Using ACLI and EDM on Avaya Virtual Services Platform 9000

Release 4.0
NN46250-103
Issue 06.01
December 2014

© 2014 Avaya Inc.

All Rights Reserved.

Notice

While reasonable efforts have been made to ensure that the information in this document is complete and accurate at the time of printing, Avaya assumes no liability for any errors. Avaya reserves the right to make changes and corrections to the information in this document without the obligation to notify any person or organization of such changes.

Documentation disclaimer

“Documentation” means information published by Avaya in varying mediums which may include product information, operating instructions and performance specifications that Avaya may generally make available to users of its products and Hosted Services. Documentation does not include marketing materials. Avaya shall not be responsible for any modifications, additions, or deletions to the original published version of documentation unless such modifications, additions, or deletions were performed by Avaya. End User agrees to indemnify and hold harmless Avaya, Avaya's agents, servants and employees against all claims, lawsuits, demands and judgments arising out of, or in connection with, subsequent modifications, additions or deletions to this documentation, to the extent made by End User.

Link disclaimer

Avaya is not responsible for the contents or reliability of any linked websites referenced within this site or documentation provided by Avaya. Avaya is not responsible for the accuracy of any information, statement or content provided on these sites and does not necessarily endorse the products, services, or information described or offered within them. Avaya does not guarantee that these links will work all the time and has no control over the availability of the linked pages.

Warranty

Avaya provides a limited warranty on Avaya hardware and software. Refer to your sales agreement to establish the terms of the limited warranty. In addition, Avaya’s standard warranty language, as well as information regarding support for this product while under warranty is available to Avaya customers and other parties through the Avaya Support website: http://support.avaya.com or such successor site as designated by Avaya. Please note that if You acquired the product(s) from an authorized Avaya Channel Partner outside of the United States and Canada, the warranty is provided to You by said Avaya Channel Partner and not by Avaya.

Licenses

THE SOFTWARE LICENSE TERMS AVAILABLE ON THE AVAYA WEBSITE, HTTP://SUPPORT.AVAYA.COM/LICENSEINFO OR SUCH SUCCESSOR SITE AS DESIGNATED BY AVAYA, ARE APPLICABLE TO ANYONE WHO DOWNLOADS, USES AND/OR INSTALLS AVAYA SOFTWARE, PURCHASED FROM AVAYA INC., ANY AVAYA AFFILIATE, OR AN AVAYA CHANNEL PARTNER (AS APPLICABLE) UNDER A COMMERCIAL AGREEMENT WITH AVAYA OR AN AVAYA CHANNEL PARTNER. UNLESS OTHERWISE AGREED TO BY AVAYA IN WRITING, AVAYA DOES NOT EXTEND THIS LICENSE IF THE SOFTWARE WAS OBTAINED FROM ANYONE OTHER THAN AVAYA, AN AVAYA AFFILIATE OR AN AVAYA CHANNEL PARTNER; AVAYA RESERVES THE RIGHT TO TAKE LEGAL ACTION AGAINST YOU AND ANYONE ELSE USING OR SELLING THE SOFTWARE WITHOUT A LICENSE. BY INSTALLING, DOWNLOADING OR USING THE SOFTWARE, OR AUTHORIZING OTHERS TO DO SO, YOU, ON BEHALF OF YOURSELF AND THE ENTITY FOR WHOM YOU ARE INSTALLING, DOWNLOADING OR USING THE SOFTWARE (HEREINAFTER REFERRED TO INTERCHANGEABLY AS “YOU” AND “END USER”), AGREE TO THESE TERMS AND CONDITIONS AND CREATE A BINDING CONTRACT BETWEEN YOU AND AVAYA INC. OR THE APPLICABLE AVAYA AFFILIATE (“AVAYA”).

Avaya grants You a license within the scope of the license types described below, with the exception of Heritage Nortel Software, for which the scope of the license is detailed below. Where the order documentation does not expressly identify a license type, the applicable license will be a Designated System License. The applicable number of licenses and units of capacity for which the license is granted will be one (1), unless a different number of licenses or units of capacity is specified in the documentation or other materials available to You. “Software” means computer programs in object code, provided by Avaya or an Avaya Channel Partner, whether as stand-alone products, pre-installed on hardware products, and any upgrades, updates, patches, bug fixes, or modified versions thereto. “Designated Processor” means a single stand-alone computing device. “Server” means a Designated Processor that hosts a software application to be accessed by multiple users. “Instance” means a single copy of the Software executing at a particular time: (i) on one physical machine; or (ii) on one deployed software virtual machine (“VM”) or similar deployment.

License types

Designated System(s) License (DS). End User may install and use each copy or an Instance of the Software only on a number of Designated Processors up to the number indicated in the order. Avaya may require the Designated Processor(s) to be identified in the order by type, serial number, feature key, Instance, location or other specific designation, or to be provided by End User to Avaya through electronic means established by Avaya specifically for this purpose.

Heritage Nortel Software

“Heritage Nortel Software” means the software that was acquired by Avaya as part of its purchase of the Nortel Enterprise Solutions Business in December 2009. The Heritage Nortel Software currently available for license from Avaya is the software contained within the list of Heritage Nortel Products located at http://support.avaya.com/LicenseInfo under the link “Heritage Nortel Products” or such successor site as designated by Avaya. For Heritage Nortel Software, Avaya grants You a license to use Heritage Nortel Software provided hereunder solely to the extent of the authorized activation or authorized usage level, solely for the purpose specified in the Documentation, and solely as embedded in, for execution on, or for communication with Avaya equipment. Charges for Heritage Nortel Software may be based on extent of activation or use authorized as specified in an order or invoice.

Copyright

Except where expressly stated otherwise, no use should be made of materials on this site, the Documentation, Software, Hosted Service, or hardware provided by Avaya. All content on this site, the documentation, Hosted Service, and the product provided by Avaya including the selection, arrangement and design of the content is owned either by Avaya or its licensors and is protected by copyright and other intellectual property laws including the sui generis rights relating to the protection of databases. You may not modify, copy, reproduce, republish, upload, post, transmit or distribute in any way any content, in whole or in part, including any code and software unless expressly authorized by Avaya. Unauthorized reproduction, transmission, dissemination, storage, and or use without the express written consent of Avaya can be a criminal, as well as a civil offense under the applicable law.

Third Party Components

“Third Party Components” mean certain software programs or portions thereof included in the Software or Hosted Service may contain software (including open source software) distributed under third party agreements (“Third Party Components”), which contain terms regarding the rights to use certain portions of the Software (“Third Party Terms”). As required, information regarding distributed Linux OS source code (for those products that have distributed Linux OS source code) and identifying the copyright holders of the Third Party Components and the Third Party Terms that apply is available in the products, Documentation or on Avaya’s website at: http://support.avaya.com/Copyright or such successor site as designated by Avaya. You agree to the Third Party Terms for any such Third Party Components.

