



Avaya Virtual Services Platform 4000 User Interface Fundamentals

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Chapter 1: Introduction

Purpose

This document describes the conceptual and procedural information to help you navigate Avaya Command Line Interface (ACLI) and Enterprise Device Manager (EDM). Use the ACLI and EDM interfaces to configure the features and functions on the Avaya Virtual Services Platform 4000 Series.

Related resources

Documentation

See the *Avaya Virtual Services Platform 4000 Documentation Roadmap*, NN46251–100 for a list of the documentation for this product.

Training

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About this task

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Procedure

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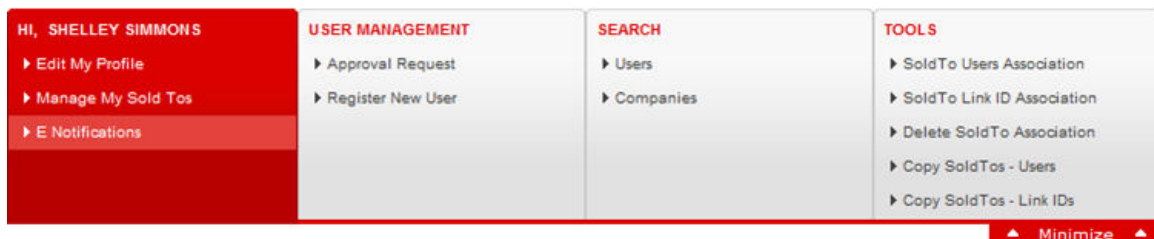
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Procedure

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3. Click **MY PROFILE**.



4. On the site toolbar, click your name, and then select **E Notifications**.



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7. In the PRODUCT NOTIFICATIONS area, click **Add More Products**.

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Before you begin

- Download the documentation collection zip file to your local computer.
- You must have Adobe Acrobat or Adobe Reader installed on your computer.

Procedure

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3. In the Search dialog box, select the option **In the index named <product_name_release>.pdx.**
4. Enter a search word or phrase.
5. Select any of the following to narrow your search:
 - Whole Words Only
 - Case-Sensitive
 - Include Bookmarks
 - Include Comments
6. Click **Search**.

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Chapter 2: New in this release

There are no updates to *Avaya Virtual Services Platform 4000 User Interface Fundamentals*, NN46251–103 for Release 4.0.

Chapter 3: Avaya Command Line Interface fundamentals

This section describes the Avaya Command Line Interface (ACLI).

ACLI is an industry standard command line interface that you can use for single-device management across Avaya products. Virtual Services Platform 4000 is supported by COM 3.0.2. Install Configuration and Orchestration Manager (COM) on a remote server to configure multiple devices through one interface. For more information on COM documentation, see <http://support.avaya.com/>.

 Note:

The default prompt for the non-PowerPlus chassis is VSP-4850GTS. The default prompt for the PowerPlus chassis is VSP-4850GTS-PWR+. The default prompt for the PowerPlus chassis with additional fiber ports is VSP-4450GSX-PWR+. For consistency, this document uses the VSP-4850GTS prompt.

ACLI command modes

ACLI has five major command modes.

You start your session on the Virtual Services Platform 4000 in User EXEC mode. From User EXEC mode, you can enter Privileged EXEC mode. From Privileged EXEC mode, you can enter Global Configuration mode. From Global Configuration mode, you can enter one of the remaining modes.

Each mode provides a specific set of commands. While in a higher mode, you can access most commands from lower modes, except if they conflict with commands of your current mode.

The following list describes the command modes:

- User EXEC mode—the initial mode of access. Only a limited number of commands are available in the User EXEC mode. Most EXEC commands are one-time commands, such as show commands, which show the current configuration status. The EXEC commands are not saved across restarts.
- Privileged EXEC mode—access this mode from the User EXEC mode. The user name and password combination determines your access level in the Privileged EXEC mode and higher modes. Enter **enable** to access this mode from the User EXEC mode. As with the User EXEC mode commands, most EXEC commands are one-time commands, such as show commands,

which show the current configuration status. The Privileged EXEC mode commands are also not saved across restarts.

- Global Configuration mode—access this mode from the Privileged EXEC mode. Enter **config {terminal|network}** to access the Global Configuration mode. Use this mode to make changes to the running configuration. If you save the configuration, these settings survive a restart of the system.
- Interface Configuration mode—access this mode from the Global Configuration mode. Enter **interface {GigabitEthernet <slot/port[-slot/port] [,...]> | loopback <1-256> | mlt <1-512> | vlan <1-4084>}** to access the Interface Configuration mode. Use this mode to modify either a logical interface, such as a virtual local area network (VLAN), or a physical interface, such as a port or slot. You can configure the following interfaces:
 - GigabitEthernet
 - Loopback
 - MLT
 - VLAN
- Router Configuration mode—access this mode from the Global Configuration mode. Enter **router {bgp | isis | ospf | rip | vrf WORD<0-16> | vrrp}** to access the Router Configuration mode. Use this mode to modify a protocol. You can configure the following protocols:
 - BGP
 - IS-IS
 - OSPF
 - RIP
 - VRF
 - VRRP
- Application Configuration mode—access this mode from the Global Configuration mode. Enter **application** to access the Application Configuration mode. Use this mode to access an application.

From either the Global Configuration mode or the Interface Configuration mode, you can save all of the configuration parameters (global, interface, and router) to a file. The default name for the configuration file is config.cfg. You can also use alternative file names.

You can enter most of the show commands from the User EXEC mode. In most cases, you can also enter the show commands in all of the upper-level command modes. If you need to enter a particular command mode to access a show command, the procedure prerequisites will state the required mode.

The following table lists the ACLI command modes, the prompts for each mode, and explains how to enter and exit each mode.

