



# Getting Started with CVDM-VPNSM

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CiscoView Device Manager for the Cisco IPsec VPN Acceleration Services Module (CVDM-VPNSM) is an embedded device manager for setup, configuration, and monitoring of the IPsec VPN Acceleration Services Module (VPN module). CVDM-VPNSM allows you to manage your VPN module by providing functions for configuring site-to-site VPNs, remote access VPNs, IPsec rules, and AAA settings. CVDM-VPNSM makes such configuration easier by allowing you to perform all these operations using one graphical user interface (GUI) tool.

You use wizards and dialog boxes to make your configurations; CVDM-VPNSM then designs best-practice command line interface (CLI) configurations based on your GUI configurations. You can view the CLI configurations generated by CVDM-VPNSM and deploy them to the device immediately or save them for future editing.



**Note**

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CVDM-VPNSM supports the deployment of native Cisco IOS commands only.

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This chapter contains the following topics:

- [Key Features in CVDM-VPNSM, page 1-2](#)
- [Starting CVDM-VPNSM, page 1-3](#)
- [Navigating in CVDM-VPNSM, page 1-8](#)
- [Saving Startup Configurations, page 1-19](#)
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- [Viewing the Running Configuration Information for the Device, page 1-21](#)
- [Viewing the Device Transport Log, page 1-21](#)
- [Refreshing CVDM-VPNSM, page 1-22](#)
- [Delivering CLI Commands to the Device, page 1-22](#)

## Key Features in CVDM-VPNSM

The following table describes the key features of CVDM-VPNSM.

**Table 1-1 Key Features**

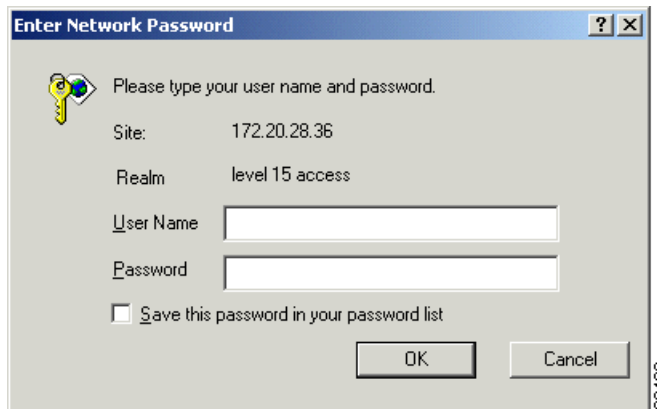
Feature	Description
VLAN management	CVDM-VPNSM allows you to manage the VLANs in your network by allowing you to configure and manage crypto connections.
Site-to-site VPN configuration	You can set up site-to-site VPNs and configure settings for them, such as GRE tunnels for encrypted traffic flow and crypto connections.
IPSec configuration	CVDM-VPNSM allows you to configure the IPSec settings to define authentication and encryption parameters and deploy them to the VPN peers in your network. You can manage the following IPSec features: <ul style="list-style-type: none"> <li>• Crypto maps</li> <li>• IPSec rules</li> <li>• Transform sets</li> <li>• IKE policies</li> <li>• Preshared keys</li> </ul>

**Table 1-1 Key Features (continued)**

Feature	Description
AAA configuration	You can configure parameters on the AAA server, such as authentication lists, accounting lists, and authorization lists.
Remote access VPN configuration	You can configure remote access VPNs and configure settings for them, such as crypto connections, global settings, and group policies.
View statistics	You can view connection statistics and security association statistics.

## Starting CVDM-VPNSM

- Step 1** Open a web browser.
- Step 2** In your browser, enter the IP address or DNS hostname of the device. The Enter Network Password dialog box appears (see [Figure 1-1](#)), prompting you for your level 15 credentials.

**Figure 1-1 Enter Network Password Dialog Box**

- Step 3** Enter your username and password for level 15 access. If you do not have level 15 access to the device, CVDM-VPNSM will not start.



**Note** If enable password is used for HTTP authentication, use enable password only.

- Step 4** Click **OK**. The device home page appears.
- Step 5** Click the CVDM-VPN link on the device home page.
- Step 6** The CVDM-VPNSM splash screen is displayed, and the Password Needed - Networking dialog box appears (see [Figure 1-2](#)).