Preventing Toll Fraud

“Toll Fraud” is the unauthorized use of your telecommunications system by an unauthorized party (for example, a person who is not a corporate employee, agent, subcontractor, or is not working on your company's behalf). Be aware that there can be a risk of Toll Fraud associated with your system and that, if Toll Fraud occurs, it can

result in substantial additional charges for your telecommunications services.

Avaya Toll Fraud intervention

If You suspect that You are being victimized by Toll Fraud and You need technical assistance or support, call Technical Service Center Toll Fraud Intervention Hotline at +1-800-643-2353 for the United States and Canada. For additional support telephone numbers, see the Avaya Support website: http://support.avaya.com or such successor site as designated by Avaya. Suspected security vulnerabilities with Avaya products should be reported to Avaya by sending mail to: securityalerts@avaya.com.

Downloading Documentation

For the most current versions of Documentation, see the Avaya Support website: http://support.avaya.com, or such successor site as designated by Avaya.

Contact Avaya Support

See the Avaya Support website: http://support.avaya.com for product or Hosted Service notices and articles, or to report a problem with your Avaya product or Hosted Service. For a list of support telephone numbers and contact addresses, go to the Avaya Support website: http://support.avaya.com (or such successor site as designated by Avaya), scroll to the bottom of the page, and select Contact Avaya Support.

Trademarks

The trademarks, logos and service marks (“Marks”) displayed in this site, the Documentation, Hosted Service(s), and product(s) provided by Avaya are the registered or unregistered Marks of Avaya, its affiliates, or other third parties. Users are not permitted to use such Marks without prior written consent from Avaya or such third party which may own the Mark. Nothing contained in this site, the Documentation, Hosted Service(s) and product(s) should be construed as granting, by implication, estoppel, or otherwise, any license or right in and to the Marks without the express written permission of Avaya or the applicable third party.

Avaya is a registered trademark of Avaya Inc.

All non-Avaya trademarks are the property of their respective owners. Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries.

Contents

Chapter 1: Introduction 6
Purpose 6
Related resources 6
Documentation 6
Training 6
Viewing Avaya Mentor videos 6
Support 7
Searching a documentation collection 7
Chapter 2: New in this release 9
Features 9
Other changes 9
Chapter 3: Avaya command line interface fundamentals 10
ACLI command modes 10
Default user names and passwords 13
Documentation convention for the port variable 13
Command completion 14
Chapter 4: ACLI procedures 16
Logging on to the software 16
Changing user modes in ACLI 16
Viewing configurations 19
Saving the configuration 20
Chapter 5: Enterprise Device Manager fundamentals 22
Enterprise Device Manager access 22
Default user name and password 22
Device Physical View 23
EDM window 23
Navigation pane 24
Menu bar 26
Toolbar 27
Work area 27
EDM user session extension 28
Chapter 6: EDM interface procedures 29
Configuring the Web server using ACLI 29
Connecting to EDM 31
Configuring the Web management interface 32
Using the chassis shortcut menu 34
Using the module shortcut menu 34
Using the port shortcut menu 35
Using a table-based tab 35

Using the copy and paste function..... 36
Monitoring multiple ports and configuration support..... 37
Opening folders and tabs..... 38
Undocking and docking tabs..... 38
Configuring polling intervals..... 40
Installing EDM help files..... 41
Chapter 7: File management in EDM..... 43
Copying files..... 43
Viewing file storage information..... 44
Displaying external flash file information..... 44
Displaying USB file information..... 45
Glossary..... 46

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 9000.

Related resources

Documentation

See *Documentation Reference for Avaya Virtual Services Platform 9000,* NN46250-100 for a list of the documentation for this product.

Training

Ongoing product training is available. For more information or to register, you can access the website at http://avaya-learning.com/.

Course code	Course title
4D00010E	Knowledge Access: ACIS - Avaya ERS 8000 and VSP 9000 Implementation
5D00040E	Knowledge Access: ACSS - Avaya VSP 9000 Support

Viewing Avaya Mentor videos

Avaya Mentor videos provide technical content on how to install, configure, and troubleshoot Avaya products.

About this task

Videos are available on the Avaya Support website, listed under the video document type, and on the Avaya-run channel on YouTube.

Procedure

- To find videos on the Avaya Support website, go to http://support.avaya.com and perform one of the following actions:
  - In **Search**, type `Avaya Mentor Videos` to see a list of the available videos.
  - In **Search**, type the product name. On the Search Results page, select **Video** in the **Content Type** column on the left.
- To find the Avaya Mentor videos on YouTube, go to www.youtube.com/AvayaMentor and perform one of the following actions:
  - Enter a key word or key words in the Search Channel to search for a specific product or topic.
  - Scroll down Playlists, and click the name of a topic to see the available list of videos posted on the website.

    Note:

    Videos are not available for all products.

Support

Go to the Avaya Support website at http://support.avaya.com for the most up-to-date documentation, product notices, and knowledge articles. You can also search for release notes, downloads, and resolutions to issues. Use the online service request system to create a service request. Chat with live agents to get answers to questions, or request an agent to connect you to a support team if an issue requires additional expertise.

Searching a documentation collection

On the Avaya Support website, you can download the documentation library for a specific product and software release to perform searches across an entire document collection. For example, you can perform a single, simultaneous search across the collection to quickly find all occurrences of a particular feature. Use this procedure to perform an index search of your documentation collection.

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

1. Extract the document collection zip file into a folder.

2. Navigate to the folder that contains the extracted files and open the file named <*product_name_release*>.pdx.
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**.

   The search results show the number of documents and instances found. You can sort the search results by Relevance Ranking, Date Modified, Filename, or Location. The default is Relevance Ranking.

Chapter 2: New in this release

The following sections detail what is new in *Using ACLI and EDM on Avaya Virtual Services Platform 9000,* NN46250-103, for Release 4.0:

Features

See the following sections for information about feature-related changes.

Web tab

Release 4.0 updates two attributes under the **Web** tab. The WebUserName field becomes WebUserName (Local Authentication) and the WebUserPassword field becomes WebUserPassword (Local Authentication). For more information, see Configuring the Web management interface on page 32.

Other changes

See the following section for information about changes that are not feature-related.

Document title changes

In Release 4.0, the title of this document changed from *Avaya Virtual Services Platform 9000 User Interface Fundamentals*, NN46250-103 to *Using ACLI and EDM on Avaya Virtual Services Platform 9000,* NN46250-103.