Table 1: ACLI command modes

Command mode	Prompt	Command mode or enter/exit mode
User EXEC	VSP-4850GTS>	This mode is the default command mode and does not require an entrance command. To exit the ACLI, enter logout .
Privileged EXEC	VSP-4850GTS#	Enter enable to access the Privileged EXEC mode from the User EXEC mode. Enter disable to exit the Privileged EXEC mode, and enter the User EXEC mode. To exit the ACLI, enter logout .
Global Configuration	VSP-4850GTS(config)#	From the Privileged EXEC mode, enter configure , followed by either terminal or network to access the Global Configuration mode. Enter exit to exit the Global Configuration mode, and enter the Privileged EXEC mode. To exit the ACLI, enter logout .
Interface Configuration	VSP-4850GTS(config-if)# VSP-4850GTS(config-mlt)#	Entry into this command mode depends on the type of configured interfaces. From the Global Configuration mode, enter interface {GigabitEthernet <slot/port> loopback <interface> mlt <mlt> vlan <VLAN>} to access the Interface Configuration mode. Enter exit to exit the Interface Configuration mode and enter the Global Configuration mode. To return to the Privileged EXEC mode, enter end . To exit the ACLI, enter logout .
Router Configuration	VSP-4850GTS(router-bgp)# VSP-4850GTS(config-isis)# VSP-4850GTS(config-ospf)# VSP-4850GTS(config-rip)# VSP-4850GTS(router-vrf)# VSP-4850GTS(config-vrrp)#	Entry into this command mode depends on the configured protocols. Enter router {bgp isis ospf rip vrf WORD<0-16> vrrp} to access the Router Configuration mode from the Global Configuration mode. Enter exit to exit the Router Configuration mode and enter the Global Configuration

Command mode	Prompt	Command mode or enter/exit mode
		mode. To return to the Privileged EXEC mode, enter end . To exit the ACLI, enter logout .

Default user names and passwords

The following table contains the default user names and passwords that you can use to log on to Virtual Services Platform 4000 Avaya command line interface (ACLI). For more information about how to change Virtual Services Platform 4000 passwords, see *Avaya Virtual Services Platform 4000 Series Security*, NN46251-601.

Table 2: ACLI default user names and passwords

User name	Password	Description
rwa	rwa	read-write-all
rw	rw	read-write
ro	ro	read-only
l1	l1	layer 1
l2	l2	layer 2
l3	l3	layer 3

Important:

The default passwords and community strings are documented and well known. Avaya strongly recommends that you change the default passwords and community strings immediately after you first log on. For more information about changing user names and passwords, see *Avaya Virtual Services Platform 4000 Series Security*, NN46251-601.

Documentation convention for the port variable

Commands that require you to enter one or more port numbers on Virtual Services Platform 4000 use the parameter `{slot/port[-slot/port][,...]}` in the syntax. The following list specifies the rules for using `{slot/port[-slot/port][,...]}`.

- `{slot/port[-slot/port][,...]}` can be one port on slot 1. For example, port 1/1 indicates the first port on slot 1.
- `{slot/port[-slot/port][,...]}` can be a range of port numbers. For example, port 1/1–1/3.
- You can add port numbers to the list separated by a comma. For example, port 1/1, 1/8, 1/10.

Command completion

The ACLI provides potential command completions to the command string. Completions are provided by using a ? or by using the ACLI autocompletion feature:

- question mark (?)
- ACLI autocompletion

? command completion

The ? command completion is available for any valid command. By typing a command and using a ? as the last argument in the command, the system returns a list of possible command completions from the point of the ?. A short description is provided with each possible completion.

If you enter the following command:

```
VSP-4850GTS(config-isis)#redistribute ?
```

ACLI provides a list of completions for the **redistribute ?** command.

```
VSP-4850GTS(config-isis)#redistribute ?
  direct      isis redistribute direct command
  static      isis redistribute static command
```

All the parameters listed under redistribute indicate sub-context commands.

You must use one of the available completions, and if necessary, use the command completion help again to find the next completion.

```
VSP-4850GTS(config-isis)#redistribute direct ?
  enable      Enable isis redistribute direct command
  metric      Isis route redistribute metric
  metric-type Set isis redistribute metric type
  route-map   Set isis redistribute direct route-policy
  subnets    Set isis redistribute subnets
<cr>
```

When you see <cr> (Carriage Return/Enter Key) in the list with the additional choices, this means that no additional parameters are required to execute the ACLI command. However, the additional choices listed could be peer commands or sub-context commands.

For example, the parameters listed under **redistribute direct ?** are peer commands. One can enter these peer commands on the same line as the root command, for example **redistribute direct enable**. However, the <cr> indicates that one can enter the **redistribute direct** command only and this command does not require any additional parameters at this level.

ACLI autocompletion

ACLI autocompletion is a feature that you can use to automatically fill in the unique parts of a command string rather than typing the entire command. Autocompletion makes the ACLI experience easier and prevents mistakes in spelling that force you to re-enter the command.

Autocompletion completes the token in the command as soon as it becomes unique.

The **Tab** key autocompletes the command without executing the command, and places the cursor immediately after the last character. The **Enter** key autocompletes the command and executes it.

To enable redistribution of isis direct routes,

```
VSP-4850GTS(config-isis)#redistribute direct
```

When you use **redistribute ?**, you see two possible sub-context commands.

```
direct
static
```

If you type the following without pressing **Enter**:

```
VSP-4850GTS(config-isis)#redistribute direct m
```

and press the **Tab**, the system completes the command to the following point:

```
redistribute direct metric
```

Two possible completions exist. You can type **-t**, and then press **Tab** to finish the command:

```
VSP-4850:1(config-isis)#redistribute direct metric-type
```

Chapter 4: ACLI procedures

This chapter contains information about common ACLI tasks. You can access ACLI during runtime to manage Virtual Services Platform 4000.

