Linux Thin Client OS (LvOS)

Administrators' Guide

I-O Corporation

Date: January 10, 2020

Contents

List of Figures

List of Tables

1 Introduction

Welcome to the LvOS Administrators' Guide. This guide describes your (Ultra-) Thin Client's capabilities, and explains how to set up, configure, and manage your (Ultra-) Thin Clients, which were installed with the latest LvOS operating system. This guide is for IT managers, system architects, and IT system administrators who plan to set up, configure, and manage your Thin Clients and Ultra-Thin Clients.

In addition to this guide, the (Ultra-) Thin Client documentation set includes:

- Thin Client and Ultra-Thin Client Quick Start Guide
- Device Management Software Administrators' Guide

For detailed information on using the Device Management Software (DMS) to manage deployments for groups of (Ultra-) Thin Clients, see the Device Management Software Administrators' Guide.

Note: This guide is for administrators of (Ultra-) Thin Clients based on the LvOS operating system. It is assumed you are using the latest LvOS image provided by I-O Corporation and that you will log on to LvOS as an administrator when configuring the operating system or using administrative settings as discussed in this guide. For other operating system, such as Windows 10 IoT Enterprise, you will have to refer to relating administrators' guides provided by independent software vendor (ISV) for detailed information.

1.1 About the Thin Client and Ultra-Thin Client

(Ultra-) Thin Client is designed to deliver a user's desktop from a centralized host server with an immaculate, uncompromised end user experience across standard IP networks – including full high-resolution monitor video, complete USB compatibility, and full-duplex high-definition audio, while remains a small form factor device.

(Ultra-) Thin Client solution is targeted to users who request productivity-maximizing features and full ISV provider compatibility, including Citrix, VMware and Microsoft. The client device separates the user from the server, which provides both increased security and needs minimal IT administration and support overhead for the enterprise while giving end users complete remote display and I/O functionality. (Ultra-) Thin Client also secures user access and protects sensitive data with an optional, integrated smartcard reader and/or the optional fingerprint reader. It is connected to the network via standard Ethernet using either RJ45 at 10/100/1000Mbps or Fiber at 100/1000Mbps, and supports optional dual-band WiFi and Bluetooth connectivity.

(Ultra-) Thin Clients have a comprehensive feature set which includes support for the following:

- System-on-Chip low-power integrated solution with advanced multimedia/display features
- A high degree of connectivity with your choice of embedded networking interface in 10/100/1000 Mbps Ethernet LAN or 100/1000 Mbps SFP Fiber
- Optional 802.11 a/b/g/n/ac wireless network with external dual antennas so you can get connected when you need to
- High resolution single or dual 4K UHD displays
- USB 3.1 peripherals
- Stereo audio output and mono audio input, using analog ports
- (Optional) integrated smart card reader or the fingerprint biometric authentication

Note: (Ultra-) Thin Client hardware specifications may vary. We provide (Ultra-) Thin Clients in a variety of configurations and form factors. The actual specifications of your (Ultra-) Thin Client, including the number of USB ports and number, style of display ports, the availability of wireless connection and embedded smart card reader, are dependent on each offering.

1.2 Supported Thin Client and Ultra-Thin Client

LvOS is developed for I-O Corporation (Ultra-) Thin Client and cannot run on other non I-O Corporation devices.The following are supported device model:

Product Model Name	Regulatory Model Name (Device Type)
ProEdge L3350/ L3350F	29B5
ProEdge L215/ L215F	29B3
ProEdge L3940/ L3940F	29B8

Table 1 Product Model Name/Regulaatory Model Name List

LvOS image is released with regulatory model name and each (Ultra-) Thin Client model has its own dedicated LvOS. LvOS will check the device type before starting the installation process. To know the regulatory model name of your device, please look at the I-O Coporation label on your client. For example:

1.3 About Device Management

You can use the following configuration and management tools to configure and manage (Ultra-) Thin Clients:

- **Pre-session display:** The (Ultra-) Thin Client's pre-session display appears on your attached monitors, and allows you to connect to hosts and locally configure the device. The pre-session display is always visible, except when a VDI session is active.

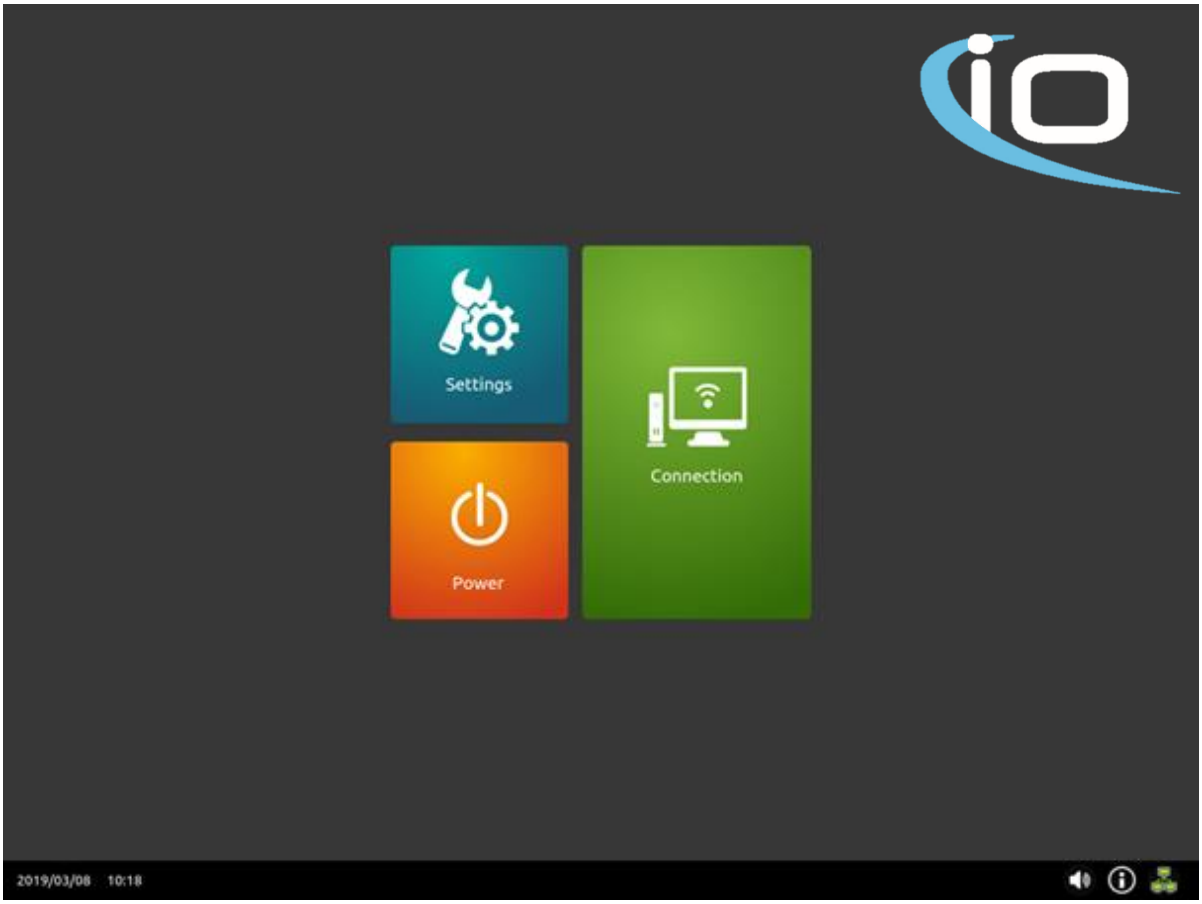

Figure 1 (Ultra-) Thin Client Pre-session Display

- **Device Management Software (DMS):** Device Management Software is an endpoint manager which allows you to configure, deploy, and monitor large numbers of (Ultra-) Thin Clients remotely.

Note: This guide describes how to configure and manage your (Ultra-) Thin Client using the pre-session display. For information about the Device Management Software, and using it to configure and manage multiple (Ultra-) Thin Clients remotely, see the Device Management Software Administrators' Guide.

1.4 What Can You Connect to With Your (Ultra-) Thin Client?

Your (Ultra-) Thin Client can connect to a wide variety of host desktops and peripherals. This section provides an overview of your connection options.

1.4.1 VDI Host Support

(Ultra-) Thin Clients can connect to any VDI host in any supported environment, including the following:

- VMware Horizon software host via PCoIP, Blast Extreme, and RDP protocols
- Citrix software host
- Microsoft RDP software host

1.4.2 USB Device Support

The (Ultra-) Thin Clients support keyboards, mice, and pointing devices using USB connections with no additional configuration. Other USB devices, such as mass storage devices or custom peripherals, may require special configuration on the host machine.

1.5 Power-off, Reboot or Place the Client in Sleep Mode Using Pre-Session Display

By clicking over the power icon and clicking sleep, reboot, or power-off button, you can easily sleep down, restart, or shutdown the (Ultra-) Thin Client.

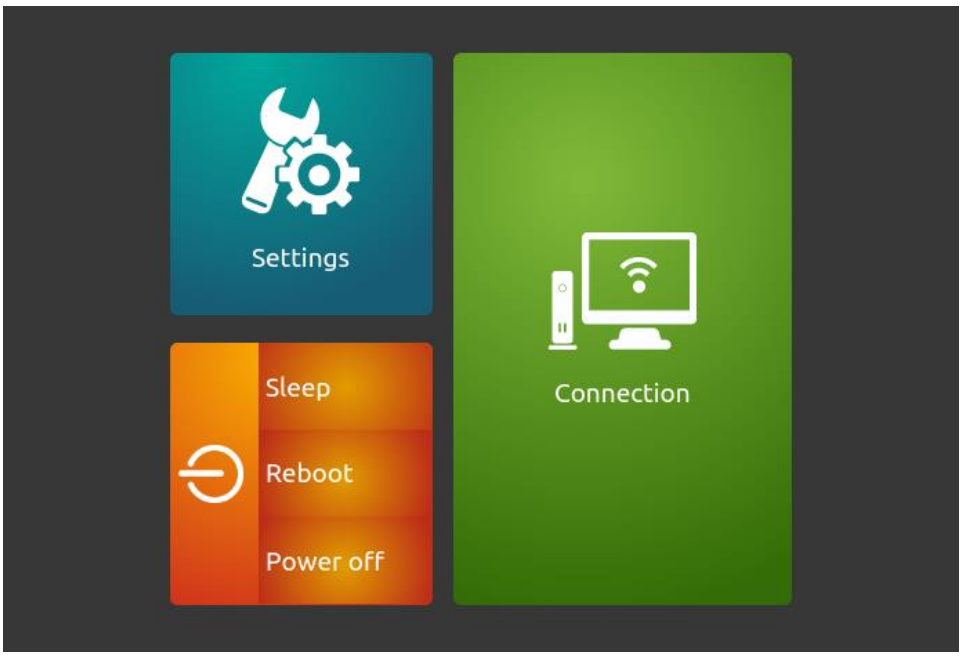

Figure 2 Power Menu on Pre-Session Display

2 Setting up Your (Ultra-) Thin Client

This section describes the network requirements for your environment, how to connect your (Ultra-) Thin Client to a wired or wireless network, and how to configure basic user settings.

2.1 Connecting to a Wired or Wireless Network

To connect your (Ultra-) Thin Client to a wired network, connect the client to a network switch using an Ethernet cable (copper client edition) or a fiber optic cable (fiber client edition). If you are using wireless connection, install two antennas on the thin client.