Using a table-based tab

Release 4.0 updates images in the procedure for using a table-based tab. For more information, see Using a table-based tab on page 35.

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. Install Configuration and Orchestration Manager (COM) on a remote server to configure multiple devices through one interface.

ACLI command modes

ACLI has six major command modes. You start your session on the Virtual Services Platform 9000 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> | mgmtEthernet <slot/port>[-slot/port][,...]> | mlt <1-512> |`**

Comments? infodev@avaya.com

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
- mgmtEthernet
- MLT
- VLAN

- Router Configuration mode—access this mode from the Global Configuration mode. Enter **router {bgp| isis| ospf| rip | vrf WORD<1-16> | 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 such as VSP Talk or SLA Monitor.

Note:

The VSP Talk application enables a user to communicate with the VSP 9000 through Instant Messaging (IM) and a unique Instant messaging Command Line Interface (IMCLI). The IMCLI interface has features and characteristics that are different from the ACLI interface and are optimized for IM communication. For more information about VSP Talk IMCLI, see *Administering Avaya Virtual Services Platform 9000,* NN46250-600.

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-9012:1>	This mode is the default command mode and does not require an entrance command. To exit the ACLI, enter **logout**.
Privileged EXEC	VSP-9012:1#	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-9012:1(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-9012:1(config-if)# VSP-9012:1(config-mlt)#	Entry into this command mode depends on the type of configured interfaces. From the Global Configuration mode, enter **interface {GigabitEthernet <slot/port[-slot/port]> | loopback <interface> | mgmtEthernet <slot/port[-slot/port]> | 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-9012:1(router-bgp)# VSP-9012:1(config-isis)# VSP-9012:1(config-ospf)# VSP-9012:1(config-rip)# VSP-9012:1(router-vrf)# VSP-9012:1(config-vrrp)#	Entry into this command mode depends on the configured protocols. Enter **router {bgp | isis| ospf | rip| vrf WORD<1-16> | 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 mode. To return to the Privileged EXEC mode, enter **end**. To exit the ACLI, enter **logout**.
Application Configuration	VSP-9012:1(config-app)#	Enter **application** to access the Application Configuration mode from the Global Configuration mode. Enter **exit** to exit the Application Configuration mode, and enter the Global Configuration 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 9000 Avaya command line interface (ACLI). For more information about how to change Virtual Services Platform 9000 passwords, see *Configuring Security on Avaya Virtual Services Platform 9000,* NN46250-601.

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 *Configuring Security on Avaya Virtual Services Platform 9000,* NN46250-601.

Documentation convention for the port variable

Commands that require you to enter one or more port numbers on Virtual Services Platform 9000 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 a particular slot (for example, port 3/1 indicates the first port of the third slot).
- *{slot/port[-slot/port][,...]}* can be a range of numbers (for example, port 3/1–3/3).
- You can add additional slot and port numbers to the list, separated by a comma (for example, port 3/1,4/8,6/10).
- You can specify a range of slots and ports (for example, port 2/3–4/5 indicates slot 2, port 3 through slot 4, port 5).

Command completion

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

- question mark (**?**)
- ACLI autocompletion

Question mark (?) command completion

The question mark (**?**) 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-9012:1(router-bgp)#redistribute ?
```

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

```
  direct       Ip bgp redistribute direct command
  ipv6-direct  Ip bgp redistribute ipv6-direct command
  ipv6-static  Ip bgp redistribute ipv6-static command
  isis         Ip bgp redistribute isis command
  ospf         Ip bgp redistribute ospf command
  ospfv3       Ip bgp redistribute ospfv3 command
  rip          Ip bgp redistribute rip command
  static       Ip bgp 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-9012:1(router-bgp)#redistribute ipv6-static ?
  enable     Enable bgp redistribution ipv6-static command
  metric     Bgp route redistribution metric
  route-map  Bgp route redistribution route-policy
  <cr>
```

If 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 ipv6-static ?** are peer commands. You can enter these peer commands on the same line as the root command, for example **redistribute ipv6-static enable**. However, the <cr> indicates that you can enter the **redistribute ipv6-static** 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. Autcompletion makes the ACLI experience easier and prevents mistakes in spelling that force you to retype 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 executes the command.

To enable redistribution of IPv6 direct routes, the full command is:

```
VSP-9012:1(router-bgp)#redistribute ipv6-direct
```

If you do not know the full command, you can use the autocompletion feature to discover it. The following example shows how to use the autocompletion feature for this command example.

Type `redistribute ?`, and press the `Enter` key to see a list of possible command completions:

```
  direct       Ip bgp redistribute direct command
  ipv6-direct  Ip bgp redistribute ipv6-direct command
  ipv6-static  Ip bgp redistribute ipv6-static command
  isis         Ip bgp redistribute isis command
  ospf         Ip bgp redistribute ospf command
  ospfv3       Ip bgp redistribute ospfv3 command
  rip          Ip bgp redistribute rip command
  static       Ip bgp redistribute static command
```

Type `ip`, and press the `Tab` key to autocomplete the command:

```
VSP-9012:1(router-bgp)#redistribute ip
VSP-9012:1(router-bgp)#redistribute ipv6-
```

Type `d`, and press the `Tab` key to autocomplete the command:

```
VSP-9012:1(router-bgp)#redistribute ipv6-d
VSP-9012:1(router-bgp)#redistribute ipv6-direct
```

Press the `Enter` key to execute the command.

Chapter 4: ACLI procedures

This chapter contains information about common ACLI tasks. You can access ACLI during runtime to manage Virtual Services Platform 9000.

Logging on to the software

Before you begin

- The first time you connect to Virtual Services Platform 9000, you must log on to ACLI using the direct console port.

About this task

After you first connect to ACLI on Virtual Services Platform 9000, 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 13.

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 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> | mgmtEthernet <slot/port>[-slot/port][,...]> | mlt <1-256>
   | vlan <1-4084>}
   ```

4. Access the Router Configuration mode:

   ```
   router {bgp [<0-65535>] | isis [enable] | ospf [enable] [ipv6-
   enable] | rip [enable [vrf <1-511]] | vrf WORD<1-16> | vrrp}
   ```

5. Access the Application Configuration mode:

   ```
   application
   ```

Example

Access Privileged EXEC mode:

```
VSP-9012:1>enable
```

Access Global Configuration mode:

```
VSP-9012:1#configure terminal
```

Access Interface Configuration mode for a VLAN:

```
VSP-9012:1(config)#interface vlan 2
```

Access Router Configuration mode for BGP:

```
VSP-9012:1(config-if)#router bgp
```

Exit back to Global Configuration mode:

```
VSP-9012:1(router-bgp)#exit
```

Access Router Configuration mode for OSPF:

```
VSP-9012:1(config)#router ospf
```