Logging on to the software

Before you begin

- The first time you connect to Virtual Services Platform 4000, you must log on to ACLI using the direct console port.

About this task

After you first connect to ACLI on Virtual Services Platform 4000, you can log on to the software using the default user name and password. For more information about the default user names and passwords, see [Default user names and passwords](#) on page 15.

Procedure

1. At the login prompt, enter the user name.
2. At the password prompt, enter the password.

Changing user modes in ACLI

Perform this procedure to change user modes in ACLI.

Before you begin

- You must log on to ACLI.

About this task

You can enter shortened versions of the commands, if the letter combination is unique.

Procedure

1. Access the Privileged EXEC mode:

```
enable
```

2. Access the Global Configuration mode:

```
configure terminal
```

3. Access the Interface Configuration mode:

```
interface {GigabitEthernet <slot/port[-slot/port][,...]> | loopback  
<1-256> | mlt <1-512> | vlan <1-4084>}
```

4. Access the Router Configuration mode:

```
router {bgp [as-4-byte enable | as-dot enable | WORD<0-11>] | isis  
[enable] | ospf [enable] | rip [enable [vrf WORD<1-511>]] | vrf  
WORD<0-16> | vrrp}
```

Example

Access Privileged EXEC mode:

```
VSP-4850GTS>enable
```

Access Global Configuration mode:

```
VSP-4850GTS#configure terminal
```

Access Interface Configuration mode for a VLAN:

```
VSP-4850GTS(config)#interface vlan 2
```

Access Router Configuration mode for isis:

```
VSP-4850GTS(config-if)#router isis
```

Exit back to Global Configuration mode:

```
VSP-4850GTS(config-isis)#exit
```

Access Router Configuration mode for OSPF:

```
VSP-4850GTS(config)#router ospf
```

Exit back to Global Configuration mode:

```
VSP-4850GTS(router-ospf)#exit
```

Access Application Configuration mode:

```
VSP-4850GTS(config)#application
```

Exit back to Privileged EXEC mode:

```
VSP-4850GTS(config-app)#end
```

Exit back to User EXEC mode:

```
VSP-4850GTS#disable
```

Exit the system:

```
VSP-4850GTS>exit
```

Variable definitions

Use the data in the following table to use the **interface** command.

Variable	Value
GigabitEthernet <slot/port[-slot/port][,...]>	Logs on to the GigabitEthernet Interface Configuration mode. Use <slot/port[-slot/port][,...]> to specify which interface to configure.
loopback <1-256>	Logs on to the loopback Interface Configuration mode. Use <1-256> to specify which interface to configure.
mlt <1-512>	Logs on to the multi-link trunking (MLT) Interface Configuration mode. Use <1-512> to specify which MLT to configure.
vlan <1-4084>	Logs on to the Virtual Local Area Network (VLAN) Interface Configuration mode. Use <1-4084> to specify which VLAN to configure.

Use the data in the following table to use the **router** command.

Table 3: Variable definitions

Variable	Value
vrf WORD<0-16>	Enter Virtual Router Forwarding (VRF) Router Configuration mode. Specify the VRF name to configure. The command router vrf WORD<0-16> allows you to enter VRF Router Configuration mode.
vrrp	Enter Virtual Router Redundancy Protocol Router Configuration mode.
isis [enable]	Enter IS-IS Router Configuration mode. The command router isis allows you to enter IS-IS Router Configuration mode. After the configuration, use router isis enable to enable IS-IS globally.
bgp [as-4-byte enable]	Enable 4-byte autonomous system numbers globally.
bgp [as-dot enable]	Enable the AS dot representation for 4-byte AS numbers globally.
bgp [WORD<0-11> [enable]]	Specifies the AS number and enables BGP. You cannot enable BGP until you change the local AS to a value other than 0.
ospf [enable]	Enables OSPF for the switch. If you do not use an optional parameter with the command, you enter the OSPF Router Configuration mode.
rip [enable [vrf WORD<1-511>]]	Enables RIP on the VRF or switch.

Viewing configurations

You can view the running configuration using the show command.

Procedure

1. Enter the Privileged EXEC mode:

```
enable
```

2. View running configuration:

```
show running-config
```

Example

```
VSP-4850GTS>enable
VSP-4850GTS(config)#show running-config
Preparing to Display Configuration...
#
# Thu Jan 23 23:43:38 2014 UTC
# box type           : VSP-4850GTS
# software version   : vsp4k_4.0.0.0_B050 (PRIVATE)
# cli mode            : ACLI
#
#
#!end
#
config terminal
#
#
#BOOT CONFIGURATION
#
boot config flags ftpd
boot config flags sshd
boot config flags telnetd
boot config flags tftpd
# end boot flags
#
#CLI CONFIGURATION
#
telnet-access sessions 2
prompt "VSP4K-179"
password password-history 3
#
#SYSTEM CONFIGURATION
#
sys msg-control
syslog host 1
syslog host 1 address 47.17.143.52
syslog host 1 enable
#
#
```

Saving the configuration

After you change the configuration, you must save the changes to the module. Save the configuration to a file to retain the configuration settings.

About this task

File Transfer Protocol (FTP) and Trivial File Transfer Protocol (TFTP) support IPv4 addresses only.

Procedure

1. Enter the Privileged EXEC mode:

```
enable
```

2. Save the running configuration:

```
save config [backup WORD<1-99>] [file WORD<1-99>] [verbose]
```

Example

```
VSP-4850GTS>enable
```

Save the configuration to the default location:

```
VSP-4850GTS>save config
```

Identify the file as a backup file and designate a location to save the file:

```
VSP-4850GTS#save config backup 46.140.54.40:/configs/backup.cfg
```

Variable definitions

Use the data in the following table to use the **save config** command.

