

PCoIP[®] Host Software for Linux Release Notes

TER1104007

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Revision History

Version	Date	Description
5	July 24, 2013	Updated for release 4.1.6
4	Jan 25, 2013	Updated for release 4.0.8
3	Oct 29, 2012	Updated for release 4.0.5
2	May 17, 2012	Updated for release 3.0.6
1	Jun 30, 2011	Created a release notes document containing information about the PCoIP host software for Linux releases Added information about release 1.4.5

Table of Contents

Revision History	4
Tables	7
Definitions	8
1 Preface	9
1.1 Audience	9
2 Compatibility	10
3 Host Software Release 4.1.6	11
3.1 Compatibility	11
3.2 Feature Additions.....	11
3.3 Important Bug Fixes.....	12
3.4 Known Issues.....	12
3.5 Supplemental Information.....	13
3.5.1 PCoIP Host Software Image Tab	13
4 Host Software Release 4.0.8.....	14
4.1 Compatibility	14
4.2 Feature Additions.....	14
4.3 Important Bug Fixes.....	14
4.4 Known Issues.....	15
5 Host Software Release 4.0.5.....	16
5.1 Compatibility	16
5.2 Feature Additions.....	16
5.3 Important Bug Fixes.....	16
5.4 Known Issues.....	17
5.5 Supplemental Information.....	17
5.5.1 PCoIP Host Software Features Tab	17
5.5.2 PCoIP Host Software Monitors Tab.....	18
6 Host Software Release 3.0.6.....	19
6.1 Compatibility	19
6.2 Feature Additions.....	19
6.3 Important Bug Fixes.....	20
6.4 Known Issues.....	20

6.5	Supplemental Information.....	20
6.5.1	PCoIP Agent Features Tab.....	20
6.5.2	PCoIP Agent Image Tab.....	21

Tables

Table 2-1: Firmware Compatibility Matrix.....	10
Table 2-2: Linux Distribution Compatibility Matrix	10

Definitions

Daemon	A program that runs as a background process waiting to be activated by an event or condition.
OS	Operating System
OSD	On Screen Display on the PCoIP zero client.
PCoIP	Personal Computer over Internet Protocol (PC-over-IP®)
PCoIP Host	Host side of PCoIP system.
PCoIP Zero Client	User or client side of PCoIP system in the form of a standalone desktop device or integrated display based on a PCoIP processor.
RPM	RPM Package Manager (package management system used to install/uninstall the PCoIP host software for Linux).
SLED11	SUSE Linux Enterprise Desktop 11
Soft Client	Software application that can establish a PCoIP session with a PCoIP host.
Tera1	First-generation family of Teradici processors for PCoIP zero clients and host cards.
Tera2	Second-generation family of Teradici processors for PCoIP zero clients and host cards.
TwinView	A feature supported on Nvidia graphics cards that present two displays as one large virtual display.
Xinerama	An X Window extension that presents two or more displays as one large virtual display.

1 Preface

The PCoIP host software for Linux is a collection of drivers and applications that lets Linux operating systems (OS) interact with Teradici Tera1 and Tera2 host processors installed in the host PC/workstation and a PCoIP client connected to the host. This document provides a brief summary of the feature additions and issues resolved in each PCoIP host software release for Linux starting with release 3.0.6.

Section 2 contains a compatibility matrix showing the firmware releases and host operating systems with which each host software release is compatible. The following sections in this document are organized according to release date, with the most recent releases listed first.

PCoIP host software for Linux releases are provided as source code packages. These packages contain the files necessary to create a binary RPM to let users use the software on distributions other than the tested distributions. Teradici cannot guarantee the software will work on all Linux distributions.

*Note: See the Troubleshooting section of TER1104006 *PCoIP Host Software for Linux User Guide* document for a list of issues to note when installing and using the PCoIP host software. You can also view current issues from the Knowledge Base on the Teradici Support site at <http://techsupport.teradici.com>.*

1.1 Audience

This document is written for network administrators and PC users who want to learn about the features and issues within a release of the PCoIP host software for Linux.

