

NComputing vSpace Management Console Guide

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1.0 Getting Started

Before beginning, make sure you've downloaded and installed the latest version of vSpace for your selected operating system. For the purpose of this document we will be using **vSpace 6** in conjunction with the **L300**. Older versions of vSpace may contain variations in console layout and features, but many of the same concepts and terms will apply.

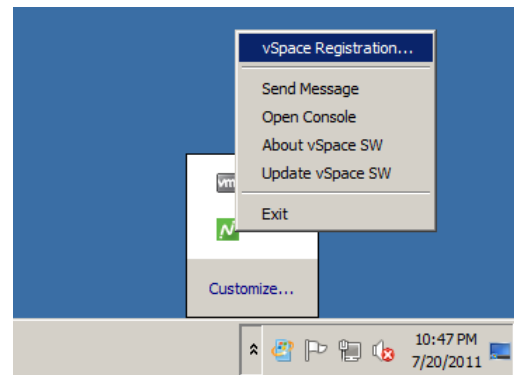
1.1 Installing vSpace

Begin by going to www.ncomputing.com/softwaredownload and downloading the latest version of vSpace. Once the download is complete, launch the vSpace installer and proceed through the guided install process. Be sure to reboot your host once the installation process is complete.

1.2 Registering vSpace

Once vSpace is installed, register the host software by right-clicking on the NComputing icon in your system tray and selecting "vSpace Registration," as shown in the image to the right.

This will launch the Registration Utility and you will be guided through the remainder of the registration process.



1.3 Connecting Your Devices

vSpace is now ready to accept connections from L-series devices. Keep in mind that, by default, your devices will automatically look for vSpace hosts on their designated subnet. You can alter this behavior from the devices themselves or from within the NC Console (**6.4 Connections Tab**) at any time.

Depending on your selected operating system, further configuration steps may be required for the OS itself (such as adjusting Local Policies or User Groups). Be sure to review our general deployment checklist to ensure that your environment is properly configured to facilitate device sessions.

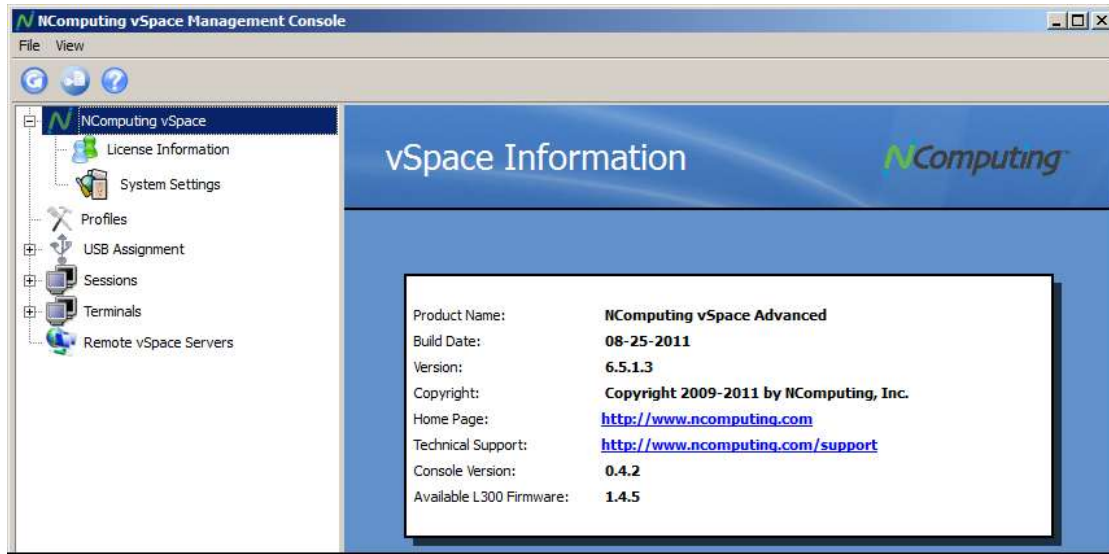
http://www.ncomputing.com/kb/NComputing-L-series-Deployment-Checklist_309.html

Once they have connected and received a session, you should register and update your device firmware (**6.1 L-series**) as soon as possible.

2.0 NComputing vSpace

2.1 vSpace Information

Launch the vSpace Management Console by navigating from the Windows Start button to “NComputing vSpace,” and then click on “NC-Console.” Once the console launches, left-click on the “NComputing vSpace” section of the left navigation tree to display information on the current vSpace build installed on your host. The vSpace Information screen provides the following information:



Product Name The product name of the current NComputing software installed on the host

Build Date The publish date of the vSpace build currently installed

Version The version number of the vSpace build currently installed

Copyright vSpace Copyright information

Home Page The official NComputing website URL

Technical Support The official NComputing Technical Support URL

Console Version The version number of the vSpace Console currently in use

Available L300 Firmware Indicates the current firmware version available for download from this host

Left-click on the “+” sign next to the “NComputing vSpace” section of the left navigation tree to display the “License Information” and “System Settings” sections.

2.2 License Information

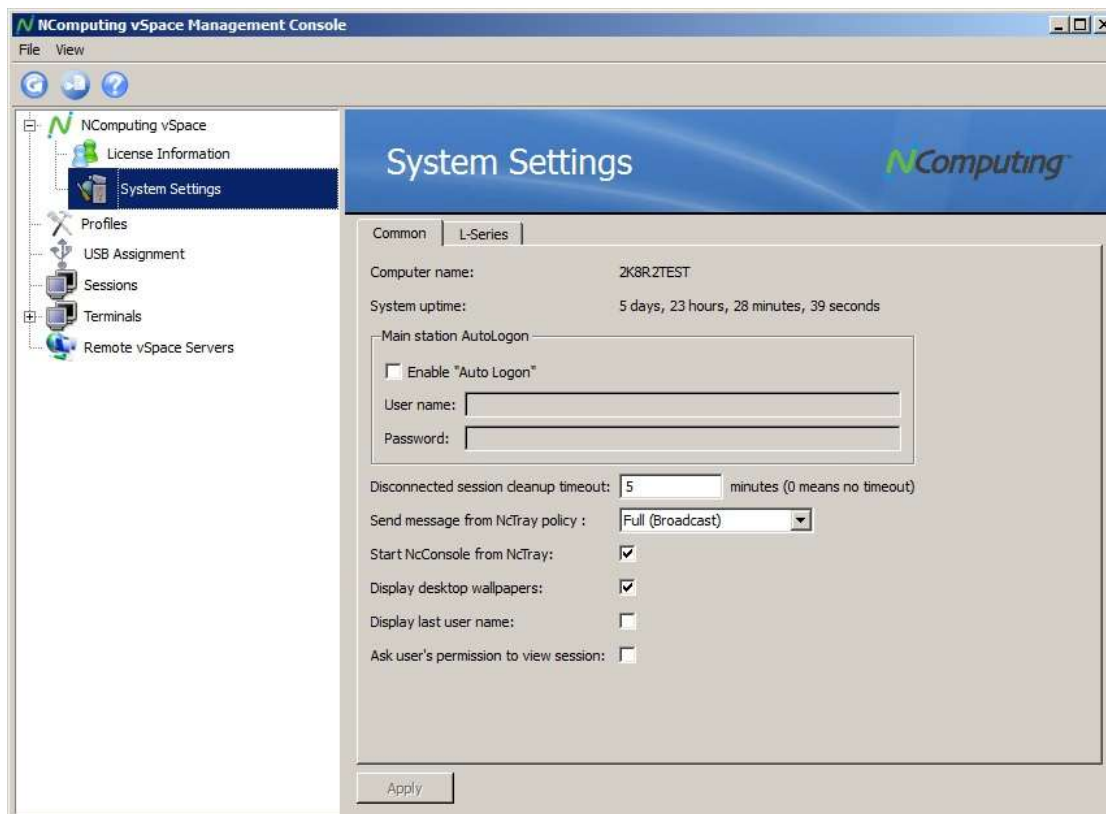
Left-click on the “License Information” section of the left navigation tree to display licensing information for the vSpace software on your host. The License Information screen provides the following information:



License Type	The type of license associated with the current vSpace install
Maximum Number of Connections	The maximum number of simultaneous NComputing device sessions allowable under the current license
Registered Device Session Duration	The length of time each registered device is allowed to maintain a session
Name, Company, Country, Address, City, State, Zip, Email, Phone	Contact information and other details provided during registration
Reseller / Dealer	The Reseller or Dealer indicated during registration
Type of Use	The use-case indicated during registration

2.3 System Settings

Left-click on the “System Settings” section of the left navigation tree to display settings that affect the host, as well as devices that connect to it. The “Common” tab provides the following options and information:



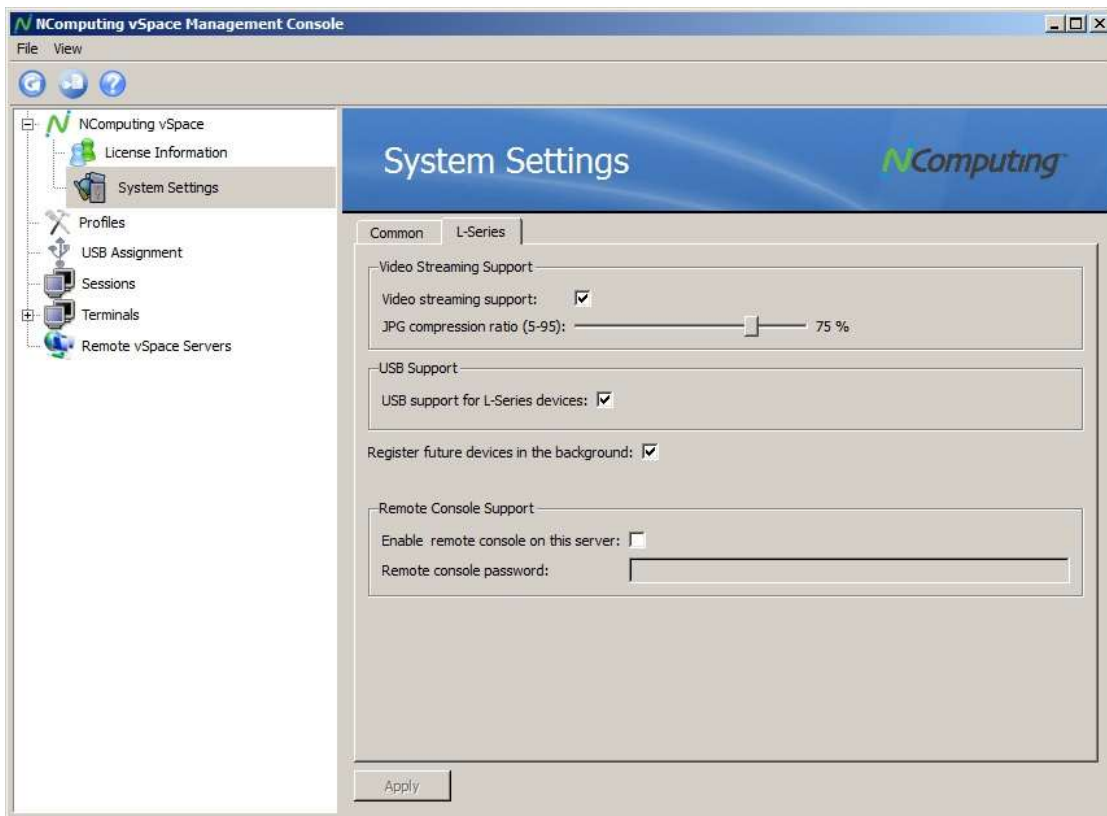
Computer Name	The system name of the vSpace host
System Uptime	Displays the length of time the host has been running without interruption. Reboots and shut-downs will reset this counter.
Main Station Auto Logon	Enabling this feature with a valid user name and password will cause the host to automatically log in to Windows when it boots. Otherwise, a user will need to manually enter a user name and password each time the host starts up.
Disconnected Session Cleanup Timeout	This value determines how long the host will wait before closing a user session after its device disconnects. A larger value provides a longer “grace period” during which users can re-connect their device without losing progress.
Send Message from NC Tray Policy	This setting controls the NC Message feature, which allows devices to send messages to each other. Full allows users to send messages to all connected devices. Point-to-point restricts messages to a single target device. Disabled turns this functionality off entirely.

- Start NC Console from NC Tray** This setting determines whether the NC Console can be opened from the NC Tray icon in the task bar.

- Display Desktop Wallpapers** Enabling this feature will allow device users to select and display custom Desktop Backgrounds within their Windows sessions.

- Display Last User Name** Enabling this feature will auto-populate the user name of the last user to log in when a new user attempts to log in to Windows.

- Ask User's Permission to View Session** Enabling this feature will prompt the target user session for permission if someone attempts to view their session through the NC Console.



The “L-series” tab provides the following options and information:

- Video Streaming Support** Enables or disables vSpace’s proprietary video compression and streaming technology.

- JPG Compression Ratio** Increases or decreases the JPG compression ratio used by vSpace. Higher compression means more CPU load, but lower network bandwidth use. Lower compression means lower CPU load, while increasing the amount of data streamed across the network.

- USB Support for L-Series Devices** Enables or disables USB support for L-series devices.

- Register Future Devices in the Background** Enabling this feature instructs the vSpace host to automatically register and activate L-series devices that connect in the future. This process will be completed silently in the background and requires no further interaction.

- Enable Remote Console on this Server** Enabling this feature will allow other vSpace hosts to view this host’s settings, as well as information on active sessions and USB port assignment.

- Remote Console Password** Sets the desired password for Remote Console access by other hosts. Hosts attempting to connect remotely to this system will be prompted for this password.

3.0 Profiles

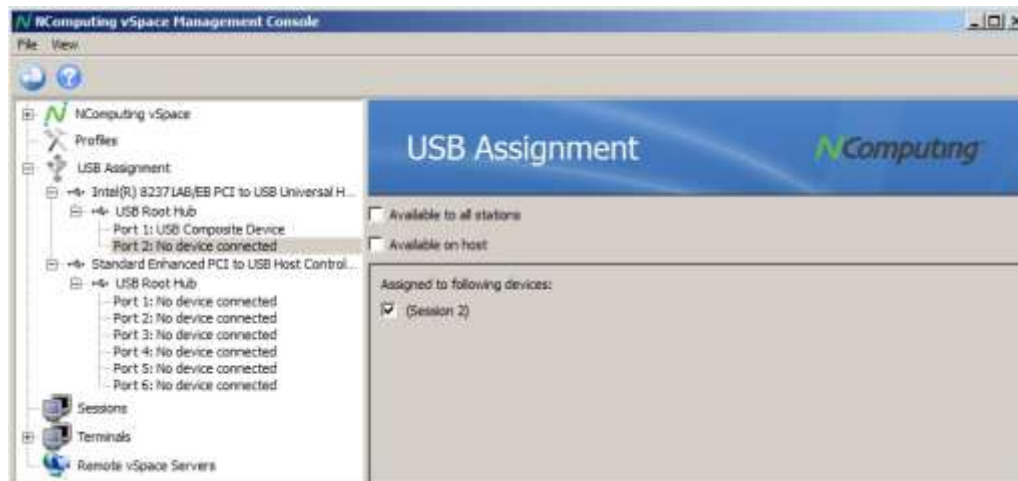
Left-click on the “Profiles” section of the left navigation tree to display information on device profiles that have been saved for future use. You can edit or delete these profiles by right-clicking on them in the profile list on the right side of the console.



Profiles can be “pulled” from existing devices and then “pushed” to entire groups of devices to simplify the process of configuring several devices at a time. See **6.11 Configuration Profiles** for more information on pushing and pulling profiles.

4.0 USB Assignment

Left-click on the “USB Assignment” section of the left navigation tree to display information on USB controllers available to the host. From this interface, you can assign individual USB ports to specific user sessions. By default, most USB ports on the host and the peripherals attached to them are visible and available for use by any user (provided the peripherals themselves are multi-user aware).



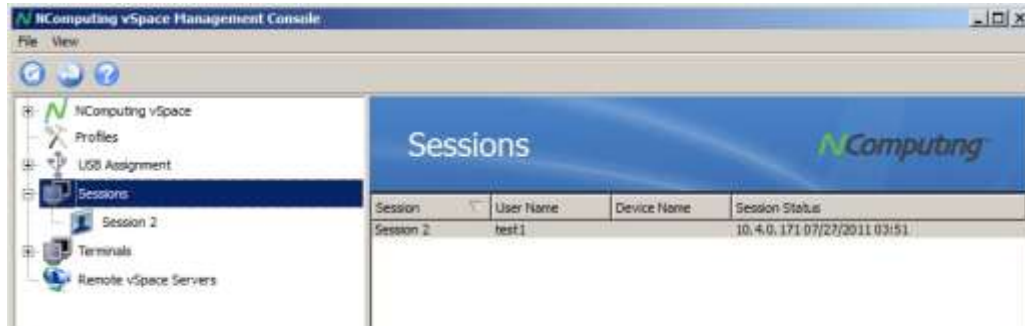
It is important to select USB ports that are not currently in use. Ports not in use are identified by the text “No device connected.” If you select a USB port in use, you might accidentally disable or restrict one of the ports servicing the host’s keyboard, mouse or other USB peripheral. Once you have selected an open USB port, the following settings on the right side of the console will display:

- | | |
|---------------------------------------|--|
| Available to All Stations | This setting is enabled by default, and allows all devices to see a given USB port and access devices connected to it if those devices support multi-user environments. This setting must be disabled to enable the other two options. |
| Available on Host | Restricts the port to use by the host session only. |
| Assigned to Following Devices: | Allows administrators to decide which user session(s) have access to a given USB port. |

5.0 Sessions

5.1 Session Overview

When one or more devices connects to your vSpace host, the “Sessions” section of the left navigation tree will be populated with a list of active sessions. Left-click on the “Sessions” section to display an overview of active sessions on the right side of the console.