Variable	Value
backup WORD<1-99>	Saves the specified file name and identifies the file as a backup file. WORD<1-99> uses one of the following formats: • a.b.c.d:<file> • /intflash/<file> The file name, including the directory structure, up to 1 to 99 characters.
file WORD<1-99>	Specifies the file name in one of the following formats: • /intflash/<file> • a.b.c.d:<file> The file name, including the directory structure, up to 1 to 99 characters.

Variable	Value
verbose	Saves the default and current configuration. If you omit this parameter, the command saves only parameters you change.

Chapter 5: Enterprise Device Manager fundamentals

This section details the Enterprise Device Manager (EDM).

EDM is a Web-based graphical user interface (GUI) you can use to configure a single Virtual Services Platform 4000. EDM runs from Virtual Services Platform 4000 and you can access it from a Web browser. You do not need to install additional client software, and you can access it with all operating systems.

Virtual Services Platform 4000 releases 3.0 and 3.1 are supported by COM 3.0.2. Virtual Services Platform 4000 release 4.0 is supported by COM 3.1 for Device discovery and EDM launch only. Install Configuration and Orchestration Manager (COM) on a remote server to configure multiple devices through one interface. For more information on COM documentation, see <http://support.avaya.com/>.

Enterprise Device Manager access

To access EDM, open *http://<deviceip>/login.html* or *https://<deviceip>/login.html* from either Microsoft Internet Explorer or Mozilla Firefox. Internet Explorer version 8.0 and Mozilla Firefox version 26 are supported.

Important:

You must enable the Web server from ACLI to enable HTTP access to the EDM. If you want HTTP access to the device, you must also disable the Web server secure-only option. The Web server secure-only option, allowing for HTTPS access to the device, is enabled by default. Avaya recommends that you take the appropriate security precautions within the network if you use HTTP.

If you experience any issues while connecting to the EDM, check the proxy settings. Proxy settings may affect EDM connectivity to the switch. Clear the browser cache and do not use proxy when connecting to the device. This should resolve the issue.

Default user name and password

The following table contains the default user name and password that you can use to log on to Virtual Services Platform 4000 using EDM. For more information about changing the Virtual Services Platform 4000 passwords, see *Avaya Virtual Services Platform 4000 Series Security*, NN46251-601.

Table 4: EDM default username and password

Username	Password
admin	password

! Important:

The default passwords and community strings are documented and well known. Avaya strongly recommends that you change the default passwords and community strings immediately after you first log on. For more information about changing user names and passwords, see *Avaya Virtual Services Platform 4000 Series Security*, NN46251-601.

Device Physical View

After you access EDM, the first screen displays a real-time physical view of the front panel of the device. From the front panel view, you can view fault, configuration, and performance information for the device, or a single port. You can open this tab by clicking the Device Physical View tab above the device view.

You can use the device view to determine the operating status of the various ports in your hardware configuration. You can also use the device view to perform management tasks on specific objects. In the device view, you can select the entire switch. To select an object, click the object. EDM outlines the selected object in yellow, indicating your selection.

The conventions on the device view are similar to the actual device appearance. The port LEDs and the ports are color-coded to provide status. Green indicates the port is up and running, amber indicates an enabled port that is not connected to anything, and no light indicates the port is disabled.

EDM window

The following figure shows the different sections of the EDM window:

- navigation tree—Located in the navigation pane on the left side of the window, the navigation tree displays all the available command tabs in a tree format. A row of buttons at the top of the navigation tree provides a quick method to perform common functions.

- menu bar—Located at the top of the window, the menu bar shows the most recently accessed primary tabs and their respective secondary tabs.
- toolbar—Located just below the menu bar, the toolbar gives you quick access to the most common operational commands such as Apply, Refresh, and Help.
- work area—Located on the right side of the window, the work area displays the dialog boxes where you can view or configure parameters on the Virtual Services Platform 4000.

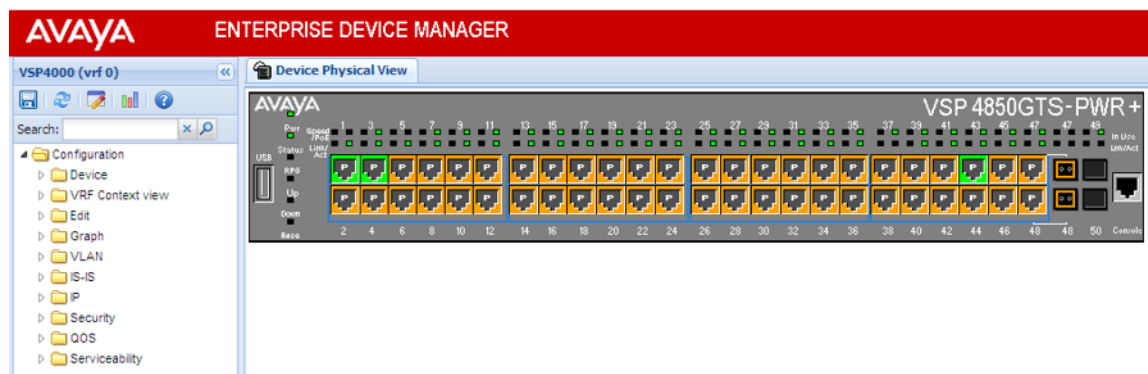


Figure 1: EDM window

Navigation tree

You can use the navigation tree to see what commands are available and to quickly browse through the command hierarchy. A row of buttons at the top of the navigation tree provides a quick method to perform common functions.