**Figure 1-2** *Splash Screen and Password Needed - Networking Dialog Box*





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**Note** If you do not have Java Plug-in version 1.4.2\_06, you will be prompted to install it. If you are not prompted, go to [http://java.sun.com/products/archive/j2se/1.4.2\\_06/index.html](http://java.sun.com/products/archive/j2se/1.4.2_06/index.html) and install the Java plug-in.

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The CVDM-VPNSM splash screen must remain open in order for the application to function properly. Do not close this window until you log out. CVDM-VPNSM will appear in a separate window.



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**Note** It may take some time before CVDM-VPNSM appears.

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**Step 7** In the Password Needed - Networking dialog box, enter your username and password.

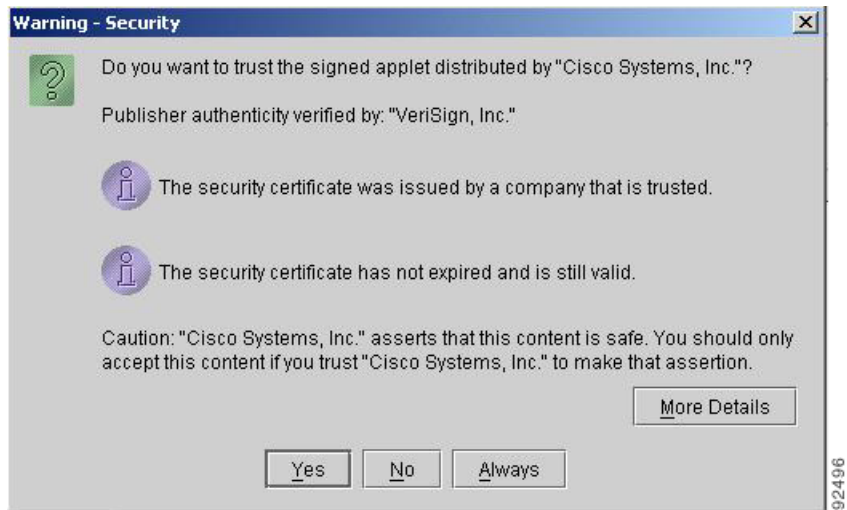


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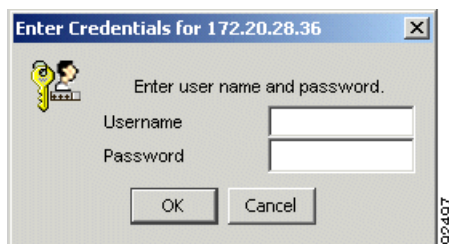
**Note** If enable password is used for HTTP authentication, use enable password only.

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**Step 8** Click **Yes**. The Warning - Security dialog box appears (see [Figure 1-3](#)).

**Figure 1-3 Warning - Security Dialog Box**

- Step 9** To accept the security certificate and continue, click **Yes**. A dialog box appears (see [Figure 1-4](#)), prompting you for your username and password.

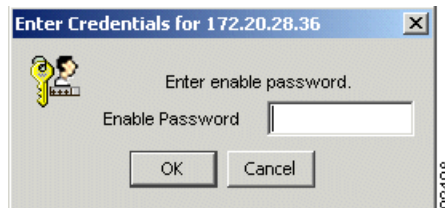
**Figure 1-4 Enter Credentials for <IP Address> Dialog Box (Username and Password)**

- Step 10** If SSH is enabled on the device, enter your SSH username and password. If SSH is not activated on the device, you are prompted to authenticate using Telnet instead. Follow the prompts to enter your Telnet credentials; the application also asks if you want to enable SSH on the device. To enable SSH, follow the prompts provided by the application.

**Step 11** Click **OK**.

- If enable is not configured on the device, CVDM-VPNSM starts. Skip the remaining steps in this procedure.
- If enable is configured on the device, a dialog box appears (see [Figure 1-5](#)), asking you to enter your enable password.

