# About this Guide

This document is intended for administrators who are installing the Remote Workstation Card Software for Windows on PC/workstations using the PCoIP Remote workstation Card. It is recommended that users have an understanding of the PCoIP protocol and its advantages as well as environments using PCoIP Remote Workstation Cards and PCoIP Zero Clients.

# What's New in this Release

There are no new features in this release.

# Welcome to the Remote Workstation Card Software for Windows

Remote Workstation Card Software provides additional features and enhancements for use via the PCoIP Remote Workstation Cards installed in remote PCs/workstations running the Windows operating system, and provides compatibility for PCoIP Zero Clients or PCoIP Software clients in sessions with Remote Workstation Cards.

This software works in tandem with the PCI device function called **Host Driver Function** accessible from the Administrative Web Interface (AWI) of the PCoIP Remote Workstation Card. Once enabled, additional features can be configured from the Remote Workstation Card Software User Interface (UI) which is installed when the Remote Workstation Card Software is installed. The UI communicates with the PCoIP firmware via the device drivers installed by the Remote Workstation Card Software.

This software allows user to:

- Use local cursor and keyboard.
- Lock the host PC when a session is terminated.
- Use a host PC NIC for Wake-on-LAN (WOL).
- Disconnect a session.
- View host statistics and connection information.
- Select Remote Workstation Card or workstation NIC for WoL.

#### 👌 Resource: Running Remote Workstation Card Software to broker sessions using VMware View

- Remote Workstation Card Software for Windows supports using VMWare View to broker sessions on Windows host machines.
- For more information on configuring a system to operate in this mode, see Using PCoIP® Host Cards with VMware View.

# System Requirements

Before installing the Remote Workstation Card Software, ensure your PC or workstation meets the following requirements:

- PCoIP firmware and PCoIP Software Clients must be the same version as Remote Workstation Card Software or the immediately preceding version
- The Host Driver Function is enabled on the PCoIP Remote Workstation Card (see Enabling Host Driver Function).
- There is only one Remote Workstation Card installed on the host PC.
- · Administrator has administrative permissions.
- Supported operating systems:
  - Windows 10 64-bit

Remote Workstation Card Software features may be affected by restrictions/limitations of the client connecting to the Remote Workstation Card. To see any further restrictions, see the system requirements documentation of your client.

#### • Software Client for Windows

#### Software Client USB support

USB devices connected to PCoIP Software Client hosts are not supported when connecting to Remote Workstation Cards or Remote Workstation Card Agents.

#### Software Client Restrictions

Remote Workstation Card Software imposes some limitations to prevent users from getting their system into a state where the keyboard and mouse do not work. If the local cursor and keyboard feature is not enabled, mouse and keyboard input from the software client is not sent to the host PC.

- Users cannot disable the local cursor feature on the **Login** screen. This restriction affects both Zero Client and software client users, which would later prevent a user from logging into the machine.
- Users cannot disable the local cursor feature while connected to the PC/workstation from a software client.

### Compatibility

The compatibility matrix below lists the firmware releases and the compatible PCoIP Remote Workstation Card Software releases. We recommend that you install the PCoIP Remote Workstation Card Software release that corresponds to the firmware uploaded to the Remote Workstation Card and PCoIP Zero Client.

Some features added to new releases of the Remote Workstation Card Software require firmware upgrades on the PCoIP Remote Workstation Card and/or PCoIP Zero Client.

The firmware or PCoIP Software Client versions must match or include a release that immediately precedes the version of PCoIP Remote Workstation Card Software installed on the host PC.

# **Release Notes**

Release Notes for Remote Workstation Card Software releases can be found at the Teradici support site on the release notes page.

# Installing the Remote Workstation Card Software for Windows

It is strongly recommended that you install the version of Remote Workstation Card Software that is released with the version of the firmware loaded on the Remote Workstation Card and PCoIP Zero Client.

#### 🛕 Cannot run installer while connected using a soft client

As an administrator, you cannot run the Remote Workstation Card Software installer while connected to a host system using a soft client. The local cursor feature is disabled during the installation process. This disables the user's keyboard and mouse, and prevents the user from completing the installation process.

Before you install the software, you must enable the Host Driver Function on the PCoIP Remote Workstation Card.

### **Enabling Host Driver Function**

To enable the Host Driver Function on the PCoIP Remote Workstation Card:

- 1. Open a web browser on a PC or workstation connected to the same network as the Remote Workstation Card and log in to the Remote Workstation Card's AWI.
- 2. From the Configuration menu, select Host Driver Function.

Log Out		PCoIP® Host Card
Home	Configuration / Permissions / Diagnostics / Info / Upload	
teradici.	Initial Setup Network Audio IPv6 Label Access Discovery	
Host Driver Function Enable or disable the host driver function	SNMP Session Bandwidth Power Image Monitor Emulation Host Driver Function Time Password Reset Parameters	

#### Enable Host Driver Function: 📝

#### Apply Cancel

- 3. Check the **Enable Host Driver Function** option and click **Apply**. A prompt appears to indicate the host PCoIP processor must be reset.
- 4. Click **Reset** and then click **OK** to schedule a deferred reset.
- 5. Restart the PCoIP host by restarting the PC or workstation.
- 6. After the workstations reboots, log into the PC.
- 7. If a Found Hardware dialog appears after logging into Windows, click Cancel.