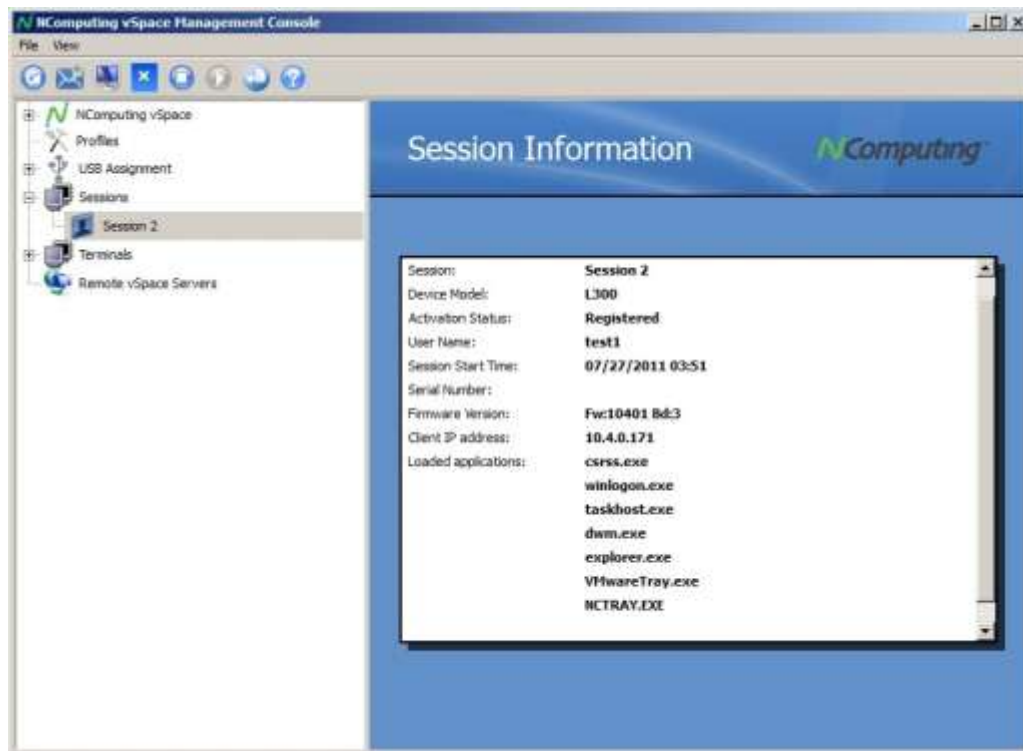


Right-click on any of the active sessions listed on the right side of the console to display the following four options.

- View Session** Select this option to allow you to view the desktop of the selected session.
- Send Message** Select this option to broadcast a short text message to the selected session.
- Disconnect Session** Disconnects the device from the current session, but leaves the session active for a period of time for ease of reconnection.
- Stop Session** Logs the user out of the current session.

5.2 Session Information

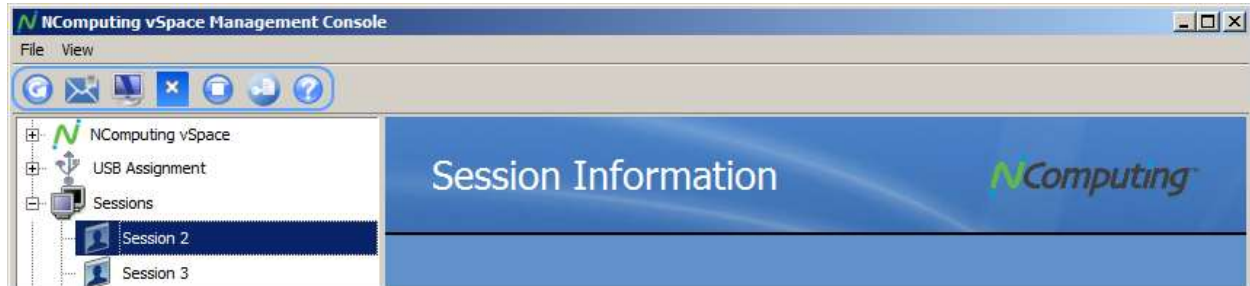
In addition to the session summary, you can expand the “Sessions” section of the left navigation tree to reveal information about individual sessions. Select these sessions to display additional information on the sessions themselves. The Session Information screen provides the following information:










Session	The session’s identifying number
Device Model	The model of device connected to this session
Activation Status	The device’s activation status, which is dependent on registration
User Name	The Windows User Name associated with this session
Session Start Time	The date and time that the session was created
Serial Number	The serial number of the device associated with this session
Firmware Version	The firmware version being used by the device associated with this session
Client IP Address	The IP address of the device connected to this session
Loaded Applications	The applications currently in use by this session

5.3 Session Controls

A number of controls that provide easy access to some common operations appear at the top of the console. These operations include the ability to remotely view a specific session or to send that session a message.



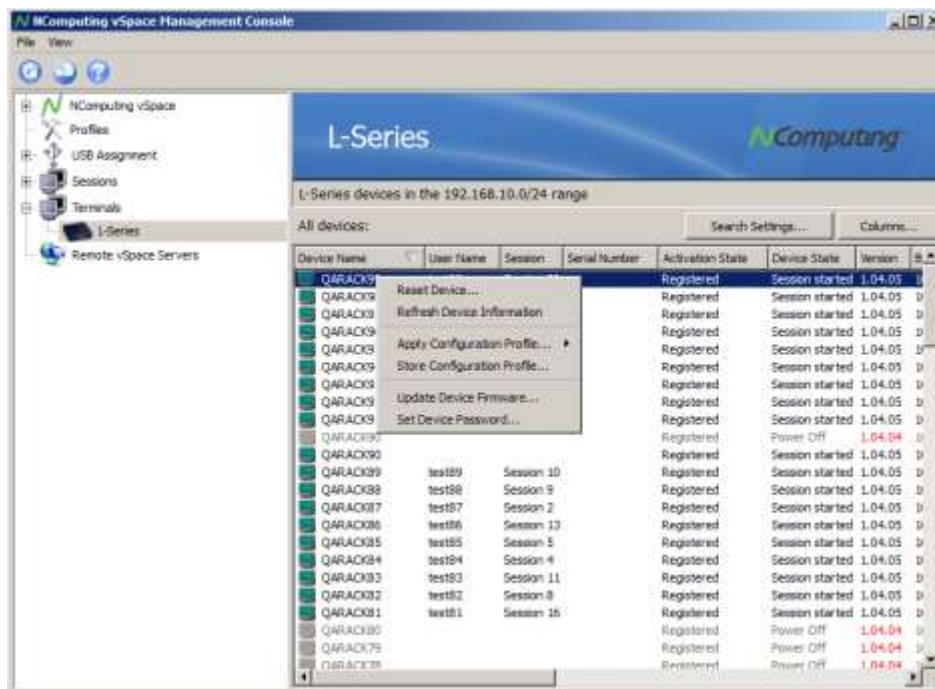
- 
Refresh – Refreshes Device and Session data within the vSpace console.
- 
Send Message – Sends a private message to the selected session.
- 
View* – Remotely displays the selected session, providing the same desktop view that the user is currently seeing.
- 
Disconnect – Disconnects the device from its associated session.
- 
Stop – Stops the selected session, effectively logging the user out.
- 
Registration – Opens the Registration dialog box.
- 
Help – Opens the Ncomputing Support page on an external web browser.

*While using the “View” function on a session, administrators can right-click on the view window to take control of that session.

6.0 Device Management

6.1 L-series

The L-series section of the console provides all of the tools and options needed to configure and maintain your L-series devices, as well as important usage information (such as user name and session number).



Right-click on one or more devices displayed in the L-series Devices list to display some basic maintenance options. Standard left-click “box” selection, shift-click and ctrl-click methods allow for the selection of multiple devices at once.

- Reset Device – Resets the selected device.
- Refresh Device Information – Refreshes all information on the selected device within vSpace.
- Apply Configuration Profile* – Applies a stored Configuration Profile to the selected device(s).
- Store Configuration Profile* – Stores a profile of the selected device’s settings for future use.
- Update Device Firmware – Initiates the Firmware Update process on the selected device.
- Set Device Password – Opens the Device Password menu for the selected device.

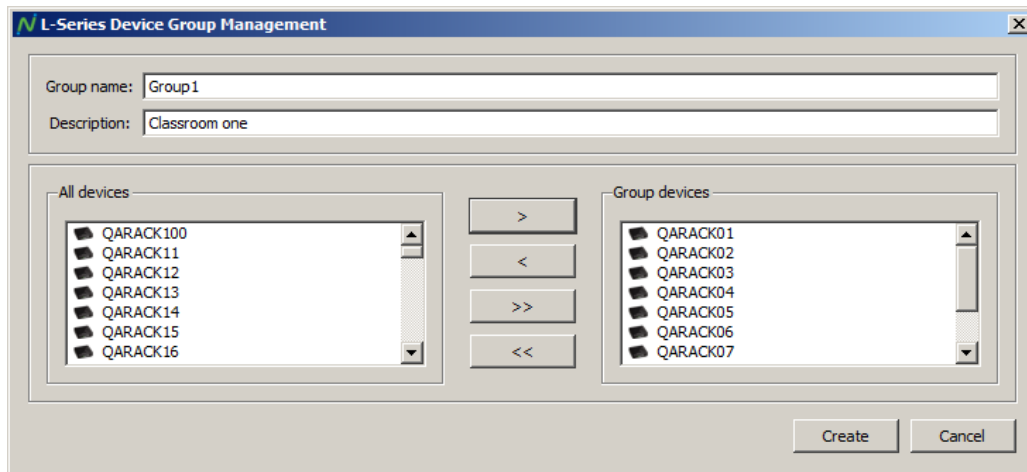
* See **Section 6.11** for more information on storing and applying configuration profiles.

Double-click on any device displayed in the L-series Devices list to open the Device Settings menu. This menu contains the following sub menus, which are explained in detail in the pages that follow.

