 802.1x troubleshooting steps: 15134-928

6.5 Setting up a Touch Screen Display

These instructions explain how to install an Elo TouchSystems touch screen display, how to configure the firmware if you want the touch screen to be controlled by a driver running on the host, and how to set up auto-logon to bypass authentication when users are connecting to a host with a broker.

6.5.1 Installing the Touch Screen to the Zero Client

1. Plug in the touch screen's USB cable to the zero client's USB port.
2. Attach the monitor cable from the touch screen to any port on the zero client.

   Note: You cannot attach multiple touch screens to the zero client, but you can attach a non-touch screen monitor to the zero client in addition to the touch screen as long as the touch screen is attached to the port on the zero client that is configured as the primary port.
3. Plug in the power.
4. Disconnect the zero client session. This initiates the calibration on the touch screen.

   Note: Once the touch screen is calibrated, the co-ordinates are saved in flash memory. You can manually recalibrate the screen as required through the OSD **Touch Screen** page.
5. Follow the touch screen prompts. You can test the calibration with your finger (the cursor should move with your finger). If the screen is not properly calibrated, the system automatically restarts the calibration program.

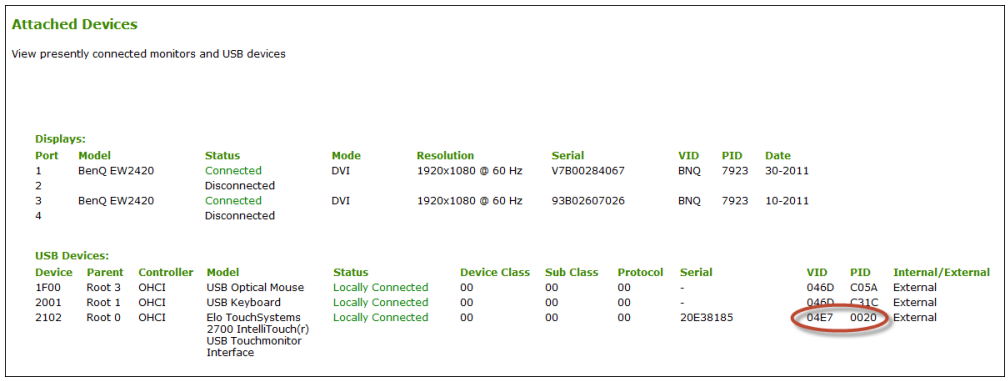
6.5.2 Setting up the Touch Screen as a Bridged Device

Note: This procedure is optional and only necessary if you want the touch screen to be set up as a bridged device.

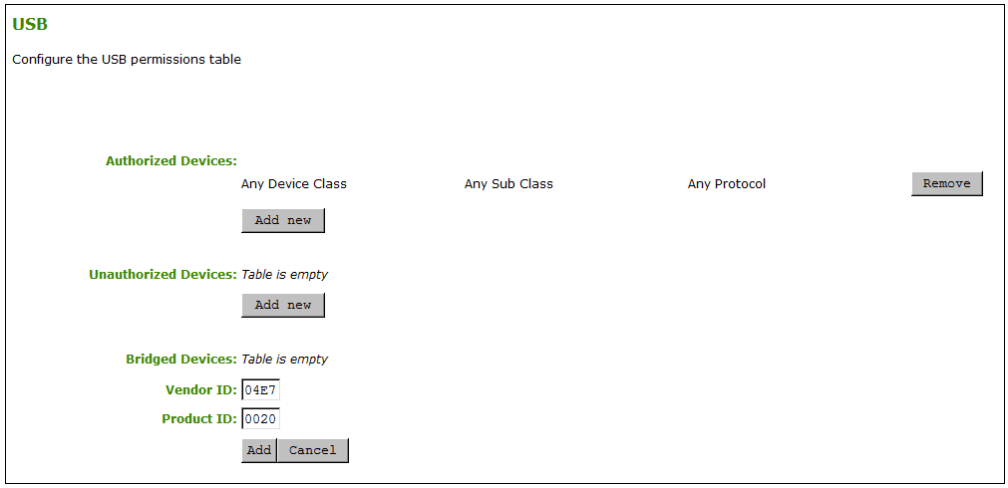
While a session is active a user may want the touch screen to be controlled by a driver running on the host. To set this up the touch screen must be added to the list of bridge devices.