! Important:

Menu options related to a specific module are activated only after the chassis contains the required module, and you must select that module.

The following table describes the buttons that appear at the top of the navigation tree.

Table 5: Navigation pane buttons

Button	Name	Description
	Save Config	Saves the running configuration.
	Refresh Status	Refreshes the Device Physical View.
	Edit	Edits the selected item in the Device Physical View.
	Graph	Opens the graph options for the selected item in the Device Physical View.

Button	Name	Description
	Help Setup Guide	Opens instructions about how to install the Help files and configure EDM to use the Help files.

Expand a folder by clicking it. Some folders have subfolders such as the Edit folder, which has the Port, Diagnostics, and SNMPv3 subfolders.

Within each folder and subfolder, there are numerous tabs. To open a tab, click it. The selected tab appears in the menu bar and opens in the work area. The following table describes the main folders in the navigation tree.

Table 6: Navigation tree folders

Menu	Description
Device	Use the Device menu to refresh and update device information or enable polling. • Preference Setting — Enable polling or hot swap detection. Configure the frequency to poll the device. • Refresh Status — Use this option to refresh the device view. • Rediscover Device — Use this to trigger a rediscovery to update all of the device information.
VRF Context view	Use the VRF Context view to switch to another VRF context view when you use the embedded EDM. GlobalRouter is the default view at log in. You can configure both Global Router (GRT) and Virtual Routing and Forwarding (VRF) instances when you launch a VRF context view. You can open only five tabs for each EDM session.
Edit	Use the Edit menu to view and configure parameters for the chassis or for the currently selected object. The selected object can be a module or a port. You can also use the Edit menu to perform the following tasks: • check and update security settings for the device • run diagnostic tests • change the configuration of the file system, NTP, service delivery, and SNMPv3 settings for the device
Graph	Use the Graph menu to view and configure EDM statistics and to produce graphs of the chassis or port statistics.

Menu	Description
VLAN	Use the VLAN menu to view and configure VLANs, spanning tree groups (STG), MultiLink Trunks/LACP, MAC Learning, Global MAC Filtering, and SLPP.
IS-IS	Use the IS-IS menu to view and configure IS-IS and Shortest Path Bridging MAC (SPBM).
IP	Use the IP menu to view and configure IP routing functions for the system, including IP routing protocols, IP-VPN, IP-MVPN, IGMP, Multicast, TCP/UDP, VRRP, DHCP, UDP forwarding, and policies.
Security	Use the Security menu to view and configure policies, filters, and protocols such as RADIUS and SSH.
QOS	Use the QOS menu to view and configure QoS mapping tables, filters, profiles, and policy statistics.
Serviceability	Use the Serviceability menu to configure RMON alarms and the SLAMon application. You can also use the Serviceability menu to view the RMON alarm log and history log, and to enable or disable RMON history or statistics on all ports.

Menu bar

The menu bar is above the work area and consists of two rows of tabs.

- The top row displays the tabs you can open through the navigation tree. These primary tabs appear in the sequence that you open them.
- After you click a primary tab, the secondary tabs associated with it appear in the bottom row. Click a secondary tab to open it in the work area.

In both the top and bottom rows of the menu bar, arrows appear on the left and right sides if the number of tabs exceeds the available space. Click either arrow to scroll to the tab that you want to select.

To reduce the number of tabs on the top row, you can click the X on the top right of a tab to remove it from the row. The following figure shows a sample menu bar.

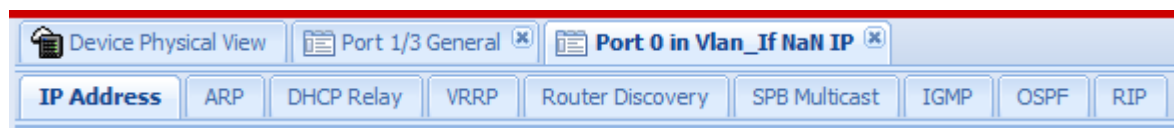


Figure 2: Menu bar

- **Apply**—Use this button to execute all edits that you make.
- **Refresh**—Use this button to refresh all data on the screen.
- **Help**—Use this button to display online help that is context sensitive to the current dialog box.
- **Insert**—Use this button to display a secondary dialog box related to the selected tab. After you edit the configurable parameters, click the Insert button in the dialog box. This causes a new entry to appear in the dialog box of the selected tab.
- **Delete**—Use this button to delete a selected entry.

 Insert
 Delete
 Apply
 Refresh
 Export Data

Work area

[illegible]

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EDM user session extension

If the EDM user session remains unused for a duration of ten minutes, the user is prompted with a dialog box with the message *Your session will expire in about 5 minute(s). Would you like to extend the session?*.

If there is no response from the user, the EDM automatically ends the session with a message *Your session has expired* and logs out the user. If the user wants to continue using the EDM, he has to login again.

Chapter 6: EDM interface procedures

This chapter contains procedures for starting and using Enterprise Device Manager (EDM). The software is built-in to the Virtual Services Platform 4000, and you do not need to install additional software.

Configuring the Web server using ACLI

Perform this procedure to enable and manage the Web server using the Avaya Command Line Interface (ACLI). After you enable the Web server, you can connect to EDM.

HTTP and FTP now support IPv4 addresses only, with no difference in functionality or configuration. The TFTP server also supports only IPv4 addresses. The TFTP client is not supported in VSP 4000, only the server.

About this task

This procedure assumes that you use the default port assignments. You can change the port number used for HTTP.

Important:

If you want to allow HTTP access to the device, then you must disable the Web server secure-only option.

