Using the Pod Orchestration Suite for Avaya Pod Fx™

Release 3.1
NN47204-102
Issue 07.01
October 2017

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Contents

Chapter 1: Introduction

Purpose

This document provides an overview of the Avaya Pod Fx Pod Orchestration Suite (POS) and explains the use of the POS Dashboard. This document is intended for system administrators.

Product registration

To prevent service interruption, you must register your Avaya Pod Fx products.

Following are the available methods for product registration:

- Implementation as a service. If Avaya Professional Services provided implementation services on site, Avaya Professional Services also performs product registration on your behalf.
- Avaya Partner and Customer implementation. For information about the step-by-step registration process, see the Avaya Classic Global Registration Process Help Document on the Avaya Product Support Registration page. The document ID is 100162279.

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Example

In the **Search Avaya Support** dialog box, type `warranty`. Then select the appropriate topic from the drop-down list.

Chapter 2: New in this document

The following sections detail what is new in *Using the Pod Orchestration Suite for Avaya Pod Fx* (NN47204–102).

Related links

Pod Orchestration Suite on page 10

Pod Orchestration Suite

Avaya Pod Orchestration Suite (POS) is a bundle of visualization and management applications required to configure, orchestrate, manage, and monitor your Avaya Pod Fx. POS Release 3.1 applications include the following enhancements:

- Support for Avaya Aura® 7.1 applications.
- Updates to overall platform security.

New Avaya Pod Fx Release 3.1 system builds provide the following POS application versions pre-deployed. Existing systems require an upgrade to Avaya Pod Fx Release 3.1, and the following POS versions:

- Pod Visualization Manager (PVM) Release 3.1.
- Visualization Performance and Fault Monitoring (VPFM) Release 3.1.
- Management Server Console (MSC) Release 3.1

Important:

The following applications have been removed from the POS software starting in Release 3.1:

- Configuration and Orchestration Manager (COM)
- Virtual Provisioning System (VPS)
- IP Flow Manager (IPFM)
- Pod Utility Manager (PUM)

These applications are end of sale and end of support in Release 3.1.

Related links

New in this document on page 10

Chapter 3: Pod Orchestration Suite overview

Pod Orchestration Suite (POS) provides the visualization and management applications required to configure, orchestrate, manage, and monitor your Avaya Pod Fx.

The following management components and applications are bundled as part of the Pod Orchestration Suite:

- Avaya Pod Visualization Manager (PVM)
- Avaya Visualization Performance and Fault Manager (VPFM)
- Management Server Console (MSC)

All network management components can reside on one compute platform but each application runs on a separate virtual machine.

Related links

Pod Visualization Manager on page 11
Fault and performance monitoring on page 14

Pod Visualization Manager

Pod Visualization Manager (PVM) is the Graphical User Interface (GUI) application that unifies the Avaya Pod Fx management suite.

Avaya Pod Fx management tools provide dashboards, monitoring, performance, and analytics. PVM ties these all together, providing graphical, tree-driven access to all of the tools in the solution from a central management application.

The following figure shows the different areas of the PVM interface:

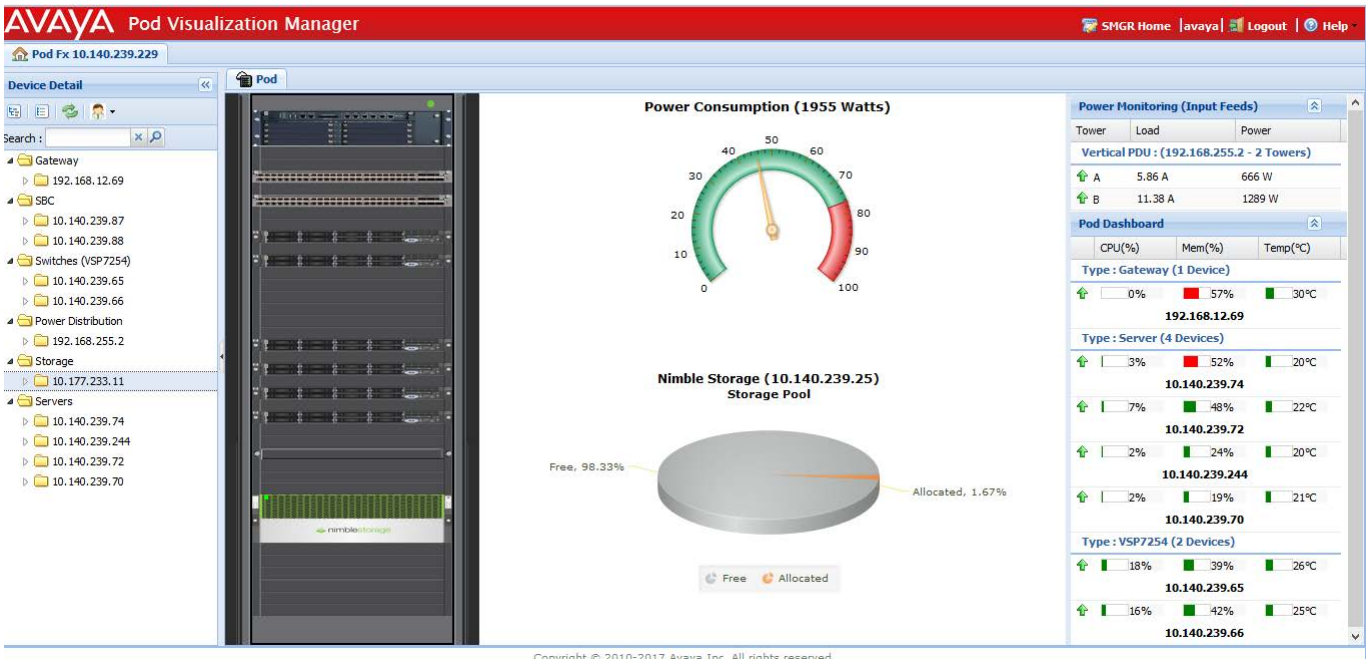


Figure 1: Pod Visualization Manager interface

Attribute	Description
Avaya Pod Fx navigation pane	Located on the left side of the interface, the Avaya Pod Fx navigation pane displays a navigation tree of managed Avaya Pod Fx components in folders. The groups of Avaya Pod Fx components include switches, gateways, servers, and storage arrays. You can start component specific element managers and start applications to manage storage arrays from the navigation tree. You can also view component summary and diagnostic information from the navigation tree. For more information about using the Avaya Pod Fx navigation pane, see Using the navigation pane in Pod Visualization Manager on page 17.
Administrative icons 	The administrative icons are located at the top of the Avaya Pod Fx navigation pane. The following icons are present: • **Expand all** — used to expand all of the folders. • **Collapse all** — used to collapse all of the folders. • **Refresh** — refresh all the folders. • **Administrator** — accesses the administrative menu This section also includes a search bar to be used to locate files, folders or components within the Avaya Pod Fx navigation pane folders.
Administrator icon menu	Click the **Administrator** icon to access the administrative icon drop down menu.

Table continues…

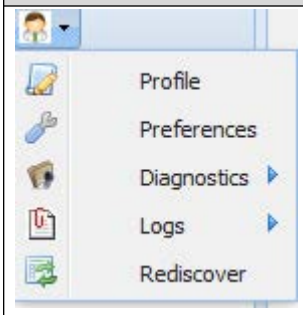
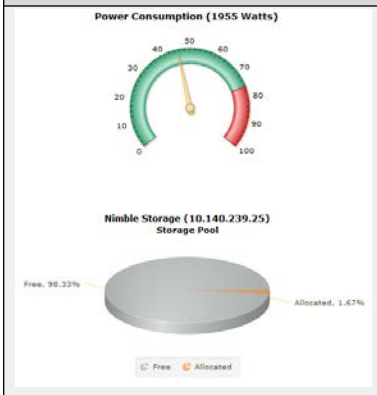
Attribute	Description
	In this menu you have the following options: • **Profile** — View Avaya Pod Fx profile, delete components, add, modify, or move component slots, and backup or restore inventory. • **Preferences** — View or modify Avaya Pod Fx settings, backup or restore Pod preferences, and provide FQDN or IP addresses for ADS, vSphere server, and SBC EMS. • **Rediscover** — Rediscover Avaya Pod Fx components. • **Diagnostics** — Ping, Stop Agent and Restart Agent. • **Logs** — View, refresh or download Activity and Configuration logs.
Physical view	Located in the middle of the PVM interface, the Physical view of the Avaya Pod Fx displays a real-time physical view of all of the components in your Avaya Pod Fx. You can view fault, configuration, and performance information for each component in your Avaya Pod Fx. You can also start component-specific element managers from the physical view. You can display the vertical power distribution unit (PDU) by clicking on the round icon on the top of the physical view. If a PDU pair is present, the icon is green. If only one is connected the icon is orange. For more information about the physical view area, see Physical view on page 67.
Administrative toolbar 	The administrative toolbar is located at the top of the PVM interface. You can log out with the **Logout** button, access the System Manager home page with the **SMGR Home** button, and access Help topics with the **Help** button on the toolbar. For more information about using the buttons on the administrative toolbar, see Administrative functions on page 52.
Power Monitoring dashboard	Located under the Pod tab on the upper right side of the PVM application, the Power Monitoring (Input Feeds) pane provides at-a-glance details of the load and power usage for each power distribution unit (PDU) tower. For more information about the Power Monitoring dashboard, see Power Monitoring dashboard pane on page 73.
Pod Dashboard	Located under the Pod tab on the lower right side of the PVM interface, the Pod Dashboard pane provides at-a-glance details for all of the components in the rack, including CPU usage, memory usage, and temperature. For more information about the Pod Dashboard, see Pod Dashboard pane on page 74.
Power and storage usage dashboard	This dashboard displays information for installed storage or power distribution units. Charts are only shown for installed devices. The **Power Consumption** dial represents the total consumable power available to the Avaya Pod Fx based on the number of PDUs present. The total power currently consumed is indicated by the hand on the dial. The **Storage Utilization** chart represents the amount of free and allocated space in the storage array.

Table continues…

Attribute	Description
	**Note:** Storage utilization is displayed differently depending on the storage array deployed with your Avaya Pod Fx. The illustration presented here is an example of one possible display.

Related links

Pod Orchestration Suite overview on page 11

Fault and performance monitoring

Avaya Pod Fx uses Visualization Performance and Fault Manager (VPFM) for fault and performance monitoring. You can use fault and performance monitoring applications to access and analyze network data quickly and easily.

You can monitor, view, and diagnose problems at the physical to the application level using VPFM. Designed to work with networking switches, VPFM collects data on a per-port basis and forwards it to the fault and performance monitoring applications for monitoring, analysis, and presentation of application issues.

Related links

Pod Orchestration Suite overview on page 11

Chapter 4: Launching Pod Visualization Manager

This chapter describes how to start Pod Visualization Manager (PVM) and how to start other applications from PVM.

Launching Pod Visualization Manager

Before you begin

Ensure that you add any new component information and device credentials in the System Manager Common Services (SMGR-CS) device and server credentials. For more information about adding any new component information and device credentials in the SMGR-CS database, see Adding Avaya Pod Fx™ component devices on page 64.

About this task

Use the following procedure to launch PVM.

Procedure

1. Open a web browser.
2. Point the web browser to the System Manager fully qualified domain name (FQDN) or IP address.

   You will receive the following warning if you login using the IP Address of the System Manager:

   Warning:

   Recommended access to System Manager is through FQDN. Go to central login for Single Sign-On.

   Note:

   Authentication will fail during IP address access when your:

   - Logging in for the first time with an admin account.
   - Password has expired or needs to be reset.

   The system displays the Log On page.

3. Enter your user ID in the **User ID** field.
4. Enter your password in the **Password** field.
5. Click **Log On**.

   The Home page appears and displays three columns: **Users**, **Elements**, and **Services**.
6. On the System Manager home page, under the **Elements** section, click the PVM link.

   Note:

   If a single PVM instance is registered with System Manager, it will be opened. If multiple instances are registered (such as a PVM instance for an Extension Pod), a page is displayed with links to all registered instances. Click the link to the applicable instance to start PVM.

Launching Pod Visualization Manager from VPFM

Use the following procedure to launch PVM from the VPFM application.

Before you begin

- Ensure that your Avaya Pod Fx profile details are current. For more information about viewing and editing the Avaya Pod Fx profile details, see Using the Service Profile editor on page 52.
- Ensure that you add any new component information and device credentials in System Manager – Common Services (SMGR-CS).
- Ensure that Avaya Pod Fx discovery from VPFM is complete and that the Avaya Pod Fx is displayed in the **VPFM Topology** > **Network Browser** view.

Procedure

1. Launch VPFM.
2. On the **VPFM** menu, click **Topology** > **Network Browser**
3. From the Topology view in the middle, select the Avaya Pod Fx element that you want to launch.