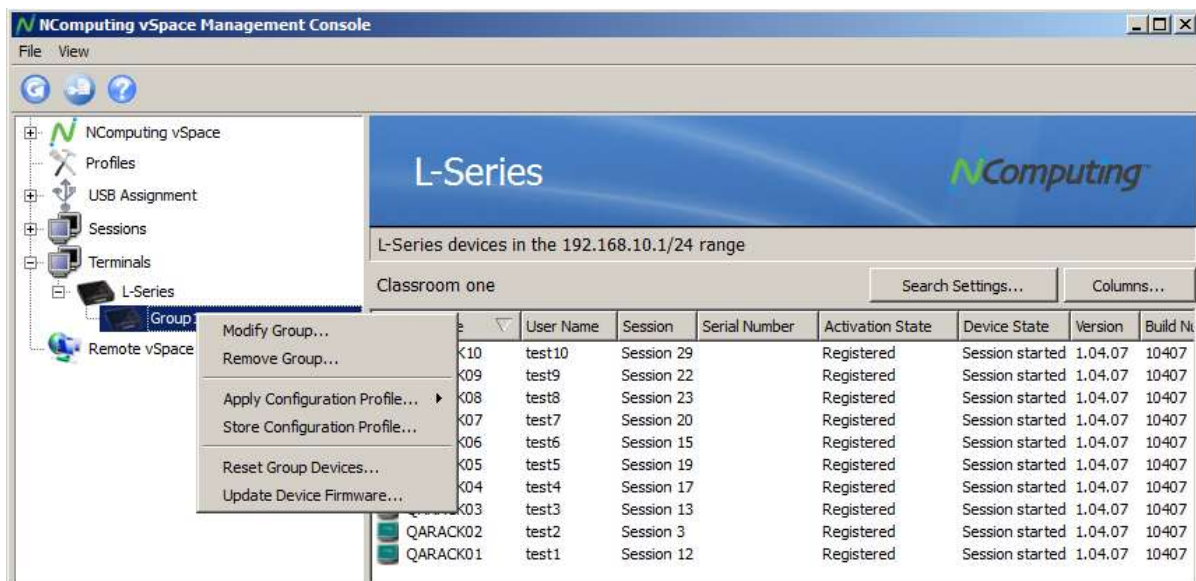
- Information – Basic device information
- Connections – Connection options
- Server Groups – Details on preconfigured Server Groups and their contents
- Login – Options for manual and automatic login
- Network – Network settings and options
- Password – Device password options
- Update – Controls for updating device firmware

6.2 Device Groups

When dealing with large numbers of devices spread throughout several logical or physical groups (for example, deployments across several office floors or classrooms), it can be advantageous to group these devices within the vSpace console itself. This can be accomplished by right-clicking on the “L-series” section inside the “Devices” group within the left navigation tree and selecting “Add Group,” which opens the Device Group Management interface, as shown below:

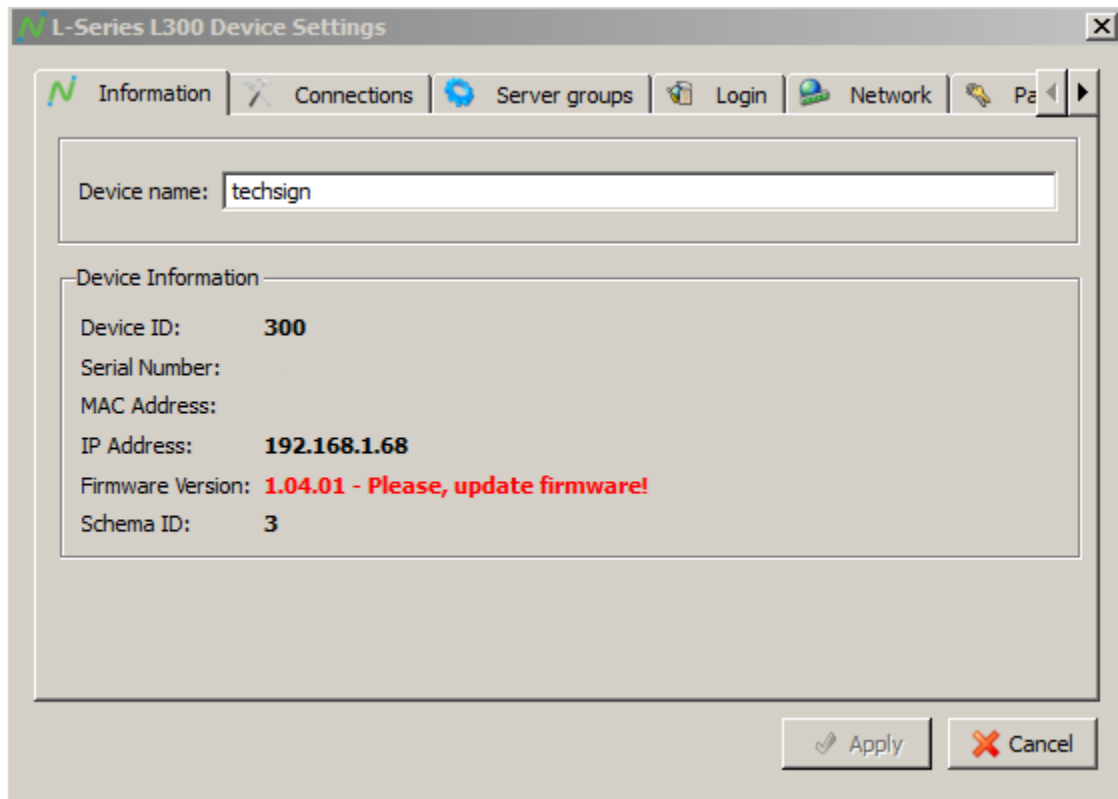


From this interface, devices can be added to a group which can be given a name befitting the nature of your deployment. Once created, groups can be selected from the “L-series” section of the console for easy configuration, as shown below:



6.3 Information Tab

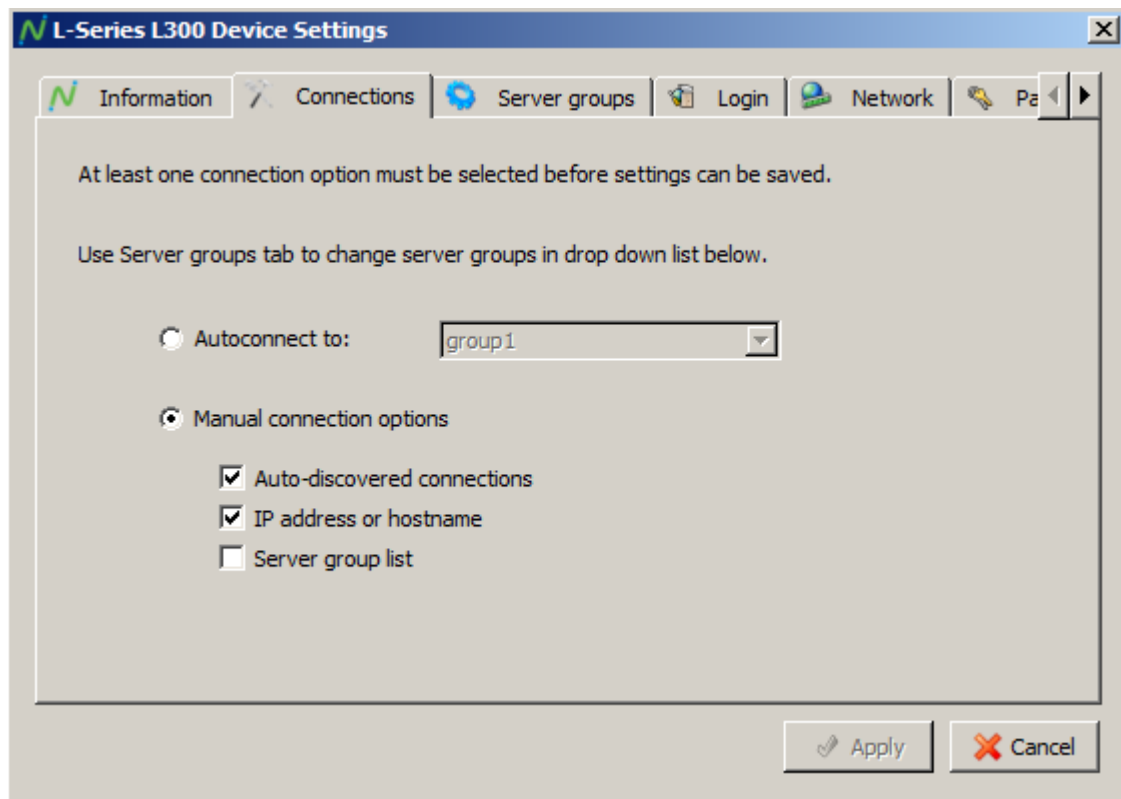
The “Information” tab provides basic information on a selected device, including its network address and serial number. This tab also allows you to rename the device to facilitate identification.