Exit back to Global Configuration mode:

```
VSP-9012:1(router-ospf)#exit
```

Access Application Configuration mode:

```
VSP-9012:1(config)#application
```

Exit back to Privileged EXEC mode:

```
VSP-9012:1(config-app)#end
```

Exit back to User EXEC mode:

```
VSP-9012:1#disable
```

Exit the system:

```
VSP-9012:1>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.
mgmtEthernet <*slot/port*>*[-slot/port][,...]*>	Logs on to the management Ethernet Interface Configuration mode. Use <*slot/port[-slot/port][,...]*> 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.

Variable	Value
bgp *[<0-65535>] [enable]*	Enter Border Gateway Protocol (BGP) Router Configuration mode. You can specify a specific autonomous system number. The **router bgp** command allows you to enter BGP Router Configuration mode. <*0-65535*> allows you to specify the AS number and the *enable* option allows you to enable BGP.
ospf [enable][ipv6-enable]	Enter Open Shortest Path First (OSPF) Router Configuration mode. You can specify to enable OSPF or ipv6. The command **router ospf** allows you to enter OSPF Router Configuration mode. The options enable or ipv6–enable enable OSPF for the switch.
rip [enable] *[vrf <1-511>]*	Enter Routing Information Protocol (RIP) Router Configuration mode. You can specify to enable RIP or to enable RIP on a specific Virtual Router Forwarding (VRF) ID. The command **router rip** allows you to enter RIP Router Configuration mode. After the configuration, use the **router rip enable** command to enable RIP globally.
vrf *WORD<1-16>*	Enter Virtual Router Forwarding (VRF) Router Configuration mode. Specify the VRF name to

Variable	Value
	configure. The command **router vrf WORD<1-16>** 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.

Viewing configurations

You can view the running configuration using the show command.

Before you begin

- You must log on to the Privileged EXEC mode in ACLI.

Procedure

View running configuration:

```
show running-config
```

Example

```
VSP-9012:1#show running-config
Preparing to Display Configuration...
#
# Tue Jul 19 06:55:18 2011 UTC
# box type             : VSP-9012
# software version     : 3.1.0.0.GA
# cli mode             : ACLI
#


#ASIC Info :
#Slot #1:
#    Module: 9080CP
#    OXATE CPLD: 10032310
#    OXIDE FPGA: 10040918
#    CATSKILL FPGA: 10052013
#    QE version: QE2000_A0

#Slot #4:
#    Module: 9048GT
#    K2 FPGA: 11052520
#    IODATEDC CPLD: 09041015
#    IODATEBB CPLD: 09041016
#    PIM48TX CPLD: 09050110
#    LED48TX CPLD0: 09041016

--More-- (q = quit)
```


Comments? infodev@avaya.com

Saving the configuration

After you change the configuration, you must save the changes to both the master and the standby CP modules. 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 both IPv4 and IPv6 addresses, with no difference in functionality or configuration.

Procedure

1. Enter Privileged EXEC mode:

   ```
   enable
   ```

2. Save the running configuration:

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

Example

```
VSP-9012:1>enable
```

Save the configuration to the default location:

```
VSP-9012:1>save config
```

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

```
VSP-9012:1#save config backup 4717:0:0:0:0:0:7933:6:/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: • x:x:x:x:x:x:x:x:<file> • a.b.c.d:<file> • peer:<file> • /intflash/ <file> • /extflash/ <file> • /usb/<file> The file name, including the directory structure, can include up to 99 characters.

Comments? infodev@avaya.com

Variable	Value
file *WORD<1–99>*	Specifies the file name in one of the following formats: • x:x:x:x:x:x:x:x:<file> • a.b.c.d:<file> • peer:<file> • /intflash/ <file> • /extflash/ <file> • /usb/<file> The file name, including the directory structure, can include up to 99 characters.
standby *WORD<1–99>*	Saves the specified file name to the standby CPU in the following formats: • /intflash/ <file> • /extflash/ <file> • /usb/ <file> The file name, including the directory structure, can include up to 99 characters.
verbose	Saves the default and current configuration. If you omit this parameter, the command saves only parameters you change. You cannot use this variable if you enable HA mode.

Chapter 5: Enterprise Device Manager fundamentals

This section describes the Enterprise Device Manager (EDM).

EDM is a Web-based graphical user interface (GUI) for configuring a single Virtual Services Platform 9000. EDM runs on your Virtual Services Platform 9000. You can access EDM using one of the following supported Web browsers (no additional client software required):

- Mozilla FireFox: version 26.0 and earlier versions (recommended)
- Microsoft Internet Explorer: versions 8.x and 9.x

To configure multiple devices through one interface, you can install Configuration and Orchestration Manager (COM) on a remote server. For more information about COM documentation, see www.avaya.com/support.

Enterprise Device Manager access

To access EDM, open *http://<deviceip>/login.html* or *https://<deviceip>/login.html* from either Microsoft Internet Explorer versions 8.x and 9.x, or Mozilla Firefox 8.x and 9.x.

Important:

You must enable the Web server from ACLI to enable HTTP access to 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. Take the appropriate security precautions within the network if you use HTTP.

If you experience issues while connecting to EDM, check the proxy settings. Proxy settings can affect EDM connectivity to the switch. Clear the browser cache, and do not use a 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 9000 using EDM. For more information about changing the Virtual

Services Platform 9000 passwords, see *Configuring Security on Avaya Virtual Services Platform 9000,* NN46250-601.

Table 3: 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 *Configuring Security on Avaya Virtual Services Platform 9000,* NN46250-601.

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, a module, 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 modules and 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 a module, a port, a power supply, a fan module, or the entire chassis. 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 module LEDs and the ports are color-coded to provide status. Green indicates the module or port is up and running, red indicates the module or port is disabled, and amber indicates an enabled port that is not connected to anything.

EDM window

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

- navigation pane—Located to the left of the window, the navigation pane contains a directory tree structure that displays all the available command tabs. A row of buttons at the top of the navigation pane 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 to the right of the window, the work area displays the dialog boxes where you can view or configure parameters on the Virtual Services Platform 9000.