1. Follow the steps in the previous procedure to install the touch screen to your zero client.
2. Log into the zero client AWI.

3. From the **Info** menu, click **Attached Devices**.
4. The touch screen details should appear in this page. Write down the **PID** and the **VID** information.



5. From the **Permissions** menu, click **USB** to display the **USB** page.
6. In the **Bridged Devices** area, click **Add New**.



7. Enter the Vendor ID and Product ID for the touch screen, and then click **Apply**.
8. Restart the zero client session.
9. Install the touch screen driver from Elo TouchSystems. See the Elo TouchSystems documentation for installation and calibration instructions.

6.5.3 Configuring the Zero Client to Automatically Log into a Host Brokered by a Connection Manager

To make logging into the touch screen device easier, you can configure auto-logon to bypass the keyboard when using a broker as a connection manager. If you choose to set this up, users simply need to touch **Connect** at the **Login** window instead of also having to enter their login credentials.

1. Log into the AWI for the zero client.
2. From the **Configuration** menu, select **Session**.

3. In the **Session Connection Type** drop-down menu, select **PCoIP Connection Manager + Auto-Logon** or **View Connection Server + Auto-Logon**, depending on the connection server you are using.
4. Enter the connection server's DNS name or IP address.
5. Fill out the user credentials, and then click **Apply**.

7 Technology Reference

7.1 APEX 2800 PCoIP Server Offload Card

The APEX 2800 PCoIP server offload card provides hardware-accelerated PCoIP image encoding for virtual desktop infrastructure (VDI) implementations. The card constantly monitors the graphic encoding demands of each virtual machine, dynamically switching the image compression tasks from software image encoding in the CPU to hardware image encoding, and back again. This offloading is performed instantly and seamlessly, as needed, without the user noticing the switch.

For complete details about the APEX 2800 PCoIP server offload card, see the Teradici website at http://www.teradici.com.

7.2 PCoIP Connection Brokers

PCoIP connection brokers are resource managers that dynamically assign host PCs to zero clients based on the identity of the user establishing a connection from the zero client. Connection brokers are also used to allocate a pool of hosts to a group of zero clients. If the zero clients in a PCoIP deployment are configured to always connect to the same host (i.e., a static one-to-one pairing), then a connection broker is not required.

For connecting clients and hosts, a number of 3rd party connection brokers support the PCoIP technology. For more information, see Knowledge Base support topic 15134-24 on the Teradici support site.

For VDI implementations, the VMware View connection broker is used to connect zero clients to VMware View virtual desktops. You can also use the VMware View connection broker to connect PCoIP clients and host PCs. For more information, see "Using PCoIP® Host Cards with VMware View" (TER0911004).

7.3 DVI and DisplayPort Interfaces

Tera2 zero clients support both DVI and DisplayPort digital display interfaces. The following port options are available for these clients:

- TERA2321 DVI-I dual-display PCoIP zero client: contains two DVI ports.
- TERA2321 DP+DVI-I dual-display PCoIP zero client: contains one DVI port and one DisplayPort port.
- TERA2140 DVI-D quad-display PCoIP zero client: contains four DVI ports.
- TERA2140 DP quad-display PCoIP zero client: contains four DisplayPort ports.

7.3.1 Support for 2560x1600 Display Resolution

All of the above zero clients also support 2560x1600 resolution for attached monitors with either DVI or DisplayPort interfaces. However, a custom dual-link DVI cable adapter is

required to support this resolution for DVI interfaces.

The following figure illustrates how to connect video cables to each type of zero client to achieve 2560x1600 resolution on a connected display.