   Note:

   You can use other VPFM network browser perspectives to identify Avaya Pod Fx elements, such as **Network Discovery** > **Scopes** > **Device Group** > **Managed Device Group** > **Avaya Pods**.
4. Right-click the Avaya Pod Fx element, and click **Tools**.
5. Click **Launch PVM**.

Chapter 5: Using the navigation pane in Pod Visualization Manager

The Avaya Pod Fx navigation pane displays a navigation tree of Avaya Pod Fx components in folders. The groups of Avaya Pod Fx components include session border controllers, gateways, power distribution units, switches, servers, and storage arrays. You can launch component-specific element managers and launch applications to manage storage arrays (for example, EMC Unisphere) from the navigation tree. You can also view detailed and summary component information and component diagnostic information from the Avaya Pod Fx navigation tree.

Launching component-specific element managers

You can launch the following element managers from the Avaya Pod Fx navigation tree:

- Power Distribution: Cabinet Distribution Unit (CDU) element manager
- SBC: Session Border Controller (SBC) element manager
- Servers: HP Integrated Lights-Out (iLO) and VMware vSphere Web Client
- Storage: EMC Unisphere Remote Web Client and Nimble Web Client
- Switches: VSP 4000 Series element manager and VSP 7200 Series element manager

Launching the power distribution element manager

About this task

Use the following procedure to launch the power distribution element manager.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Power Distribution** folder.
2. Expand the folder for the power distribution unit you want to manage.
3. Click **Launch CDU**.

   The element manager opens in a new browser tab.

4. Enter the element manager user name in the **User Name** field.
5. Enter the element manager password in the **Password** field.

   For more information, see the documentation for the power distribution unit.

Launching the session border controller element manager

About this task

Use the following procedure to launch the session border controller (SBC) element manager.

Note:

Launch SBC is supported on Avaya SBC units, and Acme Packet Net-Net 4500 SBC units physically located in the Avaya Pod Fx 4200 Series.

Note:

Launch SBC is supported on Avaya SBC units physically located in the Avaya Pod Fx 2400 Series.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **SBC** folder.
2. Expand the folder for the session border controller you want to manage.
3. Click **Launch SBC**.

   On first launch, you might be prompted to provide the SBC EMS IP address to proceed.

   The SBC element manager opens in a new browser window.
4. On the SBC web page, enter valid user rname and password credentials, and click **Login**.

Launching the compute server manager

About this task

Use the following procedure to launch the compute server manager.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Servers** folder.
2. Expand the folder for the server you want to manage.
3. Click **Launch iLO**.

   On first launch, you might be prompted to provide the iLO IP address to proceed.

   iLO opens in a new browser window.
4. On the iLO web page, enter valid user name and password credentials, and click **Login**.

For more information about using iLO, see www.hp.com.

For more information about using TMM, see www.lenovo.com.

Launching the VMware vSphere Web Client

About this task

Use the following procedure to launch the VMware vSphere Web Client.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Servers** folder.
2. Expand the folder for the server you want to manage.
3. Click **Launch vSphere**, VMware vSphere Web Client opens in a new browser window.
4. On the VMware vSphere Web Client web page, enter valid user name and password credentials, and click **Login**.

   Note:

   If you are prompted to provide the VMware vSphere server IP address or FQDN to proceed, the IP address of vSphere is missing in the PVM preferences.

   For more information about using VMware vSphere, see www.vmware.com.

Launching the Nimble element manager

About this task

Use the following procedure to launch the Nimble CS1000 element manager.

Procedure

1. Expand the **Storage** folder in the navigation tree.
2. Expand the subfolder for the Nimble storage device.
3. Click **Launch Nimble**.

   The element manager launches in a new browser tab.
4. Enter the applicable user name and password in the fields provided.
5. Click **Log In**.

   See the documentation for the Nimble CS1000 for more information.

Launching EMC Unisphere

Avaya Pod Fx provides storage space using EMC storage disk arrays.

You use EMC Unisphere to manage the storage arrays. EMC Unisphere discovers all storage devices on the storage area network (SAN) and provides storage administrators with end-to-end mapping of the virtual environment. With this view, Unisphere provides a single interface for managing VNX storage arrays. Unisphere can diagnose and automatically resolve issues on multiple VNX storage arrays. It also has wizards to automatically implement best practices for provisioning.

About this task

Use the following procedure to launch EMC Unisphere.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Storage** folder.
2. Expand the folder for the storage array you want to manage.
3. Click **Launch Unisphere**.

   On first launch, you might be prompted to provide the EMC Unisphere IP address to proceed.

   The EMC Unisphere page appears in a separate window.
4. On the EMC Unisphere page, enter valid user name and password credentials, and click **Login**.

   For information about using EMC Unisphere , see www.emc.com.

Launching the VSP 4000 Series element manager

About this task

Use the following procedure to launch the VSP 4000 Series element manager.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Switches** folder from which you want to launch the element manager.
2. Expand the subfolder for the component from which you want to launch the element manager.
3. Click **Launch VSP**.

   The element manager opens in a new browser tab.
4. Enter the element manager user name in the **User Name** field.
5. Enter the element manager password in the **Password** field.

6. Click **Log On**.

   For more information, see the documentation for the VSP 4000 Series element manager.

Launching the VSP 7000 Series element manager

About this task

Use the following procedure to launch the VSP 7000 Series element manager.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Switches** folder from which you want to launch the element manager.
2. Expand the subfolder for the component from which you want to launch the element manager.
3. Click **Launch VSP**.

   The element manager opens in a new browser tab.
4. Enter the element manager user name in the **User Name** field.
5. Enter the element manager password in the **Password** field.
6. Click **Log On**.

   For more information, see the documentation for the VSP 7000 Series element manager.

Launching the VSP 7200 Series element manager

About this task

Use the following procedure to launch the VSP 7200 Series element manager.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Switches** folder from which you want to launch the element manager.
2. Expand the subfolder for the component from which you want to launch the element manager.
3. Click **Launch VSP**.

   The element manager opens in a new browser tab.
4. Enter the element manager user name in the **User Name** field.
5. Enter the element manager password in the **Password** field.
6. Click **Log On**.

   For more information, see the documentation for the VSP 7200 Series element manager.

Viewing and modifying component summary information

You can view and modify the following summary information from the navigation tree.

- System summary: View and modify component-specific information.
- Interface summary: View and modify configuration parameters for one or more interface ports.
- Physical Info summary: View component-specific physical information.

Viewing system summary information

You can view component specific summary information using the system summary tab.

About this task

Use the following procedure to view system summary information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the folder for the component type you want to view.
2. Expand the subfolder for the component that you want to view.
3. Click **Summary**.
4. Click the **System** tab.

   The following table describes the system summary information for most devices.

Attribute	Description
sysDescr	Provides component-specific information. This field is populated when Pod Visualization Manager (PVM) polls components for information. This is a read-only field.
sysObjectID	Indicates the component object identification number. This field is populated when PVM polls components for information. This is a read-only field.
sysUpTime	Indicates the amount of time since the component was last booted. This field is populated when PVM polls components for information. This is a read-only field.
sysContact	Specifies contact information for the system administrator, which can include a contact name or email address.
sysName	Specifies a unique name to describe this component.
sysLocation	Specifies the physical location of this component.

   The EMC VNXe3200 displays the following system summary information.

Attribute	Description
Id	The component identifier.

Table continues…

Attribute	Description
Location	The physical location of the component.
Comment	Miscellaneous comments about the component.
Address Line 1	The first address line of the physical address of the component.
Address Line 2	The second address line of the physical address of the component.
City	The city of the physical address of the component.
State	The state of the physical address of the component.
ZipCode	The zip or postal code of the physical address of the component.
Country	The country of the physical address of the component.
Rack Location	The rack location of the component.
Contact Name	The contact name for the component.
Contact Phone	The contact phone number for the component.
Contact Email	The contact email for the component.

The Nimble CS1000 displays the following system summary information.

Attribute	Description
Device IP	The device IP address.
Serial No	The array serial number.
sysDescr	Provides component-specific information. This field is populated when Pod Visualization Manager (PVM) polls components for information. This is a read-only field.
sysObjectID	Indicates the component object identification number. This field is populated when PVM polls components for information. This is a read-only field.
sysName	Specifies a unique name to describe this component.
sysUpTime	Indicates the amount of time since the component was last booted. This field is populated when PVM polls components for information. This is a read-only field.
sysContact	Specifies contact information for the system administrator, which can include a contact name or email address.
sysLocation	Specifies the physical location of this component.
sysServices	Specific the number of system services.

Changing system summary information

You can modify the following system summary parameters for components in your Avaya Pod Fx:

- Contact information for the system administrator
- Component name
- Component location

Note:

You cannot change the **sysContact**, **sysName**, or **sysLocation** for a Session Border Controller (SBC) or compute server.

About this task

Use the following procedure to modify sysContact, sysName and sysLocation summary parameters for switches, PDUs and Gateway G450s in your Avaya Pod Fx.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the folder for the component type that you want to edit.
2. Expand the subfolder for the component that you want to edit.
3. Click **Summary**.
4. Click the **System** tab.
5. In the **sysContact** field, enter the contact name or email address of the system administrator.
6. In the **sysName** field, enter the component name.
7. In the **sysLocation** field, enter the location of the component.
8. Click **Apply** to save your changes.
9. Click **Refresh** to refresh the component summary information and to confirm your changes.

Viewing interface summary information

You can view detailed component information for each port using the Interface summary tab.

You can hide (or unhide) columns to better manage the overall quantity of information in the interface summary pane. Use the drop-down menu in any column to display (unhide) or hide one or more columns. In addition, you can sort columns in ascending or descending order.

About this task

Use the following procedure to view interface summary information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the folder for the component type that you want to view. Your choices are **Switches**, **Gateway**, **Servers**, or **Storage**.
2. Expand the subfolder for the component that you want to view.
3. Click **Summary**.
4. Click the **Interface** tab.

   The following table describes the interface summary information.

Attribute	Description
Index	A unique value assigned to each interface. This is a read-only field.
Descr	The description of the selected port. This is a read-only field.
Type	The media type of this interface. This is a read-only field.
PhysAddress	The MAC address assigned to a particular interface. This is a read-only field.
AdminStatus	The current administrative state of the device, which can be one of the following: • Up • Down When a managed system is initialized, all interfaces start with AdminStatus in the up state. AdminStatus changes to the down state (or remains in the up state) because of either management action or the configuration information available to the managed system. You can edit this field.
OperStatus	The current operational state of the interface, which can be one of the following: • Up • Down If AdminStatus and OperStatus is up, the interface is ready to transmit and receive network traffic. If AdminStatus is down, OperStatus should be down. OperStatus remains in the down state only if a fault prevents it from going to the up state. The testing state indicates that no operational packets can be passed. This is a read-only field.

Using the interface toolbar

The interface toolbar provides a series of buttons that you can use to manage the interface port summary information.

About this task

Use the following procedure to manage the interface port summary information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the folder for a component type. Your choices are **Switches**, **Gateway**, **Server**, or **Storage**.
2. Expand the subfolder for a specific component.
3. Click **Summary**.
4. Click the **Interface** tab.

5. Click a field to select the information that you want to manage.
   - To select multiple fields that are adjacent, click the first field. Hold the **Shift** key while you click the last field. This selects all of the fields between the first and the last field.
   - To select multiple fields that are not adjacent, hold the **Control** key and click each field you want to select.

   Use the data in the following table to use the interface toolbar.

Toolbar button	Function
Apply	Use this button to apply your configuration changes. For more information, see Changing the configuration for specific interface ports on page 26.
Refresh	Use this button to refresh all data on the screen.
Copy	Use this button to copy selected information.
Paste	Use this button to paste copied information.
Undo	Use this button to cancel your configuration changes. For more information, see Changing the configuration for specific interface ports on page 26.
Export	Use this button to export selected information to another browser tab.
Print	Use this button to print selected information.
Help	Use this button to display online help for the Interface tab.

Changing the configuration for specific interface ports

About this task

Use the following procedure to modify configuration parameters for one or more interface ports.

Note:

You can only edit white-shaded fields. The grey-shaded fields are read-only.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the folder for the component type that you want to edit. Your choices are **Switches**, **Gateway**, **Servers**, or **Storage**.
2. Expand the subfolder for the component that you want to edit.
3. Click **Summary**.
4. Click the **Interface** tab.
5. Double-click a white-shaded field to edit the value.
6. Perform one of the following actions:
   - If the field contains a drop-down list, click the arrow in the list field to view the options, and select the appropriate value.

- If the field is a text-entry field, edit the value.

7. To cancel your changes, click **Undo**.
8. To save your changes, click **Apply**.

Viewing physical information summary

You can view component specific physical information using the **Physical Info** tab.

About this task

Use the following procedure to view a summary of physical information for a specific component.