2 Compatibility

PCoIP host software releases are not compatible with all firmware releases. Table 2-1 lists each host software release and the compatible firmware releases.

The compatible firmware release column lists the version(s) with which the host software operates. To use all host software features, load the host and zero client devices with the recommended firmware release. All host software features might not be supported by compatible firmware releases that are not the recommended firmware release. For example, support for configuring the image quality preference slider was added to host software release 3.0.6. This feature required firmware changes that are included in firmware release 3.5.0. The image quality preference slider is not accessible on systems using host software release 3.0.6 and firmware releases earlier than 3.5.0.

Table 2-1: Firmware Compatibility Matrix

Compatible Firmware Releases	Recommended Firmware Release	PCoIP Host Software Release for Linux
4.1.x	4.1.2	4.1.6
4.0.x	4.0.2 (Tera1), 4.0.3 (Tera2)	4.0.8
3.1.x, 3.2.x, 3.3.x, 3.5.x	3.5.1	3.0.6
Earlier than 3.1.0	Not available	Not available

Table 2-2 lists Linux distributions the host software was tested with at the time of writing this document. The host software may be compatible with additional distributions. Check the Teradici support site (<http://techsupport.teradici.com>) for the most recent information on supported Linux distributions.

Table 2-2: Linux Distribution Compatibility Matrix

Linux Distribution	Host SW Release	Tested By
CentOS 5.3, 64-bit (kernel 2.6.18-128), GNOME CentOS 6.4, 64-bit (kernel 2.6.32-358), GNOME/KDE SLED 11 SP 2 (kernel 3.0.13-0.27), GNOME/KDE	4.1.6	Teradici
CentOS 5.3, 64-bit (kernel 2.6.18-128), GNOME CentOS 6.2, 64-bit (kernel 2.6.32-220), GNOME/KDE CentOS 6.3, 64-bit (kernel 2.6.32-279), GNOME/KDE	4.0.8	Teradici
CentOS 5.3, 64-bit (kernel 2.6.18-128), GNOME CentOS 6.2, 64-bit (kernel 2.6.32-220), GNOME	4.0.5	Teradici
CentOS 5.3, 64-bit (kernel 2.6.18-128), GNOME CentOS 6.2, 64-bit (kernel 2.6.32-220), GNOME	3.0.6	Teradici
Fedora 13, 64-bit (kernel 2.6.34.9-69.fc13)	3.0.6	Customer

3 Host Software Release 4.1.6

This section provides a brief summary of the feature additions and issues resolved in release 4.1.6.

3.1 Compatibility

Release 4.1.6 is compatible with Tera1 and Tera2 processors loaded with 4.1.x firmware releases.

Release 4.1.6 is not compatible with Tera1 and Tera2 processors loaded with firmware releases prior to 4.1.0. Users may not be able to access the features supported by the PCoIP host software if a host card is loaded with a firmware release prior to 4.1.0.

3.2 Feature Additions

Description
Added experimental support for the Teradici PCoIP software client. By default the host software now starts a daemon process that runs when the workstation boots. The daemon is responsible for enabling the Local Cursor and Keyboard feature in relative mode when the login screen is active and a PCoIP session is active with a soft client.
Ported the host software to SUSE Linux Enterprise Desktop 11 service pack 2 (SLED 11 SP2).
Configuration file changes: <ul style="list-style-type: none"> Added support for a global configuration file that allows administrators to specify the default host software settings for new users. Added support for overriding the path and name of the local configuration file. The default path and name is <code>~/.pcoip_agent</code>. Administrators wishing to use a single configuration file per workstation should include the <code>-lc=<path/filename></code> option when starting the host software executable.
Added support for configuring the logging level of the host software executable using the <code>-ll=<logging level></code> command line option. Previous releases of the host software included a debug version of the host software executable that enabled logging and a release version that disabled logging.
Added <code>pcoip_starthostsw</code> script, which can be used to start the host software executable. Enter the command <code>"pcoip_starthostsw -h"</code> to view a list of the supported options.
Modified the host software to disable the local cursor feature when a user logs off while connected to the workstation using a zero client.
Added support for configuring the period of the process that sends remote cursor updates to the client. By default, the host software executable sends updates every 250 ms. If the Local cursor is visible and a mouse/tablet is directly connected to the workstation or bridged the movement of the local cursor overlay is choppy. Systems operating in this mode should include the <code>-rcsp=<period></code> option when starting the host software executable to reduce the update period.
Changed the Local cursor icon displayed when the host software cannot display the correct bitmap. Previous releases displayed an arrow. The client now displays an arrow with an "L" in it.