Device Name	Displays the designated device name. This can be edited as desired.
Device ID	The Model ID of the selected device (L300’s have a Device ID of 300)
Serial Number	The serial number of the selected device
MAC Address	The MAC address of the selected device
IP Address	The current IP address of the selected device
Firmware Version	Displays the currently loaded firmware version of the selected device. In this example, the device firmware is out of date, as indicated by the text “Please update firmware.”
Schema ID	Miscellaneous build information (for NComputing internal use only)

6.4 Connections Tab

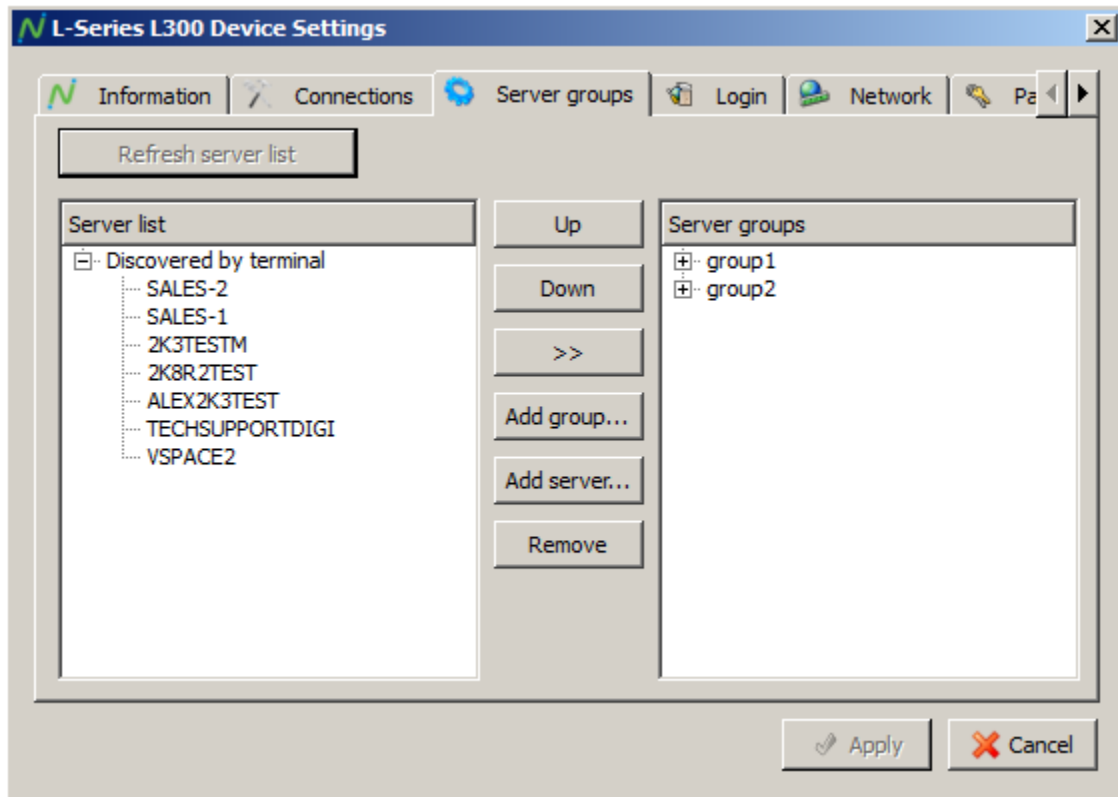
The “Connections” tab provides several host configuration options that determine how the device finds and then connects to available hosts. From here, you can set the device to automatically detect available servers, or instruct the device to connect to specific predetermined hosts or groups of hosts.



Autoconnect to	Configures the device to automatically connect to a predefined server location or server group.
Manual connection options	Configures the device so that the user can select a specific host, IP or Server Group each time the device boots.
Auto-discovered connections	Enable to display all available hosts on the device’s subnet.
IP address or hostname	Enable to allow the user to type in a specific IP or host name.
Server group list	Enable to allow the user to select a server group to connect to.

6.5 Server Groups Tab

The “Server Groups” tab allows administrators to combine several servers into a group, and then instruct the device to connect only to servers in that group. Exactly which servers are included in a given group and the order in which devices connect to them can be designated and altered within this menu. When the device is setup to autoconnect to a server group, it will connect to the first available server in the list (in the order set in the group). If the first server is not available, the device will then connect to the next server in the group, and so on. This is a key component for using the auto-failover feature of the L300.



UP / DOWN Changes the order in which a server within a group will be accessed.

>> Adds a detected server to a server group.

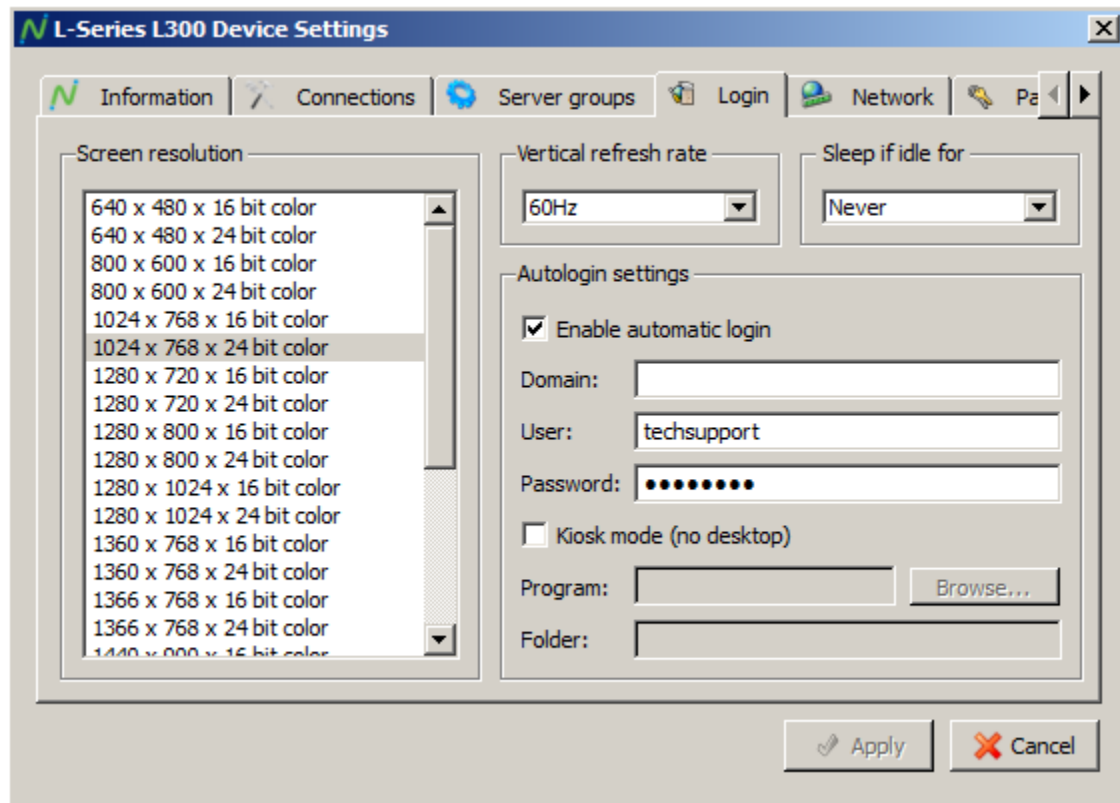
Add Group Creates a new server group.

Add Server Adds a new server to an existing server group.

Remove Removes the selected server or group.

6.6 Login Tab

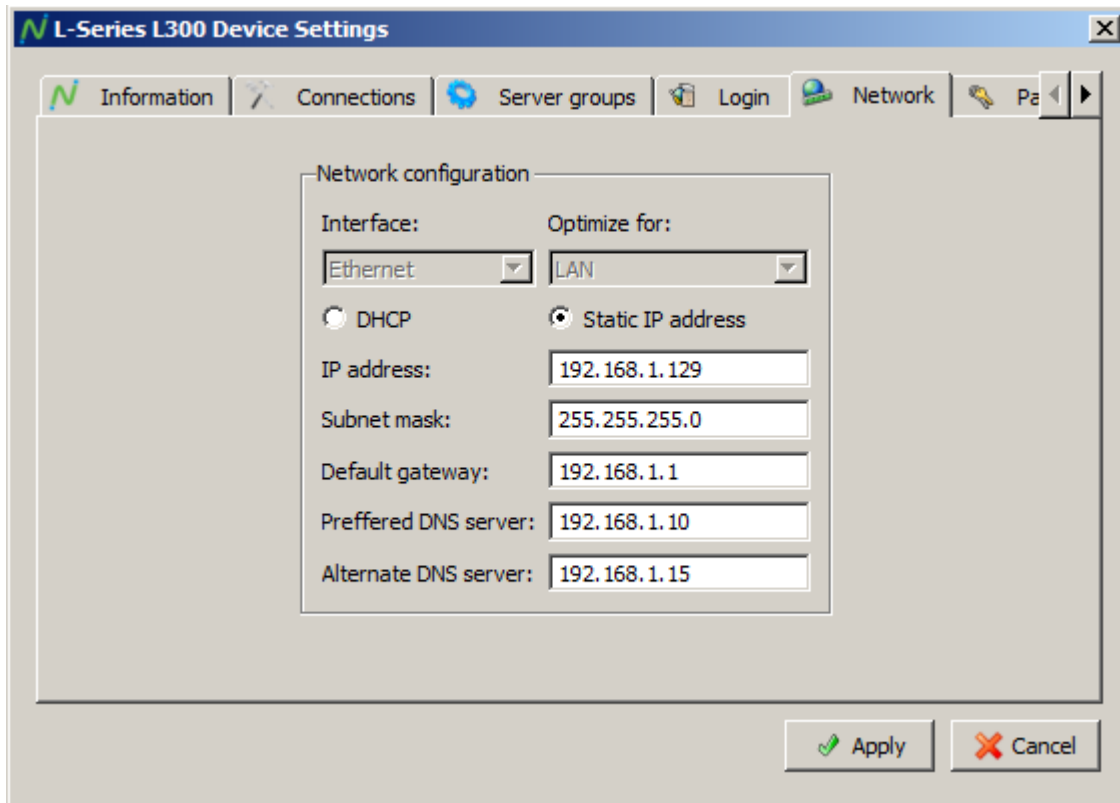
The “Login” tab provides several configuration choices that determine how the device will behave once it connects to a given host system, including screen resolution and automatic login options.