You can use the Physical Info tab to view the serial number of a specific device.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the folder for the component type for which you want to view information. Your choices are **Gateway**, **Servers**, or **Switches**.
2. Expand the subfolder for the component that you want to view.
3. Click **Summary**.
4. Click the **Physical Info** tab.

   The following table describes the physical information summary display.

Attribute	Description
Index	Indicates a unique value assigned to each interface.
Description	Indicates the description of the selected component.
Name	Indicates the name of the selected component.
Hardware Rev	Indicates the hardware revision of the selected component.
Firmware Rev	Indicates the firmware revision of the selected component.
Software Rev	Indicates the software revision of the selected component.
Serial Number	Indicates the serial number of the selected component.
Mfg Name	Indicates the manufacturer name of the selected component.
ModelName	Indicates the model name or model number of the selected component.
Is FRU	Indicates if the component is a Field Replaceable Unit (FRU). 1 is True, 2 is False.

Configuring power distribution unit system information

You can use the following procedures to view or configure the following power distribution unit (PDU) system information from the navigation tree.

- System Information: View or configure PDU summary information.
- Tower details: View or configure PDU tower details.
- InFeed details: View or configure PDU InFeed details.
- Humid Sensor: View or configure PDU humid sensor information.
- Outlet Control — Individual: View or configure the individual outlets of a Switched PDU.

Configuring PDU system information

You can view and configure specific power distribution unit (PDU) summary information using the **System Info** tab.

About this task

Use the following procedure to view or configure PDU system information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the folder for **Power Distribution**.
2. Expand the subfolder for the component that you want to view or configure.
3. Click **CDU Management**.
4. Click the **System Info** tab to view information.

   The following table describes the PDU system information.

Attribute	Description
systemVersion	Indicates the version of the component or sub-component.
systemNICSerialNumber	Indicates the serial number of the system Network Interface Card (NIC).
systemLocation	Specifies the physical location of this component. You can edit this field.
systemTowerCount	Indicates the number of towers in the system.
systemEnvMonCount	Indicates the number of environmental monitors in the system.
systemTotalPower	Indicates the total power consumption (in watts) of all the input feeds in the system. **Note:** A negative value indicates that the total power consumption is not available.

Table continues…

Attribute	Description
systemArea	Specifies the occupied system footprint area. The value of the area is in tenths of the systemAreaUnit selected. **Note:** A negative or zero value indicates that the system area is not available.
systemWattsPerAreaUnit	Indicates the system watts for each systemAreaUnit. The value indicates the power consumption for each area unit of the systemAreaUnit selected. **Note:** A negative value indicates that the power consumption for each area unit is not available.
systemAreaUnit	Specifies the unit of area for the systemArea and systemWattsPerAreaUnit.
systemPowerFactor	Specifies the power factor for power calculations performed by the system.
systemFeatures	Indicates the Feature Key features that are enabled in the system.
systemFeatureKey	You can enter a valid Feature Key in this field to enable a feature in the system. A Feature Key is in the format xxxx-xxxx-xxxx-xxxx.
systemConfigModifiedCount	Indicates the total number of times the system configuration changed.

Configuring PDU tower details

About this task

Use the following procedure to view or configure PDU tower details.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the folder for **Power Distribution**.
2. Expand the subfolder for the component that you want to view or configure.
3. Click **CDU Management**.
4. Click the **Tower Details** tab to view or configure PDU tower information.

   The following table describes the Tower Detail information.

Attribute	Description
Index	Indicates the unique value assigned to each interface.
Tower ID	Indicates the tower ID.
Name	Specifies the name of the tower. You can edit this field.

Table continues…

Attribute	Description
Status	Indicates the status of the tower.
Product SN	Indicates the serial number of the tower.
Infeed Count	Indicates the number of input feeds on the tower.
Model Number	Indicates the model number of the tower.

Configuring PDU InFeed details

About this task

Use the following procedure to view or configure PDU InFeed details.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the folder for **Power Distribution**.
2. Expand the subfolder for the component that you want to view or configure.
3. Click **CDU Management**.
4. Click the **InFeed Details** tab to view or configure InFeed information.

   The following table describes the PDU system information.

Attribute	Description
Tower Index	Indicates a unique value assigned to each interface.
Infeed Index	Indicates the index for the input feed table.
ID	Indicates the tower ID.
Name	Specifies the name of the tower.
Status	Indicates the tower status.
Load Status	Indicates the status of the load measured on the input feed line. **Note:** If loadSense capability is not supported, only normal and noComm load statuses are available
Load Value (A)	Indicates the load measured (in amperes) on the input feed line. **Note:** A negative value indicates the load value is not available.
Load High Threshold (A)	Specifies the load high threshold value (in amperes) of the input feed line.
Outlet Count	Indicates the number of controlled or monitored outlets on the input feed line.
Capacity (A)	Indicates the load capacity (in amperes) of the input feed line.

Table continues…

Attribute	Description
	Note: A negative value indicates the load capacity is not available.
Voltage (V)	Indicates the line-to-line voltage of the input feed. **Note:** A negative value indicates the voltage is not available.
Power (W)	Indicates the active power consumption (in watts) of the input feed. **Note:** A negative value indicates the active power consumption is not available.

Configuring PDU humid sensor information

About this task

Use the following procedure to view or configure PDU humid sensor information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the folder for **Power Distribution**.
2. Expand the subfolder for the component that you want to view or configure.
3. Click **CDU Management**.
4. Click the **Humid Sensor** tab to view or configure information.

   The following table describes the PDU system information.

Attribute	Description
envMonIndex	Indicates the index for the environmental monitor table.
Index	Indicates the index for the temperature or humidity sensor table.
Sensor ID	Indicates the ID of the temperature or humidity sensor.
Name	Specifies the name of the temperature or humidity sensor.
Status	Indicates the operational status of the temperature or humidity sensor.
Temp Status	Indicates the status of the temperature sensor.
Temp Value	Indicates the temperature measured by the sensor. **Note:** A negative value indicates that the temperature value is not available.
Temp Low Threshold	Specifies the low temperature threshold.
Temp High Threshold	Specifies the high temperature threshold.

Table continues…

Attribute	Description
Humid Status	Indicates the status of the humidity sensor.
Humid Value	Indicates the humidity measured by the sensor. **Note:** A negative value indicates that the humidity value is not available.
Humid Low Threshold	Specifies the low humidity threshold value in a percentage of relative humidity.
Humid High Threshold	Specifies the high humidity threshold value in a percentage of relative humidity.
Sensor Temp Scale	Specifies the scale for the temperature values. Scale options are Celsius or Fahrenheit.
Temp RecDelta	Specifies the temperature recovery delta (hysteresis) value of the sensor.

Configuring individual outlet control

About this task

Use the following procedure to view and configure individual outlet control information.

Note:

Individual outlet control is available only for a Switched Cabinet Distribution Unit (CDU).

Each PDU provides 16 AC outlets, divided into two individually fused sectors of eight outlets. Outlet 1 is closest to the PDU end without the power cable, and outlet 16 is closest to the end with the power cable. The PDU physical mounting orientation is determined by whether the PDU power cable exits the top (PDU up) or bottom (PDU down) of the enclosure. For example, if the PDU power cable exits the bottom of the enclosure (PDU down), then AC outlet 1 on the PDU is physically located near the top of the rack.

Note:

The component cable labels show accurate AC outlet numbering for a PDU up orientation only.

Warning:

If the PDUs or components were serviced, replaced, or moved from their original orientation it is possible that the *Customer and Lifecycle Workbook* was not updated. This can result in powering off or disconnecting equipment from the wrong AC outlet. Ensure that your *Customer and Lifecycle Workbook* is kept up to date.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the folder for **Power Distribution**.
2. Expand the subfolder for the component that you want to view.
3. Click **CDU Management**.
4. Click the **Outlet Control - Individual** tab to configure or view information.

The following table describes the outlet control information.

Attribute	Description
Outlet ID	Indicates the ID of the outlet.
Name	Specifies the name of the outlet.
Status	Indicates the status of the outlet. Supported states are dependent on the outlet capabilities and firmware features. Supported values can include: • Off. Outlet is off. • On. Outlet is on. • offWait. Outlet is off, waiting for sensed state. • onWait. Outlet is on, waiting for sensed state. • offError.Outlet is off, mismatch between control and sensed state. • onError. Outlet is on, mismatch between control and sensed state. • noComm. No communication of outlet state. • reading. Reading outlet state. • offFuse. Outlet is off with a fuse error. • onFuse. Outlet is on with a fuse error.
Control State	Indicates the control state of the outlet. Supported states are dependent on the outlet capabilities and firmware features. Supported values can include: • idleOff • idleOn • wakeOff • wakeOn • off • on • lockedOff • lockedOn • reboot • shutdown • pendOn • pendOff • minimumOff • minimumOn

Table continues…

Attribute	Description
	• eventOff • eventOn • eventReboot • eventShutdown
Control Action	Specifies an action to change the control state of the outlet. The outlet capabilities must support power control for the actions to function. Supported actions can include: • none. No action. • on. Turn on outlet. • off. Turn off outlet. • reboot. Reboot the outlet.
Post OnDelay	Specifies the post-on delay of the outlet. Range of 0 to 900.

5. On the toolbar, click **Apply**.
6. To verify the changes, you can click **Refresh**.

Pinging a specific component

You can ping a specific component in your Avaya Pod Fx to see if the component is reachable.

About this task

Use the following procedure to ping a specific component.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the folder for the component type that you want to ping.
2. Expand the subfolder for the specific component that you want to ping.
3. Expand the **Diagnostics** folder.
4. Click **Ping**.

   Pod Visualization Manager (PVM) pings the component and displays the ping results.

Viewing server information

Use the procedures in this section to view server information.

Viewing server process status

About this task

Use the following procedure to view server process status.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Servers** folder.
2. Expand the subfolder for the server from which you want to view process status information.
3. Expand the **Diagnostics** folder.
4. Click **Device Status**.

   Pod Visualization Manager (PVM) displays the server process status diagnostic information.

Viewing server printer information

About this task

Use the following procedure to view configured and listed server printer information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Servers** folder.
2. Expand the subfolder for the server from which you want to view printer information.
3. Expand the **Device** folder.
4. Click **Device**.
5. Click the **Printer** tab.

   The following table describes the server printer information.

Attribute	Description
Index	A unique value for each device contained by the host. The value for each device must remain constant at least from one re-initialization of the agent to the next re-initialization.
Status	The current status of this printer device. When in the idle, printing, or warmup state, the corresponding hrDeviceStatus is running or warning. When in the unknown state, the corresponding hrDeviceStatus is unknown.
Detected Error State	Indicates any error conditions detected by the printer. The error conditions are encoded as bits in an octet string, with the following definitions:

Table continues…

<table>
<tr><th>Attribute</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><th>Condition</th><th>Bit number</th><th>hrDeviceStatus</th></tr>
<tr><td>lowPaper</td><td>0</td><td>warning(3)</td></tr>
<tr><td>noPaper</td><td>1</td><td>down(5)</td></tr>
<tr><td>lowToner</td><td>2</td><td>warning(3)</td></tr>
<tr><td>noToner</td><td>3</td><td>down(5)</td></tr>
<tr><td>doorOpen</td><td>4</td><td>down(5)</td></tr>
<tr><td>jammed</td><td>5</td><td>down(5)</td></tr>
<tr><td>offline</td><td>6</td><td>down(5)</td></tr>
<tr><td>ServiceRequested</td><td>7</td><td>warning(3)</td></tr>
</table>
If multiple conditions are currently detected and the hrDeviceStatus would not otherwise be unknown(1) or testing(4), the hrDeviceStatus corresponds to the worst state of those indicated, where down(5) is worse than warning(3) which is worse than running(2). Bits are numbered starting with the most significant bit of the first byte being bit 0, the least significant bit of the first byte being bit 7, the most significant bit of the second byte being bit 8, and so on. A one bit encodes that the condition was detected, while a zero bit encodes that the condition was not detected.
Detected error state is useful for alerting an operator to specific warning or error conditions that may occur, especially those requiring human intervention.
</td></tr>
</table>

Viewing server device information

About this task

Use the following procedure to view server device information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Servers** folder.
2. Expand the subfolder for the server from which you want to view device information.
3. Expand the **Device** folder.
4. Click **Device**.

   The following table describes the server device information.

Attribute	Description
Index	A unique value for each device contained by the host. The value for each device must remain constant at least from one re-initialization of the agent to the next re-initialization.
Type	An indication of the type of device processor.

Table continues…

Attribute	Description
Description	A textual description of this device, including the manufacturer and device revision, and optionally, the device serial number.
Status	The current operational state of the device. The possible values are: • unknown. Indicates that the current state of the device is unknown. • running. Indicates that the device is up and running and that no unusual error conditions are known. • warning. Indicates that agent has been informed of an unusual error condition by the operational software (for example a disk device driver) but that the device is still operational. An example would be high number of soft errors on a disk. • testing. Indicates that the device is not available for use because it is in the testing state. • down. Indicates the agent has been informed that the device is not available for any use.
Errors	The number of errors detected on this device. **Note:** The counter does not have a defined initial value. However, Avaya recommends that this object be initialized to zero.