### Installing Remote Workstation Card Software

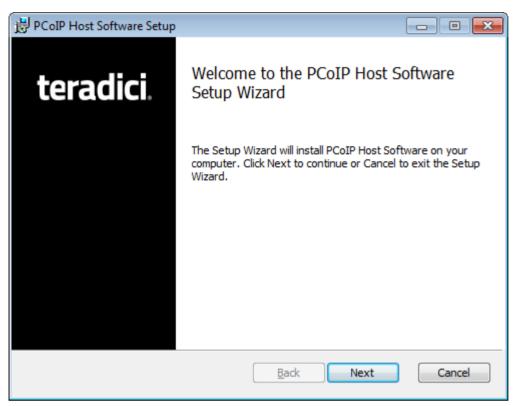
The Remote Workstation Card Software for Windows is provided as a .msi file or Windows installation package. You must have administrative rights to install the software.

You can run the installer by:

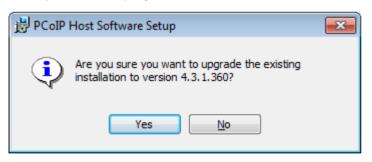
- Connecting to the host PC using RDP or a similar remote control application.
- Connecting to the host using a zero client in a non-VMware View brokered environment.
- Connecting a monitor, keyboard, and mouse directly to the host PC.

To install the software:

1. Double-click the installer file. The welcome screen appears, similar to the example shown next.



2. If a previous version of the remote workstation card software is installed, a confirmation dialog will be displayed. Click **Yes** to continue.



3. Review and accept the terms of the End User License Agreement and click **Next** to proceed.

PCoIP Host Software Setup	×
teradi	ci.
The Teradici PCoIP Host Software ("Software") is provided under the following license:	< III
PLEASE READ THE FOLLOWING LICENSE TERMS CAREFULLY. BY INSTALLING THE SOFTWARE, YOU AGREE TO BECOME BOUND BY THE TERMS AND CONDITIONS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL THE TERMS AND CONDITIONS OF THIS AGREEMENT, DO NOT INSTALL THE SOFTWARE, AND YOU WILL NOT HAVE ANY RIGHT TO USE IT. TERADICI'S ACCEPTANCE IS EXPRESSLY CONDITIONED UPON YOUR ASSENT TO ALL THE TERMS AND CONDITIONS OF THIS AGREEMENT, TO THE EXCLUSION OF ALL OTHER TERMS; IF THESE TERMS AND CONDITIONS ARE	-
I accept the terms in the License Agreement	
Print Back Next Cance	el

- 4. Accept the default installation path or click **Change** to set a custom path. Click **Next** to proceed.
- 5. Click Install to start the installation process.

PCoIP Host Software Setup	- • •
	teradici.
Click Install to begin the installation. Click Back to review or change an installation settings. Click Cancel to exit the wizard.	y of your
Back Or Back	Cancel

6. During the installation process, the installer might need to reboot. If so, click **OK** or **Yes** to reboot the host PC. After rebooting, the installer continues the installation.

7. When the installation is complete, click **Finish**.

😼 PCoIP Host Software Setup	
teradici.	Completed the PCoIP Host Software Setup Wizard
	Click the Finish button to exit the Setup Wizard.
	Back Finish Cancel

#### **error during installation**

If you experience issues during installation, rerun the Setup Wizard or reboot the workstation and try again.

# Uninstalling the Remote Workstation Card Software for Windows

You can remove the Remote Workstation Card Software from the PC at any time. If you no longer need the software, disable the Host Driver Function (See Disabling Host Driver Function) in firmware and uninstall the software.

To uninstall the Remote Workstation Card Software for Windows:

- 1. On the PC, go to the Control Panel.
- 2. Go to Programs and Features.
- 3. Select the Remote Workstation Card Software entry and click Uninstall.
- 4. Follow the onscreen instructions.

#### Installing an older version of the Remote Workstation Card Software

If you want to install an older version of the Remote Workstation Card Software, you must uninstall the newer version, reboot the PC, and then install the older version. Sometimes the older version fails to install. If this happens, reboot the PC and then retry the installation.

#### Reconfigure WOL settings

The Wake-on-LAN (WOL) settings are discarded during an uninstallation or upgrade. You must reconfigure the WOL settings after installing a new version of the software.

### Disabling the Host Driver Function

Disabling the PCoIP Host Driver Function on the PCoIP host prevents Windows from seeing an unknown PCI device under Device Manager and the Found New Hardware Wizard dialog associated with the unknown device.

To disable the Host Driver Function on the PCoIP host:

- 1. Open a web browser on a PC or workstation connected to the same network as the PCoIP host.
- 2. Log in to the PCoIP Remote Workstation Card via the AWI.
- 3. Choose **Configuration > Host Driver Function**. For details, see **Enabling Host Driver Function**.
- 4. Uncheck the **Enable Host Driver Function** option and click **Apply**. A prompt indicates you must reset the host PCoIP processor.
- 5. Click **Reset** and then click **OK** to schedule a deferred reset.
- 6. Restart the PCoIP host by restarting the PC or workstation.