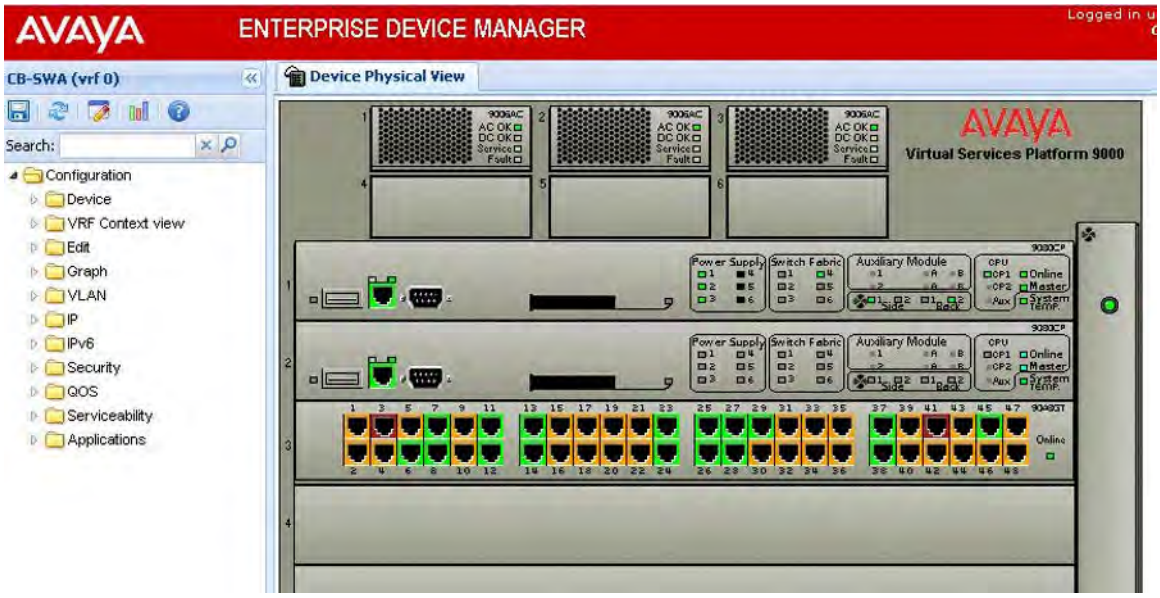


Figure 1: EDM window

Navigation pane

The navigation pane to the left of the window contains a directory tree structure. You can use the navigation pane to see what commands are available and to quickly browse through the command hierarchy. A row of buttons at the top of the navigation pane 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 pane.

Table 4: Navigation pane buttons

Button	Name	Description
	Save Config	Saves the running configuration.
	Refresh Status	Refreshes the Device Physical View.

Button	Name	Description
	Edit	Edits the selected item in the Device Physical View.
	Graph	Opens the graph options for the selected item in the Device Physical View.
	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 pane.

Table 5: Navigation pane folders

Menu	Description
Device	Use the Device menu to refresh and update device information or enable polling or hot swap detection. • 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, fan, port, power supply, or another object. 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

Menu	Description
Graph	Use the Graph menu to view and configure EDM statistics and to produce graphs of the chassis or port statistics.
VLAN	Use the VLAN menu to view and configure VLANs, spanning tree groups (STG), MultiLink Trunks/LACP, MAC Learning, SMLT, Global MAC Filtering, and SLPP.
IS-IS	Use the IS-IS menu to view and configure Intermediate-System-to-Intermediate-System (IS-IS) and Shortest Path Bridging MAC (SPBM). Use this menu to enable SPBM globally, create an SPBM instance, specify the node nickname, configure SPBM backbone VLANs (B-VLANs), enable IS-IS globally and view statistics related to SPBM.
IP	Use the IP menu to view and configure IP routing functions for the system, including TCP/UDP, OSPF, RIP, VRRP, Multicast, IGMP, DHCP, BGP, RSMLT, PIM, UDP forwarding, and policies.
IPv6	Use the IPv6 menu to view and configure IPv6 routing functions, including TCP/UDP, tunnels, and OSPF.
Security	Use the Security menu to view and configure policies, filters, and protocols such as RADIUS, SSH, and EAPOL.
QOS	Use the QOS menu to view and configure QoS mapping tables, filters, profiles, and policy statistics.
Serviceability	Use the Serviceability menu to view and configure RMON alarms and view the RMON alarm log and history log. You can use this menu to enable or disable RMON history or statistics on all ports. You can also use the Serviceability menu to view and configure IP Flow Information eXport (IPFIX).
Applications	Use the Applications menu to access applications such as VSP Talk or SLA Monitor.

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 from the navigation pane. 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.

Comments? infodev@avaya.com

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.

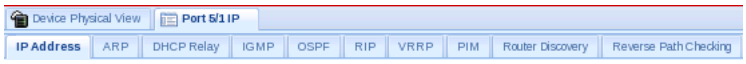


Figure 2: Menu bar

Toolbar

The toolbar buttons provide quick access to commonly used operational commands. The buttons that appear vary depending on the tab you select. However, the Apply, Refresh, and Help buttons are on almost every screen. Other common buttons are Insert and Delete. The following list detail the common toolbar buttons.

- 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.

The following figure shows a sample toolbar.

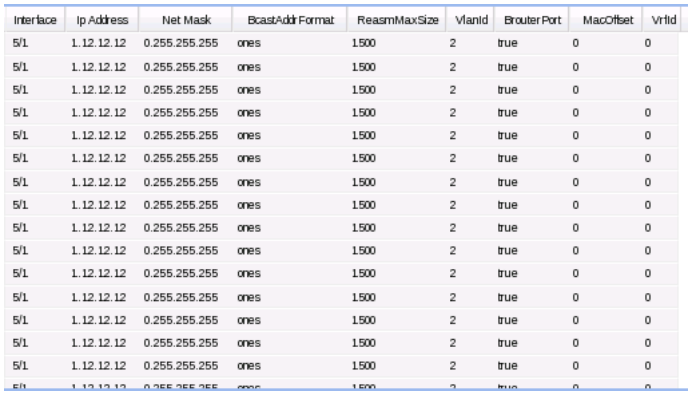


Figure 3: Toolbar

Work area

The work area is the main area on the right side of the window that displays the configuration dialog boxes. Use the work area to view or configure parameters on Virtual Services Platform 9000.

The following figure is a sample work area showing the dialog box for the Port 4/1 General, Interface tab. If you want to compare the information in two dialog boxes, you can undock one, then open another tab. For more information about undocking a tab, see Undocking and docking tabs on page 38.



Interface	Ip Address	Net Mask	BcastAddr Format	ReasmMaxSize	VlanId	Brouter Port	MacOffset	VrfId
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0
5/1	1.12.12.12	0.255.255.255	ones	1500	2	true	0	0

Figure 4: Work area

EDM user session extension

If your EDM user session is idle for a duration of 10 minutes, a dialog box displays the message *Your session will expire in about 5 minute(s). Would you like to extend the session?*.

If you do not respond, your EDM user session ends automatically and displays the message *Your session has expired*. You must log on again to continue using EDM.