Viewing server disk storage information

About this task

Use the following procedure to view server disk storage information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Servers** folder.
2. Expand the subfolder for the server from which you want to view disk storage information.
3. Expand the **Device** folder.
4. Click **Device**.
5. Click the **Disk Storage** tab.

   The following table describes the server disk storage information.

Attribute	Description
Index	A unique value for each device contained by the host. The value for each device must remain constant at least from one re-initialization of the agent to the next re-initialization.

Table continues…

Attribute	Description
Access	Indicates if this long-term storage device is readable and writable or only readable. Indicates the media type, any write-protect mechanism, and any device configuration that affects the entire device.
Media	Indicates the type of media used in this long-term storage device.
Removable	Indicates whether the disk media can be removed from the drive.
Capacity	Indicates the total size for this long-term storage device.

Viewing server partition information

About this task

Use the following procedure to view server partition information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Servers** folder.
2. Expand the subfolder for the server from which you want to view partition information.
3. Expand the **Device** folder.
4. Click **Device**.
5. Click the **Partition** tab.

   The following table describes the server partition information.

Attribute	Description
Device Index	A unique value for each device contained by the host. The value for each device must remain constant at least from one re-initialization of the agent to the next re-initialization.
Label	A textual description of this partition.
FSIndex	The index of the file system mounted on this partition. If no file system is mounted on this partition, this value is zero. Note that multiple partitions can point to one file system, denoting that file system resides on those partitions. Multiple file systems cannot reside on one partition.
ID	A descriptor that uniquely represents this partition to the responsible operating system. On some systems, this might be a binary representation.
Size	The size of this partition.

Viewing server file system information

About this task

Use the following procedure to view server file system information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Servers** folder.
2. Expand the subfolder for the server from which you want to view file system information.
3. Expand the **Device** folder.
4. Click **Device**.
5. Click the **File System** tab.

   The following table describes the server file system information.

Attribute	Description
Index	A unique value for each file system local to this host. The value for each file system must remain constant at least from one re-initialization of the agent to the next re-initialization.
MountPoint	The path name of the root of this file system.
RemoteMountPoint	A description of the name and/or address of the server that this file system is mounted from. This may also include parameters such as the mount point on the remote file system. If this is not a remote file system, this string has a length of zero.
LastPartialBackupDate	The last date when a portion of this file system was copied to another storage device for backup. This information is useful to ensure that backups are performed regularly. If this information is not known, the value is notSet.
Type	The value of this object identifies the type of this file system.
Access	Indicates if this file system is logically configured by the operating system to be readable and writable or only readable. This does not represent any local access-control policy, except one that is applied to the file system as a whole.
Bootable	A flag indicating whether this file system is bootable.
Storage Index	The index of the hrStorageEntry that represents information about this file system. If no information is available, this value is zero. The relevant storage entry is useful to track the percent usage of this file system and to diagnose errors that can occur when it runs out of space.
Last Full Backup Date	The last date when this complete file system was copied to another storage device for backup. This information is useful to ensure that backups are performed regularly. If this information is not known, the value is notSet.

Viewing server system information

About this task

Use the following procedure to view server system information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Servers** folder.
2. Expand the subfolder for the server from which you want to view system information.

3. Expand the **Host** folder.
4. Click **System**.

   The following table describes the server system information.

Attribute	Description
Processes	The number of process contexts currently loaded or running on this system.
Initial Load Device	The index of the hrDeviceEntry for the device from which this host is configured to load its initial operating system configuration.
Num Users	The number of user sessions for which this host is storing state information. A session is a collection of processes that require a single act of user authentication and possibly subject to collective job control.
Max Processes	The maximum number of process contexts this system can support. If there is no fixed maximum, the value is zero. On systems that have a fixed maximum, this object can help diagnose failures that occur when this maximum is reached.
Up Time	The amount of time since this host was last initialized. Note that this is different from sysUpTime in MIB--II [3] because sysUpTime is the uptime of the network management portion of the system.
System Date	The local date and time of day.

Viewing server sensor information

About this task

Use the following procedure to view server sensor information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Servers** folder.
2. Expand the subfolder for the server from which you want to view sensor information.
3. Expand the **Resources** folder.
4. Click **Sensor**.

   The following table describes the server sensor information.

Attribute	Description
Index	A unique value for each sensor entry.
Type	The type of the sensor entry; object identifier (OID) of one of the sensorType objects.
Name	The Intelligent Platform Management Interface (IPMI) name for this sensor.
State	The state of the sensor.
Reading	The reading of the sensor.
BaseUnit	The base unit used for each of the sensor types. For example, the base unit for fan speed can be RPM and for temperature can be degrees Celsius.

Viewing server utilization information

About this task

Use the following procedure to view server utilization information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Servers** folder.
2. Expand the subfolder for the server from which you want to view utilization information.
3. Expand the **Resources** folder.
4. Click **Utilization**.

   The following table describes the server utilization information.

Attribute	Description
Index	Index of the resource.
Type	Type of resource.
Utilization	Current utilization of the resource.
Capacity	The total capacity of the resource.
Unit	The unit used for the utilization and capacity of the resource.

Viewing server software running and performance information

About this task

Use the following procedure to view information about the software running and performance on the server.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Servers** folder.
2. Expand the subfolder for the server from which you want to view software running and performance information.
3. Expand the **Software** folder.
4. Click **Software**.
5. Click the **SW Running / Performance** tab.

   The following table describes information about the software running and performance on the server.

Attribute	Description
Index	A unique value for each piece of software running on the host. The native, unique identification number of the system.
Run Type	The type of this software.
Run Status	The status of this running piece of software.
Run Path	A description of the location on long-term storage (for example, a disk drive) from which this software was loaded.
Run Parameters	A description of the parameters supplied to this software when it was initially loaded.
CPU Performance (Centi-Sec)	The number of centiseconds of the total system CPU resources consumed by this process. Note that on a multi-processor system, this value may increment by more than 1 centisecond in 1 centisecond of real (wall clock) time.
Memory Performance (KBytes)	The total amount of real system memory allocated to this process.

Viewing information about VMware ESXi software installed on the server

About this task

Use the following procedure to view information about the VMware ESXi software installed on the server.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Servers** folder.
2. Expand the subfolder for the server from which you want to view installed software information.
3. Expand the **Software** folder.
4. Click **Software**.
5. Click the **SW Installed** tab.

   The following table describes information about the software installed on the server.

Attribute	Description
Index	A unique value for each piece of software installed on the host. Value range from one to the number of pieces of software installed on the host.
Name	A textual description of this installed piece of software, including the manufacturer, revision, the name by which it is commonly known, and optionally, its serial number.
Type Units	The type of this software.

Table continues…

Attribute	Description
Installed Date	The last modification date of this application as it would appear in a directory listing.

Viewing server storage information

About this task

Use the following procedure to view server local storage information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the **Servers** folder.
2. Expand the subfolder for the server from which you want to view local storage information.
3. Expand the **Storage** folder.
4. Click **Storage**.

   The following table describes the server local storage information.

Attribute	Description
Index	A unique value for each logical storage area contained by the host.
Type	The type of storage.
Description	A description of the type and instance of the storage.
Allocation Units	The size, in bytes, of the data objects allocated from this pool. If this entry is monitoring sectors, blocks, buffers, or packets, for example, this number is commonly greater than one. Otherwise, this number is typically one.
Size	The size of the storage, in units of hrStorageAllocationUnits.
Used	The amount of the storage that is allocated, in units of hrStorageAllocationUnits.
Allocation Failures	The number of requests for storage that failed due to insufficient storage. The counter does not have a defined initial value. However, Avaya recommends that this object be initialized to zero.

Viewing switch information

Use the procedures in this section to view switch information.

Viewing switch chassis information

Use the following procedure to view switch chassis information.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the applicable **Switches** folder.
2. Expand the subfolder for the switch from which you want to view chassis information.
3. Click **Chassis**.

   The following table describes the switch chassis information.

Attribute	Description
Indx	The index of the component in the group. For example, for modules in the Board group this is the slot number.
Descr	A description of the component or subcomponent. If not available, the value is a zero length string.
Location	This object provides geographic location of Avaya Pod Fx, for example “Houston DC, Main Pod” **Note:** • This object is applicable only to components that can be found in either the Board or Unit groups. If the information is unavailable, the value is a zero length string. • If this object is applicable and is not assigned a value via SNMP SET PDU when the row is created, the value defaults to the value of the object s5ChasComSerNum.
LstChng	The value of sysUpTime when it was detected that the component or subcomponent was added to the chassis. If this has not occurred since the cold/warm start of the agent, the value is zero.
AdminState	The desired state of the component or subcomponent. The following values are read-only: • other. The component or subcomponent is currently in some other state. • notAvail. The actual value is not available. The following values are read/write: • disable. Disable operation. • enable. Enable operation. • reset. Reset component. • test. Start self test of component. Test results are normal, warning, nonFatalError, or fatalErr in object s5ChasComOperState. The allowable and meaningful values are determined by the component type.
OperState	The current operational state of the component. The possible values are: • other. Some other state. • not available. State not available.

Table continues…

Attribute	Description
	• removed. Component removed. • disabled. Operation disabled. • normal. Normal operation. • resetInProg. Reset in progress . • testing. Performing a self-test. • warning. Operating at warning level. • nonFatalErr. Operating at error level. • fatalErr. Error stopped operation. • notConfig. Module needs to be configured. • obsoleted. Module is obsoleted but in the chassis. The allowable and meaningful values are determined by the component type.
Ver	The version number of the component or subcomponent. If the information is unavailable, the value is a zero length string.
SerNum	The serial number of the component or subcomponent. If the information is unavailable, the value is a zero length string.
BaseNumPorts	The number of ports of any type contained in a component, not including any subcomponents contained within the component.
TotalNumPorts	Indicates the total number of ports of any type contained in a component, including any ports contained in subcomponents contained within the component.
IpAddress	The IP address of a component. For components that do not have an IP address/chassis this value should always be 0.0.0.0. Note that for a system in chassis mode this is the standalone IP address for individual units in the chassis.
Ipv6Address	The IPv6 address of a component.
Ipv6NetMask	The IPv6 subnet mask of a component.
RunnigSoftwareVer	The version number of the software image running on this component or subcomponent. If the information is unavailable, the value is a zero length string.

Changing switch chassis information

About this task

Use the following procedure to modify switch chassis information.

Note:

You can only edit white-shaded fields. The gray-shaded fields are read-only.

Procedure

1. In the Avaya Pod Fx navigation tree, perform one of the following actions:
   - Expand the applicable **Switches** folder.
2. Expand the subfolder for the switch that you want to edit.
3. Click **Chassis**.
4. Double-click a white-shaded field to edit the value.
5. Perform one of the following actions:
   - If the field contains a drop-down list, click the arrow in the list field to view the options, and select the appropriate value.
   - If the field is a text-entry field, edit the value.

   Use the following table to modify the switch chassis information.

Attribute	Description
Indx	The index of the component in the group. For example, for modules in the Board group this is the slot number.
Descr	A description of the component or subcomponent. If not available, the value is a zero length string.
Location	This object provides geographic location of Avaya Pod Fx, for example “Houston DC, Main Pod” **Note:** • This object is applicable only to components that can be found in either the Board or Unit groups. If the information is unavailable, the value is a zero length string. • If this object is applicable and is not assigned a value via SNMP SET PDU when the row is created, the value defaults to the value of the object s5ChasComSerNum.
LstChng	The value of sysUpTime when it was detected that the component or subcomponent was added to the chassis. If this has not occurred since the cold/warm start of the agent, the value is zero.
AdminState	The desired state of the component or subcomponent. The following values are read-only: • other. The component or subcomponent is currently in some other state. • notAvail. The actual value is not available. The following values are read/write: • disable. Disable operation. • enable. Enable operation. • reset. Reset component.