# Customizing the Remote Workstation Card Software for Windows

The Remote Workstation Card Software stores configuration settings in the Windows registry. Most settings are updated using the UI. Some settings are updated using the following Group Policy Object (GPO) administrative template file, found in the PCoIP Host Software installation directory:

```
C:\Program Files\Teradici Corporation\PCoIP Host
Software\extras\GroupPolicyFiles\pcoip_host_sw.adm
```

### Session Disconnect Script

The one available GPO setting supports running a user-defined script when a PCoIP session is disconnected. This feature can be used to close an application running on a PC when a PCoIP session ends. To use this feature, the GPO setting must be configured with the path and file name of a script the PCoIP Remote Workstation Card Software runs when a session is disconnected while a user is logged in.

This setting can be enabled by the GPO Administrative template file.

## Using the GPO Administrative Template File

#### To configure settings supported by the Remote Workstation Card Software administrative template file:

- Copy pcoip\_host\_sw.adm from the location described above to C:\Windows\INF on the workstation. Save the old pcoip\_host\_sw.adm to a different name if another pcoip\_host\_sw.adm is present.
- 2. Click Start > Run, and then enter gpedit.msc.
- 3. Navigate to Local Computer Policy > Computer Configuration > Administrative Templates.
- 4. Right-click Administrative Templates and select Add/Remove Templates.
- 5. Click Add in the dialog box that appears.

- 6. In the right pane of the new window, select the pcoip\_host\_sw.adm file and click Open.
- 7. Copy the file in the manner desired (if presented with this option).
- 8. Ensure the **pcoip\_host\_sw** template is visible in the **Add/Remove Templates** window (remove any previous pcoip\_host\_sw templates) and select **Close**.
- Navigate to Local Computer Policy > Computer Configuration > Administrative Templates > Classic Administrative Templates (ADM) > PCoIP Host Software Variables > Not Overridable Administrator Settings.

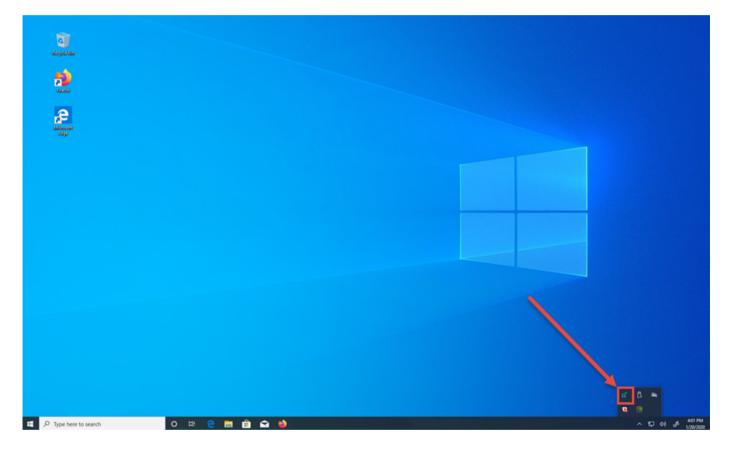
#### Classic Administrative Templates (ADM) location

The Classic Administrative Templates (ADM) folder will appear after the addition of the ADM template.

- 10. In the right pane, right click the Run script on PCoIP session disconnect setting and select Edit.
- 11. Enter the path and file name of the script used to close an application running on a workstation and click **Apply**.
- 12. Select the Enabled radio button and then OK.

# Using the Remote Workstation Card Software User Interface

After you install the PCoIP Remote Workstation Card Software package, the User Interface (UI) is available in the Windows system tray. The UI is automatically started during Windows startup and is the only configurable software in the software package. To access the UI, double-click the icon located in the Windows system tray, as shown next.



The UI provides multiple tabs that enables you to access different features and supports a feature that lets you disconnect the PCoIP session, if one is active. Simply right-click the UI icon in the Windows system tray and select **Disconnect PCoIP Session**.

```
![Icon Properties](Img/ui_right_click_win.png)
```

### Remote Workstation Card Software Features Tab

The following figure shows the Features tab of the UI.

PCoIP Host Softwa	are Settings 📃 💿 💽
Features Network	Security Cupon session termination
Statistics Monitors Image About	WAN Experience    Wan Experience
	<ul> <li>Hide the Local Cursor when idle</li> <li>Send Remote Cursor position changes to dient</li> <li>Use these settings for the login screen</li> <li>Keyboard repeat settings test box: (hold down key to test repeat rate)</li> </ul>
	Power Management Use host PC NIC for Wake-on-LAN Interface: Local Area Connection / 10.200.2.44
	OK Cancel Apply

### Security

The **Security** feature lets you lock the PC to ensure other users do not log into another user's session when the user disconnects from a PCoIP session.

• Lock host PC upon session termination: Select this option to lock the Host PC when a PCoIP session is disconnected.

### WAN Experience

The **WAN Experience** local cursor and keyboard features may be useful in WAN deployments where network latency exceeds 40-60 ms. In these environments, users may notice a visible lag between

the movement of the mouse and the movement of the cursor. Key presses may be dropped or falsely repeated key presses may occur under very high network latency scenarios. Both of these side effects of high-network latency hinder user experience. The local cursor and keyboard features help lessen latency effects.

Latency effects are noticed differently by users. With network latency less than 40 ms, most users notice the local cursor overlay and desktop cursor moving in tandem. With higher network latencies, the local cursor overlay moves according to the user's movements, and the desktop cursor follows with visible lag. Because the overlay provides instantaneous feedback, the user can move the mouse freely without having to wait for the desktop cursor to catch up.