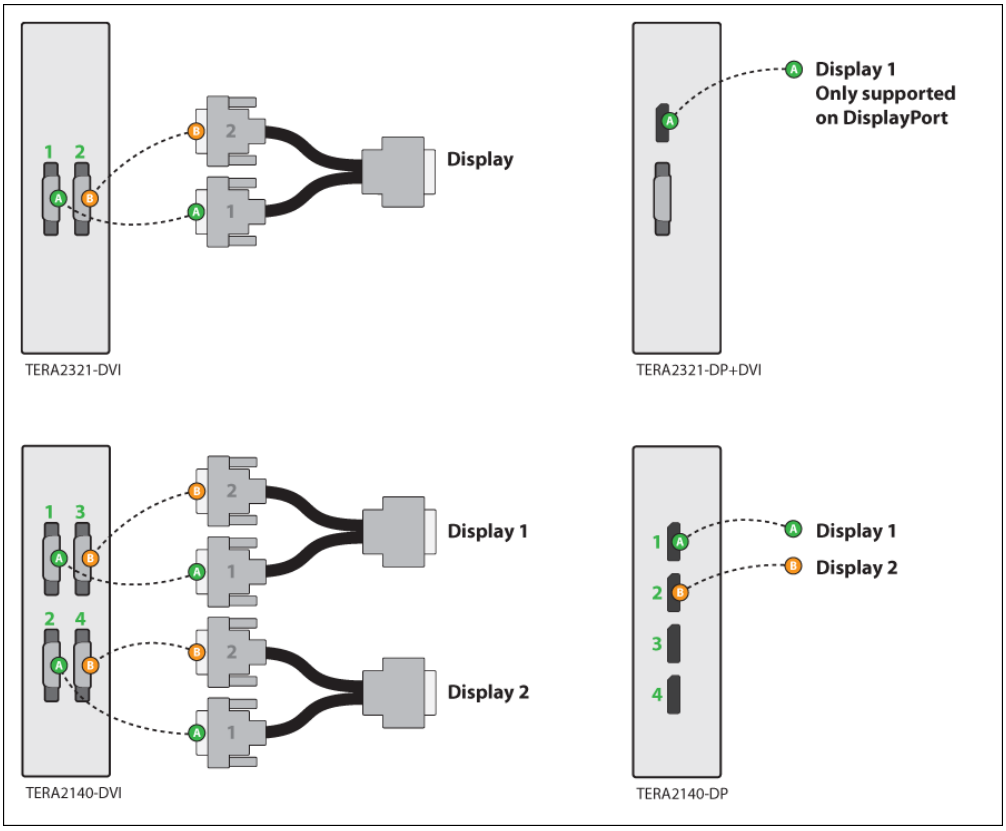


Figure 5-1: DVI and DisplayPort Connectors for 2560x1600 Resolution

- TERA2321 DVI-I dual-display PCoIP zero client: This zero client supports one 2560x1600 monitor. Connect the two DVI-I cable connectors on a custom dual-link DVI-I cable adapter to the two DVI-I ports on the zero client, as shown in the above illustration (upper left).
- TERA2321 DP+DVI-I dual-display PCoIP zero client: This zero client supports one 2560x1600 monitor on the DisplayPort interface only. Connect the connector on a DisplayPort cable to the DisplayPort port on the zero client, as shown in the above illustration (upper right).
- TERA2140 DVI-D quad-display PCoIP zero client: This client supports up to two 2560x1600 resolution monitors. For each monitor, connect the two DVI-D cable connectors on a custom dual-link DVI-D cable adapter to the two DVI-D ports that are shown in the above illustration (lower left). These connectors must be connected to ports on the client exactly as shown.
- TERA2140 DP quad-display PCoIP zero client: This zero client supports up to two 2560x1600 monitors. For each one, connect the connector on a DisplayPort cable to a DisplayPort port on the zero client, as shown in the above illustration (lower right).

Note: For details about other resolution options, see PCoIP Host Cards and Zero Clients.

7.4 Host Cards

PCoIP host cards are small add-in cards that can be integrated into tower PCs, rack mount PCs, PC blades, and server blades. The card's TERA-series processor performs advanced display compression algorithms to encode a user's full desktop environment. This information is then communicated in real time over an IP network to the user's PCoIP zero client.