Table continues…

Attribute	Description
	• test. Start self test of component. Test results are normal, warning, nonFatalError, or fatalErr in object s5ChasComOperState. The allowable and meaningful values are determined by the component type.
OperState	The current operational state of the component. The possible values are: • other. Some other state. • not available. State not available. • removed. Component removed. • disabled. Operation disabled. • normal. Normal operation. • resetInProg. Reset in progress . • testing. Performing a self-test. • warning. Operating at warning level. • nonFatalErr. Operating at error level. • fatalErr. Error stopped operation. • notConfig. Module needs to be configured. • obsoleted. Module is obsoleted but in the chassis. The allowable and meaningful values are determined by the component type.
Ver	The version number of the component or subcomponent. If the information is unavailable, the value is a zero length string.
SerNum	The serial number of the component or subcomponent. If the information is unavailable, the value is a zero length string.
BaseNumPorts	The number of ports of any type contained in a component, not including any subcomponents contained within the component.
TotalNumPorts	Indicates the total number of ports of any type contained in a component, including any ports contained in subcomponents contained within the component.
IpAddress	The IP address of a component. For components that do not have an IP address/chassis this value should always be 0.0.0.0. Note that for a system in chassis mode this is the standalone IP address for individual units in the chassis.
Ipv6Address	The IPv6 address of a component.
Ipv6NetMask	The IPv6 subnet mask of a component.
RunnigSoftwareVer	The version number of the software image running on this component or subcomponent. If the information is unavailable, the value is a zero length string.

6. To cancel your changes, click **Undo**.
7. To save your changes, click **Apply**.

Viewing switch route information

About this task

Use the following procedure to view switch route information.

Procedure

1. In the Avaya Pod Fx navigation tree, perform one of the following actions:
   - Expand the applicable **Switches** folder.
2. Expand the subfolder for the switch from which you want to view route information.
3. Click **IP**.
4. Click the **Routes** tab.

   The following table describes the switch route information.

Attribute	Description
Dest	The destination IP address of this route. An entry with a value of 0.0.0.0 is a default route. Multiple routes to a single destination can appear in the table, but access to such multiple entries is dependent on the table. Access mechanisms are defined by the network management protocol in use.
Pref	The preference value of this route.
PathType	The type of route. Note that the values **direct** and **indirect** refer to direct and indirect routing in the IP architecture. Setting this object to the value **invalid** invalidates the corresponding entry in the ipRouteTable object. It is an implementation-specific matter as to whether the agent removes an invalidated entry from the table. Accordingly, management stations must be prepared to receive tabular information from agents that corresponds to entries not currently in use. Proper interpretation of such entries requires examination of the relevant ipRouteType object.
Mask	Indicate the mask with the destination address before being compared to the value in the ipRouteDest field. For those systems that do not support arbitrary subnet masks, an agent constructs the value of the ipRouteMask by determining whether the value of the correspondent ipRouteDest field belongs to a class A, B, or C network, and then uses one of the following mask networks: 255.0.0.0 class-A, 255.255.0.0 class-B, or 255.255.255.0 class-C. If the value of the ipRouteDest is 0.0.0.0 (a default route), then the mask value is also 0.0.0.0. Note that all IP routing subsystems implicitly use this mechanism.
NextHop	The IP address of the next hop of this route. (In the case of a route bound to an interface which is realized via a broadcast medium, the value of this field is the agent's IP address on that interface.)
Interface	The index value that uniquely identifies the local interface through which the next hop of this route should be reached. The interface identified by a particular value of this index is the same interface as identified by the same value of ifIndex.

Table continues…

Attribute	Description
Proto	The routing mechanism via which this route was learned. Inclusion of values for gateway routing protocols is not intended to imply that hosts should support those protocols.

Viewing switch ARP information

About this task

Use the following procedure to view switch Address Resolution Protocol (ARP) information.

Procedure

1. In the Avaya Pod Fx navigation tree, perform the following action:
   - Expand the applicable **Switches** folder.
2. Expand the subfolder for the switch from which you want to view ARP information.
3. Click **IP**.
4. Click the **ARP** tab.

   The following table describes the switch ARP information.

Attribute	Description
NetAddress	The IP address that corresponds to the MAC address.
IfIndex	The interface identified by a particular value of this index is the same interface as identified by the same value of ifIndex.
PhysAddress	The media-dependent MAC address.
Type	The type of mapping.
TimeToLive	The time to live value for this entry.
DestIfIndex	The destination interface index.
DestVlanId	The destination VLAN ID.

Configuring SLA monitoring agent

Use the following procedure to configure Service Level Agreement (SLA) Monitor agent information.

Before you begin

You must have an SLA Monitor server in your network to use SLA Monitor features.

About this task

The following procedure supports the SLA Monitor agent configuration only. SLA Monitor requires a server and agent relationship to perform end-to-end network Quality of Service (QoS) validation, and acts as a distributed monitoring device.

Procedure

1. In the Avaya Pod Fx navigation tree, expand the applicable **Switches** folder.
2. Expand the subfolder for the switch you want to configure.
3. Click **SLA Monitor**.
4. In the **SLA Monitor** tab, configure parameters as required.

   The following table describes the SLA Monitor information.

Attribute	Description
Status	Enables or disables the SLA Monitor agent. The default is Disabled. When disabled, the system does not respond to discover packets from a SLA Monitor server. If you have resource concerns when enabled, you can configure the SLA Monitor server to reduce the test frequency, duration, or number of targets.
ConfiguredAgentToAgentPort	Specifies the UDP port utilized by the SLA Monitor agent for agent-agent communication. If the value of this attribute is zero, the SLA Monitor agent utilizes a default port value for the base agent-agent UDP communication port.
ConfiguredAgentAddrType	Indicates IPv4 communications.
ConfiguredAgentAddr	Specifies the agent IP address. The default value is 0.0.0.0, which causes the agent to use the switch/stack IP address.
ConfiguredAgentPort	Specifies the UDP port for agent-server communication. The agent receives discovery packets on this port. The default is port 50011. The server must use the same port.
CliAvailable	Specifies whether SLA Monitor agent CLI is available.
CliTimeout	Specifies the maximum amount of time, in seconds, until the CLI session is automatically terminated. The value of this attribute is pertinent only if CLI timeouts are enabled. The default is 60 seconds.
CliTimeoutMode	Specifies whether SLA Monitor agent automatic CLI session timeout is enabled or disabled.
ConfiguredServerAddrType	Specifies IPv4 communications.
ConfiguredServerAddr	Specifies the server IP address. If an IP address is specified, the agent is restricted to use this server IP address. The default is 0.0.0.0, which allows the agent to register with any server.
ConfiguredServerPort	Specifies the server port. The default is 0, which allows the agent to disregard the source port information in server traffic. The server must use the same port.

Table continues…

Attribute	Description
ConfiguredAltServerAddrType	Specifies IPv4 communications.
ConfiguredAltServerAddr	Specifies a secondary server IP address.
SupportApps	Indicates SLA Monitor supported applications.
AgentAddressType	Indicates IPv4 communications.
AgentAddress	Indicates the agent IP address.
AgentPort	Indicates the agent port.
RegisteredWithServer	Indicates whether the agent is registered with a server.
RegisteredServerAddrType	Indicates IPv4 communications.
RegisteredServerAddr	Indicates IP address of the SLA Monitor server with which the agent is registered.
RegisteredServerPort	Indicates the TCP port used by the SLA Monitor server with which the agent is registered.
RegistrationTime	Indicates the time in seconds since the agent registered with the server.
AgentToAgentPort	Indicates the base UDP port used by the SLA Monitor agent for agent-to-agent communication. The base UDP port is used to derive multiple agent communication ports.
EncryptionSupport	Indicates if encrypted agent-server communication is supported.

5. On the toolbar, click **Apply**.
6. To verify the changes, click **Refresh**.

Chapter 6: Administrative functions

Using the Service Profile editor

Use the Service Profile editor to view the following details:

- Number of slots in the Avaya Pod Fx
- Details of each slot: device description and IP address

  Note:

  Some components can occupy more than one slot. If a component occupies more than one slot, the component details show in the middle slot of the grouping.
- Pod description and model number
- Power Distribution Unit description and IP address

You can use the Service Profile editor to perform the following tasks:

- Validate the physical configuration of the Avaya Pod Fx components
- Add a new component
- Modify an existing component description
- Move components
- Swap component slot positions
- Delete an existing component
- Back up Avaya Pod Fx profile information
- Restore Avaya Pod Fx profile information

Note:

When you launch PVM for the first time on a new Avaya Pod Fx, an initial configuration prompt appears for you to provide the Pod description and model number. The model number entered should be the factory Build Code.

Adding a new component to the profile

Before you begin

Perform the following tasks before attempting to add a VNX5300 storage device to the profile:

1. Login to PVM through SSH.
2. Execute the command cd /opt/Avaya/smgr/pvm.
3. Execute the script addStorageToProvider.sh. You must provide the SP A and SP B IP addresses and Unisphere username and password to execute the script. Ensure the Unisphere password does not have any special characters.
4. In device and server credentials, there is an entry for the PVM SA, where the CIM credentials need to be added.

You will receive the error **Error while adding VNX 5300! Please verify SMIS Configuration** if the previous steps have not been executed correctly.

Ensure that the following conditions are met:

- Physical connections between the components are in place and powered up.
- IP addresses are assigned to all of the components.
- All management virtual machines are configured with the correct IP address and fully qualified domain name (FQDN) (using VMware vCenter) and are accessible from a remote workstation.
- Required services on all the virtual machines are up and running.
- Component information and device credentials are added to the SMGR-CS
- Ensure SNMP is configured on the component device and SNMP credentials are provided in the Device Credentials Editor.

About this task

Use the following procedure to add a new component to the profile.

Procedure

1. Click the **Administrator** icon from the Administrative icons and select **Profile** from the drop down Administrator icon menu.

   Gray-shaded slots are empty.

2. Select a gray-shaded slot where you want to add the new component.

   The color of the slot changes from gray to blue.

   Note:

   You can click the **Add Filler** button to add a Filler Panel to a slot instead of a device. Doing this adds the text **Filler Panel** to the profile and a Filler Panel graphic in the Physical view of the Pod. The procedure to add the Filler Panel is complete after this step.

3. Double-click the **IP Address** field and enter the IP address of the component.
    a. If you enter the IP for a HP or Lenovo compute server running ESXi, you are prompted to provide the IP address for the HP Integrated Lights-Out (iLO) or Lenovo ThinkServer Management Module (TMM).
    b. After entering the IP for an SBC, there is a prompt to enter the iLO IP address. This step is optional.
    c. If you enter the IP for a VNX5300, you are prompted to enter the Remote Unisphere IP address.
4. (Optional) Double-click the **Device Description** field and enter a description for the component.
5. To cancel your changes, click **Undo**.
6. To save your changes, click **Apply**.

Modifying a component description in the profile

Before you begin

Ensure that the following conditions are met:

- Physical connections between the components are in place and powered up.
- IP addresses are assigned to all of the components.
- All management VMs are configured with the correct IP address and FQDN (using VMware vCenter) and are accessible from a remote workstation.
- Required services on all the VMs are up and running.

About this task

Use the following procedure to modify the description for an existing component in the Collaboration Pod profile.

Important:

You can only modify an existing component device description field. For any other changes, such as a component IP address change, you must delete the component, and then add the component as a new device with accurate component details.

Procedure

1. Click the **Administrator** icon from the Administrative icons and select **Profile** from the Administrator icon menu

   The **Profile** tab appears.

   Gray-shaded slots are empty.
2. Click the component that you want to modify.

   The color of the slot changes to blue.

If you click a component that occupies more than one slot, all of the slots that the component occupies are automatically selected.

3. Edit the component description you want to change.

   When you modify a field of a component that occupies more than one slot, the description appears in the middle slot of the group.

   The following table describes the Profile field that you can modify.

Field	Description
Device Description	The description of the selected component. This description appears as a label beside the component in the physical view.

4. Repeat Step 2 on page 54 to Step 3 on page 55 for each component description that you want to modify.
5. To cancel your changes, click **Undo**.
6. To save your changes, click **Apply**.

Moving a component in the profile

Before you begin

Ensure that the following conditions are met:

- Physical connections between the components are in place and powered up.
- IP addresses are assigned to all of the components.
- All management VMs are configured with the correct IP address and FQDN (using VMware vCenter) and are accessible from a remote workstation.
- Required services on all the VMs are up and running.

About this task

Use the following procedure to move a component in the profile.

Procedure

1. Click the **Administrator** icon from the Administrative icons and select **Profile** from the drop down Administrator icon menu.

   The **Profile** tab appears.

   Gray-shaded slots are empty.

2. Select the component that you want to move.

   The color of the slot changes to blue.

   If you click a component that occupies more than one slot, all of the slots that the component occupies are automatically selected.

3. Drag the component to the new location in the Avaya Pod Fx.

4. Repeat Step 2 on page 55 to Step 3 on page 55 for each component that you want to move.
5. To cancel the move, click **Undo**.
6. To save the move, click **Apply**.

Swapping component slot positions in the profile

Before you begin

Ensure that the following conditions are met:

- Physical connections between the components are in place and powered up.
- IP addresses are assigned to all of the components.
- All management VMs are configured with the correct IP address and FQDN (using VMware vCenter) and are accessible from a remote workstation.
- Required services on all the VMs are up and running.

About this task

Use the following procedure to swap the slot positions of two components in the profile.

Procedure

1. Click the **Administrator** icon from the Administrative icons and select **Profile** from the drop down Administrator icon menu.