#### WAN Experience

The Remote Workstation Card Software stores separate copies of the **WAN Experience** configuration settings for each client a user connects to a host from. This lets users enable the feature on certain clients and disable it on other clients. This is useful when a user connects to a host from a client at work over a LAN connection and another client at home over a WAN connection. In this scenario the user might disable the **Local Cursor and Keyboard** feature for the work client and enable the feature for the home client.

#### Settings for each user account

You can configure the Remote Workstation Card Software settings for each user account on the PC or workstation.

• Enable Local Cursor and Keyboard: The local cursor is enabled when this option is selected and the mouse device's movements are recorded at the client. The movement is reflected via the local cursor overlay in real time. The movements and mouse clicks are sent to the PCoIP host and then to a driver via the exposed PCoIP Host Function PCI device and device drivers. When the driver receives the movement information, the cursor on the workstation is updated.

The local keyboard feature works on a similar concept. The client captures and records keyboard key presses, and then sends them to the PCoIP host. This feature prevents key presses from being dropped. The local keyboard feature does not display an overlay for the typed text, and the text that appears on the screen is affected by the network latency.

#### Considerations

- The **Enable Local Cursor and Keyboard** option may be grayed out if not supported. When this happens, a "Why is this unavailable?" link appears on the UI Features tab. Move the mouse over the link to see a tooltip explaining how to fix the problem.
- Users who want to use the **Enable Local Cursor and Keyboard** feature on systems with rotated displays may encounter problems. See for details.
- When a soft client session is active, you cannot disable the **Enable Local Cursor and Keyboard** feature. See Soft Client Restrictions for details.
- Visible Cursor(s): The available options are:
  - **Remote**: cursor shape drawn by the host PC. When the **Remote** visible cursor is selected, you cannot select **Hide the Local Cursor when idle**.
  - Local: cursor shape drawn by the client. When the Local visible cursor option is selected, the remote cursor is hidden. Applications that override the Windows standard cursor (such as Windows Paint) may display both the local and remote cursors. See Resolving Issues and Workarounds.

When the local cursor is visible, the Remote Workstation Card Software imposes limits on the size of the cursor bitmap displayed by the client. When the size of the cursor bitmap exceeds these limits, the Remote Workstation Card Software crops the bitmap resulting in the client displaying a portion of the host drawn cursor. If the Remote Workstation Card Software fails to crop the bitmap, an arrow with an "L" character inside it is displayed.

When the Local visible cursor option is selected, the remote cursor is hidden.

The local cursor overlay icon appears as an arrow with an "L" in it when the local cursor is visible and the Remote Workstation Card Software cannot display the correct host drawn cursor.

For details including information on problems that may occur when hiding the remote cursor, see section Resolving Issues and Workarounds.

- · Local and Remote.
- Local Cursor speed: Sets the speed of the local cursor overlay. The local cursor speed setting is separate from the mouse speed in Windows Linux.

#### Cursor speed slider

- You can also configure the PCoIP Zero Client cursor speed using the PCoIP On Screen Display (OSD). See the Tera2 PCoIP Zero Client Administrators' Guide.
- The cursor speed slider only works with Zero Clients. You cannot adjust the soft client cursor speed.
- **Enable Client Keyboard Repeat Detection**: Select this option for the client to perform keyboard repeat detection. Uncheck this box for the host OS to perform keyboard repeat detection.

Enable this feature if the latency of the connection exceeds ~150 ms. When this feature is disabled, the host PC OS performs keyboard repeat detection. The host PC OS may incorrectly report repeated keys for high-latency connections.

- Keyboard repeat delay: Set the length of time that elapses before a character begins to repeat when you hold down a key. This setting is only used when the client performs keyboard repeat detection.
- Keyboard repeat rate: Set the speed at which a character repeats when you hold down a key. This setting is only used when the client performs keyboard repeat detection.

You can also configure the Zero Client Keyboard repeat delay and Keyboard repeat rate using the OSD. See the Tera2 PCoIP Zero Client Administrators' Guide

- **Hide the Local Cursor when idle:** Select this option to set the local cursor overlay to disappear after one second of idle mouse movement. Uncheck this box to always display the local cursor overlay.
- Send Remote Cursor position changes to client: Check this box to enable forwarding the host PC cursor location updates to the client. Client HID devices only control the client cursor when this feature is disabled.

Some applications update the cursor position while the user enters data. This feature should be enabled to let these updates be reflected on the client.

- Use these settings for the login screen: Click this button to use the current settings on the screen for the Windows login screen.
- Keyboard repeat settings test box: Position the cursor in this test box and hold down a key to test the keyboard repeat settings.

### Power Management

Power Management enables you to choose the PC or workstation NIC as an alternative to the PCoIP Host NIC for Wake-on-LAN (WOL) power management.

- Use host PC NIC for Wake-on-LAN: Select this option to use a NIC on the PC, instead of the NIC on the PCoIP Remote Workstation Card, for waking up the host PC. The UI lists all PC NICs that have a valid IP address.
- Interface: Select the NIC on the PC to use from the dropdown list.



- $\circ\,$  Make sure the WOL feature is configured properly on the selected NIC when using this option.
- The WOL settings are discarded when uninstalling or upgrading the Remote Workstation Card Software. You must reconfigure WOL after you install a new version of the software.