For complete details about PCoIP host cards, see the Teradici website at http://www.teradici.com.

7.5 PCoIP Software Session Variables

The PCoIP software session variables in Microsoft's Group Policy Object (GPO) editor let you configure users' desktops with a collection of parameters that affect PCoIP sessions with soft hosts. These variables are defined in a GPO administrative template file called **pcoip.adm**, which is located on the VMware View Connection Server installation directory (**\\"servername"\c$\Program Files\VMware\VMware View\Server\extras\GroupPolicyFiles\pcoip.adm**).

You can enable and configure PCoIP software session variables in either the Group Policy Object editor's **PCoIP Session Variables > Overridable Administrator Defaults** list to allow users to override settings or the **PCoIP Session Variables > Overridable Administrator Defaults** list to prevent users from overriding settings.

Note: For large environments, you can apply **pcoip.adm** to a Windows Active Directory organizational unit (OU) or to a machine that you are configuring as a template for a desktop pool. For further details, see "VMware View 5 with PCoIP Network Optimization Guide" from the VMware Documentation website.

For instructions on how to load the PCoIP session variables template to a virtual machine's GPO editor, please see Knowledge Base support topic 15134-349 on the Teradici support site. For detailed information on each PCoIP session variable, see support topic 15134-348.

7.6 PCoIP Packet Format

PCoIP is a real-time technology that uses UDP as the transport-layer protocol. PCoIP supports two encryption types—UDP-encapsulated ESP and native IPsec ESP. An unencrypted PCoIP transport header field is also present for devices with firmware 4.1.0+ installed and/or for scenarios using View 5.1+. The PCoIP transport header allows network devices to make better QoS decisions for PCoIP traffic.

Note: TCP/UDP port 4172 is the Internet Assigned Numbers Authority (IANA) port assigned to the PCoIP protocol. UDP port 4172 is used for the session data, and TCP port 4172 is used for the session handshake. For more information about TCP/UDP ports that are used for PCoIP technology, see Knowledge Base support topic 15134-114 on the Teradici support site.

7.6.1 UDP-encapsulated ESP Packet Format

UDP-encapsulated ESP is the default packet format for Tera2 devices with firmware 4.1.0 installed. It is also used for Tera1 devices with firmware 3.x+ installed that connect remotely via a View Security Gateway.

The UDP-encapsulated ESP packet format is illustrated in the figure below. This figure also shows the location of the PCoIP transport header in a UDP-encapsulated ESP packet.

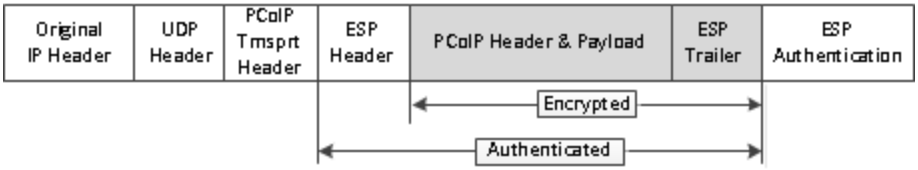


Figure 5-2: UDP-encapsulated ESP Packet Format

7.6.2 IPsec ESP Packet Format

IPsec ESP encapsulation is the default packet format for direct connections that involve a Tera1 zero client and/or Tera1 host card.

The IPsec ESP packet format is illustrated in the figure below. This figure also shows the location of the PCoIP transport header in an IPsec ESP packet.

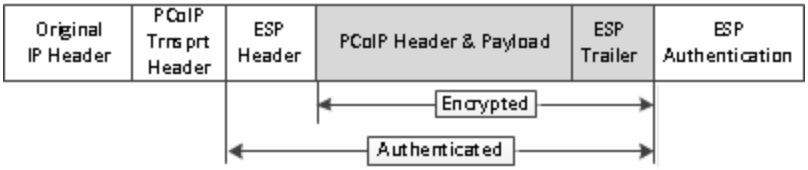


Figure 5-3: IPsec ESP Packet Format

7.7 Syslog

The syslog protocol is a standard for logging program messages to a database. It is commonly used to monitor devices that do not have a large amount of storage capacity, such as networking devices, ESX servers, zero clients, and PCoIP host cards. Using syslog for logging allows you to centralize the storage of log messages and to capture and maintain a longer history of log data. It also provides a set of tools to filter and report on syslog data.