Description
<p>TwinView is a mode supported by the Nvidia graphics driver. The host software mouse driver submits cursor reports to the OS differently when TwinView is enabled or disabled. The host software includes code that checks whether TwinView is enabled when it starts. The host software now supports the following command line options that allow the caller to override the host software TwinView detection code.</p> <ul style="list-style-type: none"> • “-t” - TwinView mode enabled • “-dt” – TwinView mode disabled <p>Note: The “-t” and “-dt” options do not enable or disable the Nvidia TwinView feature. When either option is included, the host software does not attempt to detect the TwinView mode. Instead it uses the mode specified by the caller, regardless of whether or not the graphics driver has enabled TwinView. This option may fix some out of sync cursor problems observed on multi-monitor systems.</p>

3.3 Important Bug Fixes

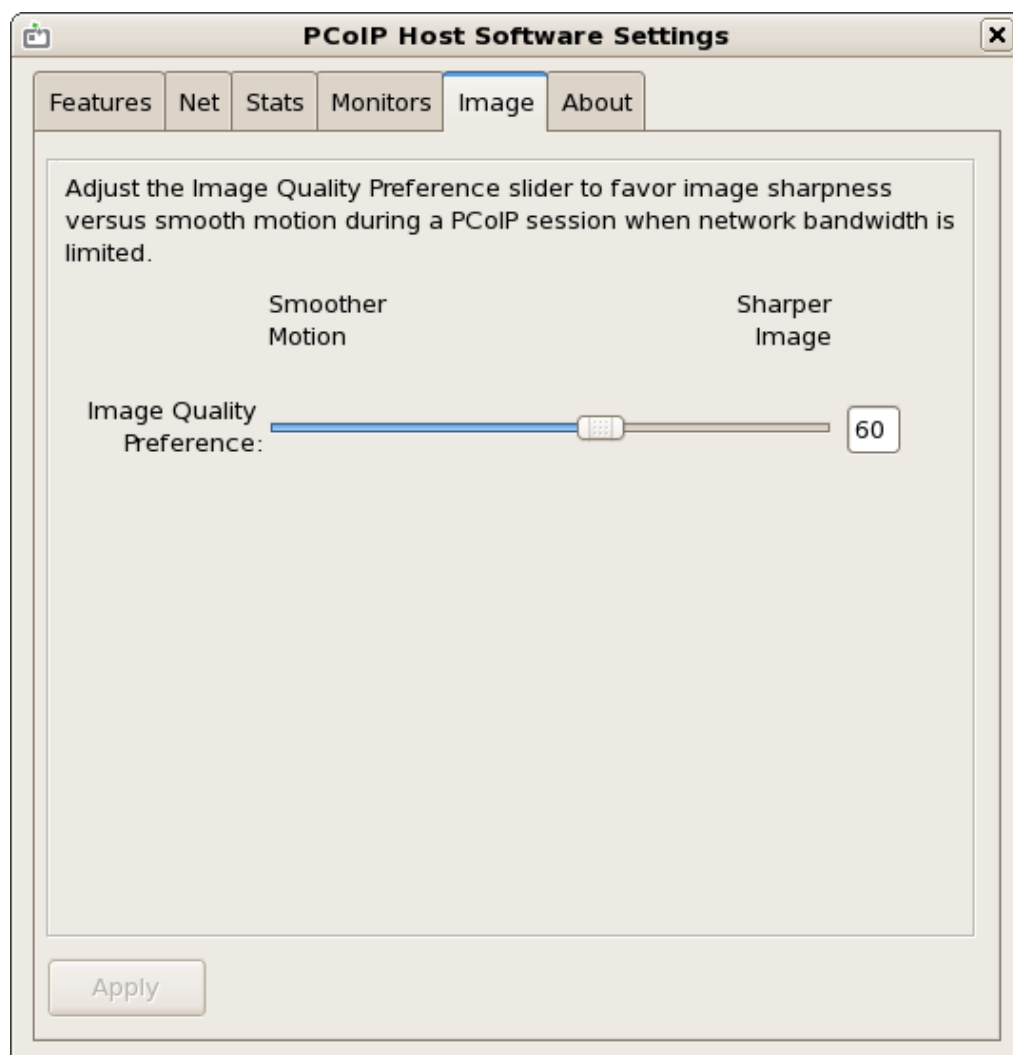
Description
Swapped the labels Smoother Motion and Sharper Image on the Image tab. See section 3.5.1.
Fixed a problem where the host software UI opens when the host topology changes.
Changed the logging level of a driver message from info to debug to avoid spamming the system log file when the host card resets unexpectedly.