   The **Profile** tab appears.

   Gray-shaded slots are empty.
2. Select the first component that you want to swap.

   The color of the slot changes to blue.

   If you click a component that occupies more than one slot, all of the slots that the component occupies are automatically selected.
3. Drag the selected component to the slot of the component that you want to swap with and release the mouse button.

   The components swap positions in the profile.
4. To cancel your changes, click **Undo**.
5. To save your changes, click **Apply**.

Deleting a component from the profile

About this task

Use the following procedure to delete a component from the profile.

Procedure

1. Click the **Administrator** icon from the Administrative icons and select **Profile** from the drop down Administrator icon menu.

   The **Profile** tab appears.

   Gray-shaded slots are empty.

2. Select the components that you want to delete.

   - To select multiple components that are adjacent, click the first component. Hold the **Shift** key while you click the last component. This selects all of the components between the first and the last component
   - To select multiple components that are not adjacent, hold the **Control** key and click each component that you want to select.

   The color of the slots change to blue.

   If you click a component that occupies more than one slot, all of the slots that the component occupies are automatically selected.

3. Click **Delete**.
4. Click **Yes** to confirm, or **No** to cancel.

Backing up a profile

You can save your profile information to a backup file and later restore the information by loading the saved file. Having a backup file ensures you can recover from accidental data loss or administrator error.

About this task

Use the following procedure to create a backup of the profile.

Procedure

1. Click the **Administrator** icon from the Administrative icons and select **Profile** from the drop down Administrator icon menu.

   The **Profile** tab appears.

2. In the lower toolbar, click **Backup**.
3. In the Confirm Inventory backup dialog box, click **Yes**.
4. In the Success dialog box, click **OK**.

Restoring a profile

When you restore a profile, the restoration process overwrites the existing information in the profile.

About this task

Use the following procedure to restore a profile.

Procedure

1. Click the **Administrator** icon from the Administrative icons and select **Profile** from the drop down Administrator icon menu..
2. In the lower toolbar, use the **Restore Inventory** drop-down list to select the inventory file that you want to restore.

   The file name convention for the inventory file is PodFx_YYYY-MM-DD_HH.MI.SS.xml.
3. Click **Restore**.
4. In the Confirm restore to this Inventory dialog box, click **Yes**.

Avaya Pod Fx™ preferences

You can configure the following Avaya Pod Fx preferences:

- Launch URLs: Specify the launch point URL (FQDN) for VMware vCenter and Avaya Diagnostic Server.
- Log settings: Configure the log settings to specify the read and write log levels.
- Threshold preferences: Configure threshold preferences to specify the maximum temperature, CPU usage, and memory usage. You configure polling intervals to specify how often Pod Visualization Manager (PVM) polls each component type for information.

You can also back up or restore the Avaya Pod Fx preferences.

Editing launch URLs

Use the following procedure to manually edit launch URLs .

Note:

The Orchestration Server URLs for the Monitoring Dashboard and Event Viewer are automatically discovered and updated in Avaya Pod Visualization Manager (PVM).

Note:

The vCenter and SBC EMS URLs should always be updated during initial configuration. The default PDU ports should be updated if the PDU ports were changed by the customer using the PDU element manager or during the initial build process.

Procedure

1. Click the **Administrator** icon from the Administrative icons, and select **Preferences** from the drop down Administrator icon menu.
2. In the Launch URLs section, double-click the URL you want to change.
3. Enter the URL for the application.
4. If you make a mistake or do not want to apply your changes, click **Undo**.
5. To save your changes, click **Apply**.
6. In the This page will be refreshed now, Continue? dialog box, click **Yes**.
7. In the Success dialog box, click **OK**.

Editing log settings

You can configure the read log level and the write log level.

About this task

Use the following procedure to edit the log settings.

Procedure

1. Click the **Administrator** icon from the Administrative icons and select **Preferences** from the drop down Administrator icon menu.
2. In the Log Settings section, double-click the log level you want to change.
3. Select a log level from the drop down list.
   - INFO. Lists all messages.
   - WARN. Lists WARN, ERROR, and CRITICAL messages.
   - ERROR. Lists ERROR and CRITICAL messages.
   - CRITICAL. Lists CRITICAL messages.
4. If you make a mistake or do not want to apply your changes, click **Undo**.
5. To save your changes, click **Apply**.
6. In the Success dialog box, click **OK**.

Configuring threshold preferences

You configure threshold preferences to specify the maximum temperature, CPU usage, and memory usage. If a threshold value is exceeded, the indicator on the Pod Dashboard turns red against the specific component that exceeded the threshold.

You configure polling intervals to specify how often Pod Visualization Manager (PVM) polls each component for information. If PVM detects that a component is not active, it updates the LED status

in the physical view and updates the information in the Pod Dashboard pane. If PVM detects that the component is reachable, then it updates the LEDs accordingly on the respective component in the physical view and also updates component details by communicating with component or fault and performance monitoring applications.

About this task

Use the following procedure to configure threshold preferences.

Procedure

1. Click the **Administrator** icon from the Administrative icons and select **Preferences** from the drop down Administrator icon menu.
2. In the Threshold Preferences section, in the row of the component you want to modify, double-click the **Temperature** field.
3. Enter the temperature threshold for the component. The valid range is -100 to 200 Celsius.
4. In the Threshold Preferences section, in the row of the component you want to modify, double-click the **CPU (%)** field.
5. Enter the CPU usage threshold. The valid range is 0 to 100 percent.
6. In the Threshold Preferences section, in the row of the component you want to modify, double-click the **Memory (%)** field.
7. Enter the memory usage threshold percentage. The valid range is 0 to 100 percent.
8. In the Threshold Preferences section, in the row of the component you want to modify, double-click the **Polling (Seconds)** field.
9. Click the arrow in the list field to view the options, and select how often you want to poll the component.

   Your choices are: 60,120, 180, 240, 300, 600, or No Polling. You can also enter a value in this field. The valid range is 120 to 3600 seconds.
10. If you make a mistake or do not want to apply your changes, click **Undo**.
11. To save your changes, click **Apply**.
12. In the “This page will be refreshed now. Continue?” dialog box, click **Yes**.
13. In the Success dialog box, click **OK**.

Example

The following table shows the typical default threshold preferences for components:

Table 1: Threshold preferences

Type	Temperature (C)	CPU (%)	Memory (%)	Polling (Seconds)
PDU	NA	NA	NA	120
VSP4850	55	60	55	120

Table continues…

Type	Temperature (C)	CPU (%)	Memory (%)	Polling (Seconds)
SBC	30	50	50	120
AAM	32	50	50	120
VSP7024	55	60	55	120
VSP7254	55	50	50	120
Server	30 (for CPod 2400) 35 (for CPod 4200)	50	50	120
Gateway	45	60	55	120
ERS	55	50	50	120
Storage	30 (for CPod 2400) 35 (for CPod 4200)	50	100	60
Avaya SBC	N/A	N/A	N/A	120

Pinging every component

You can ping every component to see if they are reachable.

Note:

You can also ping a specific component to see if that component is reachable. For more information, see Pinging a specific component on page 34.

About this task

Use the following procedure to ping every component.

Procedure

Click the **Administrator** icon from the Administrative icons and select **Diagnostics > Ping** from the drop down Administrator icon menu.

Pod Visualization Manager (PVM) pings every component and displays the ping results.

Viewing the Pod Visualization Manager log file

About this task

Use the following procedure to view the Pod Visualization Manager (PVM) log file.

Procedure

1. Click the **Administrator** icon from the Administrative icons and select **Logs>Activity Logs** from the drop down Administrator icon menu.

2. Select **Critical**, **Error**, **Warn** or **Info** from the drop down menu on the **Activity Logs** tab.
   - INFO. Lists all messages.
   - WARN. Lists WARN, ERROR, and CRITICAL messages.
   - ERROR. Lists ERROR and CRITICAL messages.
   - CRITICAL. Lists CRITICAL messages.
3. You can click **Refresh** to view the latest logs.
4. You can click **Download** and select the current logs or a logs backup to download.
5. You can click **Help** to view online help.

Viewing the Pod Visualization Manager configuration log file

About this task

Use the following procedure to view the Pod Visualization Manager (PVM) configuration log file. The configuration logs are displayed in chronological order.

Procedure

1. Select the **Administrator** icon from the Administrative icons to access the Administrator icon menu.
2. Select **Logs > Config Logs** from the Administrator icon menu.
3. You can click **Refresh** to view the latest configuration logs.
4. You can click **Download** to download the configuration logs.
5. You can click **Export to Excel** to export the configuration logs into an Excel file.

Accessing the Pod Visualization Manager log file

About this task

Use the following procedure to access the Pod Visualization Manager (PVM) log file.

Procedure

1. To access the current log file, go to `/opt/avaya/smgr/pvm/log`.

   The log file name is pvm.log.

   PVM checks the current pvm.log file once every minute. If the log size exceeds 100 KB, PVM compresses the log, and moves the compressed log file to the backup folder.

2. To access the backup log files, go to `/opt/avaya/smgr/pvm/log/backup`.

   The backup log file format is pvm.MM_DD_YYYY_TIMESTAMP.log.tar.gz

   Example: pvm.02_11_2013_005101.log.tar.gz

   Note:

   The backup files are stored in zip format.

Rediscovering components

When you use the Rediscover function, Pod Visualization Manager (PVM) immediately polls each component for information. PVM updates component information and refreshes the physical view.

If you change a component, ensure that you enforce the Rediscover function, which updates the profile with the current component information.

About this task

Use the following procedure to rediscover components.

Procedure

Click the **Administrator** icon from the Administrative icons and select **Rediscover** from the Administrator icon menu.

Logging on to SMGR-CS

Before you begin

Obtain a user account to log on to the SMGR-CS web interface. If you do not have a user account, go to the Avaya support website at http://support.avaya.com/ to create your account.

About this task

SMGR-CS web console is the main interface of Avaya Aura® System Manager. To perform any tasks, you must log on to SMGR-CS web console.

Important:

On SMGR-CS web console, do not use the back arrow on the top-left corner of the browser to navigate to the previous page. If you click the back arrow, the system might exhibit an inconsistent and unexpected behavior.

Use the following procedure to log on to SMGR-CS.

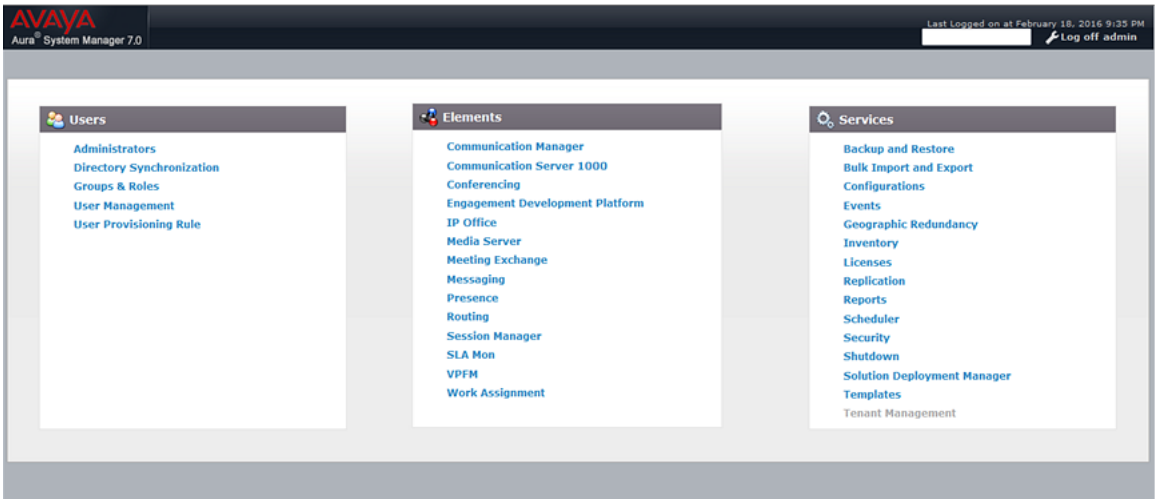
Procedure

1. On the Web browser, enter the System Manager URL `https://<FullyQualified Domain Name>/SMGR`.
2. In the **User ID** field, enter the user name.
3. In the **Password** field, enter the password.
4. Click **Log On**.

   The system validates the username and password with the SMGR-CS user account. Depending on the validity, the system displays one of the following screens:

   - If the username and password match, the system displays the System Manager home page with the System Manager *version_number*. The System Manager home page displays the navigation menu. The menu provides access to shared services to perform various operations that System Manager supports. The tasks you can perform depends on your user role.
   - If the username and password does not match, System Manager displays an error message and prompts you to re-enter the user name and password.

   The following figure shows the SMGR-CS web console page.



Adding Avaya Pod Fx™ component devices

Use the following procedure to add Avaya Pod Fx component device credentials to System Manager— Common Services.