**Figure 1-5** Enter Credentials for <IP Address> Dialog Box (Enable Password)



**Step 12** Enter your enable password.

**Step 13** Click **OK**. CVDM-VPNSM starts.

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## Installing the Java Plug-in

CVDM-VPNSM requires Java Plug-in version 1.4.2\_06. The first time you invoke any Java Plug-in enabled window, you are alerted if the plug-in has not been installed. CVDM-VPNSM prompts you to download and install the plug-in files, using the installation screens or the procedure displayed. The next time you start the application, CVDM-VPNSM automatically uses the plug-in. Install the Java Plug-in 1.4.2\_06 provided with CVDM-VPNSM (not from any other source).

# Navigating in CVDM-VPNSM

Before you begin using CVDM-VPNSM, you must understand the basic operation of the user interface, including the login procedure and user interface elements. See the following sections for more information:

- [What Does the Home Page Show Me?](#), page 1-8
- [What Does the Setup Page Show Me?](#), page 1-12
- [Understanding the CVDM-VPNSM Desktop](#), page 1-13
- [Understanding the Action Buttons](#), page 1-18

## What Does the Home Page Show Me?

The home page is the first screen that comes up when CVDM-VPNSM is started. It gives a quick overview of the services running on the device and a snapshot of the overall health of the system (see [Figure 1-6](#)).

Figure 1-6 CVDM-VPNSM Home Page Components and Descriptions

The screenshot displays the CiscoView Device Manager interface for JobVPNSM. The interface is divided into several sections:

- System Overview:** Shows system details such as Hostname (webvpn), Software Version (1.1(1)), System Up Time (4 weeks, 2 days, 5 hours, 45 minutes), and resource usage (Memory: 13%, NVRAM: 1%, Flash: 13%). It also includes CPU Utilization (past 5 mins) and I/O statistics (IOS: 0%, SSL: 0%, TCP: 0%).
- Certificate Dashboard:** Features a Certificate Expiry bar (This Week: 0, Next Week: 0, Week 3: 0, Week 4: 0) and sections for CA Certificates and SSL Certificates, each showing Valid and Expired counts.
- Connection Dashboard:** Provides a Statistics overview with metrics like Active User Sessions, Active User TCP Connections, Authentication Failures, Terminated User Sessions, Active SSL Connections, Active SSL Sessions, Average SSL Connection Rate (past 5 mins), and SSL Handshake Failures (past 5 mins).
- Service Dashboard:** Displays Virtual Contexts and Virtual Gateways with their respective In Service and Out of Service counts, along with VRF Aware Contexts, Non VRF Aware Contexts, HTTP Redirects, Complete and Incomplete Certificate Chains, and SSL/TCP Policies.
- FAQ:** A search bar at the bottom left with the text "How do I import an SSL certificate and private key to SSLSM?".

Numbered callouts indicate the following components:

- 1:** Points to the System Overview section.
- 2:** Points to the Certificate Dashboard section.
- 3:** Points to the Service Dashboard section.
- 4:** Points to the Connection Dashboard section.
- 5:** Points to the FAQ search bar.

The bottom right corner of the browser window shows the date and time: Wed Jul 13 09:57:47 PDT 2005. A vertical ID number 92.444 is visible on the right edge.

Figure 1-6 Reference	Location	Description
1	<b>System Overview tab</b>	
	VPN Module (list or field)	Slot number on the device to which the VPN module is attached. If there are multiple modules in the chassis, a list is displayed. From this list, you can select the slot number for the desired VPN module; the System Overview pane displays information for that slot.
	Sup IOS Version	Version of IOS software running on the supervisor card.
	Model	The model type of the VPN module.
	Status	Current status of the VPN module.
	Software Version	Software version of the VPN module.
	Hardware Version	Hardware version of the VPN module.
	Firmware Version	Firmware version.
2	<b>IPSec Dashboard tab: IPSec column</b>	
	Crypto Maps	Number of IPSec crypto maps on the device.
	Static Crypto Maps	Number of static IPSec crypto maps on the device.
	Dynamic Crypto Maps	Number of dynamic IPSec crypto maps on the device.
	Incomplete Crypto Maps	Number of incomplete crypto maps on the device.
	Transform Sets	Number of transform sets configured.
	IPSec Rules	Number of IPSec rules configured.
	<b>IPSec Dashboard tab: IKE column</b>	
	IKE Policies	Number of IKE policies configured.
	Preshared Keys	Number of preshared keys configured.