2.1.1 Understanding your Wired or Wireless Network Status

The pre-session display shows a network status icon for convenience, as shown below:

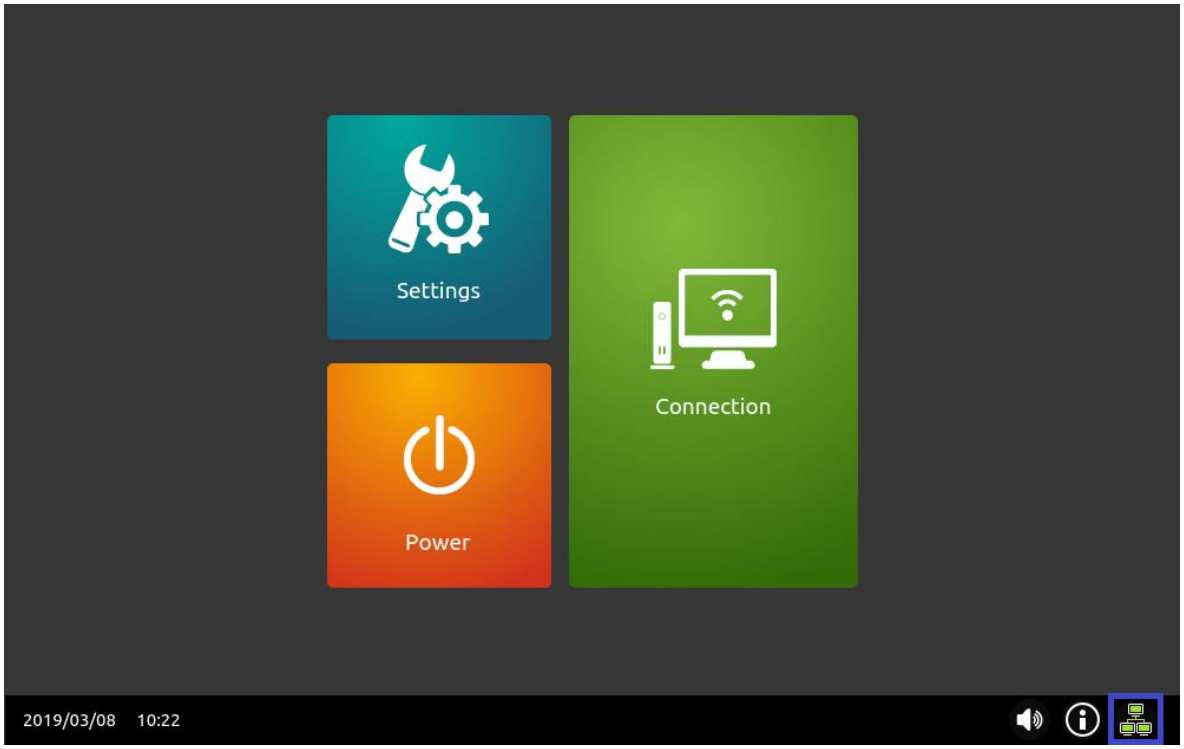

Figure 3 Pre-session display, showing the network status icon

The network status icon will change to reflect the network connection state. There are four possible network states:

Icon	Description
	The device is connected to the wired network and is correctly configured.
	The device is trying to connect to the wired network.
	The device is not connected to a wired or wireless network.
	The device is connected to a wireless network. The relative strength of the wireless signal is indicated by the number of green bars.

Table 2 Network State Icon

Note: The wired network status icon will not appear if your (Ultra-) Thin Client is connected to a wireless network. If Wi-Fi connectivity is established, the icon will disappear, and the icon will display instead.

To view a popup showing your connection status and IP address, hover over the network icon.

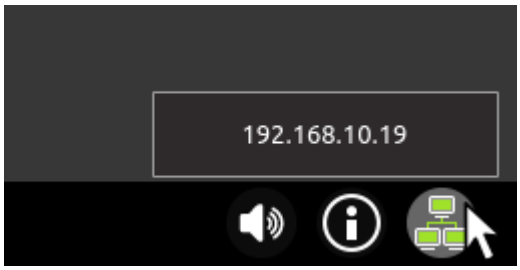

Figure 4 Hover to quickly view network status from the network icon

To get detailed information about the (Ultra-) Thin Client's network connectivity status, click in the pre-session display and choose **Network Status** to open the *Network Status* page. The Network Status page displays the Ethernet or Wi-Fi connection status and the device's assigned IP address, network mask, gateway address, and its DHCP server address.

2.2 Viewing Information about Your (Ultra-) Thin Client

From the (Ultra-) Thin Client pre-session display, you can view system and hardware information, network status, and copyright information, including its IP address, network connection status, and version and build numbers.

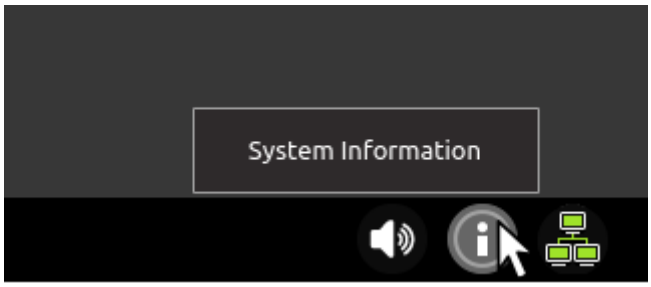

Figure 5 Press information icon to see system information

2.2.1 Viewing Version, Build, and ID

You can view your (Ultra-) Thin Client's identification, version, and build information from the pre-session display's *System* and *Hardware* pages. It's useful to know this information if you ever need to contact our support service.

To view your (Ultra-) Thin Client's identification, version, and build information, click in the pre-session display and choose **System** or **Hardware** to see the *System* or *Hardware* page, as shown below.

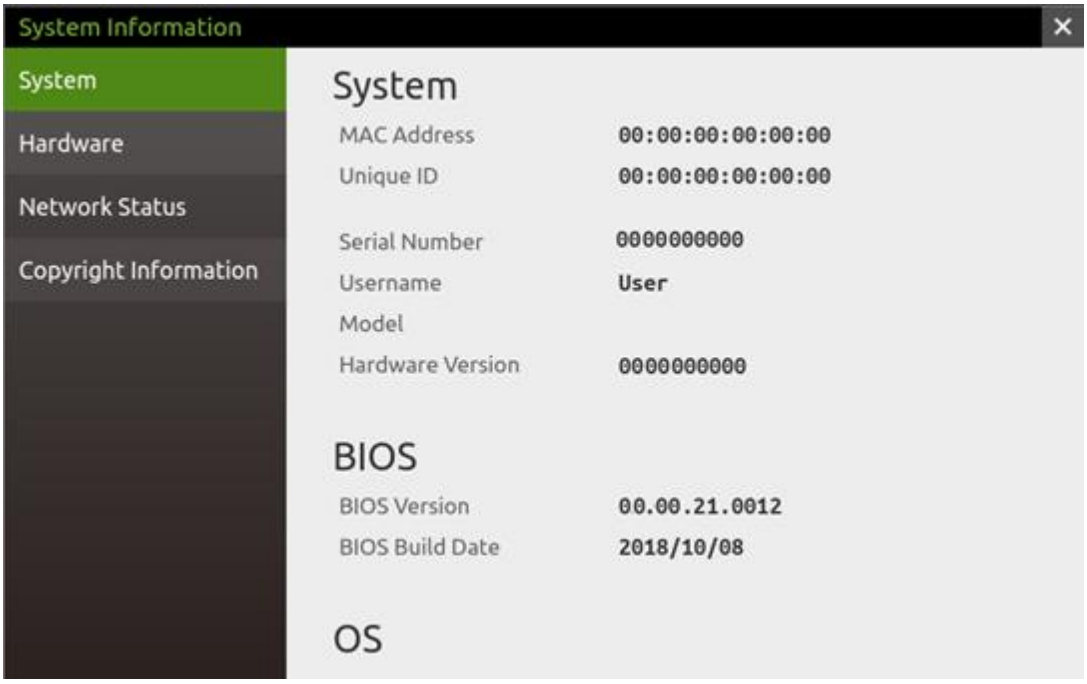

Figure 6 System Information Page

Note: The System page shown here is an example. Your version and build information will differ.

The *System* page displays the following information:

- MAC address
- Unique ID
- Serial number

- User name
- Model name
- Hardware version
- BIOS version and build date
- Operating system version and build date

The *Hardware* page displays the following information:

- Processor name and specification
- Memory speed, size and usage status
- Storage usage status

2.2.2 Viewing IP Address and Network Connectivity Status

Your (Ultra-) Thin Client automatically receives an IP address from the DHCP server when you power on the (Ultra-) Thin Client for the first time. You can view your (Ultra-) Thin Client's assigned IP address from the pre-session display. You can also view your (Ultra-) Thin Client's current network status, including its network mask and gateway IP address.

To view the IP address and network connectivity status from the pre-session display, click ⓘ in the pre-session display and choose **Network** page to see the *Network Status* page.

The *Network* page displays the following information:

- Connect to Ethernet or Wireless
- IP address
- Network mask
- Gateway address
- DHCP server address
- WiFi country code
- WiFi address
- Bluetooth address

Note: The System Information icon in the pre-session display and the *System Information* pages can be hided from general users by configuring desktop in Advanced Settings. See *Configuring Appearance* in section 4.5 for more details.

2.3 Configuring Your (Ultra-) Thin Client

This section describes all the elementary settings a general user can configure for an (Ultra-) Thin Client. These settings can be configured in the pre-session display. The setting includes the following:

- Display
- USB Peripherals
- Sound
- Language

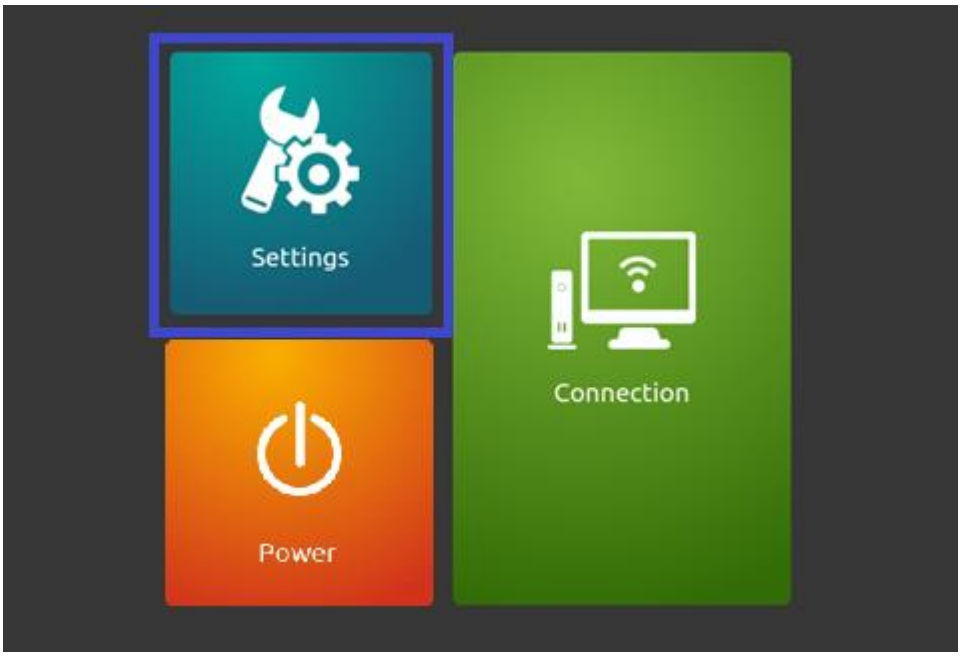

Figure 7 Pre-session display, showing the Settings icon

To configure these settings, click **Settings** button in the pre-session display to open the *Settings* page. To leave the *Settings* page, click the back icon ← in the top-left corner of the *Settings* page to go back to the pre-session display.

2.3.1 Configuring Display

You can customize the appearance of your display. You can configure primary display, dual screen mode (duplicate or extend display), resolution, orientation, and screen saving time, as shown below. To save the changes, click the confirmation button ✓ to apply the changes.