Before you begin

Ensure that you are logged on to Avaya Aura® System Manager as an administrator.

About this task

When you add new components to the Avaya Pod Fx, you must add the new component device credentials. Use component device credentials to keep the data up-to-date so that Pod Visualization Manager (PVM) contains the most current and accurate information about the components in your Avaya Pod Fx.

Add the various credentials for each of the following devices:

- Compute servers (ESXi hosts)
- Avaya networking switches
- Avaya G450 Media Gateway
- EMC storage devices
- ServerTech Power Distribution Units
- Avaya Session Border Controller

Procedure

1. Log on to Avaya Aura® System Manager.
2. In the **Services** column expand **Inventory**.
3. Click **Device and Server Credentials**.

   The Device and Server Credentials Editor configuration page appears.
4. Add the Avaya Pod Fx component device credentials. For example, SNMP, Telnet, CIM, and other component device credentials as required.
5. Click **Save**.

Resetting the admin password

About this task

Perform the following procedure to reset the admin password.

Procedure

1. Log on to the “local-login” page of the SMGR primary server.

   https://fqdn/local-login
2. Type the username and password of a user who has administrative privileges to log on to the machine where the primary server is installed.
3. Change the URL to **https://fqdn/passwordReset** and enter the required details to change the password.

Changing password

Before you begin

- Ensure that you are logged on to the SMGR-CS as an administrator.

About this task

Perform this procedure to change the administrator password.

Procedure

1. In the navigation pane, under **User Services**, click **Password**.

   The Password Status page displays.

2. Click **Change Password**.

   The Change Password page displays.

3. In the **Current password** field, enter the current password.
4. In the **New password** field, enter the new password.
5. In the **Confirm new password** field, enter the new password.
6. Click **Save**.

Chapter 7: Discovery and visualization

Discovery and Serviceability Agent

Pod Visualization Manager (PVM) discovers all of the components and builds the physical view.

PVM uses SNMP to communicate with the Serviceability Agent to obtain the data required to build the physical view. PVM obtains the following data from the Serviceability Agent:

- Slot Number
- Component Type
- IP Address

You can use the **Rediscover** function in the Administrator icon menu to refresh the physical view.

If discovery is not operating as expected, you can stop or restart the Serviceability Agent (SA) by selecting the **Profile** icon among the Administrative icons to open the Administrator icon menu. You can perform **Profile** > **Diagnostics** > **Stop Agent** and **Diagnostics** > **Restart Agent** functions from the Administrator icon menu.

If you change a component, ensure that you use the Rediscover function to update with the current component information. For more information, see Rediscovering components on page 63.

Physical view

Located under the Pod tab in the middle of the Pod Visualization Manager (PVM) interface, the physical view displays a real-time physical view of all of the components. From the physical view, you can view fault, configuration, and performance information for each component.

You can perform the following tasks from the physical view:

- View a larger detailed physical view of a component
- View the rear view of a component
- Detect and respond to component state changes

- View component LED status
- Respond to LED state changes
- Launch component-specific element managers

The physical view displays the slot numbers where each component resides, and each component is labeled.

Viewing a larger detailed view of a component

You can view a larger detailed physical view of a component to help you monitor the component LED states.

About this task

Use the following procedure to view a larger detailed physical view of a component from the physical view. Server and storage detailed views provide additional information about the devices by hovering the mouse over individual parts like the discs and LEDs.

The right-click menu of the larger detailed provides options to launch the component specific element manager for the device and pinging the device. The right-click menu for the server detailed view also provides an option to launch vSphere.

Procedure

1. In the physical view area of the Pod Visualization Manager (PVM) interface, click the component that you want to see in a larger view.

   The larger view of the component appears. Component system summary information appears below the larger view of the component. For more information about the system summary information, see Viewing system summary information on page 22.

2. To remove the larger view of the component, click **Close**.

Viewing the rear view of a component

You can display the rear view of servers, storage devices, and SBCs to monitor the LED states on the back of the server.

Before you begin

Ensure the larger view of the component is displayed in the physical view. For more information, see Viewing a larger detailed view of a component on page 68.

About this task

Use the following procedure to view the rear view of a component.

Procedure

1. In the top left corner of the larger view of the component, click the **Rotate Server** icon.

2. To return to the front view of the component, click the **Rotate Server** icon again.

Responding to a component down notification

If Pod Visualization Manager (PVM) cannot reach the IP address of a component, a component down pop-up notification appears on the component. The unreachable component is not available. You can take corrective action to fix this problem.

Ensure that SNMP is enabled on all components and that the Serviceability Agent can retrieve information from the servers.

When you correct the condition, PVM automatically detects the component and begins monitoring the component again.

Component LED status

You can view LED states in the detailed physical component views to determine the operating status. If you detect a change in an LED state, you can take corrective action to resolve the problem. For more information about responding to a change in an LED state, see Responding to an LED state change on page 72.

Note:

Hovering the cursor over the status indicator of storage devices provides tooltip information about the device. This displays disk information in the front view and port information in the rear view.

The following tables describe the details of the LED states displayed for each type of component.

Table 2: Avaya Pod Fx 4200 Series LED states

Component type	LEDs displayed	LED display details
VSP 7200	module and port	The LED states displayed are the same as the independent device. Green indicates that the module or port is up and running, red indicates that the module or port is disabled, and amber indicates that an enabled port is not connected.
VSP 7000	module and port	The LED states displayed are the same as the independent VSP 7024XLS device. Green indicates that the module or port is up and running, red indicates that the module or port is disabled, and amber indicates that an enabled port is not connected.
VSP 4000	module and port	The LED states displayed are the same as the independent VSP 4850GTS device. Green indicates that the module or port is up and running, red indicates that the module or port is disabled, and amber indicates that an enabled port is not connected.

Table continues…

Component type	LEDs displayed	LED display details
Gateway	basic connectivity	One LED indicates if the device is reachable. The configuration details are available through the G450 Gateway Element Manager. For information about launching component specific element managers from the physical view, see Launching an element manager from the physical view on page 73. For information about launching component-specific element managers from the navigation tree, see Launching component-specific element managers on page 17.
Lenovo servers (front view)	Power	Solid green
	Network 1	Blinking green
	Network 2	Blinking green
	Disk(s)	Blinking green if disk exists; otherwise no LED.
Lenovo servers (rear view)	Eth LAN 1 (left)	Solid green or amber
	Eth LAN 1 (right)	Blinking orange or solid amber
	Eth LAN 2 (left)	Solid green or amber
	Eth LAN 2 (right)	Blinking orange or solid amber
	BMC (left)	Solid amber
	BMC (right)	Blinking green
	Power Supply	Solid green
HP servers (front view)	Power	Solid green
	Disk(s)	Solid green
HP servers (rear view)	Eth LAN 1 (left)	Solid green
	Eth LAN 1 (right)	Blinking green
	Eth LAN 2 (left)	Solid green
	Eth LAN 2 (right)	Blinking green
	Power Supply	Solid green
EMC VNXe3200	Front disk drive	Blue indicates the drive is operational.
	Front disk drive fault	Amber indicates the drive is faulty.
	Rear power supply	Each DAE has two power supplies with one power supply LED each. Green indicates the power supply is operational.
	Rear management port	The management port has green and amber LEDs. No LED activity is present when the port is disconnected.
	Rear SAS ports	Green indicates the port is connected and operational. No LED activity is present when the port is disconnected.
	Rear Ethernet ports	Green indicates the port is connected and operational. No LED activity is present when the port is disconnected.

Table continues…

Component type	LEDs displayed	LED display details
	Rear SFP ports	Green indicates the port is connected and operational. No LED activity is present when the port is disconnected.
EMC VNX5300	Front disk drive	Green indicates the drive is operational.
	Front disk drive fault	Amber indicates the drive is faulty.
	Rear management port	The management port has green and amber LEDs. No LED activity is present when the port is disconnected.
	Rear SFP ports	Green indicates the port is connected and operational. No LED activity is present when the port is disconnected.
Nimble CS1000 Controller / Rear View	Power	• Green — Power is on and AC power connected. • Amber can mean one of the following: - Power is off and AC power connected. - The power supply is not properly seated. - The array is powered off. - Power supply internal fault.
	Ethernet link	• Green — Link is active. • Amber — Link is down.
	Fibre Channel	• Green — Link is active. • Amber — Link is down.
Nimble CS1000 Disk / Front View	HDD Drive Fault	Solid amber indicates drive failure or removal.
	HDD Drive Operation	Solid green indicates the drive is online and ready.
	SSD Drive Carrier	Solid amber indicates the drive carrier has failed.
	SSD Drive A Fault	Solid amber indicates drive failure or removal.
	SSD Drive B Fault	Solid amber indicates drive failure or removal.
	SSD Drive A Operation	Solid green indicates the drive is online and ready.
	SSD Drive B Operation	Solid green indicates the drive is online and ready.

Table 3: Avaya Pod Fx 2400 Series LED states

Component type	LEDs displayed	LED display details
VSP 4000	module and port	The LED states displayed are the same as the independent VSP 4850GTS device. Green indicates that the module or port is up and running, red indicates that the module or port

Table continues…

Component type	LEDs displayed	LED display details
		is disabled, and amber indicates that an enabled port is not connected.
Gateway	basic connectivity	One LED indicates if the device is reachable. The configuration details are available through the G450 Gateway Element Manager. For information about launching component specific element managers from the physical view, see Launching an element manager from the physical view on page 73. For information about launching component-specific element managers from the navigation tree, see Launching component-specific element managers on page 17.
HP servers (front view)	Power	Solid green
	Disk(s)	Solid green
HP servers (rear view)	Eth LAN 1 (left)	Solid green
	Eth LAN 1 (right)	Blinking green
	Eth LAN 2 (left)	Solid green
	Eth LAN 2 (right)	Blinking green
	Power Supply	Solid green
EMC VNXe3200	Front disk drive	Blue indicates the drive is operational.
	Front disk drive fault	Amber indicates the drive is faulty.
	Rear power supply	Each DAE has two power supplies with one power supply LED each. Green indicates the power supply is operational.
	Rear management port	The management port has green and amber LEDs. No LED activity is present when the port is disconnected.
	Rear SAS ports	Green indicates the port is connected and operational. No LED activity is present when the port is disconnected.
	Rear Ethernet ports	Green indicates the port is connected and operational. No LED activity is present when the port is disconnected.
	Rear SFP ports	Green indicates the port is connected and operational. No LED activity is present when the port is disconnected.

Responding to an LED state change

If you detect a state change in a component LED, you can take corrective action to fix the problem.

About this task

Use the following procedure to take corrective action in response to a component LED state change.

Procedure

1. Ensure that the Pod Visualization Manager (PVM) Preferences are set correctly. For more information, see Avaya Pod Fx™ preferences on page 58.

2. Ensure SNMP is enabled on all components and that the Serviceability Agent can retrieve information from the servers.

Launching an element manager from the physical view

About this task

Use the following procedure to launch an element manager from the physical view.

Note:

You can also launch component-specific element managers from the Avaya Pod Fx navigation tree. For more information, see Launching component-specific element managers on page 17.

Procedure

1. Perform one of the following actions:
   - In the physical view of the Pod Visualization Manager (PVM) interface, right-click the component from which you want to launch the element manager.
   - Right-click the larger detailed view of a component from which you want to launch the element manager.

   For more information, see Viewing a larger detailed view of a component on page 68.
2. Click **Launch**.

   The element manager launches in a new browser tab.
3. Enter the element manager **User ID**.
4. Enter the element manager **Password**.

   For more information, see the documentation for the specific element manager you want to launch.

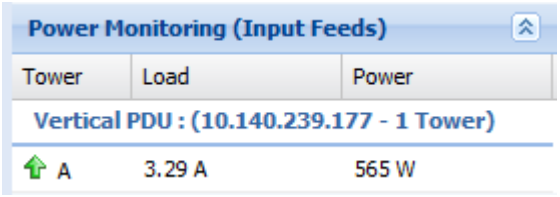
Power Monitoring dashboard pane

The Power Monitoring (Input Feeds) dashboard pane displays power distribution unit (PDU) details. Pod Visualization Manager (PVM) communicates with the PDU components or with the Serviceability Agent to get the required details to display. PVM updates and refreshes the information in the Power Monitoring dashboard pane each time it polls for information.

The Power Monitoring dashboard pane displays the following PDU information:

- PDU towers
- PDU load (in amperes)
- PDU power (in watts)

The following figure shows an example of the Power Monitoring (Input Feeds) dashboard pane.



Pod Dashboard pane

The Pod Dashboard pane displays the details for the all components. Pod Visualization Manager (PVM) communicates with the components or with the Serviceability Agent to get the required details to display. PVM updates and refreshes the information in the Pod Dashboard pane each time it polls for information.