If there is an update to the PC NIC IP address, the UI picks up the new IP and automatically sends it to the Zero Client. Your software will also autonomously resolve the following changes:

- The IP address on the selected NIC changes: The IP address is sent to the Zero Client.
- The selected NIC is no longer available: The UI starts a timer for 20 seconds. If the selected interface becomes valid again, i.e., gets an IP address, the UI sends the new IP address to the Zero Client. If the timer times out, a balloon tool tip appears to advise users that the WOL configuration is invalid. UI automatically disables WOL.
- UI detects no valid NICs: UI automatically disables the WOL feature on the Zero Client. This case is mutually exclusive with the second case.

#### Horizon Brokered Connections

The Remote Workstation Card Software for Windows for View brokered connections does not support the **Power Management** feature because the PCoIP host device cannot be placed in a low power state. PCoIP power management lets a PC or workstation that is in a sleep or shutdown state be wakened or powered up by a WOL magic packet.

### Remote Workstation Card Software Network Tab

The Network tab (shown next) displays the network settings of the PCoIP host.

CoIP Host Softw			
Features	Host Connection Information		
Network	General		
	MAC Address	00-30-04-0B-E1-B6	
Statistics	Network Link	100 Mbps, Full Duplex	
Monitors	IP Protocol	IPv4	
Monitors	⊟ IPv4		
Image	Enable DHCP	True	
	IP Address	10.200.2.37	
About	Subnet Mask	255.255.255.0	
	Default Gateway	10.200.2.1	
	Primary DNS Server	24.25.5.60	
	Secondary DNS Server	24.25.5.61	
	Peer		
	IP Address	10.200.2.53	
	MAC Address	00-16-41-FF-E6-60	
	Refresh		
		OK Cancel Apply	

The *Network* tab shows the current network information for the host. This tab also reports status information on the NIC of the PCoIP host (speed, duplex setting, and link state – up/down). It also displays the IP and MAC addresses of the client connected to the host under the Peer settings.

• Refresh: Click this button to get the most up-to-date network settings of the host.

#### UI for changing host network settings unsupported

The UI does not support changing the host network settings. You can configure the network settings via:

- A PCoIP Management Console profile (see the PCoIP Management Console Administrators' Guide Managing Profiles topic)
- The PCoIP Administrative Web Interface (see Remote Workstation Card Firmware Administrators' Guide),
- A supported connection broker (see your broker documentation).

### Remote Workstation Card Software Statistics Tab

The *Statistics* tab (shown next) shows the measured rates for data packet traffic, round-trip latency, bandwidth, and imaging, as discussed next.

You can also access the PCoIP Remote Workstation Card statistics through the PCoIP Administrative Web Interface (see Tera2 PCoIP® Zero Client Firmware Administrators' Guide or Remote Workstation Card Firmware Administrators' Guide).

PCoIP Host Software Se	ttings		x
Features			
	ost Statistics		
Network	Traffic		
Statistics	PCoIP Packets Sent	138325	
statistics	PCoIP Packets Received	115204	
Monitors	PCoIP Packets Lost	0	
	Bytes Sent	67562330	
Image	Bytes Received	16848392	
About	Round Trip Latency		
	Min / Current / Max Latency	1/2/3ms	
	<ul> <li>Bandwidth</li> </ul>		
	Active Limit	36096 kbps	
	Min / Current / Max Utilization	0 / 152 / 19200 kbps	
	Imaging		
	Display 1 Frame Rate	16 fps	
	Display 2 Frame Rate	0 fps	
	Reset		
	_		
	OK	Cancel Apply	

Traffic

### Traffic

The Traffic statistics show the number of packets sent and received by the PCoIP host.

- PCoIP Packets Sent: Total number of PCoIP packets sent by the host.
- PCoIP Packets Received: Total number of PCoIP packets received by the host.
- PCoIP Packets Lost: Total number of PCoIP packets that were not received by the host.
- Bytes Sent: Total number of bytes sent by the host.
- Bytes Received: Total number of bytes received by the host.

### Round Trip Latency

The **Round Trip Latency** statistics report the total roundtrip PCoIP system (for example, host to client and back to host) and network latency in milliseconds (± 1 ms). The UI reports the minimum, current, and maximum values.

### Bandwidth

The Bandwidth statistics show the host's active bandwidth settings.

- Active Limit: The maximum amount of network traffic the PCoIP host may currently generate. The value is derived from the host's configured bandwidth settings and the current network congestion levels.
- Min / Current / Max Utilization: The minimum, current, and maximum amount of traffic generated by the PCoIP host at a particular moment in time.

### Imaging

The Imaging statistics show frame-rate information for the displays connected to the client.

• **Display X Frame Rate**: The frame rate of Display X. The statistic is reported in frames per second (fps).

### Remote Workstation Card Software Monitors Tab

The Monitors tab, shown next, shows the client and host display topology settings.