Tip:

For extended user sessions with longer idle times, you can configure the poll interval to check with EDM before the idle timeout takes effect, see Configuring polling intervals on page 40.

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 9000, and you do not need to install additional software.

Note:

Virtual Services Platform 9000 does not support IPv6 configuration using Avaya Command Line Interface (ACLI) or Enterprise Device Manager (EDM) for Release 4.0.

Configuring the Web server using ACLI

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

HTTP, HTTPS, and FTP support both IPv4 and IPv6 addresses, with no difference in functionality or configuration. The TFTP server supports both IPv4 and IPv6 TFTP clients.

Before you begin

- You must log on to the Global Configuration mode in ACLI.

About this task

This procedure assumes that you use the default port assignments. You can change the port number used for HTTP and HTTPS. To select another port for HTTP or HTTPS, you can discover the ports that TCP already use. Use the **`show ip tcp connections`** command to list the ports already in use, and then select a port that does not appear in the command output.

Important:

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

Procedure

1. Enable the Web server:

   ```
   web-server enable
   ```

2. Disable the secure-only option (for HTTP access):

   ```
   no web-server secure-only
   ```

3. Enable the secure-only option (for HTTPS access):

   ```
   web-server secure-only
   ```

4. Display the Web server status:

   ```
   show web-server
   ```

Variable definitions

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

Variable	Value
def-display-rows *<10-100>*	Configures the Web server display row width. The default is 30.
enable	Enables the Web interface, for example, `web-server enable`. To disable the Web interface, enter `no web-server enable`. The default is disabled.
help-tftp *WORD<0-256>*	Configures the source location for Help files where WORD is {a.b.c.d:/|/intflash/|/extflash/|/usb/}<path name of the help file>} and the string length is 0-256 characters. The source directory can be one of the following: • TFTP or FTP server that is reachable from the VSP 9000 • Compact Flash (internal or external) or USB memory stick inserted in the required slot on the 9080CP module For example: • 47.17.82.25:/home/VSP9000_Help • /intflash/VSP9000_Help
http-port *<80-49151>*	Configures the Web server HTTP port. You can select a value of 80 or 1024-49151. The default port is 80.
https-port *<443-49151>*	Configures the Web server HTTPS port. You can select a value of 443 or 1024-49151. The default port is 443.
secure-only	Enables the secure-only option on the web-server for HTTPS access to EDM. **Note:** If you enable this parameter, you cannot use HTTP to connect to EDM. To disable the web-server, enter `no web-server secure-only`. The default value for the secure-only option is enabled.

Comments? infodev@avaya.com

Use the data in the following table to use the **`web-server password`** command.

Variable	Value
ro *WORD<1-20> WORD<1-20>*	Configures the logon and password for the Web interface and specifies the read-only access-level. Where the first *WORD<1-20>* is the new logon and the second *WORD<1-20>* is the new password.
rw *WORD<1-20> WORD<1-20>*	Configures the logon and password for the Web interface and specifies the read-write access-level. Where the first *WORD<1-20>* is the new logon and the second *WORD<1-20>* is the new password.
rwa *WORD<1-20> WORD<1-20>*	Configures the logon and password for the Web interface and specifies the read-write-all access-level. Where the first *WORD<1-20>* is the new logon and the second *WORD<1-20>* is the new password.

Connecting to EDM

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

Before you begin

- Ensure that the Virtual Services Platform 9000 is running.
- Note the IP address of the Virtual Services Platform 9000.
- Open one of the following browsers:
  - Mozilla FireFox: versions 26.0 and earlier supported versions (recommended)
  - Microsoft Internet Explorer: versions 8.x and 9x

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 how to configure the secure-only option, see Configuring the Web server using ACLI on page 29.
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 how to change the Log On credentials, see *Configuring Security on Avaya Virtual Services Platform 9000,* NN46250-601.

Configuring the Web management interface

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

Before you begin

- The Web server is enabled.

About this task

HTTP, HTTPS, and FTP support both IPv4 and IPv6 addresses, with no difference in functionality or configuration. The TFTP server supports both IPv4 and IPv6. The TFTP client is not supported in VSP 9000, only the server.

Procedure

1. In the navigation pane, expand the following folders: **Configuration** > **Security** > **Control Path**.
2. Click **General**.
3. Click the **Web** tab.
4. Complete the **WebUserName (Local Authentication)** and **WebUserPassword (Local Authentication)** 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
WebUserName (Local Authentication)	Specifies the username from 1-20 characters. The default is admin.
WebUserPassword (Local Authentication)	Specifies the password from 1-20 characters. The default is password.
HttpPort	Configures the Web server HTTP port. You can select a value of 80 or 1024-49151. The default port is 80.

Name	Description
HttpsPort	Specifies the HTTPS port of the Web server. You can select a value of 443 or between 1024-49151. The default is 443.
SecureOnly	Controls whether the secure-only option is enabled. The default is enabled.
HelpSourceDir	Configures the source location for Help files using the following format: {IP address:/|/intflash/|/extflash/|/usb/}{<path>} The string length can be 0-256 characters. The source directory can be one of the following: • TFTP or FTP server that is reachable from the VSP 9000 • Compact Flash (internal or external) or USB memory stick inserted in the required slot on the 9080CP module For example: • 47.17.82.25:/VSP9000_Help • /intflash/VSP9000_Help
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 module shortcut menu

About this task

The module shortcut menu provides a quick way to view or configure the module parameters. This shortcut menu is context-sensitive and is based on the currently selected module type.

Procedure

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

Module shortcut menu field descriptions

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

Name	Description
Edit	Configures the selected module.
Enable	Enables the selected module.

Name	Description
Disable	Disables the selected module.

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.
Edit IPv6	Configures the IPv6 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.

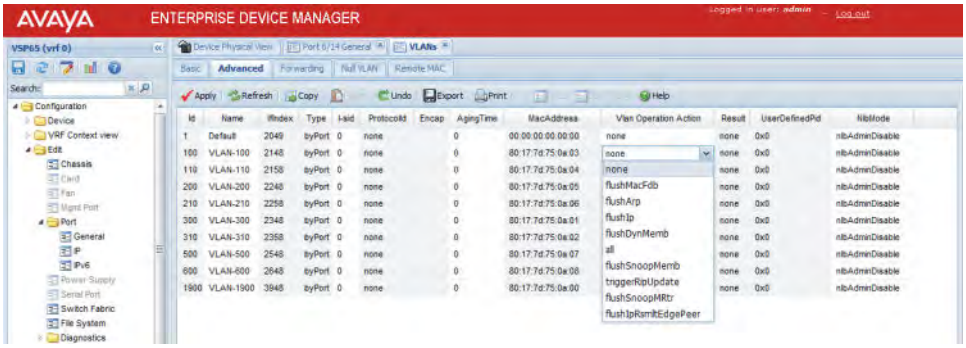
Note:

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.

