

Monitoring Cisco SD-WAN and Meraki SD-WAN Services in MSX

Cisco MSX new GUI includes a MSX Dashboard and a Tenant Workspace, that are visible only if users have subscribed to the Cisco MSX Enterprise Access (EA) service pack.

This chapter contains the following sections:

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Monitoring SD-WAN Service Status Status on the Cisco MSX GUI

The new GUI has the following workspaces:

• **Operator workspace**: Lists all the tenants and the services these tenants have subscribed to. The Operator Workspace has dashlets such as Tenants and Services. The tenant-centric portal is role-based and is

8	accessible by			
	ahaha cisco	Cisco MSX	Super User	0
٨	MSX Dashboard	Operator Workspace		
ы	Tenant Workspace >			
≡	Devices	3 Tenants 4 Services		
0	Scheduled Jobs			
Ħ	Service Catalog			
٠	Approvals			
	Tenant Groups	Search Tanants Q		
*	Tenants			
1	Users	ACME 4 Services, 11 Sites Gizmo Enterprise, Inc. 0 Services, 0 Sites I Service, 0 Sites I Service, 0 Sites		
121	Roles			

- **Tenant Workspace**: Allows tenants to access information related to their subscribed services. The following are the menus that are available in the tenant workspace:
 - Services: Display all services subscribed by a tenant, service status, and other service metrics.
 - Sites: Display an overview of the tenant's sites, site status, and allows access to site details.



Note Displays only the sites that have latitude and longitude.

• **Devices**: Displays an overview of the tenant's devices, device status, and allows access to device details.



Note Displays both mapped or unmapped sites or devices.

For more information on device statuses in the Tenant Workspace, see #unique_81.

- Service Controls: Display the custom service controls that are used by the services. For Cisco MSX SD-WAN service pack, you can view traffic policies used by a tenant and perform bulk import of device templates.
- Offer Catalog: Display existing subscriptions and allows subscribing to new services.
- Billing: Display billing information about the tenant's subscriptions.
- Activity Feed: The Cisco MSX portal allows a tenant to view several events pertaining to the subscriptions, sites, devices, template, and services. The events that are logged in the Events Log window are also used in the Activity Feed. To view the Activity Feed, choose Tenant Workspace > Services window. These contextual event feeds are also displayed on the Sites Detail window and Devices Detail window.

Monitoring Cisco SD-WAN Device Status

The **Devices** menu option in the **Tenant Workspace** provides the devices' overall status. The **Devices** menu displays both mapped (latitude and longitude defined) or unmapped devices.

Using this procedure, you can view the SD-WAN and Meraki device statuses.

- **Step 1** Log in to the MSX portal using your credentials.
- **Step 2** From the left hand pane, choose **Tenant Workspace > Devices**.

The Devices Overview window is displayed with overall status of the devices.

Figure 1: Device Overview window

	nd.								
				1 Service		4 Sites		24 Devices	
				\frown					
1		Devices 2				3			
1				issues		issues		issues	
	=		Services:	The Device Mode	els: T	• 			Ó
	0			DEVICE	MODEL	SERVICE	SERIAL NUMBER	OS VERSION	
				ott-physical-vedge-09-110G440 Critical	vedge-1000	SD-WAN	110G440170219	18.2.0	
	血								
			•	ISR4431/K9-FOC21050KU0 Good	vedge-ISR-4431	SD-WAN	ISR4431/K9-F0C21050KU0	Unknown	

Step 3To view the status of a device, hover the mouse over the device and click to view the device summary.The device view expands and its overall status is displayed along with its health and lifecycle status.Figure 2: Device Expanded View

	Prestile: Lifercycler: Up: Orboarded
the ott-dmz-asr1001-01-ASR1001-X-JAE203306BV Status: Good Mode: vedge-ASR-1001-X Type: Glass 5D-WAN Sendee: SD-WAN	This device is managed directly by SD-WAN. To see details about the device as well as make changes to it, click the service home button to enter the service specific controls



Step 4 Click **Device Details** to view additional details of the device such as reachability, control plane name, last sync time, IP address, device template details.

Device template shows the device template and its related information that was applied to that particular device. Related information includes device model, chassis number, system IP, hostname, and device template name.

The data presented on this window is refreshed every (n) minutes depending on the time set using the **Task scheduler administration API**. As an operator, you can use PUT API (/api/v1/taskscheduler/{taskID} and update the value for recurrenceCronExpression to modify this duration.

Understanding Cisco SD-WAN Device Statuses

The overall device status (indicated by the *Status* option on the left-hand side of the **Devices** window) is categorized as **Critical**, **Poor**, **Fair**, **Good**, and **Unknown**.