3.4 Known Issues

Description
See the Teradici support site Knowledge Base at http://techsupport.teradici.com for more information.
See the Troubleshooting section of the TER1104006 <i>PCoIP Host Software for Linux User Guide</i> document for a list of issues to note when installing and using the PCoIP host software.
<p>The local and remote cursors are not in sync on multi-monitor workstations running SLED 11 SP 2 with Xinerama enabled.</p> <p>Workaround: Disable Xinerama and enable TwinView if two monitors are connected to the client. There is no workaround if the client has three or four monitors and the workstation is running SLED 11 SP 2.</p>

3.5 Supplemental Information

3.5.1 PCoIP Host Software Image Tab



4 Host Software Release 4.0.8

This section provides a brief summary of the feature additions and issues resolved in release 4.0.8.

4.1 Compatibility

Release 4.0.8 is compatible with TERA1x00 and TERA2xxx processors loaded with 4.0.x firmware releases.

Release 4.0.8 is not compatible with TERA1x00 and TERA2xxx processors loaded with firmware releases prior to 4.0.0. Users may not be able to access the features supported by the PCoIP host software if a host card is loaded with a firmware release prior to 4.0.0.

4.2 Feature Additions

Description
Added support for disabling the remote cursor synchronization feature. When the remote cursor synchronization feature is enabled the host software detects cursor position changes initiated by something other than the zero client and forwards these updates to the zero client. Release 4.0.5 added support for this feature. The feature can now be disabled by including the “-dcrs” option when starting the host software executable.
Modified the pcoip_agent algorithm used to search for the pcoip_lockscreen script. Previous releases looked for the script in the /usr/bin directory. Release 4.0.7 and later searches /usr/bin followed by the directory containing the pcoip_agent executable. This allows users to store the pcoip_agent and pcoip_lockscreen files on a network drive.

4.3 Important Bug Fixes

Description
Resolved security issue that results in a workstation not being locked after a PCoIP session is disconnected while the Lock host PC upon session termination feature is enabled. This problem affected workstations running KDE.
Fixed a problem where the pcoip_agent executable could crash while processing large cursor bitmaps. This problem affected releases 4.0.0 through 4.0.5.
Fixed compiler errors observed while building the host software driver on a system loaded with kernel version 3.4.11.
Fixed a problem where the local cursor feature does not work on some systems with one monitor. This problem was observed on CentOS 5.3 and affects releases 4.0.0 through 4.0.6.
Fixed a problem where the local cursor is not visible after the client monitor(s) state changes from standby/off to on. This problem was observed on CentOS 6.3.
Fixed a problem that prevents users from enabling the Local Cursor and Keyboard feature. This problem occurs when the file ~/.pcoip_agent does not exist and may occur when invalid monitor configuration settings are stored in the file ~/.pcoip_agent.