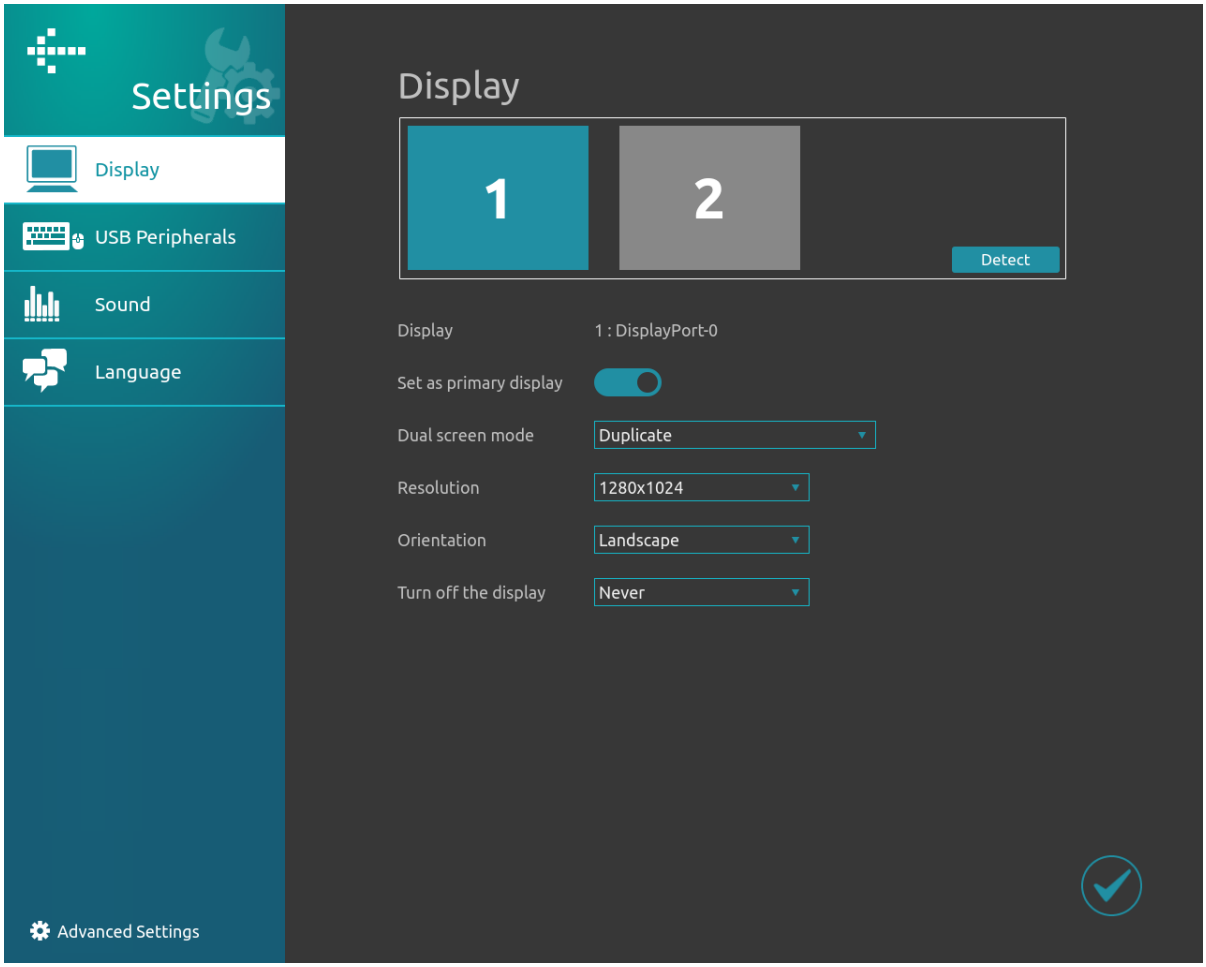

Figure 8 Display Settings Page

You can configure the following display settings for your (Ultra-) Thin Client:

Parameter	Description
"Display" area	Shows the detected display with a mark "1" on the primary display, which you currently use. The display you currently configure is shown in blue. Click a display from the "Display" area to show the monitor you would like to configure.
"Detect" button	If a display isn't automatically detected by the client device and isn't shown on "Display" area, you can click the Detect button to manually detect the monitor.
Display type	Shows the connector type of the detected display.
Set as primary	Set the current monitor that you are configuring as the primary display. This setting appears when two displays are detected by the

display	device.
Dual screen mode	Configures dual screen mode from the drop-down menu. This setting appears when two displays are correctly detected by the device.
Resolution	Shows the resolution of the chosen display. You can change resolution from the drop-down menu.
Orientation	Shows the orientation of the chosen display. You can change orientation from the drop-down menu.
Turn off the display	Configures when to turn off the display during periods of inactivity. You can configure this by choosing a period from the drop-down menu.

Table 3 Display Paramter Description

Note: When you click display 2 in Display area, it shows the setting options of display 2 for you to configure this display. When only one screen is detected in the Display area, the setting items will change accordingly.

2.3.2 Configuring USB Peripherals

You can configure the keyboard layout to use when you type information within the pre-session display. You can also configure cursor speed and other keyboard/mouse-relating settings, as shown below. To save the changes, click the confirmation button ✓ to apply the changes.

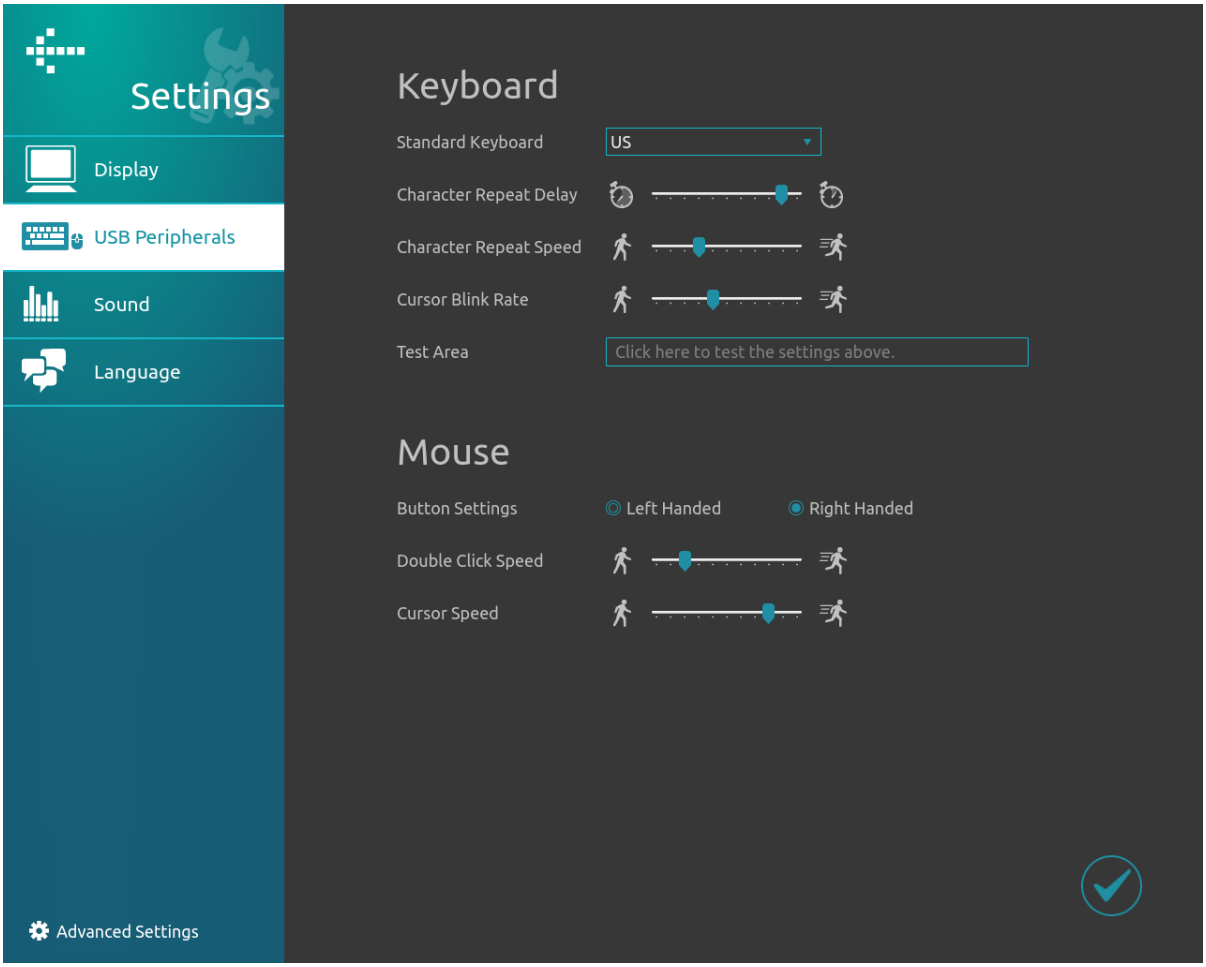

Figure 9 USB Peripherals Settings Page

You can configure the following keyboard/mouse settings for your (Ultra-) Thin Client:

Parameter	Description
Standard Keyboard	Configures the keyboard layout to use when you type information within the pre-session display. You can change keyboard layout from the drop-down menu.
Character Repeat Delay	When you press and hold a key on the keyboard, the key eventually repeats itself. The pause between pressing the key and when it starts repeating is the repeat delay. You can use the slider to adjust repeat delay, which can be quick or slow.
Character Repeat Speed	After you press and hold down a key on the keyboard, the key starts repeating itself. The speed at which it repeats is the repeat speed, which can be fast or slow.
Cursor Blink	Adjusts the cursor blink rate slider for how fast in you want the cursor

Rate	blink rate to be.
Test Area	You can test character repeat delay and speed in this area. The cursor blink rate you chose is displayed in this area as well.
Button Settings	Configures the mouse button as right-handed or left-handed.
Double Click Speed	Drags the slider left to slow down the mouse double-click speed or right to speed up the mouse double-click speed.
Cursor Speed	Adjusts how quickly the mouse moves around the screen.

Table 4 USB Peripherals Paramter Description

2.3.3 Configuring Sound

You can configure the headphone/speaker volume and microphone volume settings, as shown below. To save the changes, click the confirmation button ✓ to apply the changes.

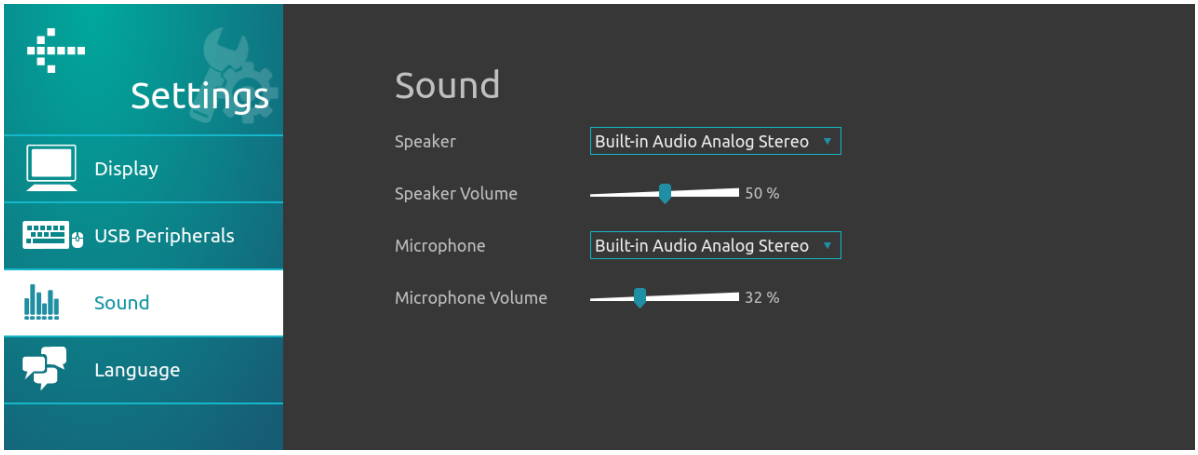

Figure 10 Sound Settings Page

You can configure the following sound settings for your (Ultra-) Thin Client:

Parameter	Description
Speaker volume	Moves the slider to adjust the device's speaker and headphone volume up and down.
Microphone volume	Moves the slider up or down to increase or decrease your microphone's recording volume.

Table 5 Sound Paramter Description

Note: You can quickly configure sound volume or mute the speaker/headphone by clicking the volume icon in the pre-session display.

2.3.4 Configuring Language

You can change the language of your pre-session display interface, as shown below. This affects only the user interface; it doesn't affect the interface and contents in a VDI session. To save the change, click the confirmation button ✓ to apply the change.