This overall device status is calculated based on the device lifecycle status (indicated by the *Lifecycle* bubble on the right-hand side). However, in some cases, overall device status also includes the device health status (indicated by the *Health* bubble on the right-hand side). The Device health status is considered only when the devices have system_ip configured or have VNFs successfully deployed and connected.

The following figure illustrates overall device status, device health, and lifecycle status for an SD-WAN device.



Within Cisco MSX, any status type are numbered from 1 to 7, with the highest number 7 indicating the status as '**Critical**' and the lowest number 1 indicating the status as 'Good'. An overall status looks into the available statuses (lifecycle or device health or both) for a device and picks the highest number and maps it to the below overall statuses.

Overall Status vs Severity Number in Cisco MSX

Overall Status	Critical	Poor	Fair	Unknown	Good
Severity Number	7	6	5	3	1

The following table illustrates the mapping of SD-WAN lifecycle status and their severity level which defines the overall device status:

SD-WAN Device Lifecycle Status Shown in the Devices Window	What These Lifecycle Status Indicate	Severity Number (Determines the Overall Status in the GUI)	Overall Status Indication Based on the Severity Number
Configuring	Incomplete: Device is not ready to be provisioned because the data filled was incorrect or incomplete. The device will be in this status until the details are corrected, and the template file is imported again into MSX.	3	Unknown
Configuring	Ready to Provision: Device is connected and bulk data is imported. All provisioning details are completed and device is ready to provision.	3	Unknown
Provisioning	Provisioning: Provisioning process pushes the configuration data into the Control Plane such that the site is set up for day one configurations. The provisioning process on the Control Plane takes approximately 5 to 10 minutes.	3	Unknown
Provisioning Failed	Provisioning Failed: The Site Status changes to 'Provisioning Failed' if the configuration data imported does not match with the values on the Control Plane.	6	Poor
Provisioned	Provisioned: Site was provisioned successfully.	1	Good
Onboarded	Deployed: ENCS site is deployed and vEdge is able to communicate to the Control Plane.	1	Good
Onboarding	Deploying: ENCS site deployment with a vEdge is in progress.	3	Unknown
Onboarding Failed	Deployment Failed: Could not bring up vEdge using ENCS.	6	Poor
Deleting	Deleting: Deleting a device is in progress.	3	Unknown
Deleting Failed	Deleting Failed: Deleting the device failed.	6	Poor

Depending on wheter you are provisioning a physical, vEdge cloud, or vEdge SP Cloud, the site statuses and the next steps varies. For more information on these site statuses for these device types, see the following sections :

- Site Statuses for Physical Device
- Site Statuses for vEdge SP Cloud and External Sites
- Site Statuses for vEdge Cloud
- Site Statuses for Meraki SD-WAN Devices

Site Statuses for Physical Device

The table below show the site status for Physical site (vEdge or IOS XE) with various validation messages shown on MSX, along with next steps.

Table 1: Site Statuses for Physical Device

Site Summary Status	Description	Next Steps
Connected to Bendy To Provision Unknown Plane	The device is in the process of being shipped to customer site. At this point, MSX portal does not show physical devices on the map as these still do not have any address or map coordinates for the sites to plot them on the map. The site is plotted as 'Unmapped sites' on MSX map.	Connect the device. After the device is installed on the premise, connect the device, it goes through the ZTP (Zero Touch Provisioning) process and gets connected to the Control Plane.
Connected In B-PWR Pare Providen Providen	The device has established connectivity to the Control Plane, but does not have the provisioning data to provision a device.	Import bulk data. For information, on how to import, see Importing Multiple Site Data into MSX. After importing, MSX displays various validation messages to indicate the errors or missing information in the template file. You can click View Details in the validation message to display the Site Import Summary with the error list.
		Note We recommend that you download the error list as the information this screen is temporary and will disappear after you exit this page.

Site Summa	ary Status		Description	Next Steps
Incomplete	Connected to SD-WWN Control Plane	Ready to Provisioned	• Incomplete: Device is not ready to be provisioned because the data filled was incorrect or incomplete. The device will be in this status	• For site with 'Incomplete' status, see Provisioning Details under Site Summary. This section lists the fields that have missing data. Enter the
Ready to Provision	Convected to SD-WAA Common	Recty to Provisioned	 until the details are corrected, and the template file is imported again into MSX. Ready to Provision: Device is connected and bulk data is imported. All provisioning details are complete and device is ready to provision. 	 missing details in the Site template file and import again. For site with 'Ready to Provision' status, see Provisioning Details under Site Summary, click Provision Site to initiate the provisioning process.
Up	Connected to 30-WAR Control Plane	Ready to Provisioned Provision	 Up: Site was provisioned successfully. Critical: Site was up and was provisioned, but after a while it lost connectivity to the SD-WAN Control Plane. 	If the status is 'Critical', troubleshoot SD-WAN control plane connectivity issue. For more information, see Troubleshooting SD-WAN Reachability Issues.