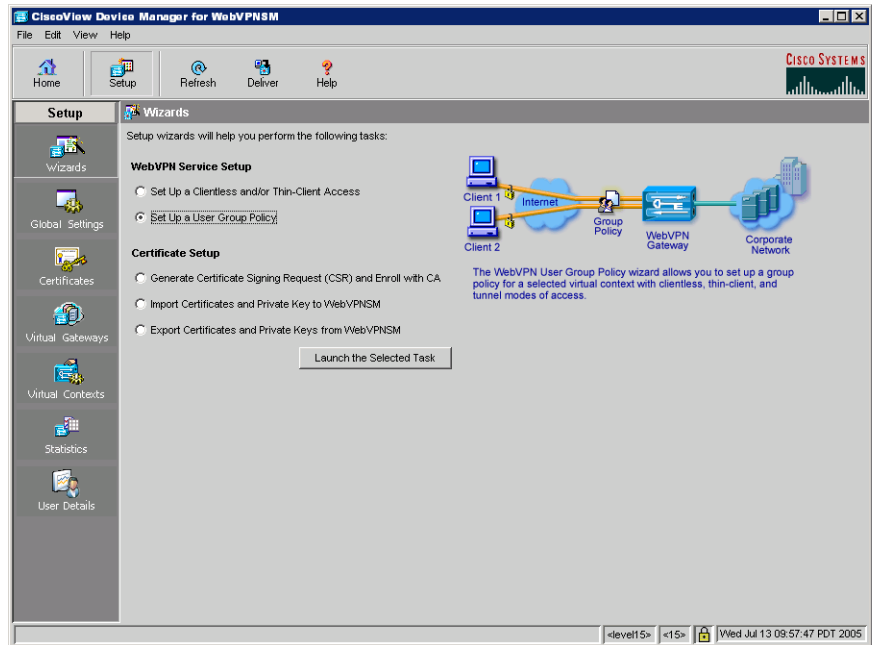
Figure 1-6 Reference	Location	Description
3	<b>Service Dashboard tab: Site-to-Site VPN column</b>	
	Crypto Connections	Number of site-to-site VPN crypto connections.
	Crypto Maps	Number of site-to-site VPN crypto maps.
	GRE Tunnels	Number of site-to-site VPN GRE tunnels.
	<b>Service Dashboard tab: Remote Access column</b>	
	Crypto Connections	Number of remote access VPN crypto connections.
	Crypto Maps	Number of remote access VPN crypto maps.
	Group Policies	Number of remote access VPN group policies.
	Address Pools	Number of remote access VPN address pools.
	<b>Service Dashboard tab: Access Rules column</b>	
	Access Rules	Number of access rules configured on the device.
	Access Rule Entries	Number of access rule entries configured on the device.
	<b>Service Dashboard tab: AAA column</b>	
	Radius Servers	Name of the RADIUS server.
	Authentication Groups	Number of AAA authentication groups.
	Authorization Groups	Number of AAA authorization groups.
	Accounting Groups	Number of AAA accounting groups.

<b>Figure 1-6 Reference</b>	<b>Location</b>	<b>Description</b>
4	<b>Connection Dashboard tab: Crypto Connections column</b>	
	Inside VLANs	Number of inside VLANs on the device.
	Outside VLANs	Number of outside VLANs on the device.
	Crypto Connections	Number of crypto connections on the device.
	<b>Connection Dashboard tab: Connection Statistics column</b>	
	Active Connections	Number of active connections on the device.
	Active ISAKMP SAs	Number of active Internet Security Association and Key Management Protocol (ISAKMP) SAs on the device.
	Invalid ISAKMP SAs	Number of invalid ISAKMP SAs on the device.
	Site-to-Site Active	Number of active site-to-site VPN connections.
	Remote Access Active	Number of active remote access VPN connections.
	<b>Connection Dashboard tab: Table</b>	
	Group Name column	Name of the group policy configured on the device.
	Connections column	Number of active connections on the group policy.
5	FAQ list and Go button	Contains frequently asked questions about using CVDM-VPNSM. Select a question from the list and click the <b>Go</b> button.

## What Does the Setup Page Show Me?

The setup page allows you to view information about and configure site-to-site VPNs, remote access VPNs, IPSec rules, and AAA server information. You can also edit your global settings from the setup page (see [Figure 1-7](#)).