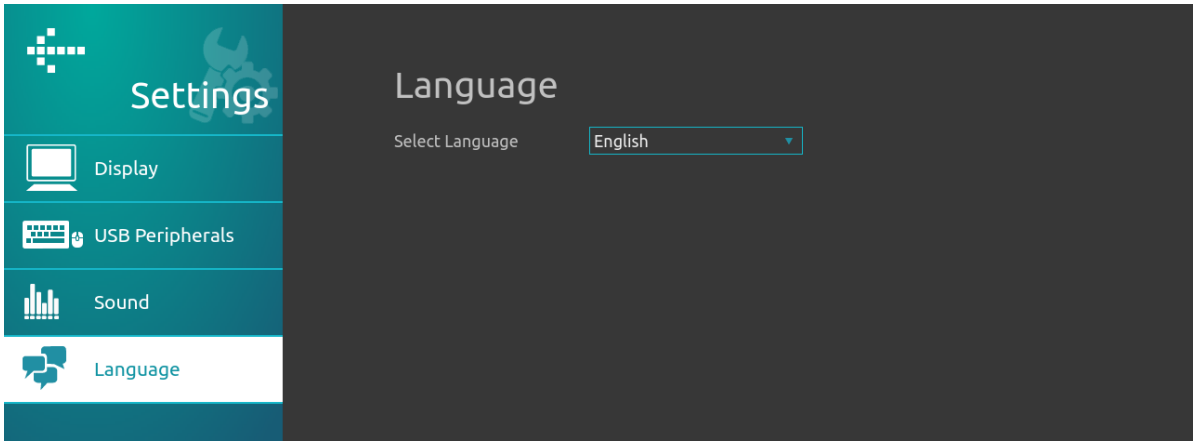

Figure 11 Landguage Settings Page

3 Establishing a VDI Connection

In this section, you'll learn how to establish a VDI session with your software host. The topics include:

- Connecting to a VMware Horizon software host
- Connecting to a Citrix software host
- Connecting to a Microsoft RDP software host

An administrator or a user with advanced setting authority can configure VDI connection in Advanced Settings. The administrator can also configure connection settings for groups of (Ultra-) Thin Clients using Device Management Software.

Note: To enter Advanced Settings, you will have to enter administrator's user name and password. The default user name and password are both "*Administrator*".

3.1 Connecting to a VMware Horizon Software Host

This procedure enables connections to VMware Horizon software hosts. This setting is persistent; if it has already been configured, you can make the connection now.

3.1.1 To configure connections to VMware Horizon software hosts:

1. Click **Settings** in the pre-session display. In Settings page, click **Advanced Settings** to enter administrator configurations.
2. Click **Connection Configuration** to add a new VMware Horizon host connection.

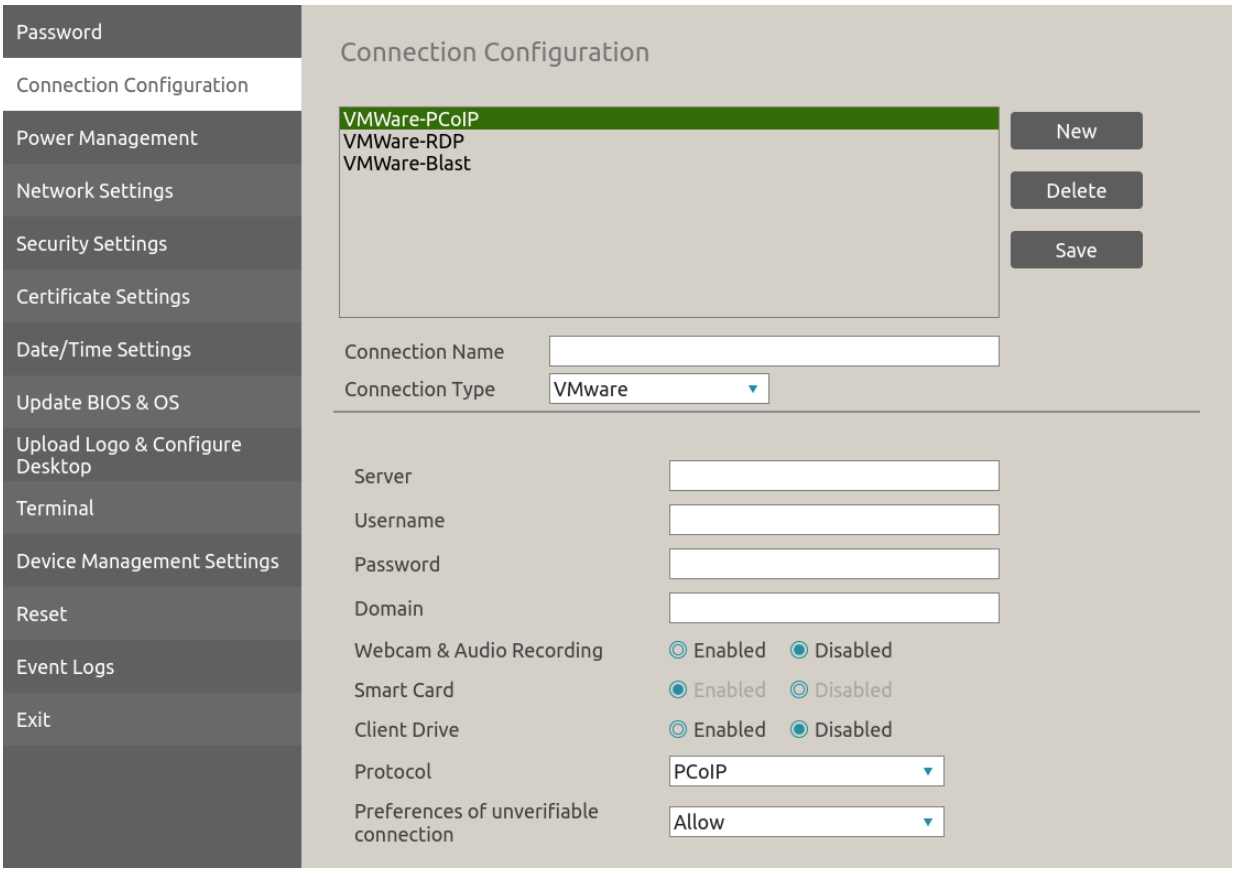

Figure 12 Connection Configuration Page - VMware

3. To create a new VMware Horizon host connection, enter a connection name and choose *VMware* as the connection type.
4. Configure the following connection settings for the VMware Horizon session:

Parameter	Description
Server	Enter the IP address, FQDN, or URI of your VMware Horizon host.
Username	Enter the user name of your VMware Horizon host. If leaving the username and password fields blank, you will have to enter your user name and password in the VMware Horizon login dialog box.
Password	Enter the password of your VMware Horizon host. If leaving the username and password fields blank, you will have to enter your user name and password in the VMware Horizon login dialog box.
Domain	Enter the domain of your VMware Horizon host.
Webcam & Audio Recording	It allows you to authorize webcam and audio recording devices.
Smart Card	It allows you to authorize smart cards.
Client Drive	It allows you to authorize mass storage devices.
Protocol	Select a display protocol from among VMware Blast, PCoIP, or Microsoft RDP.
Preferences of unverifiable connection	Sets the server certificate verification mode: ●Reject - reject connections when the certificate fails any of the verification checks ●Warn - warn but allow connections that use a self-signed certificate ●Allow - allow unverifiable connections

Table 6 VMware Connection Configuration Paramter Description

5. Click Save to add this connection information.
6. Click Exit to leave Advanced Settings.

3.1.2 Making the Connection

Before connecting to your VMware Horizon software host, make sure these conditions are met:

- Your (Ultra-) Thin Client is connected to either a wired or wireless network.
- The VMware Horizon software host you will connect to can be reached from the network your (Ultra-) Thin Client is connected to.
- The VMware Horizon software host is configured in Connection Configuration.

To connect to the VMware Horizon software host:

1. In the pre-session display, click Connection icon and select the VMware Horizon software host you wish to connect.
2. The (Ultra-) Thin Client's session LED will light green, indicating a successful VDI connection.
3. Use the client as you would a normal desktop PC.

3.1.3 Disconnecting from a Session

When you disconnect from a VDI session, the secure connection is terminated and the desktop disappears from your local displays. The (Ultra-) Thin Client returns to the pre-session interface, ready for another connection.

Disconnecting from a session does not change the state of your desktop or host; it remains active, applications remain open, and any ongoing processes will continue. Some services may spin down or destroy a virtual machine after disconnection—or after a certain idle time—but you should assume that your machine will remain active and that metered servers will continue to run.

To disconnect from a virtual desktop session, perform either of these actions:

- Click the Disconnect button in the VMware Horizon toolbar, or

- Press Ctrl+Alt+Delete, or
- Press and release the (Ultra-) Thin Client's power button quickly.

> **Note:** The power button behavior is determined by the *Power Button Function* option. The *Power Button Function* option is located on the Advanced Settings page in the pre-session display. In Power Management page, select *Session Disconnecting* for power button function, to enable session disconnect feature by pressing the power button.

3.2 Connecting to a Citrix Software Host

This procedure enables connections to Citrix software hosts. This setting is persistent; if it has already been configured, you can make the connection now.

3.2.1 To configure connections to Citrix software hosts:

1. Click **Settings** in the pre-session display. In Settings page, click **Advanced Settings** to enter administrator configurations.
2. Click **Connection Configuration** to add a new Citrix host connection.

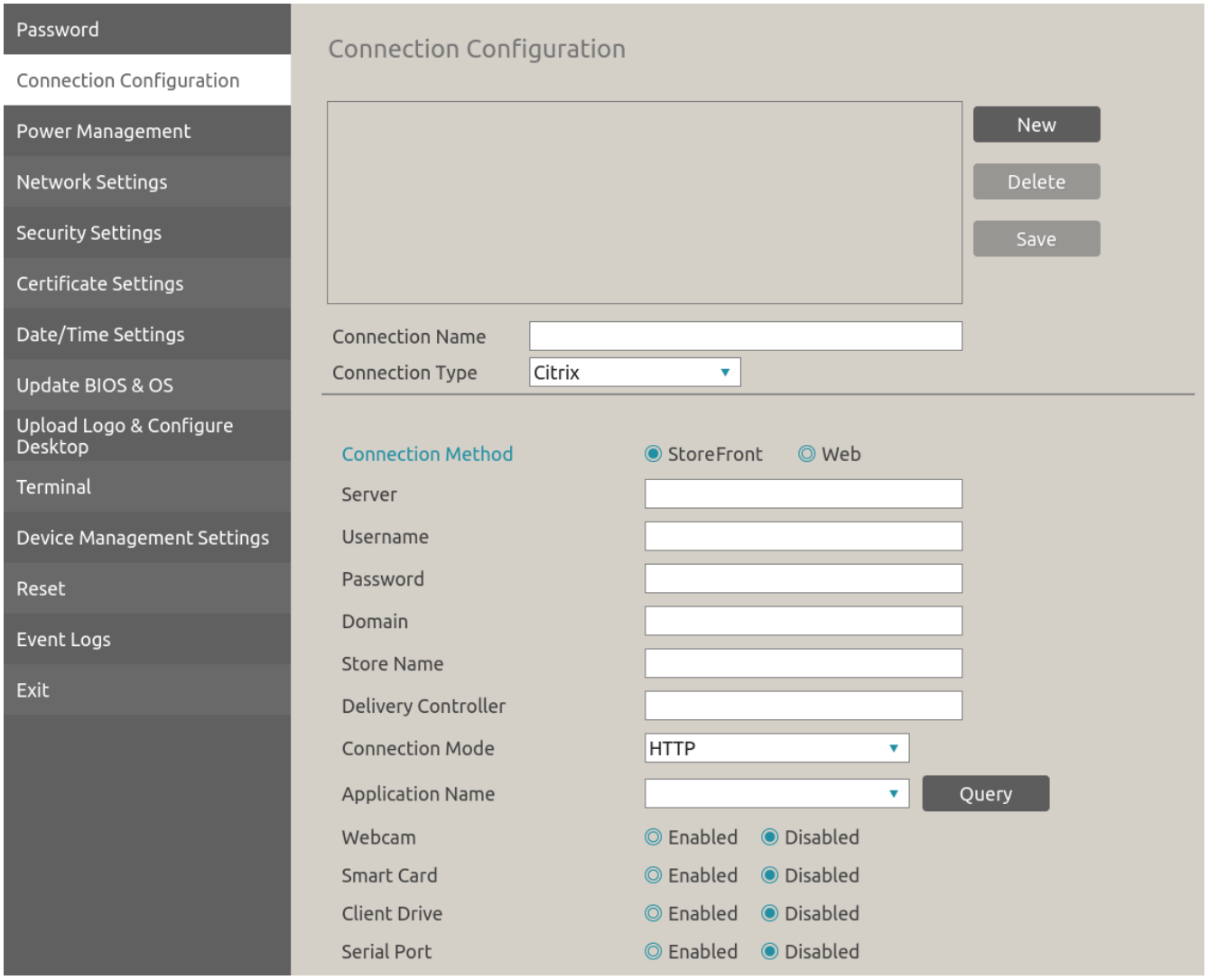

Figure 13 Connection Configuration Page - Citrix

3. To create a new Citrix host connection, enter a connection name and choose Citrix as the connection type.

4. Configure the following connection settings for the Citrix session:

Parameter	Description
Connection Method	There are two use cases for setting up access to Citrix desktops: ● StoreFront - This use case offers greater security and allows users to customize your domain names. This deployment type is recommended for any Citrix desktops customers who already have StoreFront deployed. ● Web - Users can open the web site in a browser and securely access applications, data, and desktops