Features	Monitor (Display Topology) Settings		
Network	Host Software Configuration Settings		
Network	Use dient topology settings when starting a session or resizing the soft dient window		
Statistics	resizing the soft client wi	ndow	
Monitors	Client Display Topology Settings		
Image	DVI-1		
-	Display Resolution	1920 x 1080	
About	Display Position	(0, 0)	
	Display Refresh Rate	60 Hz	
	Display Rotation	no rotation	
	Monitor Name	HP LA2206	
	Monitor Serial Number	CNC1140X96	•
	Host Display Topology Setting		•
	Host Display Topology Settin		
	Host Display Topology Setting Display 0 Display Resolution Display Position	gs	
	Host Display Topology Setting Display 0 Display Resolution Display Position Display Refresh Rate	gs 1920 x 1080	
	Host Display Topology Settin Display 0 Display Resolution Display Position Display Refresh Rate Display Rotation	gs 1920 x 1080 (0. 0) 60 Hz no rotation	
	Host Display Topology Setting <ul> <li>Display 0</li> <li>Display Resolution</li> <li>Display Position</li> <li>Display Refresh Rate</li> <li>Display Rotation</li> <li>Monitor Name</li> </ul>	gs 1920 x 1080 (0, 0) 60 Hz no rotation HP LA2206	
	Host Display Topology Settin Display 0 Display Resolution Display Position Display Refresh Rate Display Rotation	gs 1920 x 1080 (0. 0) 60 Hz no rotation	
	Host Display Topology Setting <ul> <li>Display 0</li> <li>Display Resolution</li> <li>Display Position</li> <li>Display Refresh Rate</li> <li>Display Rotation</li> <li>Monitor Name</li> </ul>	gs 1920 x 1080 (0. 0) 60 Hz no rotation HP LA2206 CNC1140X96	
	Host Display Topology Setting <ul> <li>Display 0</li> <li>Display Resolution</li> <li>Display Position</li> <li>Display Refresh Rate</li> <li>Display Rotation</li> <li>Monitor Name</li> </ul>	gs 1920 x 1080 (0. 0) 60 Hz no rotation HP LA2206 CNC1140X96	

You can configure the following options and/or view the following settings:

### **Remote Workstation Card Software Configuration Settings**

The remote workstation card software Configuration Settings section lets you choose to activate the client display topology settings. When this feature is enabled, the host topology settings are

updated at the start of a session for both Software Clients and Zero Clients. The topology settings are also updated when the size of the soft client window is adjusted.

- Use client topology settings when starting a session or resizing the soft client window: The client display topology settings are activated at the start of a session and when the soft client window is resized under the following conditions:
  - This box is checked.
  - The Enable Configuration option on the Zero Client OSD Options > User Settings > Display Topology page is checked (only applies to Zero Clients).

#### **d** Considerations

- This feature only works with clients in PCoIP sessions.
- The client topology settings are not written to the host OS when in an RDP session.
- If a problem occurs while trying to write the client display topology settings to the host OS, a 'Why are the client topology settings not in use?' link appears on the UI **Monitors** tab. Move the mouse over the link to see a tooltip explaining how to fix the problem.
- Sometimes the Remote Workstation Card Software fails to activate the client topology settings. When this
  happens try changing the topology settings using another utility on the host such as found at Start > Settings >
  Display on Windows.

### **Client Display Topology Settings**

The Client Display Topology Settings section displays the client display topology settings.

- Display Resolution: The number of pixels in each dimension that can appear.
- Display Position: The X and Y coordinates of the display's upper left-hand corner.
- Display Refresh Rate: The display's refresh rate in Hz.
- Display Rotation: Specifies the rotation of the display relative to the normal landscape display orientation (no rotation, 90° clockwise, 180° rotation, or 90° counter-clockwise).
   This parameter specifies the rotation of the physical display, not the image.
- Monitor Name, Serial Number, Vendor ID, and Product ID: The client extracts this information from the attached monitor's EDID (Extended Display Identification Data).

### Host Display Topology Settings

The Host Display Topology Settings section shows the active topology settings read by the UI from the host OS that match the displays connected to the client. This section does not show information about monitors that are not connected to the client.

- Display Resolution, Display Position, Display Refresh Rate, and Display Rotation: See the description of these terms listed in the previous section.
- Monitor Name, Serial Number, Vendor ID, and Product ID: The UI extracts this information from the EDID reported by the host operating system.
- Refresh: Click this button to get the most up-to-date client and host display topology settings.

### Remote Workstation Card Software Image Tab

The following figure shows the Image tab. This lets you view and adjust the PCoIP session image quality preference setting.

PCoIP Host Softwar	re Settings			
Features			-	
Network	Adjust the Image Q sharpness versus sr	uality Preference slider to mooth motion during a PC	o favor image oIP session when	
	network bandwidth	is limited.		
Statistics		Smoother Motion	Sharper Image	
Monitors	Image Quality Preference:		0	60
Image				
About				
		ОК	Cancel	Apply

The PCoIP protocol adjusts image quality settings when the network connection between a PCoIP host and client is constrained and unable to provide enough bandwidth to support full frame rate video. The Image Quality Preference setting lets you configure a preference for smoother motion (higher frame rate) versus sharper image (higher image quality).

# Resolving Issues and Workarounds

This topic outlines some common issues and suggested solutions. For more troubleshooting details, see the Knowledge Center on the support website.