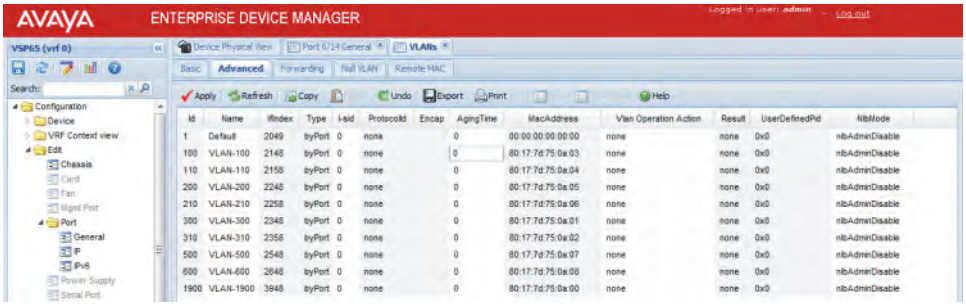
Procedure

1. In the Device Physical View, select multiple ports.

2. In the navigation pane, expand the following folders: **Configuration** > **Edit** > **Port** > **General**.
3. Click the **Advanced** 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.



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



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

Using the copy and paste function

The following procedure provides an example for how to use the copy and paste function in EDM table-based tabs.

About this task

Copy data from one or more fields and paste to a new area within the same tab, a different tab, or to another application.

The following conditions apply:

- You can only copy and paste data in editable fields
- The fields must have matching data type constraints
- If selecting multiple fields in multiple rows, you must select an equal number of fields in all rows

- You can paste data to an application outside your browser, such as a Microsoft Excel spreadsheet or Notepad. However, you cannot paste data from outside the EDM application to a field in the EDM application.

  Use only the keys `Control+c` and `Control+v` to copy and paste outside EDM.

- To copy:
  - a single field, click the field.
  - multiple fields, press the Control key and select more than one field.
  - a range of fields, press the Shift key and select the first field and last field in the range.

Procedure

1. In the navigation pane, expand the following folders: **Configuration** > **VLAN**.
2. Click **VLANs**.
3. Select the field that you want to copy or press the Control key to select more than one field.
4. Click **Copy** or press `Control+C`.
5. Select a field with the same data type, and click **Paste** or press `Control+V`.

   A red triangle appears.
6. Click **Apply** to save your changes.

   The red triangle in the upper-left corner of the field disappears.

Monitoring multiple ports and configuration support

About this task

Avaya Virtual Services Platform 9000 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.

  Note:

  Note: If you are using an embedded Enterprise Device Manager (EDM), you can select a maximum of 24 ports. However, there is no port limitation for COM users.

Opening folders and tabs

About this task

Perform this procedure to navigate in EDM.