	published for them through Citrix desktops.
Server	Enter the IP address, FQDN, or URI of your Citrix host.
Username	Enter the user name of your Citrix host. If leaving the username and password fields blank, you will have to enter your user name and password in the Citrix login dialog box.
Password	Enter the password of your Citrix host. If leaving the username and password fields blank, you will have to enter your user name and password in the Citrix login dialog box.
Domain	Enter the domain of your Citrix host.
Store Name	Enter the store of your Citrix host.
Delivery Controller	Enter the delivery of your Citrix host.
Connection Mode	Select HTTP or HTTPS as the connection mode. We recommend using HTTPS in production environments.
Application Name	Press ***Query*** to receive the application name.
URL	For web interface deployments, provide the URL for the Citrix Virtual Apps and Desktops Services site.
Webcam	It allows you to authorize webcam devices.
Smart Card	It allows you to authorize smart cards.
Client Drive	It allows you to authorize mass storage devices.
Serial Port	It allows you to authorize serial devices, which are connected to client's USB ports using USB-to-serial adapters.

Table 7 Citrix Connection Configuration Paramter Description

5. Click Save to add this connection.
6. Click Exit to leave Advanced Settings.

3.2.2 Making the Connection

Before connecting to your Citrix software host, make sure these conditions are met:

- Your (Ultra-) Thin Client is connected to either a wired or wireless network.
- The Citrix software host you will connect to can be reached from the

network your (Ultra-) Thin Client is connected to.

- The Citrix software host is configured in Connection Configuration.

To connect to the Citrix software host:

1. In the pre-session display, click Connection icon and select the Citrix software host you wish to connect.
2. The (Ultra-) Thin Client's session LED will light green, indicating a successful VDI connection.
3. Use the client as you would a normal desktop PC.

3.2.3 Disconnecting from a Session

When you disconnect from a VDI session, the secure connection is terminated and the desktop disappears from your local displays. The (Ultra-) Thin Client returns to the pre-session interface, ready for another connection.

Disconnecting from a session does not change the state of your desktop or host; it remains active, applications remain open, and any ongoing processes will continue. Some services may spin down or destroy a virtual machine after disconnection—or after a certain idle time—but you should assume that your machine will remain active and that metered servers will continue to run.

To disconnect from a virtual desktop session, perform either of these actions:

- Click on the Start button in VM and click on the Log Off button, or
- Press and release the (Ultra-) Thin Client's power button quickly.

Note: The power button behavior is determined by the *Power Button Function* option. The *Power Button Function* option is located on the Advanced Settings page in the pre-session display. In Power Management page, select *Session Disconnecting* for power button function, to enable session disconnect feature by pressing the power button.

3.3 Connecting to a Microsoft RDP Software Host

This procedure enables connections to RDP software hosts. This setting is persistent; if it has already been configured, you can make the connection now.

3.3.1 To configure connections to Microsoft RDP software hosts:

1. Click **Settings** in the pre-session display. In Settings page, click **Advanced Settings** to enter administrator configurations.
2. Click **Connection Configuration** to add a new RDP host connection.

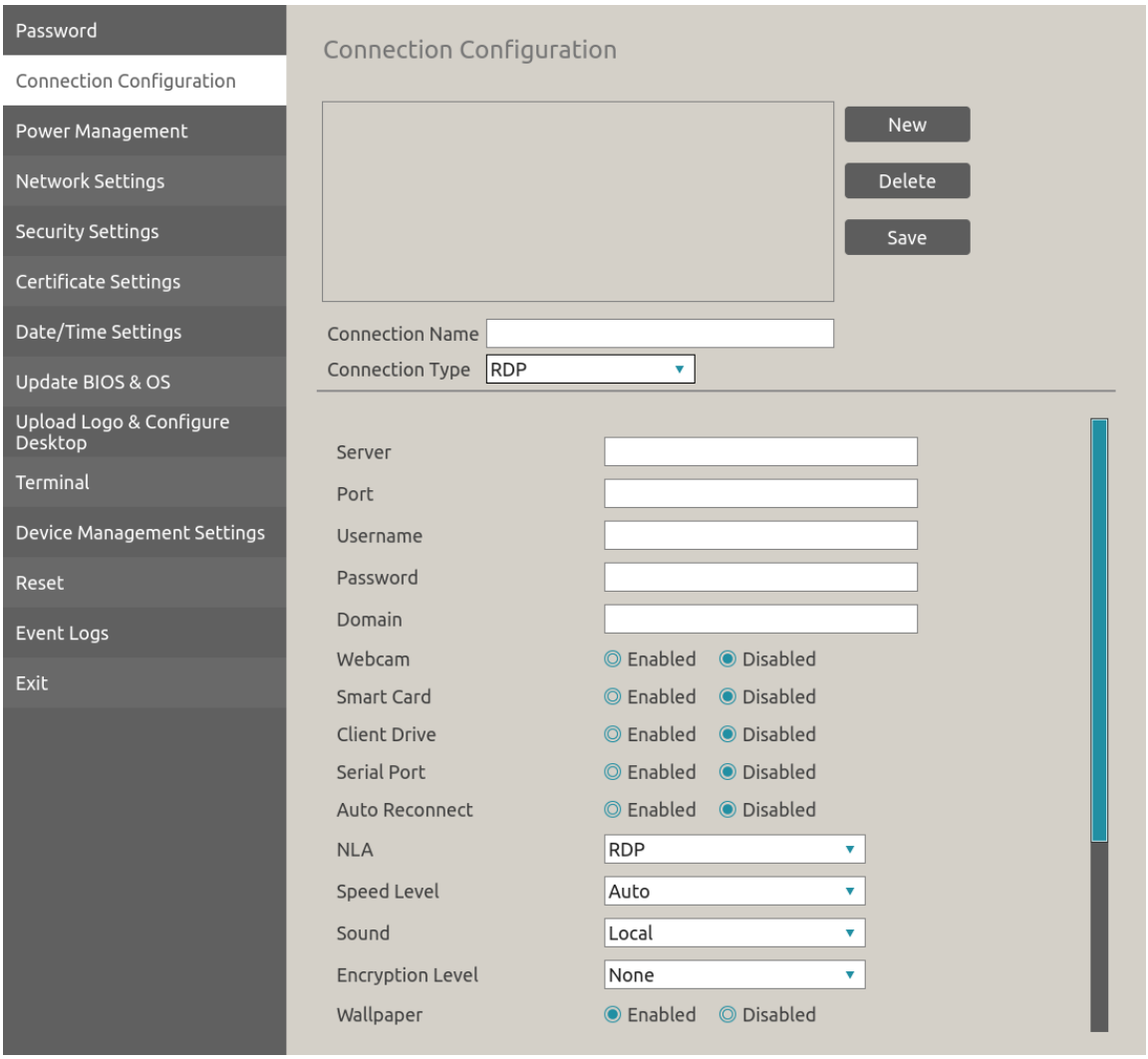

Figure 14 Connection Configuration Page – RDP

3. To create a new RDP host connection, enter a connection name and choose RDP as the connection type.
4. Configure the following connection settings for the RDP session:

Parameter	Description
Server	Enter the IP address, FQDN, or URI of your RDP host.
Port	Enter the port of your RDP host.
Username	Enter the user name of your RDP host.
Password	Enter the password of your RDP host.
Domain	Enter the domain of your RDP host.
Webcam	It allows you to authorize webcam devices.
Smart Card	It allows you to authorize smart cards.
Client Drive	It allows you to authorize mass storage devices.
Serial Port	It allows you to authorize serial devices, which are connected to client's USB ports using USB-to-serial adapters.
Auto Reconnect	When enabled, lets the client automatically reconnect with the last connected host when a session is lost.
NLA	If Network Level Authentication (NLA) is enabled on your host, the host requires NLA user authentication before you establish a full Remote Desktop connection and the login screen is displayed.
Speed Level	Select a speed level to describe the network connection. ● Modem ● High-speed Broadband ● Low-speed Broadband ● WAN ● LAN ● Auto
Sound	You can choose to redirect the audio on the remote session to the local device, or not allow the audio to play on the remote session on the local device, or leave the audio playing on the remote session. ● Local ● Remote ● Off
Encryption Level	Select an encryption level, either Normal or None. For servers with data encryption settings, you must select Normal for the encryption level.
Wallpaper	It allows you to enable wallpaper of your RDP host.
Font Smooth	It allows you to enable font smooth of your RDP host.
RemoteFX	It allows you to enable RemoteFX of your RDP host.
Window Content	Shows the window content when you drag the window on screen.
Keyboard Event	Enables all keyboard events within the connection window to be sent to the connection's applications.
Compression	It allows you to enable compression of your RDP host.

Low Bandwidth	If allows you to enable low-bandwidth optimization. If enabled, following options are automatically disabled: ● Wallpaper ● Font Smoothing ● RemoteFX ● Show window content while dragging

Table 8 RDP Connection Configuration Paramter Description

5. Click Save to add this connection.
6. Click Exit to leave Advanced Settings.

3.3.2 Making the Connection

Before connecting to your RDP software host, make sure these conditions are met:

- Your (Ultra-) Thin Client is connected to either a wired or wireless network.
- The RDP software host you will connect to can be reached from the network your (Ultra-) Thin Client is connected to.
- The RDP software host is configured in Connection Configuration.

To connect to the RDP software host:

1. In the pre-session display, click Connection icon and select the RDP software host you wish to connect.
2. The (Ultra-) Thin Client's session LED will light green, indicating a successful VDI connection.
3. Use the client as you would a normal desktop PC.

3.3.3 Disconnecting from a Session

When you disconnect from a VDI session, the secure connection is terminated and the desktop disappears from your local displays. The (Ultra-) Thin Client returns to the pre-session interface, ready for another connection.

Disconnecting from a session does not change the state of your desktop or host; it remains active, applications remain open, and any ongoing processes will continue. Some services may spin down or destroy a virtual machine after disconnection—or after a certain idle time—but you should assume that your machine will remain active and that metered servers will continue to run.

To disconnect from a virtual desktop session, perform either of these actions:

- Click on the Start button in VM and click on the Log Off button, or
- Press and release the (Ultra-) Thin Client's power button quickly.

Note: The power button behavior is determined by the *Power Button Function* option. The *Power Button Function* option is located on the Advanced Settings page in the pre-session display. In Power Management page, select *Session Disconnecting* for power button function, to enable session disconnect feature by pressing the power button.

4 Advanced Settings

This section describes how to manage your (Ultra-) Thin Client, including how to upload certificates, BIOS and operating system, reset the device, connect to the Device Management Software, and view event log information.

Although some settings can be configured directly, (Ultra-) Thin Clients are generally managed in groups using Device Management Software. This section contains detailed information about connecting to this endpoint manager. For detailed instructions on how to configure settings using the Device Management Software, see the Device Management Software Administrators' Guide.

This section also provides a configuration reference that describes all the settings you can configure using the pre-session display.