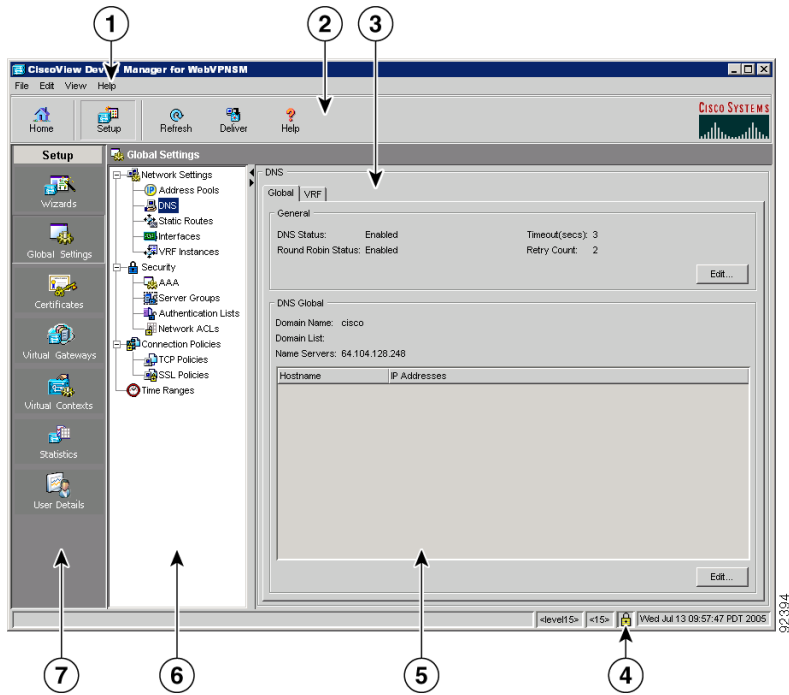
Figure 1-7 CVDM-VPNSM Setup Page



## Understanding the CVDM-VPNSM Desktop

This section describes the main GUI elements of the CVDM-VPNSM application.

Figure 1-8 CVDM-VPNSM GUI Elements



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<b>Figure 1-8 Reference</b>	<b>Location</b>	<b>Description</b>
1	Menu bar	<p>Provides File, Edit, View, and Help options.</p> <ul style="list-style-type: none"> <li>• File           <ul style="list-style-type: none"> <li>– File &gt; Save to Startup—Saves the configuration running on the device as the startup configuration. For more information, see <a href="#">Saving Startup Configurations, page 1-19</a>.</li> <li>– File &gt; Exit—Logs you out of CVDM-VPNSM and closes the application window.</li> </ul> </li> <li>• Edit           <ul style="list-style-type: none"> <li>– Edit &gt; Preferences...—Displays the Preferences dialog box from which you can edit application preferences. See <a href="#">Editing Preferences, page 1-19</a> for more information.</li> </ul> </li> <li>• View           <ul style="list-style-type: none"> <li>– View &gt; Home—Displays the Home page. See <a href="#">What Does the Home Page Show Me?, page 1-8</a> for more information.</li> <li>– View &gt; Setup—Displays the Setup page. See <a href="#">What Does the Setup Page Show Me?, page 1-12</a> for more information.</li> <li>– View &gt; Running Config—Opens the Show Running Configuration dialog box, which displays information about the configuration running on the supervisor or device. See <a href="#">Viewing the Running Configuration Information for the Device, page 1-21</a> for more information.</li> </ul> </li> </ul>