Procedure

1. Enter Global Configuration mode:

```
enable
configure terminal
```

2. Enable the Web server:

```
web-server enable
```

3. Display the Web server status:

```
show web-server
```

Variable definitions

Use the data in the following table to use the `web-server`

Table 7: Variable definitions

Variable	Value
<code>def-display-rows <10-100></code>	Configures the number of rows each page displays, between 10 and 100.
<code>enable</code>	Enables the Web interface for Virtual Services Platform 4000. To disable the Web server, use the no form of this command: <code>no web-server [enable]</code>
<code>help-tftp <WORD/0-256></code>	Configures the TFTP or FTP directory for Help files, in one of the following formats: <code>a.b.c.d:/</code> <code>peer:/</code> [<code><dir></code>]. The path can use 0–256 characters. The following example paths illustrate the correct format: • <code>47.17.82.25:/VSP4000_help</code> • <code>47.17.82.25:/</code>
<code>password {ro rw rwa} WORD<1-20> WORD<1-20></code>	Configures the logon and password for the Web interface, where the first <code>WORD<1-20></code> is the new logon and the second <code>WORD<1-20></code> is the new password.

Connecting to EDM

Before you begin

- Ensure that the Virtual Services Platform 4000 is running.
- Note the IP address of the Virtual Services Platform 4000.
- Open one of the following browsers:
 - Mozilla FireFox, version 26
 - Microsoft Internet Explorer, version 8.0

About this task

Perform this procedure to connect to EDM to configure and maintain your network through a graphical user interface.

Procedure

1. In the address bar, enter the IP address of the system using the following formats: **`https://<IP_address>`** (default) or **`http://<IP_address>`**.

 Note:

By default the Web server is configured with the secure-only option, which requires you to use https to access EDM. To access EDM using http, you must disable the secure-only option. For more information about configuring the secure-only option, see [Configuring the Web server using ACLI](#) on page 31.

2. In the **User Name** box, type the user name. The default is admin.
3. In the **Password** box, type a password. The default is password.
4. Click **Log On**.

For information about changing the Log On credentials, see *Avaya Virtual Services Platform 4000 Series Security*, NN46250-601.

Configuring the Web management interface

Before you begin

- The Web server is enabled.

About this task

Configure the Web management interface to change the usernames and passwords for management access to the switch using a Web browser.

HTTP, FTP, and TFTP server supports IPv4 addresses only, with no difference in functionality or configuration.

Procedure

1. In the navigation tree, open the following folders: **Configuration > Security > Control Path**.
2. Click **General**.
3. Click the **Web** tab.
4. Complete the **WebUserName** and **WebUserPassword** fields to specify the user name and password for access to the Web interface. You use the other fields to specify the path and file name for the Web Help files and to assign the number of rows in the Web display.
5. Click **Apply**.

Web field descriptions

Use the data in the following table to use the **Web** tab.

Name	Description
HttpPort	Specifies the HTTP port for web access. The default value is 80.

Name	Description
WebUserName	Specifies the username from 1–20 characters. The default is admin.
WebUserPassword	Specifies the password from 1–20 characters. The default is password.
SecureOnly	Controls whether the secure-only option is enabled. The default is enabled.
HelpTftp/Ftp_SourceDir	Configures the TFTP or FTP directory for Help files, in one of the following formats: a.b.c.d:/ peer:/ [<dir>]. The path can use 0–256 characters. The following example paths illustrate the correct format: • 47.17.82.25:/VSP4000_help • 47.17.82.25:/
DefaultDisplayRows	Configures the Web server display row width between 10–100. The default is 30.
LastChange	Shows the last Web-browser initiated configuration change.
NumHits	Shows the number of hits to the Web server.
NumAccessChecks	Shows the number of access checks performed by the Web server.
NumAccessBlocks	Shows the number of access attempts blocked by the Web server.
LastHostAccessBlocked	Shows the IP address of the last host access blocked the Web server.
NumRxErrors	Shows the number of receive errors the Web server encounters.
NumTxErrors	Shows the number of transmit errors the Web server encounters.
NumSetRequest	Shows the number of set-requests sent to the Web server.

Using the chassis shortcut menu

About this task

Perform the following procedure to display the chassis shortcut menu.

Procedure

1. In the Device Physical View, select the chassis.
2. Right-click the chassis.

Chassis shortcut menu field descriptions

Use the data in the following table to use the Chassis shortcut menu.

Name	Description
Edit	Edits chassis parameters.
Graph	Graphs chassis statistics.
Refresh Status	Refreshes the status of the chassis and modules.
Refresh Port Tooltips	Refreshes the port tooltip data of the system. The port tooltip data contains the following variables: Slot/Port, PortName, and PortOperSpeed.

Using the port shortcut menu

About this task

Perform this procedure to display the port shortcut menu.

Procedure

1. In the Device Physical View, select a port.
2. Right-click the selected port.

Port shortcut menu field descriptions

Use the data in the following table to use the port shortcut menu.

Name	Description
Edit General	Configures the general options for the port.
Edit IP	Configures the IP options for the port.
Graph	Displays the statistics for the port.
Enable	Enables the port.
Disable	Disables the port.