4.4 Known Issues

Description
See the Teradici support site Knowledge Base at http://techsupport.teradici.com for more information.
See the Troubleshooting section of the TER1104006 <i>PCoIP Host Software for Linux User Guide</i> document for a list of issues to note when installing and using the PCoIP host software.

5 Host Software Release 4.0.5

This section provides a brief summary of the feature additions and issues resolved in release 4.0.5.

5.1 Compatibility

Release 4.0.5 is compatible with TERA1x00 and TERA2xxx processors loaded with 4.0.x firmware releases.

Release 4.0.5 is not compatible with TERA1x00 and TERA2xxx processors loaded with firmware releases prior to 4.0.0. Users may not be able to access the features supported by the PCoIP host software if a host card is loaded with a firmware release prior to 4.0.0.

5.2 Feature Additions

Description
Added support for TERA2xxx host cards.
Added support for sending non-animated visible host cursor shapes to the client. In previous host software releases users select the local cursor shape from a list of nine predefined shapes. In this release, the client cursor shape matches the host cursor shape. Users now select whether the local, remote, or local and remote cursors are visible. See section 5.5.1. Note: When an animated cursor or invisible cursor is active and the local cursor is visible, the client displays an arrow cursor shape.
Added support for enabling the Local Cursor and Keyboard feature on multi-display workstations with TwinView mode disabled and Xinerama mode enabled. Previous host software releases required the user to enable TwinView mode.
Added support for updating the client cursor position when an application or a device connected to the host moves the cursor. Previous releases of the host SW did not detect and send host cursor changes to the client.
Added timestamp to log messages generated by the debug version of the host software executable.
Updated the layout of information on the monitor tab. See section 5.5.2.

5.3 Important Bug Fixes

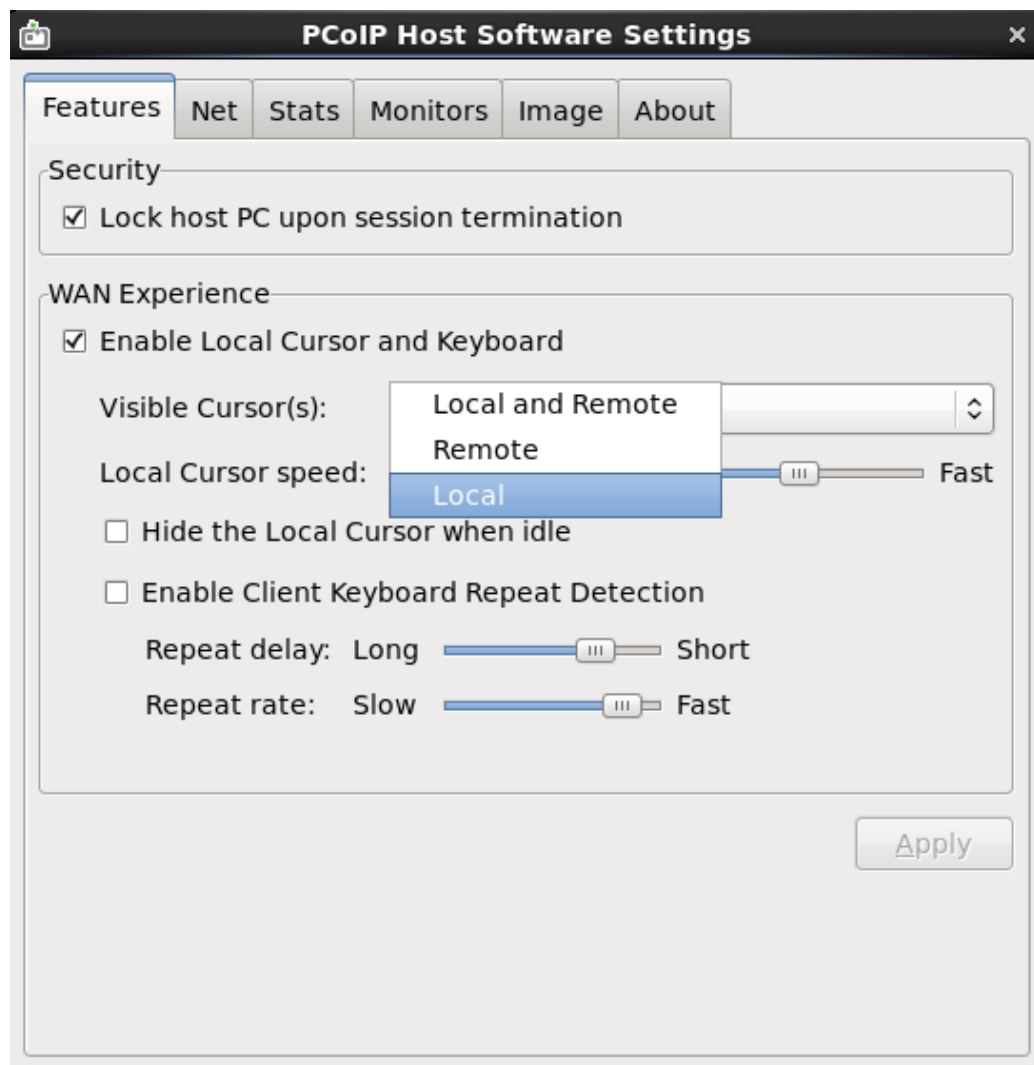
Description
Updated the user interface and documentation to consistently use "host software" instead of "host agent" when referring to the PCoIP host software.
Updated the driver to eliminate the use of the deprecated macro 'DMA_nnBIT_MASK'.