The Pod Dashboard pane displays the following information for all components:

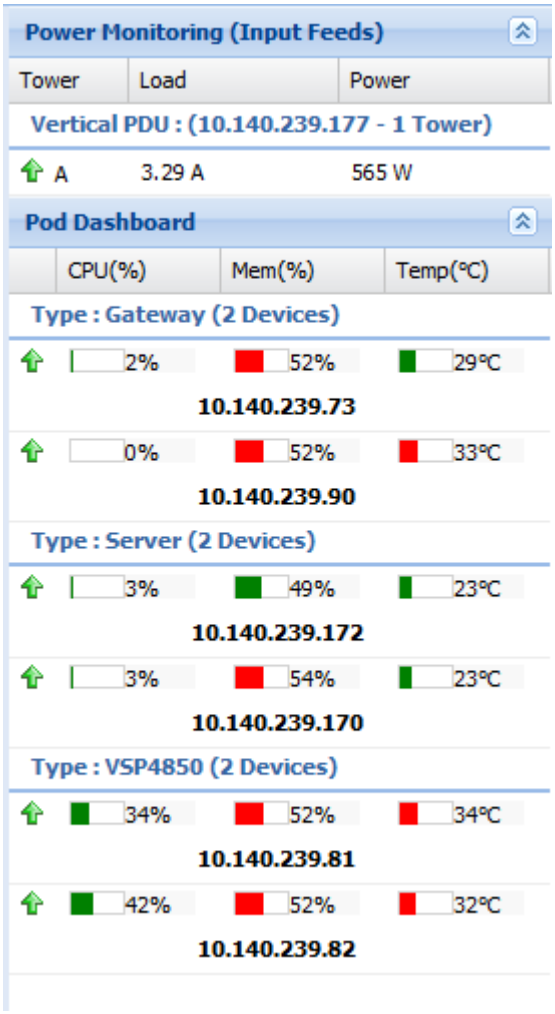
- CPU usage (in %)
- Memory usage (in %)
- Temperature (in Celsius)

You can view the current threshold status of the CPU usage, memory usage, and temperature using the color-coded indicators:

- Green. Indicates normal operation.
- Red. Indicates threshold exceeded.

A dash (-) indicates that there is no data to display at this time.

The following figure shows an example of the Pod Dashboard pane.



VPFM dashboard

VPFM provides a dashboard that contains information specific to the Avaya Pod Fx. Right-click the Avaya Pod Fx element in the VPFM Network Browser and select **Show Dashboard**.

Chapter 8: Resources

This section contains information on additional available resources.

Related links

Support on page 76
Documentation reference on page 78
Training on page 79
Avaya Mentor videos on page 79
Searching a documentation collection on page 80
Subscribing to e-notifications on page 81

Support

The Avaya Pod Fx is an integrated solution with integrated support. Integrated support means that Avaya support personnel can isolate and resolve any issues with hardware and software applications packaged within the Avaya Pod Fx.

Note:

Avaya is responsible only for support of the Avaya and third-party hardware and software within the Avaya Pod Fx that has been purchased through Avaya as part of the Avaya Pod Fx, or that has been explicitly approved in writing by the Avaya Pod Fx product management team.

Documentation for specific Avaya products can be found on the Avaya website at http://support.avaya.com.

Important:

If you deviate from an Avaya Pod Fx release software baseline, change physical equipment or virtual machines, modify network configurations, or add custom applications to Avaya Pod Fx in any way, without express consent from Avaya, you will void warranty and service contracts for Avaya Pod Fx. The approved application baseline deployed in the Avaya Pod Fx is part of the design review process. It is documented in the LCM workbook. You must stay within that defined baseline to remain in a supported configuration. If application types or counts must change, the new requirements must be reviewed by the Avaya Pod Fx Go To Market team in a design review through your account team or sales authorized business partner.

Avaya is not responsible for any unapproved third-party applications or hardware, or the direct or indirect impact of same, if installed by the customer.

To ensure the integrity of an Avaya Pod Fx solution and product warranties, any changes must be approved in writing by the Avaya Pod Fx product management team through the Avaya Pod Fx Configurator Design Review process. To request a design change review, send an email to podfxsales@avaya.com.

Important:

The initial software baseline can require software patches and updates after initial installation. You are not permitted to update or upgrade Avaya Pod Fx Infrastructure applications or Avaya Aura® System Manager. This can only be done as a whole, with upgrade from one Avaya Pod Fx baseline release to another, unless approved by a PSN or PCN issued by the Avaya Pod Fx product team. This is as per the defined Lifecycle Policy for Avaya Pod Fx release management. Applications outside of the Avaya Pod Fx Infrastructure baseline or Avaya Aura® System Manager can be upgraded at the discretion of the system owner by following the Avaya Product Compatibility Matrix at https://support.avaya.com/CompatibilityMatrix/Index.aspx.

You must ensure that automatic software updates are disabled for applications. Avaya tests updates to determine compatibility and Avaya will advise you about updates as they are verified and approved for use.

Note:

Avaya recommends that you install important Windows updates on the Windows Virtual Machines running on an Avaya Pod Fxas a best practice. See and follow your corporation security policies regarding Windows updates.

Contacting Avaya Pod Fx Support

The following support mailing lists are available for specific product queries. Use the mailing list appropriate to your query type.

- Avaya Pod Fx sales and sales-related queries — podfxsales@avaya.com.
- Avaya Pod Fx support — podfxsupport@avaya.com.
- Avaya Pod Fx partner support — podfxpartner@avaya.com.

Avaya associates can access the LCM repository at https://products.share.avaya.com/sites/podlcm/default.aspx to obtain the latest copy of the appropriate workbook. Business Partners and customers should send a request for the latest copy of the workbook to podfxsupport@avaya.com.

About this task

Avaya Support includes:

- Products
- Downloads and documents
- Service requests
- Parts replacement

- Tools
- Community support forum and DevConnect
- Training
- Help and policies
- Alerts and reports

Procedure

1. Go to the Avaya Support home page,

   www.avaya.com/support

   Note:

   Site registration is required to access Self Service Tools and Downloads. Registration instructions are available on the Support home page.

2. From the Support home page:
   - Enter a keyword in the Avaya Support search dialog box.
   - Click any of the topic-based links on the page.

Related links

Resources on page 76

Documentation reference

The following provides a high-level list of links to the Avaya support website and third-party websites. Go to the following websites to obtain documentation for the components supported on Avaya Pod Fx.

- Avaya: support.avaya.com–Contains documentation and downloads for networking, management, and applications for Avaya Pod Fx.
- VMware: www.vmware.com
- Compute servers:
  - HPE ProLiant DL360 Generation 9 servers: www.hp.com
  - HPE ProLiant DL360p and DL360e Generation 8 servers: www.hp.com
  - Lenovo ThinkServer RD540 and RD340: www.lenovo.com
- EMC² VNX storage array: www.emc.com
- HPE Nimble storage array: www.nimblestorage.com
- ServerTech Power Distribution Units: www.servertech.com

For a detailed list of documentation for Avaya Pod Fx and specific components, see the following document:

- *Avaya Pod Fx Documentation Reference* (NN47204–113)

Related links

Resources on page 76

Training

Product training is available on the Avaya Learning website. For more information or to register, see http://avaya-learning.com.

Related links

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Avaya Mentor videos

Avaya Mentor videos are available on an Avaya-run Internet channel dedicated to technical content.

Playlist categories include:

- Unified Communications (tested on Internet Explorer and Firefox).
- Contact Centers.
- Networking.
- Small and Midsize Business.
- Uploaded videos. A composite of all available Avaya Mentor videos.

Before you begin

You must have a valid Internet browser installed and working on your device.

About this task

The Avaya Mentor videos include the following content categories:

- How to install Avaya products.
- How to configure Avaya products.
- How to troubleshoot Avaya products.

Procedure

To go to Avaya Mentor videos, click the following link:

http://www.youtube.com/avayamentor

and perform one of the following actions:

- Enter a key word or words in the **Search channel** dialog box to search for a specific product or topic.
- Click the name of a playlist to scroll through the available videos.

Related links

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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.

Related links

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Subscribing to e-notifications

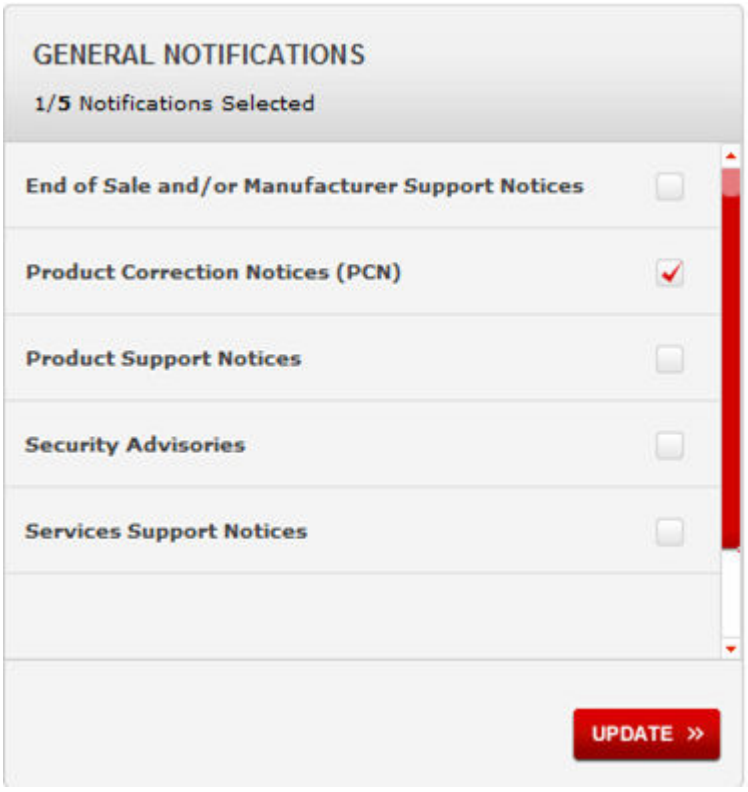
Subscribe to e-notifications to receive an email notification when documents are added to or changed on the Avaya Support website.

About this task

You can subscribe to different types of general notifications, for example, Product Correction Notices (PCN), which apply to any product or a specific product. You can also subscribe to specific types of documentation for a specific product, for example, Application & Technical Notes for Ethernet Routing Switch 5000 Series.

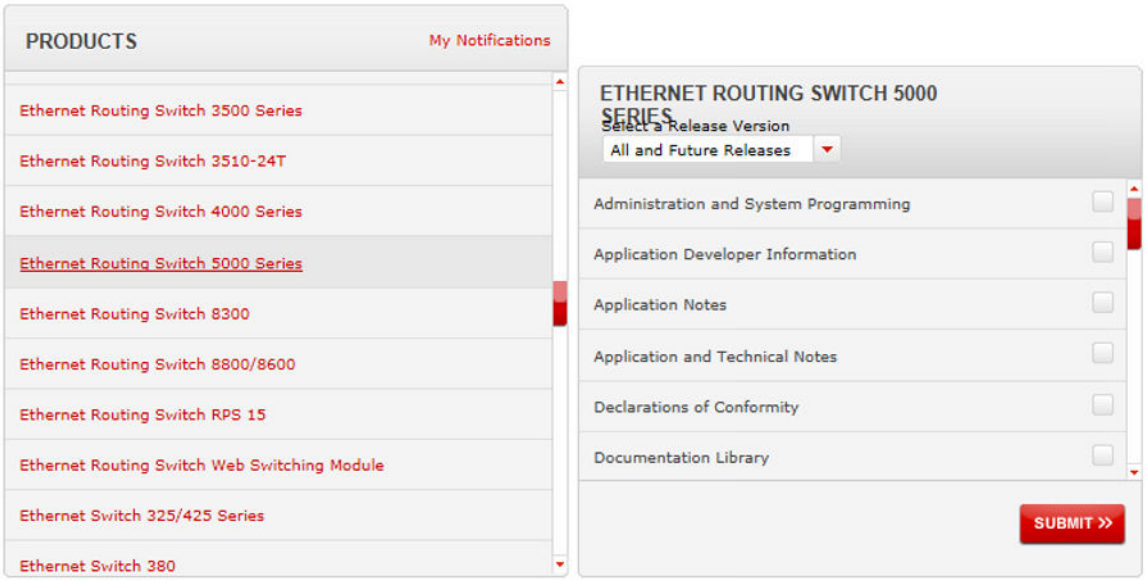
Procedure

1. In an Internet browser, go to https://support.avaya.com.
2. Type your username and password, and then click **Login**.
3. Under **My Information**, select **SSO login Profile**.
4. Click **E-NOTIFICATIONS**.
5. In the GENERAL NOTIFICATIONS area, select the required documentation types, and then click **UPDATE**.



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

8. Scroll through the list, and then select the product name.
9. Select a release version.
10. Select the check box next to the required documentation types.



11. Click **Submit**.