4.1 Uploading Certificates and OS to Your (Ultra-) Thin Client

You can upload certificates or upgrade BIOS and operating system to your (Ultra-) Thin Client using the advanced settings in the pre-session display.

4.1.1 Uploading Certificates

If your security settings require certificates, you must upload them to the (Ultra-) Thin Client's certificate store before initiating VDI connections.

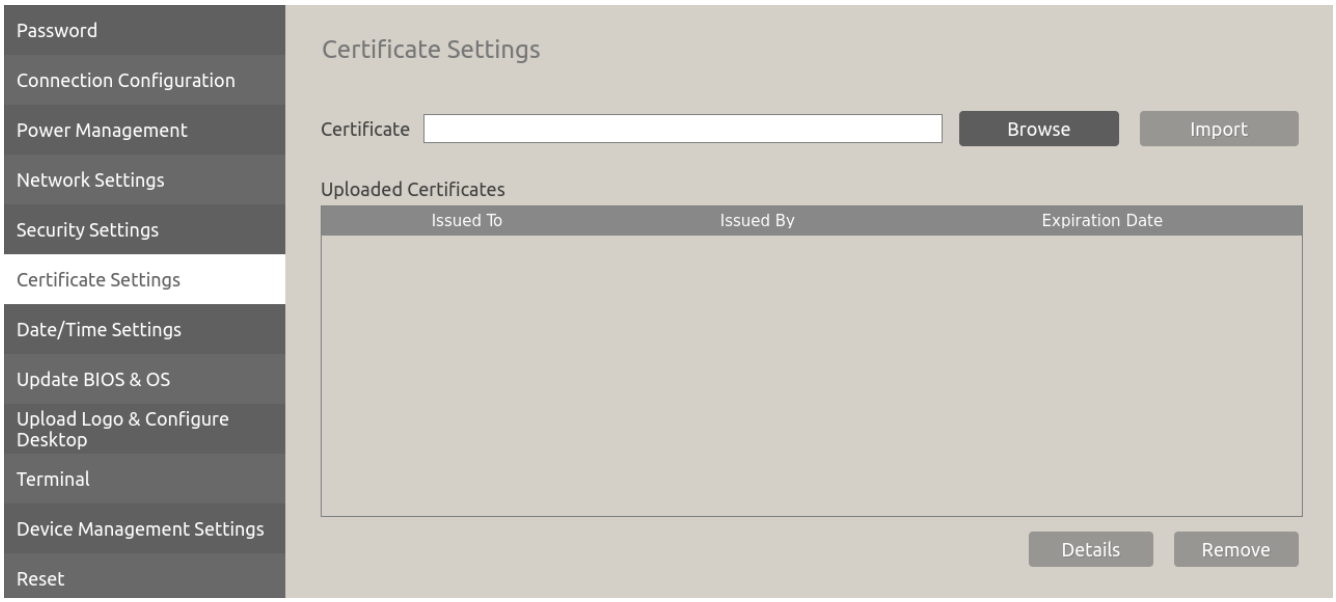

Figure 15 Certificate Settings Page

To upload certificates:

1. Click **Settings** in the pre-session display and enter **Advanced Settings** to see the Advanced Settings page.
2. In the **Certificate Settings** section, browse the certificate you want to upload.
3. Click **Import** to upload the certificate.
4. The certificate will be listed in Uploaded Certificates.

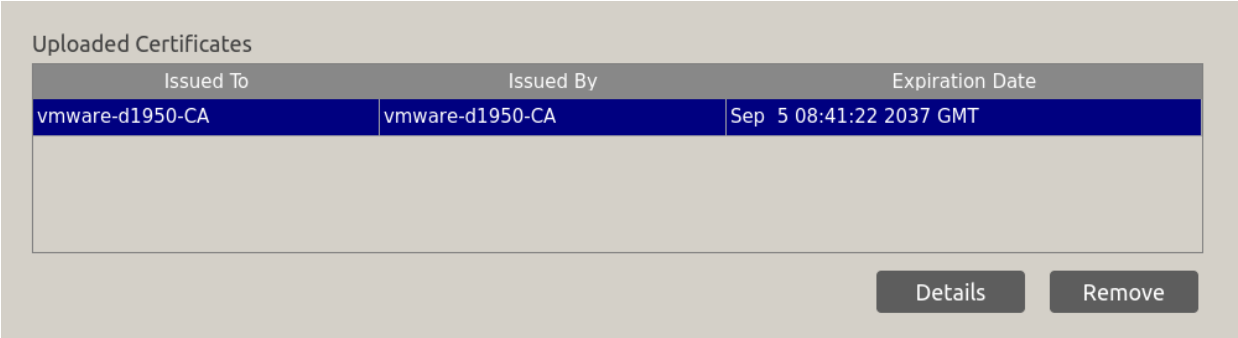

Figure 16 Uploaded Certificate List

5. You can click **Details** to view the detailed certificate information. Click **Remove** if you want to delete the certificate.

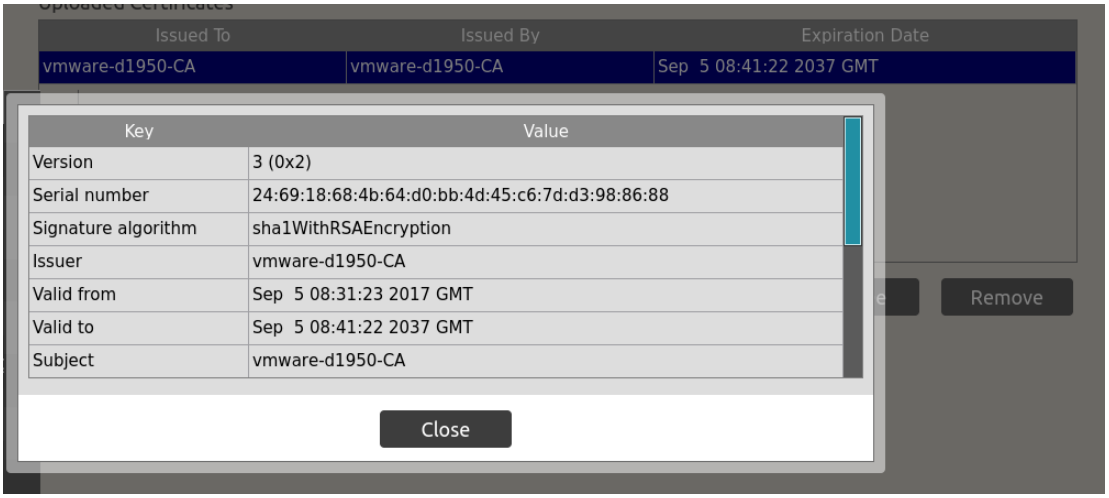

Figure 17 Detailed Certificate Information

4.1.2 Updating BIOS and OS

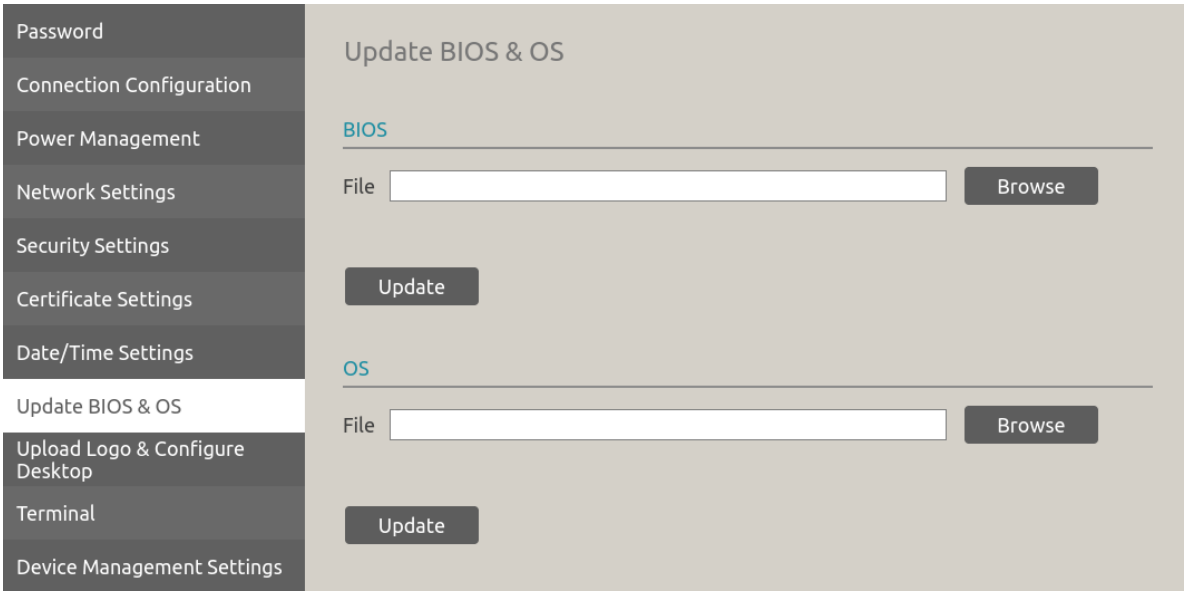

Figure 18 Update BIOS & OS Page

To update BIOS and OS for your (Ultra-) Thin Client:

1. Click **Settings** in the pre-session display and enter **Advanced Settings** to see the Advanced Settings page.
2. In the **Update BIOS & OS** section, browse the BIOS or OS file you want to update.
3. Click **Update** to update the BIOS or OS.

4.2 Resetting the Device

You can reset all your device settings to the factory default values. Settings can be reset using the pre-session display.

To reset user settings:

1. Click **Settings** in the pre-session display and enter **Advanced Settings** to see the Advanced Settings page.
2. In the **Reset** section, click **Reset**.

3. A message displays confirming if you want to reset all the user settings to the factory defaults. To confirm the reset, click **Reset**. Your (Ultra-) Thin Client reboots.

4.3 Configuring (Ultra-) Thin Client for Device Management Software

(Ultra-) Thin Clients are managed in groups by an endpoint manager, such as the Device Management Software. Before the endpoint manager can administer a client, the client must see the endpoint manager and establish a connection to it. This connection process is called discovery.

Discovery can be automatic or manual, and can be initiated from either side; endpoint managers can discover clients, and clients can discover endpoint managers. Available discovery methods are determined by your chosen security settings, discovery modes, and installed certificates. For details on having the Device Management Software automatically discover your (Ultra-) Thin Client, see Device Management Software Device Discovery Guide.

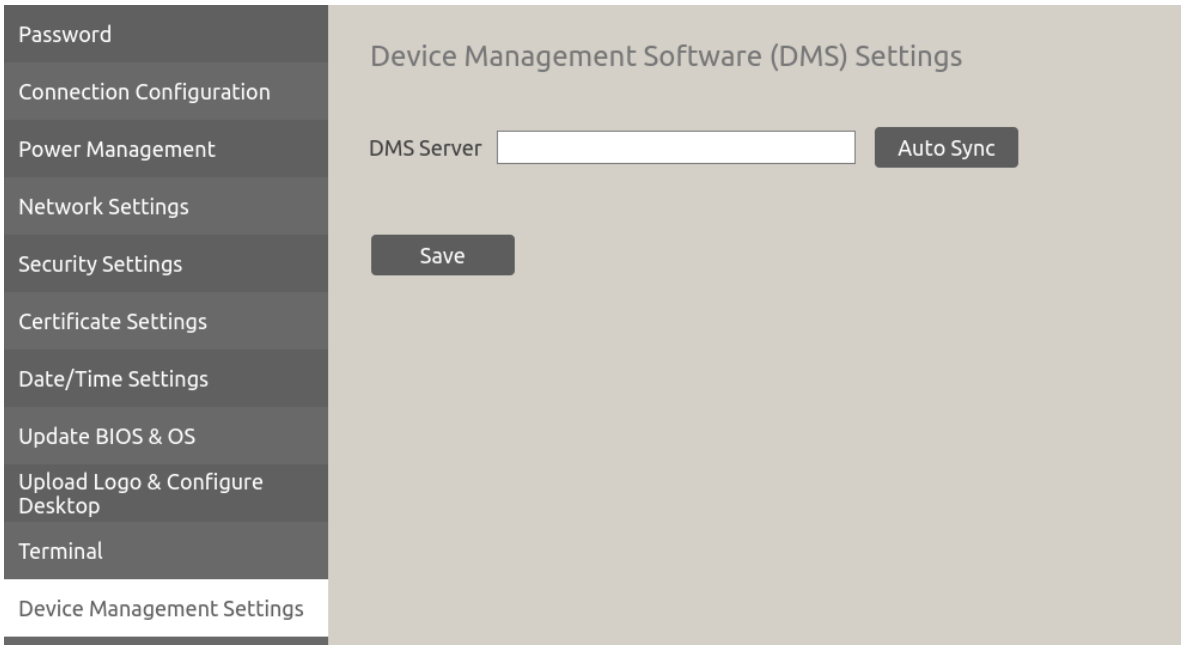

Figure 19 Device Management Settings Page

4.3.1 Discovering the Device Management Software Manually from the Client

To configure a (Ultra-) Thin Client with the Device Management Software:

1. Click **Settings** in the pre-session display and enter **Advanced Settings** to see the Advanced Settings page.
2. In the **Device Management Settings** section, type the device manager's URI in the DMS Server field.
3. Click **Save**.