Syslog messages include a facility level (from decimal 0 to 23) that indicates the application or operating system component that is generating the log message. For example, a facility level of "0" indicates a kernel message, a facility level of "1" indicates a user-level message, and a facility level of "2" indicates a message from a mail system. Processes and daemons that have not been explicitly assigned a facility may use any of the eight "local use" facilities ("16 – local use 0" to "23 – local use 7") or they may use the "1 – user-level" facility. Facilities allow for easy filtering of messages generated by a device.

Syslog messages are also assigned a severity level from 0 to 7, where a severity level of "0" indicates an emergency panic condition and a severity level of "7" indicates a debug-level message useful to developers but not for operations.

See Configuring Syslog Settings in the"How To" section for information on how to configure syslog from the AWI and MC.

7.8 Zero Clients

PCoIP zero clients are secure client endpoints that allow users to connect to a virtual desktop or remote host workstation over a local or wide area IP network. They can take many form factors, such as small stand-alone devices, PCoIP integrated displays, VoIP phones, and touch-screen monitors. Zero clients support multiple wide-screen formats, HD audio, and local USB peripherals. They also have extensive USB security and authentication features, including multiple-factor authentication for use with proximity cards and smart cards.

Powered by a single TERA-series processor, zero clients provide a rich multi-media experience for users, who can interact with their desktops from any type of zero client, and even continue the same session as they move between zero client devices.

For complete details about PCoIP zero clients, see the Teradici website at http://www.teradici.com.

8 Glossary of Acronyms

256-bit Salsa20
Salsa20 is a 256-bit stream cypher encryption algorithm.

AC
Alternating Current

AES
Advanced Encryption Standard

AWI
Administrator Web Interface. A PCoIP device used for monitoring and configuring PCoIP zero clients and host cards. To connect to the AWI, simply enter the PCoIP device IP address into a supported browser.

BIOS
Basic Input/Output System

CA
Certificate Authorities

CAC
Common Access Card. A smart card variant.

CAD
Computer Aided Design

CMI
Connection Management Interface. An interface provided by the host or client that is used to communicate with an external connection management server.

CMS
Connection Management Server. An external third-party management entity capable of managing hosts and clients. Also known as a connection broker.

DA
Directory Agent

DDC
Display Data Channel

DDC/CI
Display Data Channel/Command Interface

DHCP
Dynamic Host Configuration Protocol

DMS-59
A 59-pin connector used on computer video cards that is capable of combining two DVI streams into one connector.

DMZ
Demilitarized zone. A physical or logical subnetwork that uses firewalls to add an additional layer of

security between an organization's LAN and an untrusted network, such as the Internet.

DNS
Domain Name System

DNS-SRV
Domain Name System Service Record

DVI
Digital Visual Interface

EDID
Extended Display Identification Data

EEPROM
Electrically Erasable Programmable Read-Only Memory

ESP
Encapsulating Security Payload. An IPSec protocol that provides authenticity, integrity, and confidentiality protection for IP packets.

Fps
Frames per second. The display data frame update rate.

FQDN
Fully Qualified Domain Name

GPIO
General Purpose Input/Output

GPO
Group Policy Object

GPU
Graphics Processing Unit

GUI
Graphical User Interface

HD
High Definition

HDCP
High-bandwidth Digital Content Protection

HID
Human Interface Device

HomePlug
A networking technology through power lines.

HPDET
Hot Plug Detect

HTML
Hyper Text Markup Language

ID
Identification

IP
Internet Protocol

IPsec
Internet Protocol Security

IPsec-ESP
Internet Protocol Security-Encapsulated Security Payload

IPv4
Internet Protocol Version 4. The dominant network-layer protocol on the Internet.

IPv6
Internet Protocol Version 6. The successor to IPv4.