Screen Resolution	Sets the screen resolution and color depth to be used by the device once it connects to a host.
Vertical Refresh Rate	Sets the vertical refresh rate (in Hz) to be used by the device.
Sleep If Idle For	Instructs the device how long to wait before turning off its video signal (thereby allowing the monitor to enter its built-in screen saver mode).
Enable Automatic Login	Instructs the device to use a specific user name and password when it connects to a host. When enabled, the credentials will be entered automatically, allowing for a swift login. Specify the user credentials in the fields below this option.
Kiosk Mode	Instructs the device to immediately launch a specific application on login, instead of providing the standard Windows desktop experience.
Program	The name of the executable or object to be launched on startup
Folder	The path to the file to be executed

6.7 Network Tab

The “Network” tab provides standard network configuration options, including a choice between static and dynamic IP acquisition.



N-Series L300 Device Settings

Information | Connections | Server groups | Login | **Network** | Pa

Network configuration

Interface: Optimize for:

DHCP Static IP address

IP address:

Subnet mask:

Default gateway:

Preferred DNS server:

Alternate DNS server:

Interface Indicates the device’s network interface.

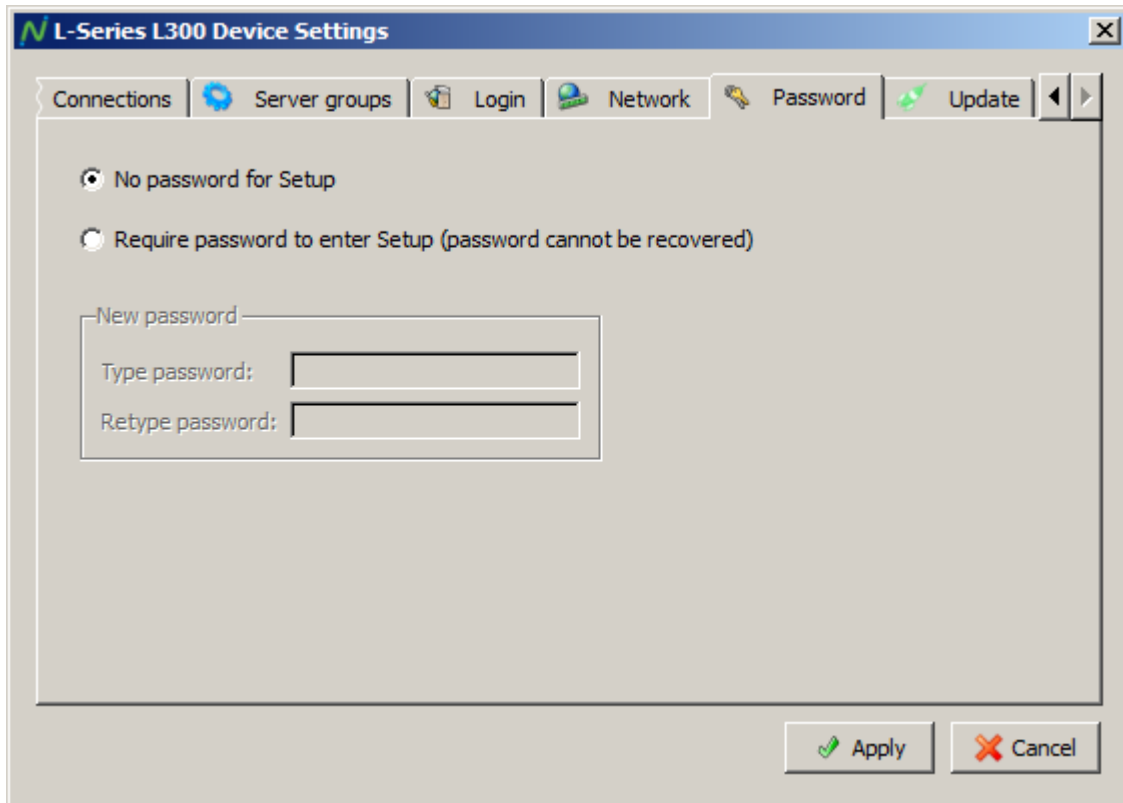
Optimize for Indicates the type of network being used; LAN = Local Area Network.

DHCP Instructs the device to acquire its network information from a DHCP server.

Static IP Address Instructs the device to use specific network settings, which can be specified in the fields below this setting.

6.8 Password Tab

The “Password” tab provides the option of setting a password that will restrict future access to device configuration. Use this tab to enable and disable password protection.



No Password for Setup

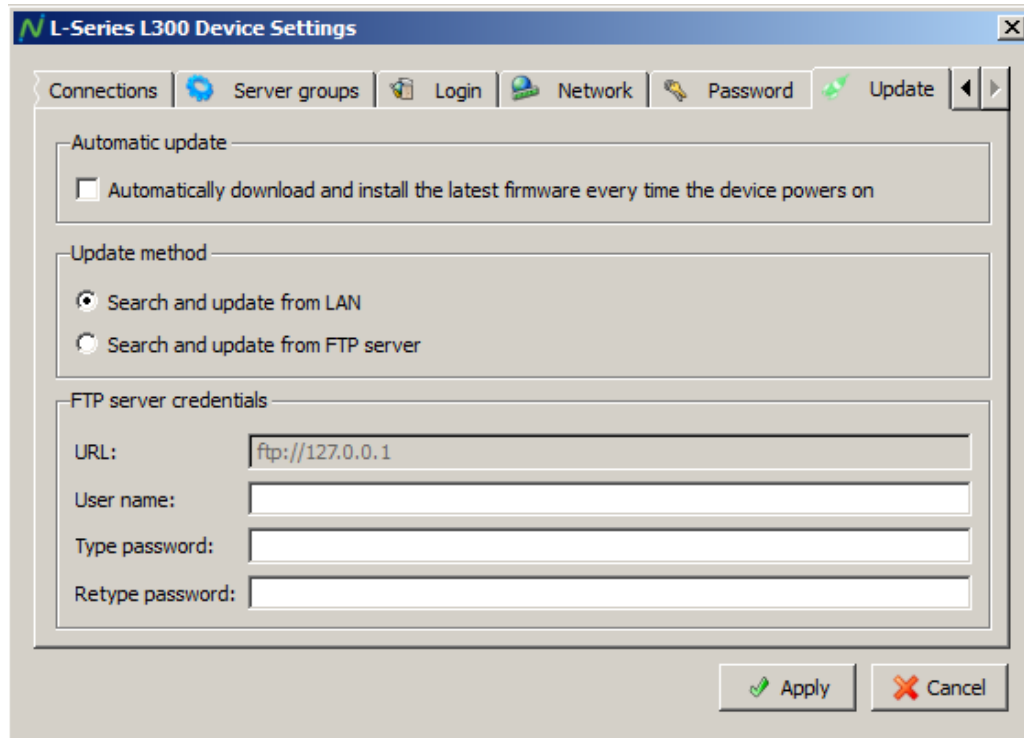
Sets the device to be accessible for configuration by any user.

Require Password to Enter Setup

Sets the device to require a password before device settings can be altered. If a password does not currently exist, it can be entered in the fields directly beneath this option.

6.9 Update Tab

The “Update” tab is used to check for and install (if available) firmware updates for the device. This tab allows you to select from several different update methods, and can be set to draw firmware updates from inside your network, or from an external FTP location.



The screenshot shows the 'Update' tab in the 'L-Series L300 Device Settings' window. It features a navigation bar with tabs for 'Connections', 'Server groups', 'Login', 'Network', 'Password', and 'Update'. The 'Update' tab is active. Below the navigation bar, there are three main sections: 'Automatic update' with a checkbox for 'Automatically download and install the latest firmware every time the device powers on'; 'Update method' with radio buttons for 'Search and update from LAN' (selected) and 'Search and update from FTP server'; and 'FTP server credentials' with input fields for 'URL' (containing 'ftp://127.0.0.1'), 'User name', 'Type password', and 'Retype password'. At the bottom right, there are 'Apply' and 'Cancel' buttons.

Automatic Update

Enable this option to instruct the device to automatically check for newer firmware that is available on the servers it can see during startup. If found, it will then download and install this firmware automatically.

Search and Update from LAN

This option instructs the device to search for updated firmware within the local area network it resides in.

Search and Update from FTP Server

This option instructs the device to search for updated firmware at a specific FTP location. Enter the full path of a specific firmware file to force the device to use that specific file (which allows for downgrading if needed). Enter the path of a folder that contains multiple firmware versions and a firmware index file to instruct the device to use the most recent firmware version available, according to the index file.