4.4 Viewing Event Log about Your (Ultra-) Thin Client

You can view a list of event logs from the Event Logs page. From the Event Logs page, you can view event logs from the pre-session display. If you need to export log files, you can select where you want the file saved and click Export to save the files.

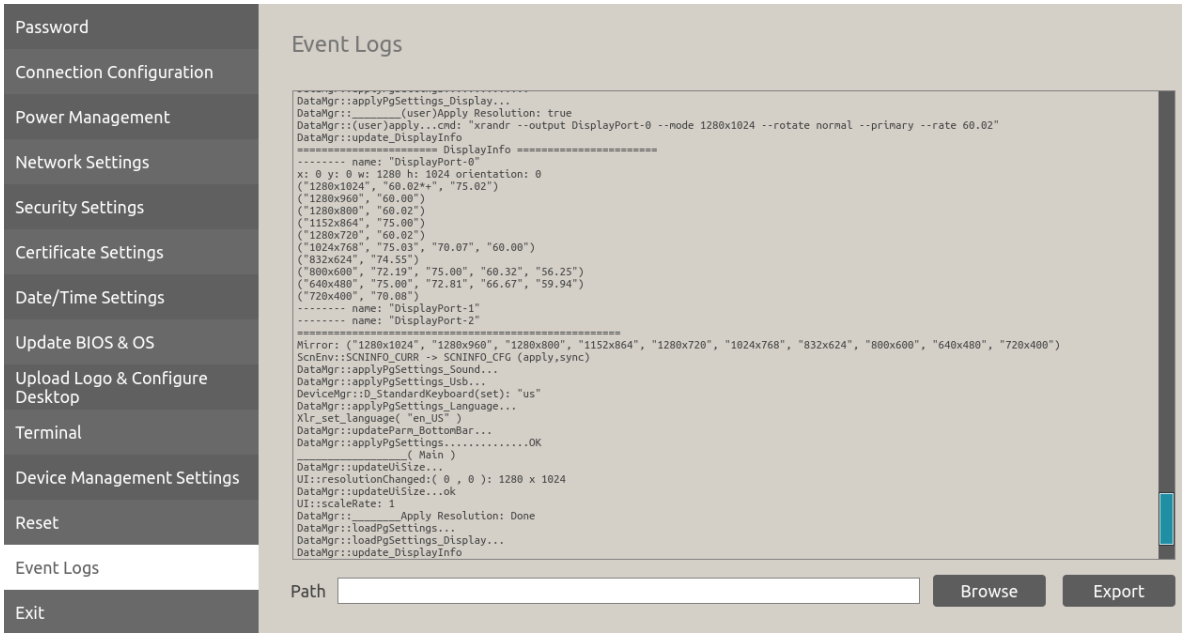

Figure 20 Event Log Page

To view or export event logs:

1. Click **Settings** in the pre-session display and enter **Advanced Settings** to see the Advanced Settings page.

2. Choose **Event Logs** to see the *Event Logs* page.
3. Click **Browse** to select a place to save the log
4. Click **Export**.

4.5 Other Configurations

This section describes all the settings you can configure for your (Ultra-) Thin Client. The reference includes the following:

- Configuring Password
- Configuring Power Management
- Configuring Network
- Configuring Security
- Configuring the Time Zone
- Configuring Appearance
- Using Terminal

In most cases, settings can be configured in either the pre-session display or the Device Management Software. In case of a configuration conflict, where a setting is configured both in the pre-session display and the Device Management Software, the last change to the setting takes precedence.

4.5.1 Configuring Password

After you turn on your (Ultra-) Thin Client, you are automatically logged in to the *User* account. By default, the password of the User account is set to blank.

To enter Advanced Settings, you will have to enter administrator's user name and password. The default user name and password are both "*Administrator*".

Note: If leaving both the User account and password fields blank, you will not be asked to enter user name and password after you turn on your (Ultra-) Thin Client. It will remove the login screen and bypass the password.

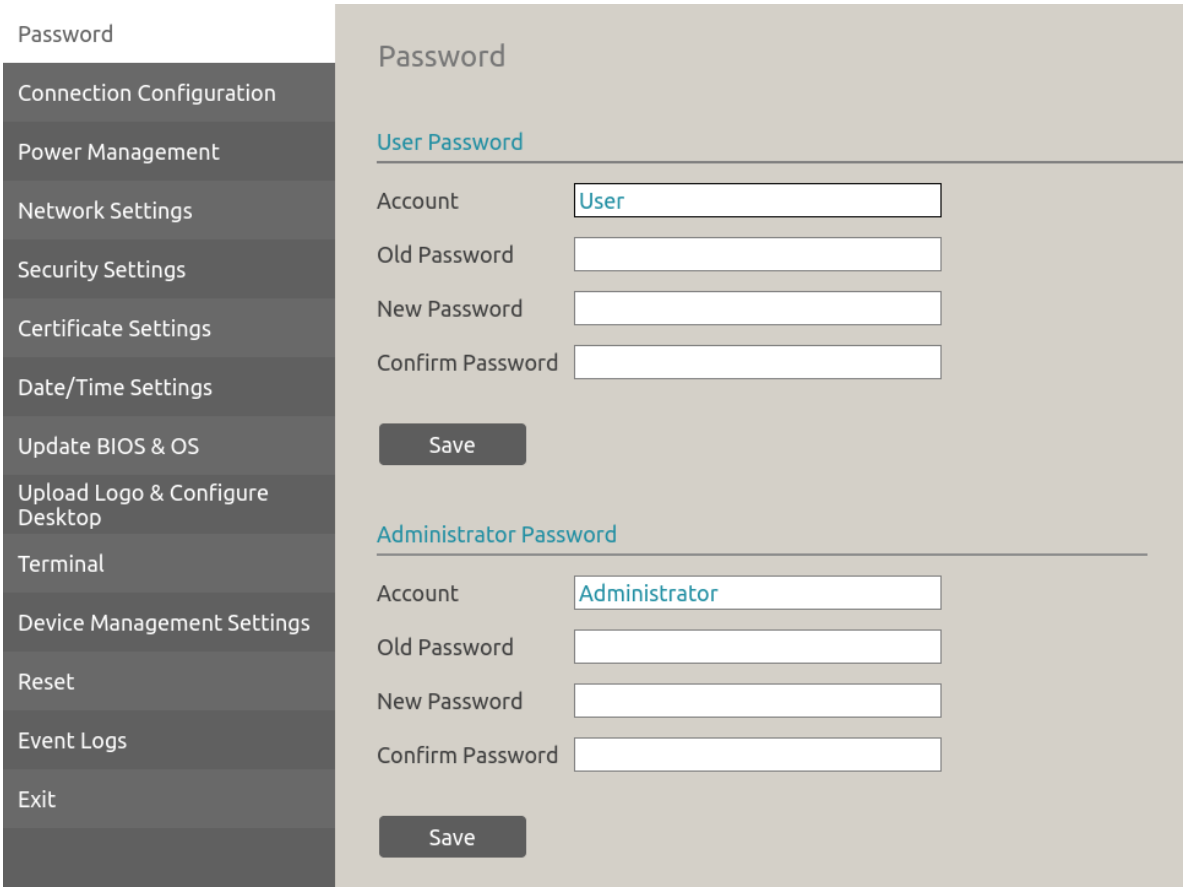

Figure 21 Password Page

To change the user and administrator password:

1. Click **Settings** in the pre-session display and enter **Advanced Settings** to see the Advanced Settings page.
2. In the **Password** section, enter the new account name and/or password you would like to use.
3. Click **Save** to save the changes.

4.5.2 Configuring Power Management and Wake-on-LAN

To configure wake-on-LAN and other power management settings:

1. Click **Settings** in the pre-session display and enter **Advanced Settings** to see the Advanced Settings page.
2. In the **Power Management** section, there are three power settings.

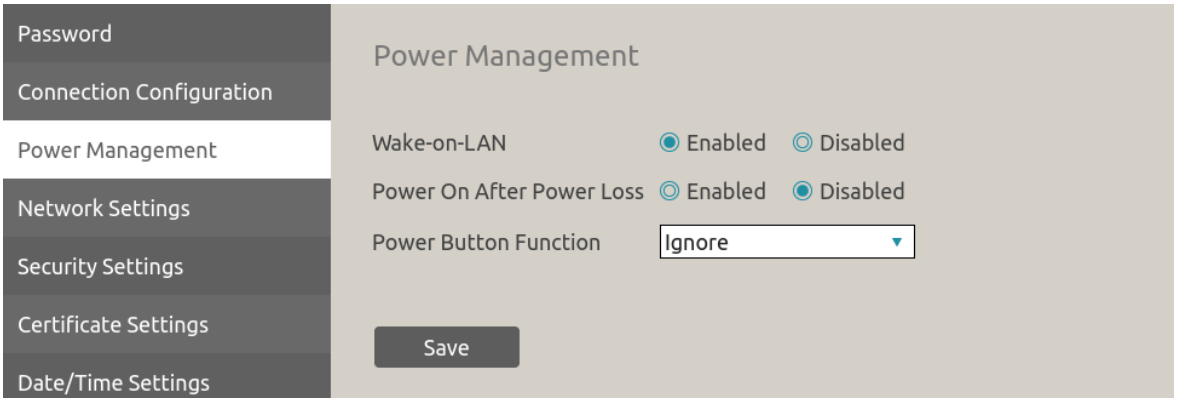

Figure 22 Power Management Page

Parameter	Description
Wake-on-LAN	Configure your (Ultra-) Thin Client to power on or wake up from sleep mode.
Power on after Power Loss	When enabled, the client automatically powers back on when power is supplied.
Power button function	Configure the client's power button behavior: ● Ignore: In a pre-session display or in a VDI session, pressing the client's power button will not generate any response. ● Sleep: In a pre-session display or in a VDI session, press and release the client's power button quickly to make your (Ultra-) Thin Client sleep. ● Power-off: In a pre-session display or in a VDI session, press and release the client's power button quickly to power off your (Ultra-) Thin Client. ● Session Disconnecting: In a VDI session, press and release the client's power button quickly to disconnect the session. The (Ultra-) Thin Client returns to the pre-session interface, ready for another connection.

Table 9 Power Management Paramter Description

3. Click Save to save the changes.

4.5.3 Configuring Network

The **Network Settings** page displays the wired and wireless connections in your environment and allows you to manage your wired and wireless networking.