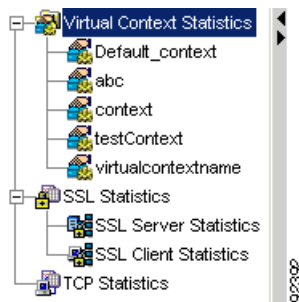
<b>Figure 1-8 Reference</b>	<b>Location</b>	<b>Description</b>
1 (continued)	Menu bar (continued)	<ul style="list-style-type: none"> <li>• View (continued)               <ul style="list-style-type: none"> <li>– View &gt; Refresh—Collects the most recent device information and updates the CVDM-VPNSM data. See <a href="#">Refreshing CVDM-VPNSM, page 1-22</a> for more information.</li> <li>– View &gt; Transport Log...—Displays the transport log of the device. The transport log displays all communication between CVDM-VPNSM and the device. See <a href="#">Viewing the Device Transport Log, page 1-21</a> for more information.</li> </ul> </li> <li>• Help               <ul style="list-style-type: none"> <li>– Help &gt; Help Topics—Displays online help.</li> <li>– Help &gt; About CVDM-VPNSM...—Displays CVDM-VPNSM version information.</li> </ul> </li> </ul>
2	Task bar	<p>Provides the following buttons:</p> <ul style="list-style-type: none"> <li>• Home—Displays the home page. See <a href="#">What Does the Home Page Show Me?, page 1-8</a> for more information on the home page.</li> <li>• Setup—Displays the Setup page for accessing CVDM-VPNSM functions. See <a href="#">What Does the Setup Page Show Me?, page 1-12</a> for more information on the Setup page.</li> <li>• Refresh—Collects the most recent device information and updates CVDM-VPNSM data.</li> <li>• Deliver—Opens the Deliver Configuration to Switch/Module(s) dialog box, from which you can send accumulated CLI commands to the device. See <a href="#">Delivering CLI Commands to the Device, page 1-22</a> for more information.</li> <li>• Help—Displays context-sensitive help.</li> </ul>
3	Page	CVDM-VPNSM working area in which you perform tasks.
4	Pane	One part of a divided page or dialog box.

Figure 1-8 Reference	Location	Description
5	Status bar	Provides the following information: <ul style="list-style-type: none"> <li>• Application user and privilege level.</li> <li>• Icon showing the security level of the connection.</li> <li>• Time stamp showing the last time CVDM-VPNSM collected data.</li> </ul>
6	Selector	Hierarchy of the groups and objects available in the Setup page that allows you to access specific functions for a switch or service object. See <a href="#">Selector, page 1-17</a> for more information.
7	Left-most pane	Contains buttons on the Setup page that allow you to access VPN module configuration functions.

## Selector

The selector is a tree that appears on most Switch and Services pages. [Figure 1-9](#) shows what the selector looks like when folders, subfolders, and objects are displayed. Not all selectors contain all of these elements.

**Figure 1-9 Selector**



<b>Figure 1-9 Reference</b>	<b>Location</b>	<b>Description</b>
1	Selector handle	Click the handle to open and close the selector, or click the handle and drag it to resize it.
2	Group folder	Displays a group of objects. Click the plus (+) symbol to see the contents of this folder.
3	Object	Displays the individual entity contained in the group or subgroup. Click an object to open the page for that object.

## Understanding the Action Buttons

This section describes the action buttons that commonly appear in CVDM-VPNSM dialog boxes and wizards. For a description of the wizard action buttons, see [Table 1-2](#); for a description of the dialog box action buttons, see [Table 1-3](#).

**Table 1-2 Wizard Action Buttons**

<b>Button</b>	<b>Action</b>
Back	Takes you to the previous page.
Next	Takes you to the next page.
Finish	Takes you to the wizard Deliver page.
Cancel	Exits a wizard dialog box without making any changes.
Help	Displays context-sensitive online help.

**Table 1-3** Dialog Box Action Buttons

Button	Action
OK	Saves your changes.
Cancel	Exits the dialog box without making any changes.
Help	Displays context-sensitive online help.



**Note** Some dialog boxes may contain additional buttons not described in this table.

## Saving Startup Configurations

You can save your device configuration as the startup configuration.

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- Step 1** Select **File > Save to Startup**. A warning dialog box appears, asking if you want to continue.
  - Step 2** To proceed, click **Yes**. CVDM-VPNSM saves the configuration as your startup configuration.
- 

## Editing Preferences

- 
- Step 1** Select **Edit > Preferences...**. The Preferences dialog box appears.
  - Step 2** Edit the appropriate values:

GUI Element	Action
Show CLI Preview for Wizards check box	<p>Select this check box if you want CVDM-VPNSM to display the CLI commands to be delivered to the device after you have completed a wizard. By default, this check box is deselected.</p> <p>When this check box is selected, when you click <b>Finish</b> in a wizard, the Deliver Configuration to the Switch/Module(s) dialog box opens and displays the CLI commands. For more information, see <a href="#">Delivering CLI Commands to the Device, page 1-22</a>.</p>
Show CLI Preview on Delivery check box	<p>Select this check box if you want CVDM-VPNSM to display the CLI commands to be delivered to the device. By default, this check box is selected.</p> <p>When this check box is selected, if you click <b>Deliver</b>, then the Deliver Configuration to Switch/Module(s) dialog box opens and displays the CLI commands. For more information, see <a href="#">Delivering CLI Commands to the Device, page 1-22</a>.</p>
Refresh After Delivery check box	<p>Select this check box to automatically refresh CVDM-VPNSM after you deliver commands to the device. Refreshing CVDM-VPNSM allows you to obtain the latest service device information and update the CVDM-VPNSM data. By default, this check box is selected.</p> <p>When this check box is deselected, when you click <b>Finish</b> in a wizard, CVDM-VPNSM prompts you to optionally refresh the application after delivering commands to the device. For more information, see <a href="#">Refreshing CVDM-VPNSM, page 1-22</a>.</p>
Confirm before Exiting check box	<p>Select this check box if you want CVDM-VPNSM to ask you to confirm that you want to exit the application. By default, this check box is selected.</p> <p>When this check box is selected, CVDM-VPNSM displays a dialog box asking you if you want to exit CVDM-VPNSM. From this dialog box, you can select the Always display this dialog box before exiting check box if you always want CVDM-VPNSM to confirm that you want to exit CVDM-VPNSM.</p>

# Viewing the Running Configuration Information for the Device

Select **View > Running Config**. The Show Running Configuration dialog box appears. Information about the running configuration for the device is displayed.

You can click the **Save to File...** button to save this information as a text file.

## Viewing the Device Transport Log

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- Step 1** Select **View > Transport Log...** A warning dialog box appears.
- Step 2** To proceed, click **OK**. The Transport Log dialog box appears, displaying information about communication between CVDM-VPNSM and the device. You can do the following:
- Click **Clear Log** to clear the information in the transport log.
  - Click **Save to File...** to save the transport log information as a text file.
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# Refreshing CVDM-VPNSM

You can refresh CVDM-VPNSM at any time to obtain the latest device information and update the CVDM-VPNSM data.



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**Note** You can specify that CVDM-VPNSM automatically refresh after you deliver commands to the device; see [Editing Preferences, page 1-19](#) for more information.

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- Step 1** Click **Refresh** at the top of the window or select **View > Refresh** from the Menu bar.
- Step 2** A dialog box appears, asking if you want to proceed with the refresh. To proceed, click **Yes**. The most recent device information is collected and is populated in CVDM-VPNSM. If you do not deliver your accumulated commands, they are not saved by the application.
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# Delivering CLI Commands to the Device



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**Note** You must deliver accumulated CLI commands to the device before any changes you make in CVDM-VPNSM will be applied.

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- Step 1** Click the **Deliver** button at the top of the window. The Deliver Configuration to Switch/Module(s) dialog box appears if you have configured CVDM-VPNSM to display the accumulated CLI commands when you click the **Deliver** button (for more information on configuring this option, see [Editing Preferences, page 1-19](#)).



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**Note** The Deliver Configuration to Switch/Module(s) dialog box also appears when you click the **Finish** button in a wizard if you have configured CVDM-VPNSM to display the accumulated CLI commands after you have completed a wizard.

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**Step 2** Edit the appropriate values.

GUI Element	Action
Window	Displays the accumulated CLI commands to be delivered to the device.
Deliver button	Click to send the accumulated CLI commands to the device.
Save to File... button	Click to save the CLI commands as a text file.
Close button <sup>1</sup>	Close the dialog box without delivering any CLI commands.
Deliver Later button <sup>2</sup>	Click to deliver the wizard CLI commands to the device at a later time.

1. This button is available only in the Deliver Configuration to Switch/Module(s) dialog box that is displayed after you click **Deliver** at the top of the window.
2. This button is available only in the Deliver Configuration to Switch/Module(s) dialog box that is displayed after you click **Finish** in a wizard.

**Note**

The Deliver Configuration to Switch/Module(s) dialog box displays *all* accumulated CLI commands that will be delivered to the module; therefore, any previous CLI commands that were not sent to the module are shown in this dialog box, as well as the CLI commands you have generated in this session.