For more information on firmware updates via FTP, visit http://www.ncomputing.com/kb/Using-FTP-to-update-L300-Firmware_308.html

FTP Server Credentials

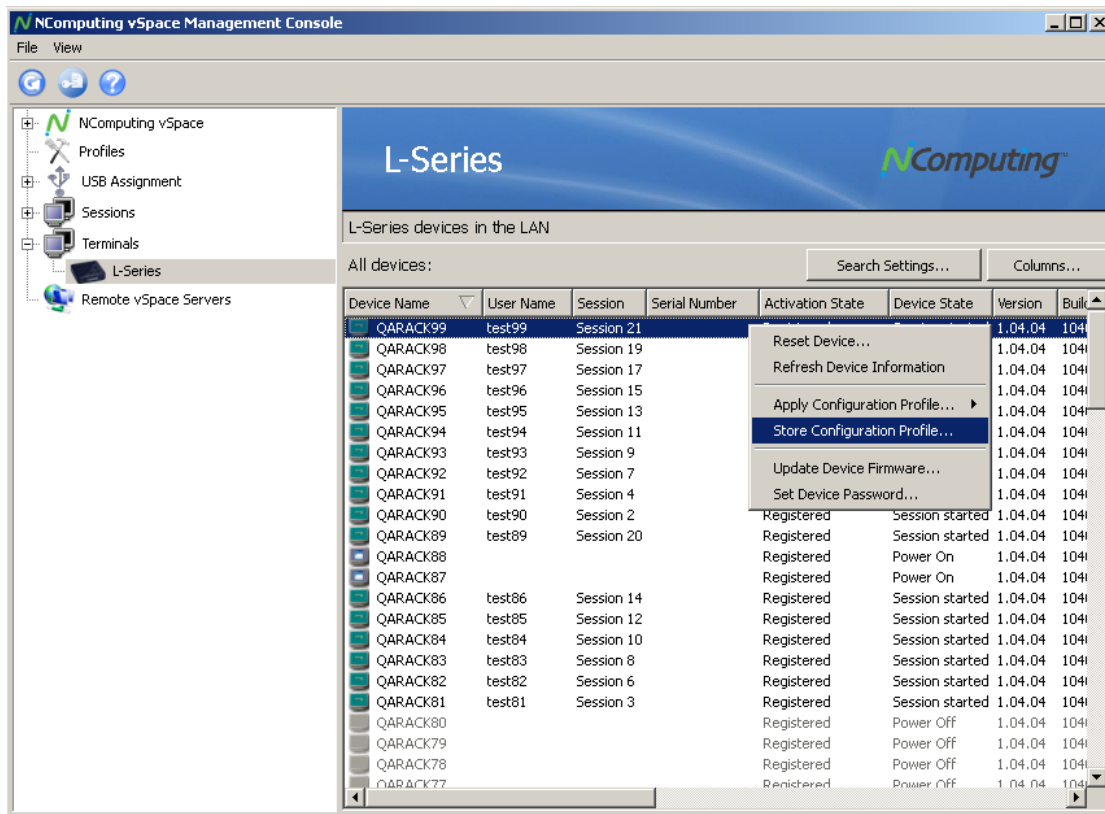
These fields allow you to enter the URL, user name and password for the FTP server you wish to use (if required).

6.11 Configuration Profiles

As of vSpace version **L-6.5.1.**, the NComputing vSpace Console includes the ability to save L-series device settings and apply those settings to other L-series devices across the network. While administrators retain the option to fine-tune devices on an individual basis, the Profile Management feature adds the ability to design and then deploy pre-selected configuration profiles to groups of devices in one step.

6.12 Creating Profiles

Profiles can be created by right-clicking on a device in the L-series Devices list and selecting the “Store Configuration Profile” option from the pop-up menu that displays, as shown below:



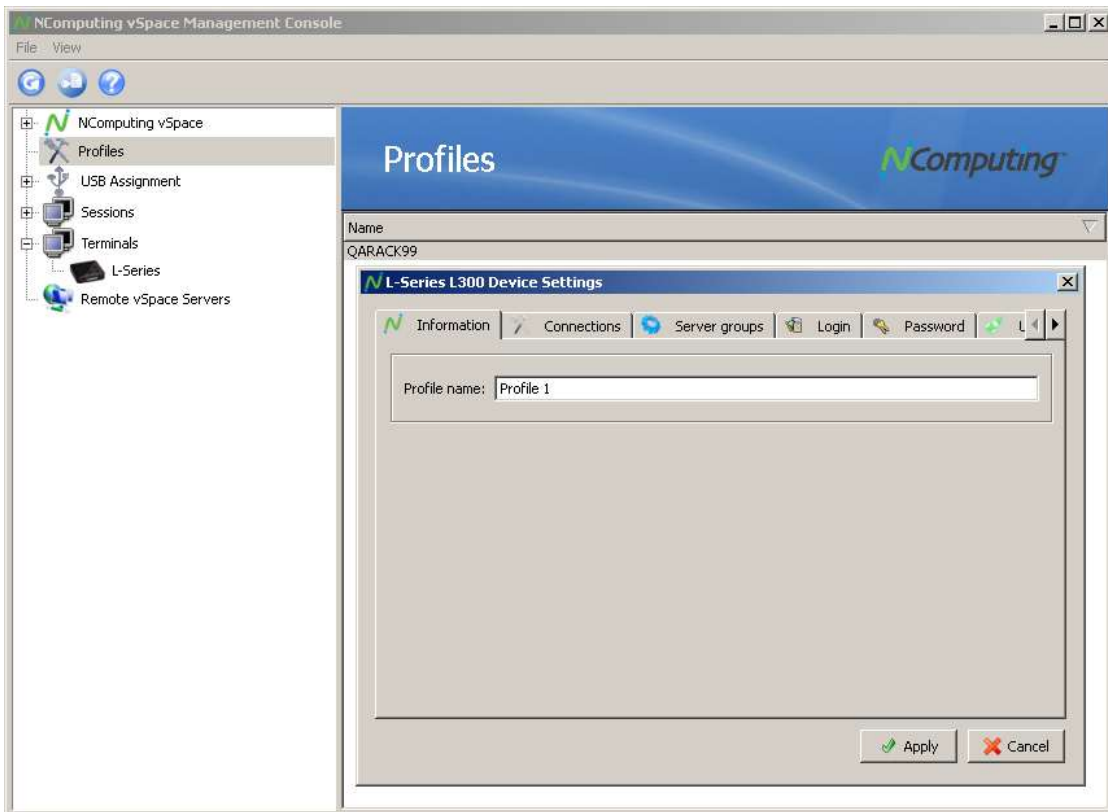
After choosing to store the selected profile, a confirmation will appear. Select “Yes” from the confirmation dialog box to store the profile in the “Profiles” section of the vSpace Management Console. The Management Console can store multiple profiles, and you can edit or remove them at any time.

6.13 Editing Profiles

Once a profile is created, administrators can edit the profile in the same way they would apply changes to the settings of an individual device. To do this, select “Profiles” from the left navigation tree within the Management Console, and then right-click on a profile, as shown below:

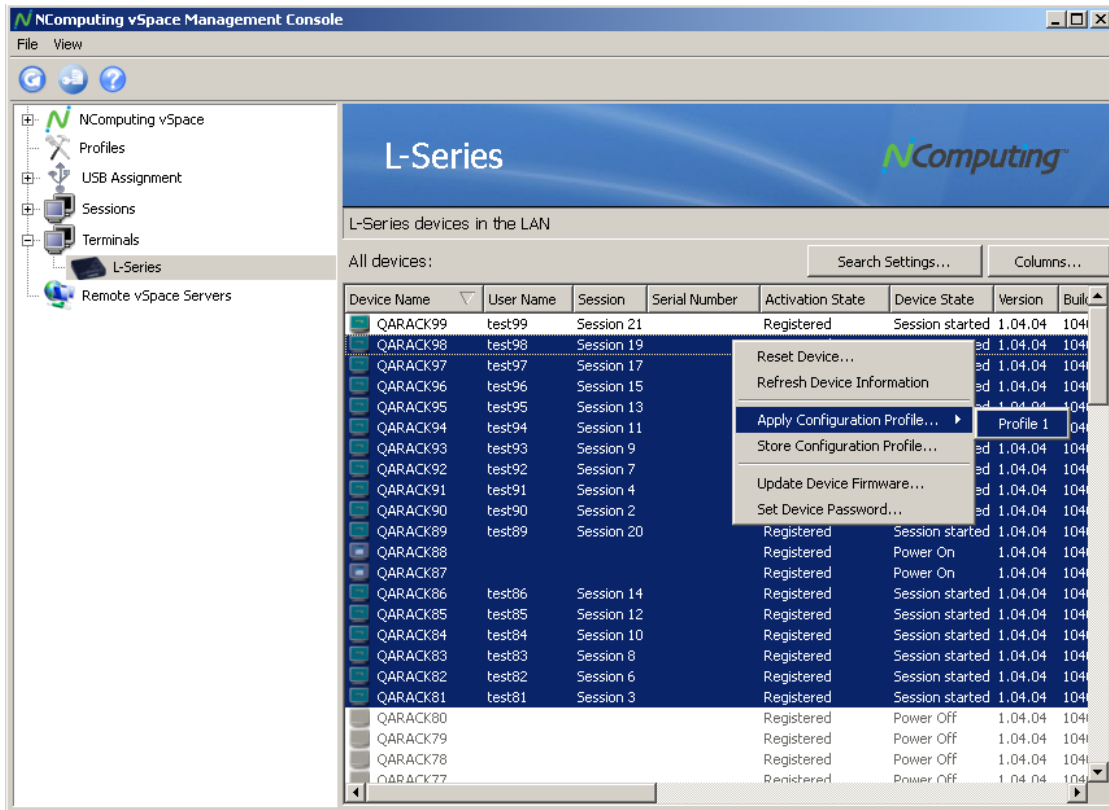


Once you have selected a profile to edit, you will be presented with a multi-tabbed configuration menu that closely resembles the device configuration menu. This menu allows you to rename the selected profile, as well as alter Connection, Server Group, Login, Password and Firmware Update settings, as shown below:



6.14 Applying Profiles

To apply a saved profile to other devices, select one or more L-series devices within the L-series Device list and then right-click on any of the selected devices. From the pop-up menu that displays, select “Apply Configuration Profile,” as shown below:

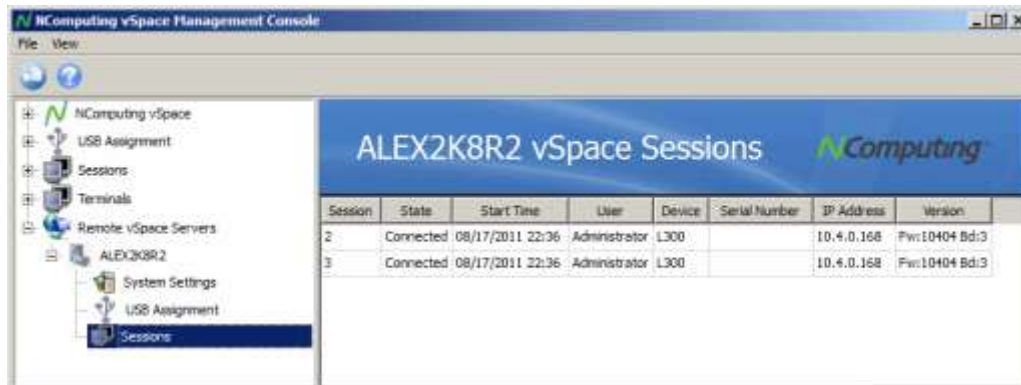


After confirming the action, the Management Console will begin updating the selected devices. This process may take a few moments, depending on the number of devices affected by the update. Once the process is complete, the affected device(s) will reboot automatically.

NOTE: If a device has a password applied to it, you will be prompted to enter the password when attempting to apply a profile to that device.

7.0 Remote vSpace Servers

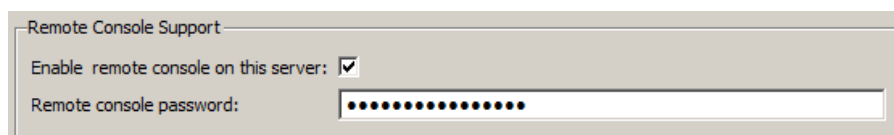
The “Remote vSpace Servers” section of the console allows administrators with multiple host systems on a given network to view and manage multiple hosts from one location. Additional features include the ability to view a given remote server’s active sessions and USB port assignments.



When one or more vSpace hosts have been configured for Remote Console support, they appear under the “Remote vSpace Servers” section of the vSpace console’s left navigation tree. Select this section of the navigation tree to display available hosts to the right of the console; click the “+” sign to expand the navigation tree and display the individual servers as sub groups. Click on the “+” sign next to each server to display all available remote settings and configuration menus.

7.1 Enabling Remote Console Support

To allow a given host to be accessed remotely by other hosts, enable the Remote Console Support feature in the System Settings menu under the “L-series” tab (**2.3 System Settings**). To do this, select the “Enable remote console on this server” checkbox and enter a password, as shown in the image below:



7.2 Remote Console Features

While many of the host management features can be accessed remotely, there are some differences between what can be accessed remotely (from a different vSpace host on the same or different subnet) and what can be accessed locally (from the Management Console running on the host to which devices are connected). Below is a feature matrix demonstrating some of these differences.

		Available Locally	Available Remotely (same subnet)	Available Remotely (cross subnet)
System Settings	View	✓	✓	
	Edit	✓	✓	
USB Assignment	View	✓	✓	
	Edit	✓		
Connected Sessions	View	✓	✓	
	Edit	✓		
Device Settings	View	✓		✓
	Edit	✓		✓

While keeping the limitations listed above in mind, features available through the remote console function in much the same way they would locally. Below is a brief overview of each subsection available for each remote server.

Server and Licensing Information	Click on the server name within the left navigation tree to display a mix of vSpace and Licensing information for that server (as described in sections 2.1 and 2.2 of this guide).
System Settings	Provides a selection of host configuration options (as described in section 2.3 of this guide).
USB Assignment	Provides details on USB devices connected to the host and their current device access settings (as described in section 4.0 of this guide).
Sessions	Displays a list of currently active sessions on the selected host. Unlike the local Sessions list, you cannot directly interact with sessions viewed through the “Remote Servers” section of the vSpace console.

8.0 Common Tasks

This section provides some examples of frequently-encountered administrative tasks that utilize many of the features outlined in the previous sections.

8.1 Helpdesk Tasks - Remote Viewing and Controlling a Device Session

For this example, we'll simulate remotely viewing and then controlling an active vSpace session. These actions will demonstrate the following vSpace console features:

- Locating sessions by windows login credentials
- Viewing a session remotely
- Controlling a session remotely

The Scenario:

A device user is having trouble and has called their office helpdesk service to assist them. The nature of the issue suggests that the easiest solution may be to **have a technician take over their session remotely and perform a few troubleshooting tasks**. In this scenario, the user doesn't know what their device name is but provides the Windows Login Name that they used to log in to Windows. They've connected to the **Sales1 server**, which is one of many virtual machines hosted within the office.

Step 1 – Open the vSpace Management Console:

The technician logs into the Sales1 server (using the virtual machine's console application, such as VMWare's vSphere Client). Once logged into the server, the technician launches the NComputing vSpace Management Console. (If this host were on a "bare metal" system, they could just as easily have opened an RDP session or, if the host were located in their part of the office, they could simply go to the host itself and log in to the host using an admin account.)

Step 2 – Determine which session is being used by the device in question:

Under the "L-series" section of the vSpace console, the technician would then locate the device by searching for the Windows Login Name provided under the "User Name" column of the L-series device list (outlined in **6.1 L-series** of this guide). Click at the top of any column to allow them to sort by this column to quickly find the user in question. In this scenario, we'll assume it was Session 2.

Step 3 – Use the Session Controls to perform the desired helpdesk tasks:

The technician would then open the "Sessions" section of the console (**5.1 Session Overview and 5.2 Session Information**) and left-click on Session 2 in the left navigation tree, revealing several session control options (**5.3 Session Controls**) along the top of the screen. These controls allow them to remotely view and then control the desired user session.

8.2 Maintenance Tasks - Performing a Firmware Update on an Active Device

In this example, we will simulate performing a firmware update on a device that is currently in use. To do this we need to give the current user advanced notice of the impending update before proceeding. This demonstrates the use of the following vSpace console features:

- Locate devices by active session ID
- Send a message to an active session via the console
- Perform a remote firmware update on multiple devices simultaneously

The Scenario:

As the work day winds down in a small office environment, the administrator gets ready to perform firmware updates on L-series devices throughout the building. All of the users have left for the day, with the exception of one. The administrator needs to make sure that the user is aware of the impending device update and restart before proceeding and decides to use the vSpace Management Console to accomplish this task.

Step 1 – Locate the active session and its associated device.

The administrator locates the active session using the “Sessions” section of the Management Console (**5.1 Session Overview** of this guide). If there were more than one user still active, they would all be visible in this list.

Step 2 – Send a message to the active session warning of the impending update.

By selecting the active session(s) found in the “Sessions” list and using the “Send Message” button (**5.3 Session Controls** of this guide), the administrator is able to send a text alert to the remaining user warning the user of the impending firmware update and forced device restart. This gives the user enough time to save their work and log out.

Step 3 – Perform a remote firmware update on all selected devices.

Once the remaining user has closed out their session, the administrator is free to select all of the devices in need of a firmware update in the L-series Devices list and perform a firmware update via the right-click menu (**6.1 L-series** of this guide).

8.3 Deployment Tasks – Installing and Configuring a new Computer Lab

For this example, we will go through the steps of initially deploying a series of devices, verifying their connectivity and performing some initial configuration tasks. These actions demonstrate the use of the following vSpace console features:

- Performing a firmware update on multiple devices simultaneously
- Storing and applying a device profile to multiple devices simultaneously

The Scenario:

A school is adding a lab with an additional 20-devices to their existing NComputing deployment. To expedite the deployment process, they will perform as many tasks as they can from the host rather than configuring individual devices.

Step 1 – Connect and Configure the First Device

After creating a host system with sufficient hardware resources for the intended user load, and completing the vSpace installation and registration process outlined in **1.1 Installing vSpace** and **1.2 Registering vSpace** of this guide, the administrator connects the first device to the host created for this lab. This device will serve as the template for the rest of the devices in the lab.

Once connected, the administrator locates the device from the host under the L-series Device list (**6.1 L-series** of this guide). The administrator right-clicks on the device and then selects “Update Device Firmware” to initiate a firmware update on the selected device. Once that process is complete and the device reboots, the administrator can double-click on the device and configure it as desired (**6.3 Information Tab through 6.9 Update Tab** of this guide).

Step 2 – Store the First Device’s Configuration Profile

After completing the configuration process on the selected device, the administrator can then right-click on the device in the L-series Devices list of the console and select “Store Configuration Profile” (**6.12 Creating Profiles** of this guide) to save this configuration for use on the rest of the devices in the lab.

Step 3 – Connect and Configure the Remaining Devices

It is now time to connect the remaining devices. Once the devices are connected, the administrator can perform a firmware update on all of them simultaneously by selecting the group and initiating a firmware update as outlined in **Step 3**.

Once the devices have completed their firmware update, the administrator can then apply the first device’s Configuration Profile to the remaining group in one step by again right-clicking on the group and selecting “Apply Configuration Profile” (as described in **6.14 Applying Profiles** of this guide).