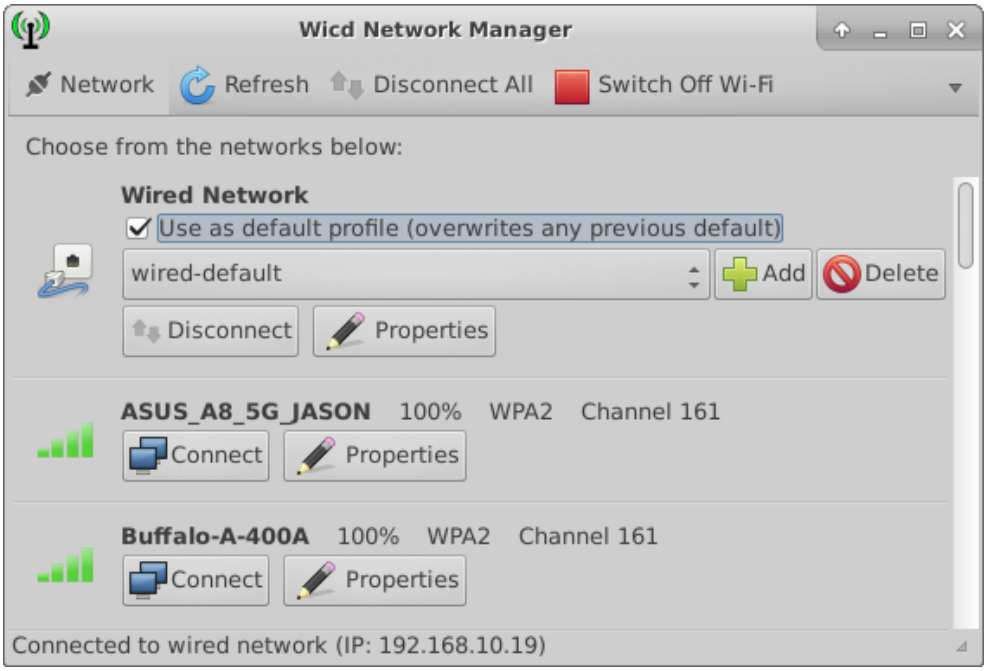

Figure 23 Network Settings Page

To configure network settings:

1. Click **Settings** in the pre-session display and enter **Advanced Settings** to see the Advanced Settings page.
2. Click **Network Settings** to open the network manager.
3. Configure network settings for your wired or wireless network.

4.5.4 Configuring Security

The Security Settings page allows you to configure the network transport for the connection. Secure Shell, or SSH, is used to create a secure channel between a local and remote computer. Shadowing uses VNC from the endpoint manager to view or control the client. This is useful if the administrator needs to remotely monitor the client activity, or take full control of the client from a remote location.

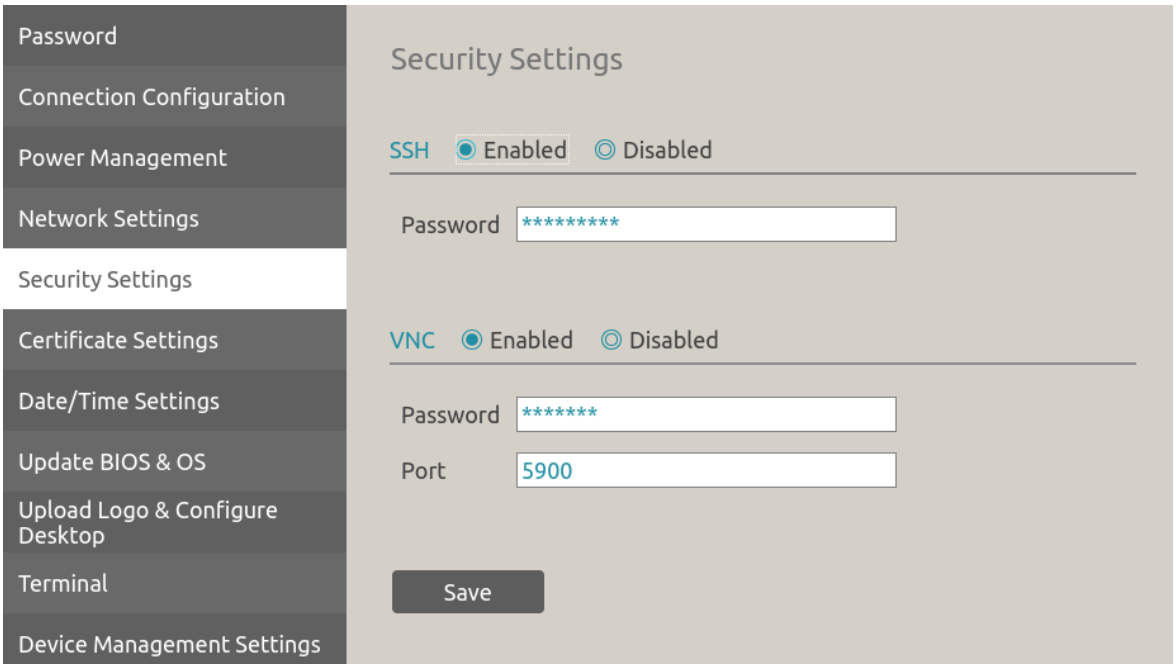

Figure 24 Security Settings Page

To configure SSH and VNC settings:

1. Click **Settings** in the pre-session display and enter **Advanced Settings** to see the Advanced Settings page.
2. In the **Security Settings** section, you can enable or disable SSH and/or VNC. Both are disabled by default.
3. Configure password and port for SSH and VNC settings.
4. Click **Save**.

4.5.5 Configuring the Time Zone

Update the time zone so that your pre-session display shows the correct time.

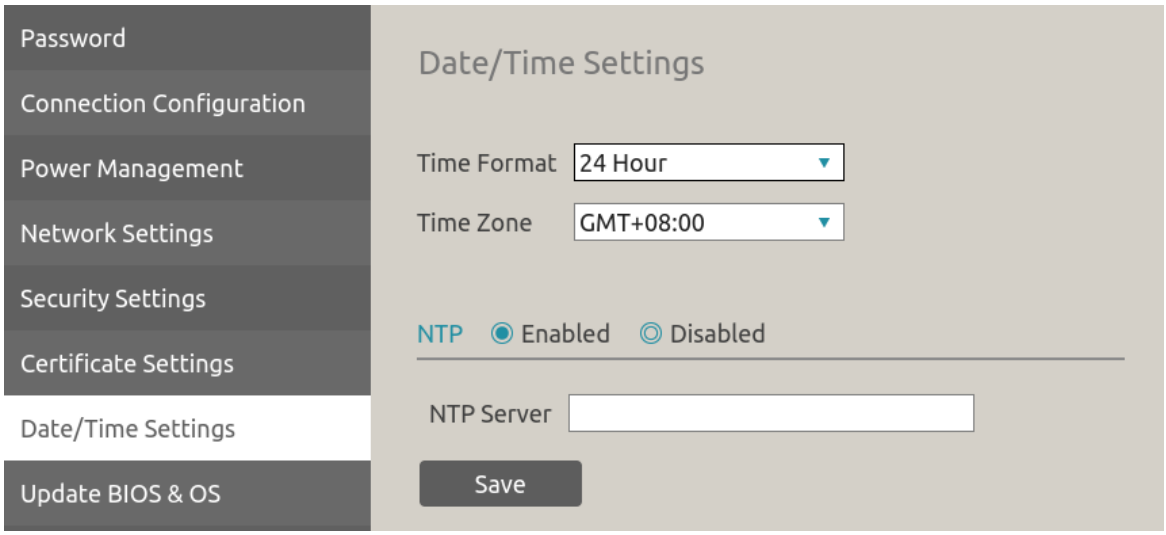

Figure 25 Date/Time Settings Page

To update the time zone from the pre-session display:

1. Click **Settings** in the pre-session display and enter **Advanced Settings** to see the Advanced Settings page.
2. In the **Date/Time Settings** section, select a time zone from the *Time Zone* list.
3. You can also configure time format and NTP server in this section.
4. Click **Save**.

4.5.6 Configuring Appearance

You can customize the appearance of the pre-session display. You can upload a logo and set a custom wallpaper, as shown below.

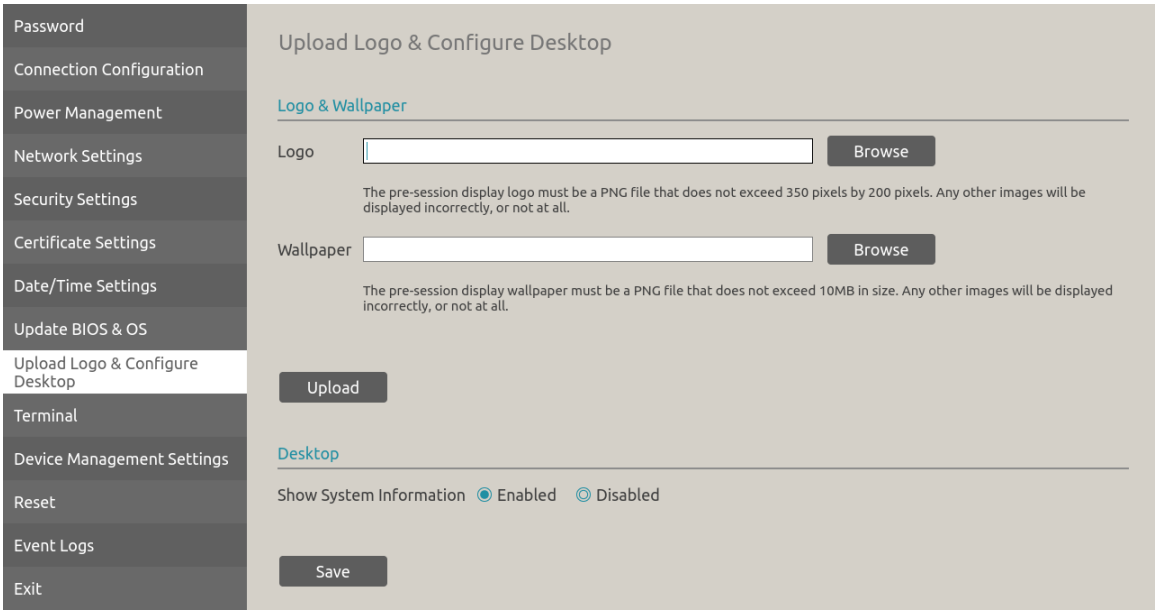

Figure 26 Upload Logo & Configure Desktop Page

To upload a logo and/or a wallpaper for your pre-session display:

1. Click **Settings** in the pre-session display and enter **Advanced Settings** to see the Advanced Settings page.
2. In the **Upload Logo & Configure Desktop** section, click **Browse** to select a logo and/or a wallpaper files to upload.

Note: The pre-session display logo must be a PNG file that does not exceed 350 pixels by 200 pixels. The wallpaper must be a PNG file that does not exceed 10MB in size. Any other images will be displayed incorrectly, or not at all.

3. Click **Upload**.

Note: The System Information icon in the pre-session display and the System Information pages can be hided from general users by configuring desktop in Advanced Settings. In the **Upload Logo & Configure Desktop** section, select *Disabled System Information* on Desktop and click **Save**.

4.5.7 Using Terminal

This is a standard terminal emulator for the X Window System. It lets you execute Linux commands outside the client interface.

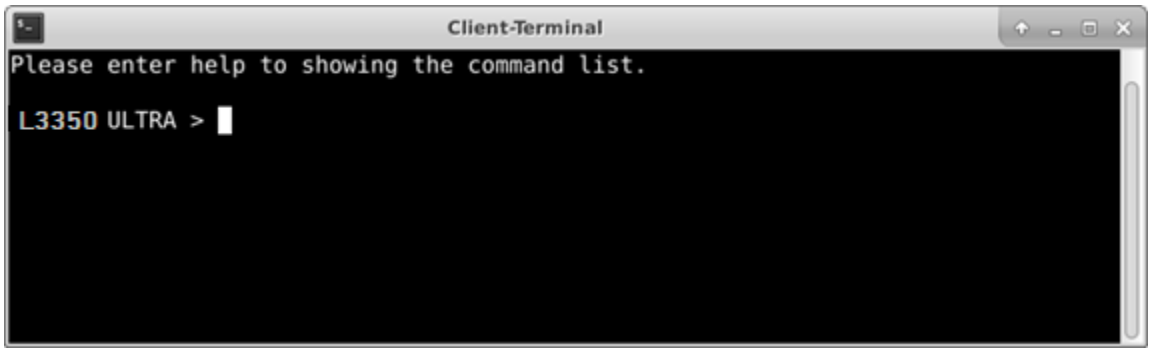

Figure 27 Terminal Page

To open the terminal feature:

1. Click **Settings** in the pre-session display and enter **Advanced Settings** to see the Advanced Settings page.
2. Click **Terminal** to open Client-Terminal window.