#### **Common Issues and Solutions**

Item	Description	Solution
1	The <b>Local Cursor and Keyboard</b> feature is enabled but the cursor response is sluggish when moving the mouse.	<ul> <li>This occurs if the mouse is not controlled by the client mouse driver. To check if this is the cause of the problem, log into the zero client web interface while a session is active and open the Info &gt; Attached Devices page. The mouse Status field shows</li> <li>Locally Connected when the mouse is properly connected. If the status field is not Locally Connected:</li> <li>Ensure the mouse is connected directly to one of the zero client USB ports.</li> <li>If the mouse is connected to the client through a USB hub, ensure only HID devices are connected to the hub.</li> </ul>
2	The local cursor does not move when the <b>Local Cursor and Keyboard</b> feature is enabled and the <b>Send remote cursor</b> <b>position changes to the client feature</b> is disabled.	This happens if the mouse is not controlled by the client mouse driver. See the solution for the previous entry in this table.

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3	Key presses on the keyboard are dropped when the <b>Local Cursor and</b> <b>Keyboard</b> feature is enabled and the latency of the PCoIP session exceeds 60 ms.	<ul> <li>This can occur if the keyboard is not controlled by the client keyboard driver. To check if this is the cause of the problem, log into the zero client web interface while a session is active and open the Info &gt; Attached Devices page. The keyboard Status field shows Locally Connected when the keyboard is properly connected. If the Status field is not Locally Connected:</li> <li>Ensure the keyboard is connected directly to one of the zero client USB ports.</li> </ul>
		<ul> <li>If the keyboard is connected to the client through a USB hub, and only HID devices are connected to the hub.</li> <li>This can also happen when the latency of the connection exceeds 150 ms. To fix this check the Enable Client Keyboard Repeat Detection box on the UI Features tab.</li> </ul>
4	The <b>Send Remote Cursor position</b> <b>changes to client</b> feature does not work with a VMware View soft client.	This feature does not work with VMware View soft clients running releases prior to and including 5.0. This feature is supported in VMware View soft client releases 5.1 and later.
5	Animated cursors do not appear properly when the <b>visible cursor</b> is <b>Local</b> or <b>Local and Remote</b> .	When the local cursor is visible and an animated cursor is active, the Remote Workstation Card Software displays only the first frame rather than all of the cursor frames. This results in a static cursor shape instead of an animated cursor. <b>Workaround:</b> Set the <b>visible cursor</b> to <b>Remote</b> or disable the <b>Local</b> <b>Cursor and Keyboard</b> feature.
6	The <b>Use these settings for the login screen</b> button is grayed out.	You must have Administrator rights to set the settings for the login screen. Under Windows Vista and Windows 7, User Account Control (UAC) prevents the PCoIP UI from accessing the registry.
		Workarounds:
		Disable UAC on Windows Vista systems
		Set the UAC slider bar equal to <b>Never Notify</b> on Windows 7

systems.

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7	When multiple displays are connected to the zero client and the graphics software driver enables Clone mode (the same image appears on two screens), the local cursor feature is disabled.	The current Remote Workstation Card Software does not support Clone mode. Workaround: Disable clone mode.
8	Only the left, middle, right, forwards, and backwards buttons work on the mouse when local cursor and keyboard is enabled.	The current Remote Workstation Card Software supports the left, middle, right, forwards, and backwards mouse buttons in local cursor mode.
9	The local cursor and keyboard is not automatically enabled at the login screen after the host PC finishes booting, even though it is enabled via the PCoIP UI.	The local cursor and keyboard feature requires the PCoIP UI to be running. On some Windows systems, it may take up to 30 seconds before the PCoIP UI starts while in the login screen.
10	The local cursor speed is different than the Windows host cursor speed.	The zero client local cursor does not use Windows' host pointer speed nor acceleration settings. The local cursor speed is configured using the <b>Local cursor speed</b> slider on the UI Features tab or the zero client OSD. The <b>Cursor speed slider</b> only works with zero clients. You cannot adjust the soft client cursor speed.
11	Some features in the UI are grayed out and the help tooltip says <b>No link to</b> <b>the PCoIP device or Feature not</b> <b>supported</b> .	<ul> <li>Ensure the installed version of the Remote Workstation Card Software is the same version released with the firmware on the PCoIP host and zero client (see Firmware Compatibility Matrix).</li> <li>1. Ensure the PCoIP session is active.</li> <li>2. Ensure the Host Driver Function is enabled (see Enabling Host Driver Function).</li> <li>3. Disconnect and reconnect the PCoIP session.</li> <li>4. Restart the PC or workstation.</li> <li>5. Uninstall and reinstall the Remote Workstation Card Software.</li> </ul>

Item	Description	Solution
12	The <b>Enable Local Cursor and Keyboard</b> checkbox is grayed out.	Hover the mouse over the <b>Why is this unavailable?</b> text. The tooltip that appears lists possible causes and solutions. Review Requirements for Local Cursor and Keyboard.
13	Keyboard and mice connected to the client do not work immediately after disabling the local cursor and keyboard.	When the state of the local cursor feature changes to disabled, the zero client keyboard and mice must be enumerated by Windows. This process can take more than 30 seconds to complete.