Procedure

1. In the navigation pane, expand 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.

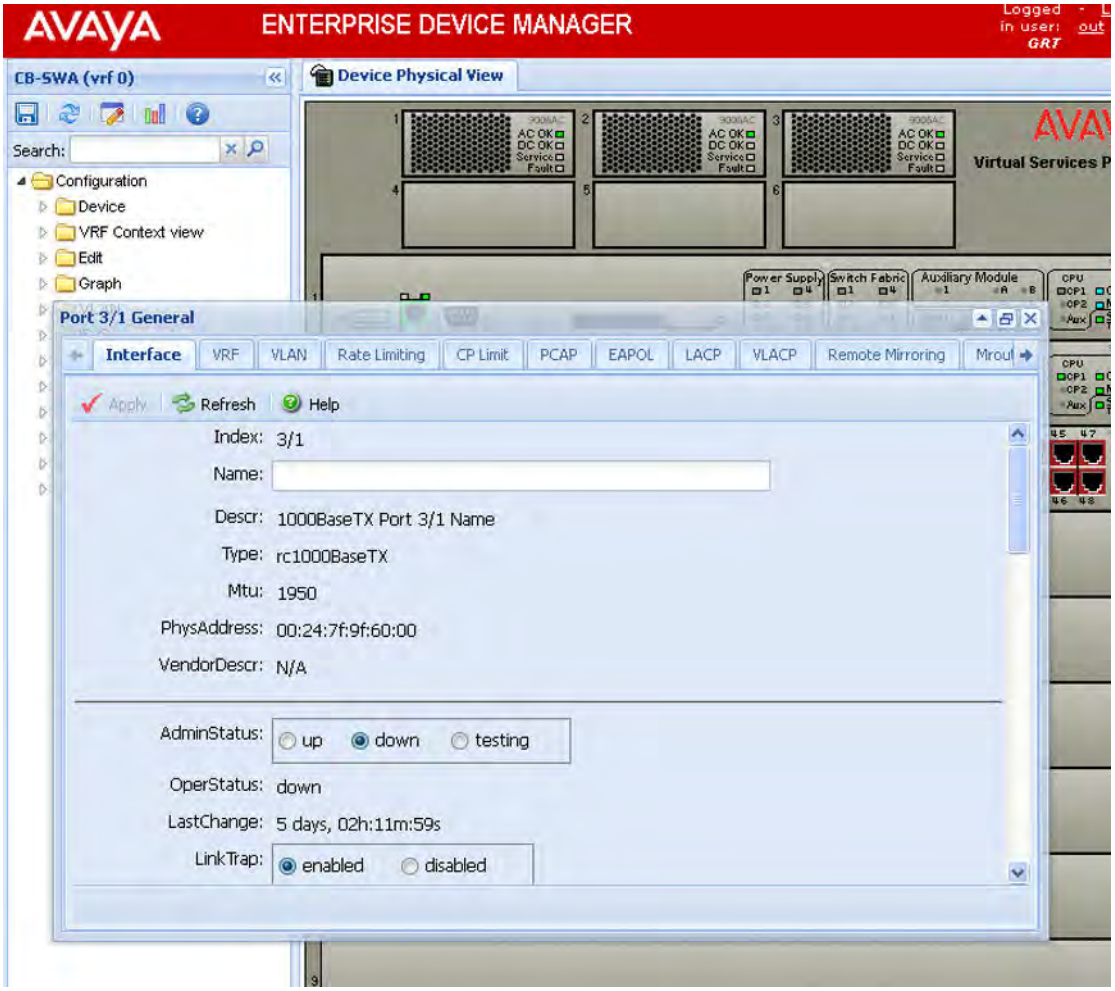
Procedure

1. In the navigation pane, 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

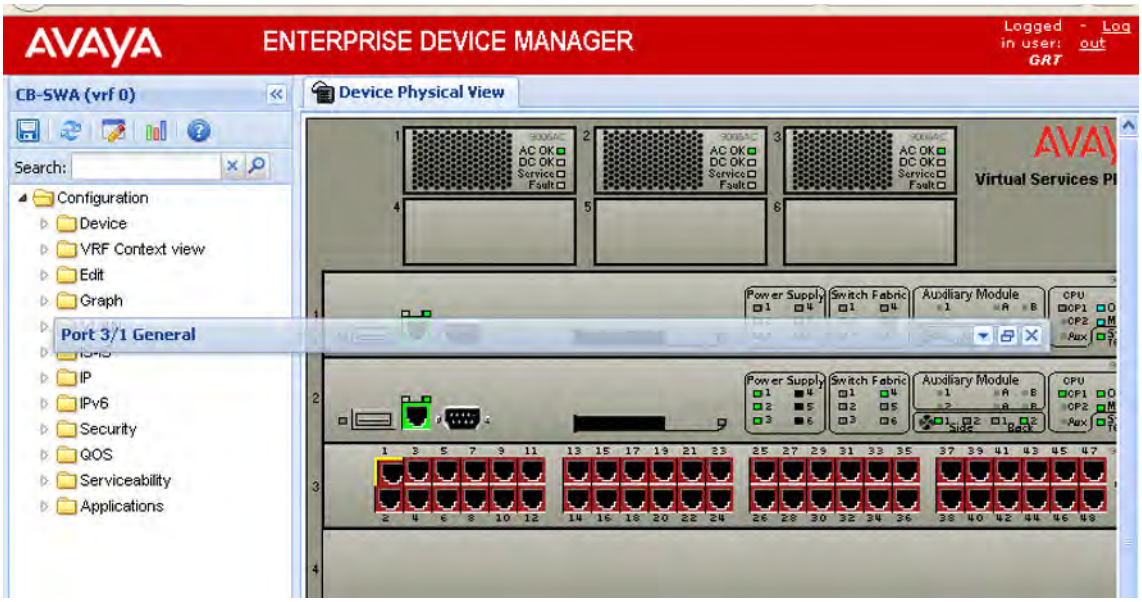
1. Click the Device Physical View tab.
2. In the Device Physical View, select a port. In this example, right-click port 1 in slot 3.
3. In the Port shortcut menu, click **Edit General**.
4. Click and drag the Port 3/1 General tab wherever you want on the screen as shown in the following figure.



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.

Configuring polling intervals

Enable and configure polling intervals to determine how frequently EDM polls for port and LED status changes or detects the hot swap of installed modules.

Procedure

1. In the navigation tree, expand the following folders: **Configuration** > **Device**.
2. Click **Preference Setting**.
3. Enable polling or hot swap detection.
4. Configure the frequency to poll the device.
5. Click **Apply**.

Preference Setting field descriptions

Use the data in the following table to use the **Preference Setting** tab.

Name	Description
Enable	Enables polling for port and LED status changes. The default is disabled.
Poll Interval	Specifies the polling interval, if enabled. The default is 60 seconds.
Enable	Detects the hot swap of installed modules. The default is disabled.
Detection per Status Poll Intervals	Specifies the number of poll intervals for detection, if enabled. The default is 2 intervals.

Installing EDM help files

The EDM GUI is bundled with Virtual Services Platform 9000 software; however, the associated EDM help files must be downloaded and installed separately.

Use the following procedure to download and install the EDM help files.

Before you begin

Ensure one of the following devices is connected:

- A TFTP or FTP server in your network that is reachable from the VSP 9000
- The 9080 Control Processor (CP) module is installed in the VSP 9000 chassis and a Compact Flash (internal and external) or a USB memory stick inserted in the appropriate slot

Procedure

1. Download the EDM help zip file from Avaya.
2. Create a directory called **VSP9000_Help** on one of the following devices:
   - TFTP or FTP server that is reachable from the VSP 9000

     Note:

     Ensure you configure VSP 9000 with the host user name and password if you use FTP.
   - On the 9080CP module:
     - Internal or external Compact Flash
     - USB memory stick
3. Unzip the EDM help zip file into the directory created in the preceding step.
4. In the navigation pane, expand the following folders: **Configuration** > **Security** > **Control Path**.
5. Click **General**.
6. Click the **Web** tab.

7. In the **HelpSourceDir** field, enter the path to the help files using the format {IP address:/|/intflash/|/extflash/|/usb/}{<path>}.

   The following are example formats:

   - 192.0.2.15:/home/VSP9000_Help/
   - /intflash/VSP9000_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, an external flash card, or a Universal Serial Bus (USB) mass storage device.
- Verify the name, size, and storage date of each file present in the internal flash memory, the external flash card, and the USB mass storage device.

Copying files

About this task

Perform this procedure to copy a file.

Procedure

1. In the navigation pane, expand 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 forms:
   - /intflash/filename
   - /extflash/filename
   - /usb/filename
   - ipaddress:/home/user/filename
4. In the **Destination** field, specify the file you want to copy in one of the following forms:
   - /intflash/filename
   - /extflash/filename
   - /usb/filename
   - ipaddress:/home/user/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 9000. This displays the name of the storage, which Control Processor (CP) module it is located in, the number of bytes used, and the number of bytes free.

Procedure

1. In the navigation pane, expand the following folders: **Configuration** > **Edit**.
2. Click **File System**.
3. Click the **Device Info** tab.

Displaying external flash file 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 a CP module.
2. In the navigation pane, expand the following folders: **Configuration** > **Edit**.
3. Click **Card**.
4. Click the **External Flash Files** tab.

External Flash Files field descriptions

Use the data in the following table to use the **External 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.

Displaying USB file information

About this task

Display information about the files on a USB flash device to view general file information.

Procedure

1. In the Device Physical view, select a CP module.
2. In the navigation pane, expand the following folders: **Configuration** > **Edit**.
3. Click **Card**.
4. Click the **USB Files** tab.

USB Files field descriptions

Use the data in the following table to use the **USB 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.

Glossary

Avaya command line interface (ACLI)	A textual user interface. When you use ACLI, you respond to a prompt by typing a command. After you enter the command, you receive a system response.
Configuration and Orchestration Manager (COM)	A management system in the network, which manages multiple network devices by offering Web-based user-interfaces to the user. You must purchase and install COM separately from the individual product.
Enterprise Device Manager (EDM)	A Web-based embedded management system to support single-element management. EDM provides complete configuration management functionality for the supported devices and is supplied to the customer as embedded software in the device.
graphical user interface (GUI)	A graphical (rather than textual) computer interface.
Trivial File Transfer Protocol (TFTP)	A protocol that governs transferring files between nodes without protection against packet loss.