5.4 Known Issues


Description
See the Teradici support site Knowledge Base at http://techsupport.teradici.com for more information.
See the Troubleshooting section of the TER1104006 <i>PCoIP Host Software for Linux User Guide</i> document for a list of issues to note when installing and using the PCoIP host software.

5.5 Supplemental Information

5.5.1 PCoIP Host Software Features Tab



5.5.2 PCoIP Host Software Monitors Tab


PCoIP Host Software Settings
×

Features
Net
Stats
Monitors
Image
About

Configure the client monitor for each X Window screen. Valid monitor configuration must be set before the Local Cursor and Keyboard feature can be enabled.

Select a unique monitor for each X Window screen

Screen 1 - 1920x1080 at (0, 0)	Monitor 2
Screen 2 - 1920x1080 at (1920, 0)	Monitor 1

	Name	Vendor ID	Product ID	Serial Number	Size
Monitor 1	HP LA2206	HWP	2947	CNC1140XB0	1920x1080
Monitor 2	HP LA2206	HWP	2947	CNC1140X8X	1920x1080

Apply

6 Host Software Release 3.0.6

This section provides a brief summary of the feature additions and issues resolved in release 3.0.6.

6.1 Compatibility

Release 3.0.6 is compatible with TERA1x00 processors loaded with 3.x.x firmware releases equal to or later than 3.1.0. It is not compatible with TERA1x00 processors loaded with releases prior to 3.1.0 (3.0.x, 2.x, 1.x and 0.x releases). If a TERA1x00 host card is loaded with an incompatible firmware release and the host PC has installed the PCoIP host software, users cannot access the features supported by the PCoIP host software. There are no negative side effects that interfere with the operation of the host PC.