Item	Description	Solution
14	The system is configured to use the client display topology settings but the settings are not activated when the PCoIP session starts.	Open the Monitor tab of the UI and position the mouse over the <b>Why are the client topology settings not in use?</b> The tooltip that appears lists possible causes and solutions.
		Review the requirements for using the client display topology settings in Requirements for Using the Client Display Topology.
		See Problems with Rotated Displays for more details.
		The problem might be caused by the graphics driver. Graphics driver problems include the graphics driver not responding to monitor hot plug events, rotating the display without properly informing the host OS and not providing accurate EDID information to the host OS. Upgrade the graphics driver to the latest supported version.
		The graphics driver may not support the client display resolution setting. Try setting the client setting to <b>Native</b> . If this works, test other resolutions until an acceptable resolution is found.
		The problem may occur if the zero client has a monitor connected to one of its DVI ports and the monitor is turned off. Either disconnect the monitor or turn on the monitor.
		The problem may occur when switching between clients with different sized monitors. If this happens, reconfigure the topology settings using a utility on the host such as the Windows 7 Control Panel > All Control Panel Items > Display > Screen Resolution.
		Try disconnecting and restarting the PCoIP session.
		This problem can occur if the workstation is locked when the session starts. Windows imposes a security restriction that prevents applications from changing the display topology settings on locked workstations. In this scenario the Remote Workstation Card Software will attempt to activate the client topology settings after the workstation is unlocked.

Item	Description	Solution
15	Remote workstation card software does not work after modifying the audio permissions on the PCoIP host card.	The PCoIP host card has a configuration setting that lets you enable/disable HD audio. This setting is configured on the host card's <b>Configuration &gt; Audio</b> page. If this setting is modified after the Remote Workstation Card Software is installed, the Remote Workstation Card Software does not work when the PC/ workstation is rebooted.
		Resolution:
		1. Uninstall the Remote Workstation Card Software.
		2. Modify the audio setting.
		3. Reboot the PC/workstation.
		4. Install the Remote Workstation Card Software.
16	Two cursors are displayed under the following conditions:	This problem occurs under the following conditions.
	• Local cursor and keyboard feature is enabled.	Applications activated by clicking <b>Run as administrator</b> that create application specific cursors display two cursors when UAC is enabled.
	• Visible cursor feature is Local.	Workarounds:
	An application is active that displays application specific	Do not run the application as the administrator.
	cursors. Microsoft Paint is an application that displays	Disable UAC on the workstation.
	application specific cursors.	Set the visible cursor feature to Remote.
		Workarounds:
		Set the visible cursor feature to Remote.
17	The zero client topology settings are not activated after connecting or disconnecting a monitor from the zero client while a PCoIP session is active.	The Remote Workstation Card Software only activates zero client topology settings at the start of a session. If a monitor is plugged in OR unplugged while a session is active the Remote Workstation Card Software does not attempt to activate the zero client topology settings.
		Workaround: Disconnect and re-establish the PCoIP session to

activate the zero client topology settings.

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The following table describes problems that affect older Remote Workstation Card Software releases or systems not running the recommended versions of firmware. For the recommended firmware release, see the Firmware Compatibility Matrix.

### Debug Logs

The Remote Workstation Card Software for Windows writes debug information to log files that can assist in debugging problems. The files are stored in the following directories.

• Windows 10:

<Drive Letter>:\ProgramData\Teradici Corporation\PCoIP Host Software\Logs

### Requirements for Local Cursor and Keyboard

The local cursor and keyboard feature depends on a number of requirements. If the Enable Local Cursor and Keyboard checkbox is grayed out, ensure the following requirements are met:

- The Host Driver Function option is enabled on the PCoIP Remote Workstation Card and the PC is restarted after changing the option.
- A PCoIP session is established between the PCoIP host and client.
- The graphics card is not configured to scale the image (that is, not using technologies such as horizontal/vertical span mode from NVIDIA).
- The graphics card is configured to use the monitor's built-in scaling when a non-native resolution is selected.
- If the mouse or keyboard are connected behind a USB hub, ensure only HID devices (keyboard and mouse) are connected to the USB hub.
- The mouse and keyboard devices function correctly with the zero client's OSD.
- The local cursor feature might not work with some non-native display resolutions. This only affects connections from zero client devices. We recommend you use the display's native resolution or choose a resolution on which the feature works.

### Requirements for Using the Client Display Topology

Using the client display topology settings on the host depends on a number of requirements. If you see 'Why are the client topology settings not in use?' on the Monitors tab, ensure the following requirements are met:

- The version of the VMware View soft client is release 4.6 or later.
- The Use client topology settings when starting a session or resizing the soft client window tab is checked.
- When using a zero client, the Enable Configuration checkbox on the zero client OSD Options > User Settings > Display Topology page is checked.
- The Host Driver Function option is enabled on the PCoIP Remote Workstation Card and the PC or workstation is restarted after changing the option from disabled to enabled.
- A PCoIP session is established between the PCoIP Remote Workstation Card and client.
- The graphics card is configured to use the monitor's built in scaling when a non-native resolution is selected.

### Problems with Rotated Displays

Depending on the workstation configuration, you may encounter problems if you use the **Enable Local Cursor and Keyboard** or **Use client topology settings when starting a session or resizing the soft client window** features. This section summarizes the issues and limitations.

- Workstations running Windows with AMD graphics cards do not support activating client topology settings if any of the client monitors are rotated.
- The local cursor and keyboard feature might work on workstations running Windows with AMD graphics cards. Our testing showed the feature worked with the AMD FirePro RG220 and failed with the AMD Radeon HD 3650.
- USB devices connected to PCoIP Software Client hosts are not supported when connecting to Remote Workstation Cards or Remote Workstation Card Agents.

# Getting Support

For more questions about Remote Workstation Card Software and PCoIP products and components, visit Support Center.