LAN
Local Area Network. A computer network that uses network media to interconnect computers in a limited area, such as an office building.

LED
Light-Emitting Diode

MAC
Media Access Control. A unique hardware identifier.

Mbps
Megabits per second

MC
Management Console

MIB
Management Information Base. Used by SNMP.

MTU
Maximum Transmission Unit

NAT
Network Address Translation. A technology for modifying IP address (and often TCP/UDP port) information while in transit across a traffic routing device. NAT is typically used to hide an entire IP address space (consisting of private IP addresses) behind a single IP address in a public address space. For example, a NAT device can allow multiple hosts on a private network to access the Internet using a single public IP address.

NTP
Network Time Protocol

OHCI
Open Host Controller Interface

OS
Operating System

OSD
On Screen Display. The interface presented by a zero client. The OSD displays connection dialogs as well as local configuration options that are accessible to both users and administrators. If desired, administrators can lock down or hide the configuration options from users.

PC
Personal Computer

PCI
Peripheral Component Interconnect

PCLe
Peripheral Component Interconnect Express

PCoIP
Personal Computer over Internet Protocol

PCoIP Host
The host side of a PCoIP system.

PCoIP Zero Client
The client (portal) side of a PCoIP system. Also known as a PCoIP portal.

PC-over-IP
Personal Computer over Internet Protocol

POST
Power On Self Test

RDP
Remote Desktop Protocol

RFC
Request for Comments. Internet standards documents.

SA
Service Agent

SLAAC
Stateless Address Auto-Configuration

SLP
Service Location Protocol

SNMP
Simple Network Management Protocol

SSL
Secure Sockets Layer. A protocol for encrypting information over the Internet.

TCP
Transmission Control Protocol

Tera1
Tera1: First-generation family of Teradici processors for PCoIP zero clients and host cards.

TERA1100
First-generation Teradici processor supporting PCoIP zero client functionality. TERA1100 zero clients support up to two displays at a resolution of 1920x1200. The maximum resolution is dependent on the zero client memory size.

TERA1202
First-generation Teradici processor supporting PCoIP host card functionality. TERA1202 host cards support two displays at a resolution of 1920x1200.

Tera2
Second-generation family of Teradici processors for PCoIP zero clients and host cards.

TERA2140
Second-generation Teradici processor supporting PCoIP zero client functionality. TERA2140 zero clients support two displays at a resolution of 2560x1600 or four displays at a resolution of 1920x1200.

TERA2220
Second-generation Teradici processor supporting PCoIP host card functionality. TERA2220 host cards support two displays at a resolution of 1920x1200 or one display at a resolution of 2560x1600.

TERA2240
Second-generation Teradici processor suppporting PCoIP host card functionality. TERA2240 host cards support four displays at a resolution of 1920x1200 or two displays at a resolution of 2560x1600.

TERA2321
Second-generation Teradici processor supporting PCoIP zero client functionality. TERA2321 zero clients support two displays at a resolution of 1920x1200 or one display at a resolution of 2560x1600.

UA
User Agent

UDP
User Datagram Protocol

UI
User Interface

USB
Universal Serial Bus

VCS
View Connection Server. VMware View connection broker that

performs user authentication, virtual desktop session management, and other related tasks.

VDI
Virtual Desktop Infrastructure. A server computing model that enables desktop virtualization.

VGA
Video Graphics Array

View soft client
VMware View software installed on a client end point to allow remote users to connect to their View VDI desktops from any location.

VM
Virtual Machine

VPD
Vital Product Data. Factory provisioned information to uniquely identify a host or client.

VPD (alternate)
Virtual Desktop Platform

VPN
Virtual Private Network. A technology for using the Internet or another intermediate network to connect computers to remote computer networks.

VSS
View Security Server. A component of VMware View that is typically deployed in a DMZ to support remote access to virtual desktops.

WAN
Wide Area Network. An extended corporate continental network.

WI-FI
A trade name for IEEE 802.11 wireless technologies.

WOL
Wake-on-LAN

WOU
Wake-on-USB