6.2 Feature Additions

Description
Added support for FW releases 3.1.0 or later. Previous host software releases for Linux only work with devices running firmware release 2.3.
Added support for configuring the Image Quality Preference setting. The PCoIP protocol adjusts image quality settings when the network connection between a PCoIP host and client is constrained and cannot provide enough bandwidth to support full frame rate video. The Image Quality Preference setting lets users configure if they prefer smoother motion (higher frame rate) versus sharper image (higher image quality). See section 6.5.2. Note: You can only access the Image Quality Preference setting on systems using FW release 3.5.0 or later. The feature is grayed out on systems loaded with FW releases prior to 3.5.0.
Added support to configure where keyboard repeat detection processing is performed (zero client or host OS). See section 6.5.1. The host OS performs keyboard repeat detection in previous host software releases. PCoIP sessions operated over long latency connections are susceptible to falsely reported key repeats when the host OS performs keyboard repeat detection. False keyboard repeats are eliminated when the client performs keyboard repeat detection.
Added support for using multimedia keys (USB HID usage page 12). Prior to this release, these keys were only supported when using a zero client with a PCoIP host card while the Local Cursor and Keyboard feature was disabled.
Incorporated customer modifications to the SPEC file and package to build kernel module on boot instead of prebuilding it.
Incorporated customer modifications to add support for SLED11 SP1 and SLED11 SP2 Linux distributions.
Added support for reading workstation and PCoIP host card network settings. This feature is invoked by calling the pcoip_agent.exe executable with the "-info" command-line argument.
Update source code package to include a debug version of the pcoip_agent executable. The 1.4.5 source code package only includes a release version of the executable. The debug version generates debug messages, which may help isolate problems with the host software.

6.3 Important Bug Fixes

Description

Fix problem where incorrect timeout constants were used on Linux distributions that do not provide a 1 ms clock tick. The problem affected beta releases 3.0.0 through 3.0.5.

6.4 Known Issues

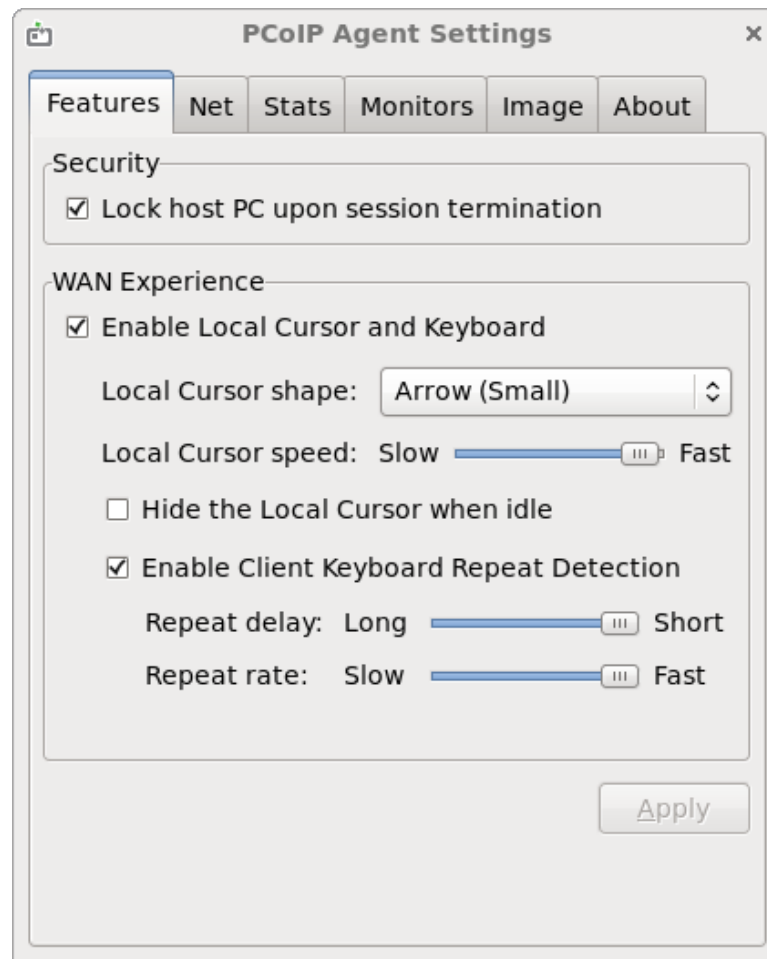
Description

See the Teradici support site Knowledge Base at <http://techsupport.teradici.com> for more information.

See the Troubleshooting section of the TER1104006 *PCoIP Host Software for Linux User Guide* document for a list of issues to note when installing and using the PCoIP host software.

6.5 Supplemental Information

6.5.1 PCoIP Agent Features Tab



6.5.2 PCoIP Agent Image Tab