Using a table-based tab

About this task

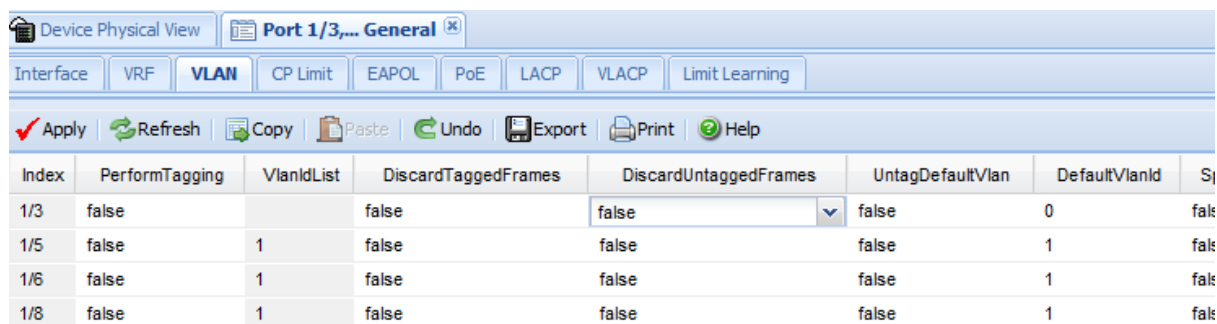
Change an existing configuration using a table-based tab. You cannot edit grey-shaded fields in the table.

* Note:

You can expand the appropriate folders for any feature you are configuring and select a table-based tab. The following procedure is an illustration on how to use a table-based tab.

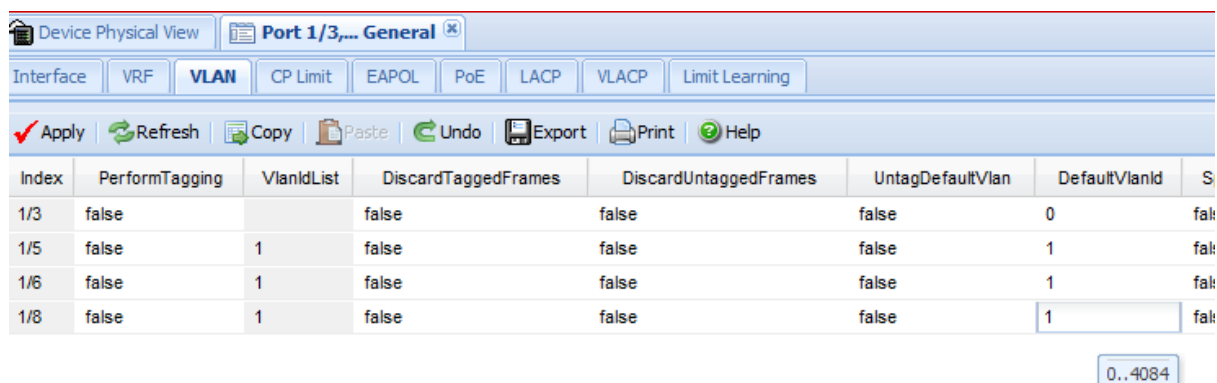
Procedure

1. In the Device Physical View, select multiple ports.
2. In the navigation tree, open the following folders: **Configuration > Edit > Port > General**.
3. Click the **VLAN** tab. A table-based tab appears displaying the VLAN information.
4. Select a table-based tab.
5. Double-click a white-shaded field to edit the value.
6. Click the arrow in the list field to view the options, and select the appropriate value.



Index	PerformTagging	VlanIdList	DiscardTaggedFrames	DiscardUntaggedFrames	UntagDefaultVlan	DefaultVlanId	S
1/3	false		false	false	false	0	false
1/5	false	1	false	false	false	1	false
1/6	false	1	false	false	false	1	false
1/8	false	1	false	false	false	1	false

7. In a text-entry field, double-click and edit the value.



Index	PerformTagging	VlanIdList	DiscardTaggedFrames	DiscardUntaggedFrames	UntagDefaultVlan	DefaultVlanId	S
1/3	false		false	false	false	0	false
1/5	false	1	false	false	false	1	false
1/6	false	1	false	false	false	1	false
1/8	false	1	false	false	false	1	false

0..4084

8. Click **Apply** to save the configuration changes.

Monitoring multiple ports and configuration support

About this task

Avaya Virtual Services Platform 4000 Series allows you to monitor or apply the same configuration changes to more than one port by using the Multiple Port Selection function. You can use the standard menu or the shortcut menu to edit the configuration settings using the Multiple Port selection. Selected ports appear within a yellow outline on the Device Physical View.

Procedure

On the Device Physical View, perform one of the following to select multiple ports.

- Click and drag to select multiple adjacent ports.

Ensure that you click outside the first port in the group and drag the mouse pointer over the group.

- Press Ctrl and click to select multiple ports.

Opening folders and tabs

About this task

Perform this procedure to navigate in EDM.

Procedure

1. In the navigation tree, click the **Configuration** folder.
2. Click the subfolder, for example, the **VLAN** folder.
3. In a folder or subfolder, click a tab to open that tab.

Undocking and docking tabs

About this task

Perform this procedure to undock a tab. You can undock tabs to have more than one tab visible at a time.

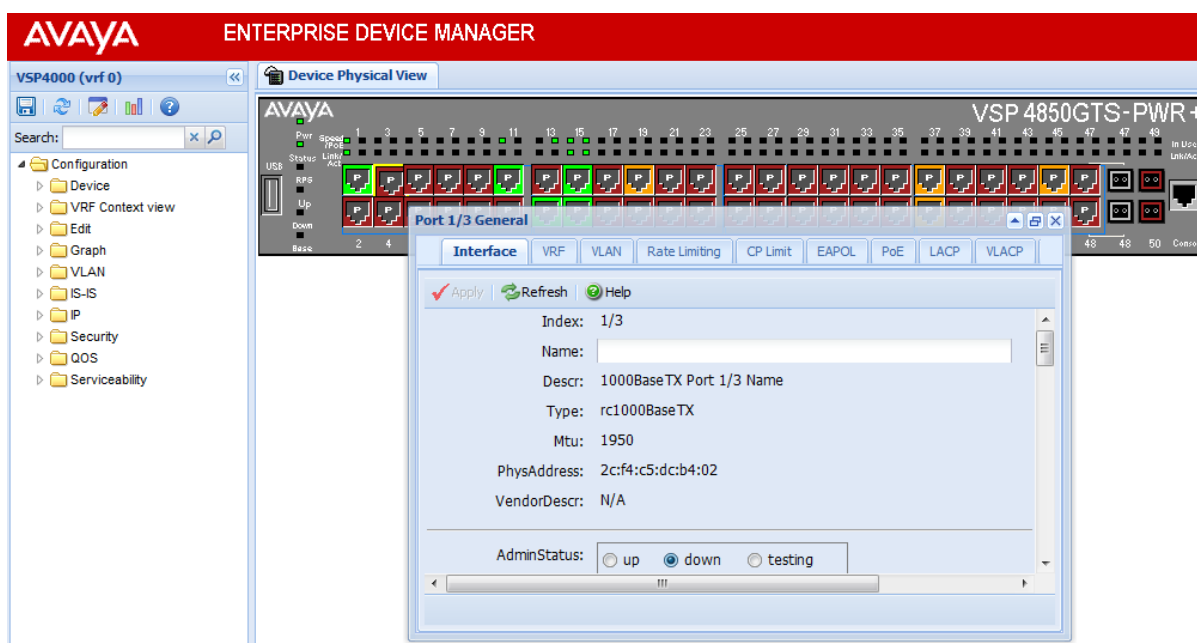
Procedure

1. In the navigation tree, click a tab.
2. In the menu bar, click and drag a tab to undock it.
3. In the top right corner of the tab, click the pages button to dock the tab.

Example of undocking and docking tabs

Procedure

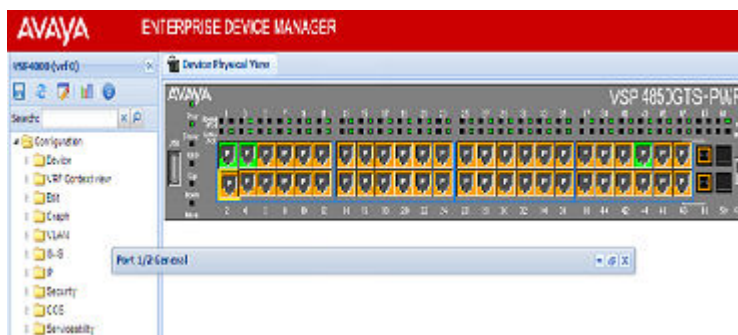
1. Click the **Device Physical View** tab.
2. In the Device Physical View, select a port. In this example, right-click port 3.
3. In the Port shortcut menu, click **Edit General**.
4. Click and drag the Port 1/3 General tab wherever you want on the screen as shown in the following figure.



5. To reposition the tab anywhere on the screen, click and drag the title bar.
6. To manipulate the tab, click on the buttons in the top-right of the dialog box.



7. Click the up arrowhead to minimize the tab as shown in the following figure.



8. Click the down arrowhead button to restore the tab to its original size.
9. Click the pages button to dock the tab back into the menu bar.
10. Click the X button to close the tab.

Installing EDM help files

While the EDM GUI is bundled with Virtual Services Platform 4000 software, the associated EDM help files are not. To access the help files from the EDM GUI, you must install the EDM help files on a TFTP or FTP server in your network. The EDM application supports the Internet Explorer 8.0 and Mozilla Firefox 26 browsers. Use one of these browsers. EDM performs better on Mozilla Firefox.

Use the following procedure to install the EDM help files on a TFTP or FTP server.

Procedure

1. Download the EDM help file from Avaya.
2. On a TFTP or FTP server reachable from the VSP 4000, create a directory called **VSP4000_Help**.
Ensure you configure VSP 4000 with the host user name and password if you use FTP.
3. Unzip the EDM help zip file into the directory created in step 2.
4. Select **Configuration > Security > Control Path** from the EDM navigation tree.
5. Click **General**.
6. Click **Web**.
7. Enter the IP address of the file server and the path to the help files in the **HelpTFTPSourceDir** field, for example, 192.0.2.15:/home/VSP4000_Help/.

Chapter 7: File management in EDM

This chapter contains procedures for managing files with Enterprise Device Manager (EDM).

Use the File System tab to perform the following tasks:

- Copy a file.
- Check the amount of memory used and the number of files stored in the internal flash memory.
- Verify the name, size, and storage date of each file present in the internal flash memory.

Copying files

About this task

Perform this procedure to copy a file.

Procedure

1. In the navigation tree, open the following folders: **Configuration > Edit**.
2. Click **File System**.
3. In the **Source** field, specify the file you want to copy in one of the following form:
 - /intflash/filename
4. In the **Destination** field, specify the file you want to copy in one of the following form:
 - /intflash/filename
5. In the **Action** field, click **start**.
6. Click **Apply** to start copying the files.

The results of the copy action appear in the Result field.

Viewing file storage information

About this task

Perform this procedure to view the file storage information for Virtual Services Platform 4000. This displays the name of the storage, the number of bytes used, and the number of bytes free.

Procedure

1. In the navigation tree, open the following folders: **Configuration > Edit**.
2. Click **File System**.
3. Click the **Storage Usage** tab.

Displaying flash files information

About this task

Display information about the files in external flash memory to view general file information.

Procedure

1. In the Device Physical view, select the chassis.
2. In the navigation tree, open the following folders: **Configuration > Edit**.
3. Click **File System**.
4. Click the **Flash Files** tab.

Flash Files field descriptions

Use the data in the following table to use the **Flash Files** tab.

Name	Description
Slot	Specifies the slot number where the CP module is installed.
Name	Specifies the directory name of the file.
Date	Specifies the creation or modification date of the file.
Size	Specifies the size of the file.