Site Summary Status	Description	Next Steps	
Site Status Postioong Postioong Postioong Failed Postioong Fai	 Provisioning: Provisioning process pushes the configuration data into the Control Plane such that the site is set up for day one configurations. The provisioning process on the Control Plane takes approximately 5 to 10 minutes. Provisioning Failed: The Site Status changes to 'Provisioning Failed' if the configuration data imported does not match with the values on the Control Plane. See Next Steps for more details. 	 Provisioning could fail because of one of the following reasons. Data could not be validated as the template on MSX modified since the last upload. Correct the entries that are missing or incorrect. For information, on how to edit these entries, see Step 5 in Importing Multiple Site Data into MSX. If the information does not match with the data on the control plane, provisioning fails, and the missing or incorrect fields are highlighted in the Site Summary. Correct the entries that are missing or incorrect. For information, on how to edit these entries, see Step 5 in Importing Multiple Site Data into MSX. Unexpected errors on the Control Plane. If the state of the site appears as Out-of-Sync under the Basic Details, check the Event Log to get more details on the errors. For more information, see Viewing Event Logs. 	
Consected to Conse	Offline: A device is in the process of being shipped has been uploaded and provisioned on the Control Plane. When the device is connected and has reachability to the Control Plane, the template on the Control Plane is applied on the device.	Connect the device.	

Site Statuses for vEdge SP Cloud and External Sites

The table below show the site statuses for vEdge SP Cloud and external sites with various validation messages shown on MSX, along with next steps.

Site Summary Status	Description	Next Steps
Converse to 10 Unknown	Unknown: Site has been added on MSX Portal and the configurations are downloaded by the service provider. The Unknown state indicates the time period when the Service Provider uses the downloaded configurations to brings up a vEdge cloud to finish deployment. The site during this phase waits for the vEdge to be deployed and connected back to SD-WAN Control Plane.	During this state, bulk data can be imported and provision the SP Cloud site through MSX. See the topic, 'Importing Multiple Site Data into MSX.'
Connected DB-DWA Correl DB-DWA Correl Page	• Connected: Site Deployment is complete and vEdge is able to communicate to the Control Plane, but does not have the provisioning data to provision	• If in 'Connected' status, next step is to import bulk data.For information, on how to import, seeImporting Multiple Site Data into MSX.
Image: Not Connected Image: Connected to SD-VAM Correl Ready to Provision Provision	 a device. Not Connected: Not Connected indicates a state when a connection was established once and then connection with Control Plane was lost because of Interface being shutdown. 	After importing, MSX displays various validation messages to indicate the errors or missing information in the template file. You can click View Details in the validation message to display the Site Import Summary with the error list.
		 Note We recommend that you download the error list as the information on this screen is temporary and will disappear after you exit this page. If the status is 'Not
		Connected', troubleshoot SD-WAN control plane connectivity issue. For more information, see Troubleshooting SD-WAN Reachability Issues.

Table 2: Site Statuses for vEdge SP cloud and External Sites

Site Summa	nry Status	;		Description	Next Steps
Ready to Provision	Connected to SD-WAN Control Plane	Ready to Provision	Provisioned	Ready to Provision: In both cases, that is, connected to control plane and not connected to control plane, bulk data can be imported, and the sites are ready to be provisioned.	For site with 'Ready to Provision' status, see <i>Provisioning Details</i> <i>under Site Summary</i> , click Provision Site to initiate the provisioning process.
Ready to Provision	Connected to SD-WAN Control Plane	Ready to Provision	Provisioned		
Incomplete	Connected to SD-HAN Connect Plane	Ready to Provision	Provisioned	Incomplete: Device is not ready to be provisioned because the data filled was incorrect or incomplete. The device will be in this status until the details are corrected, and the template file is imported again into MSX.	For site with 'Incomplete' status, see <i>Provisioning Details under Site</i> <i>Summary</i> . This section lists the fields that have missing data. Enter the missing details in the Site template file and import again.

The remaining statuses for the vEdge SP cloud are similar to the Physical devices. For more information on the other statuses, see Site Statuses for Physical Device, on page 6.

Site Statuses for vEdge Cloud

The table below show the site status for vEdge Cloud site with various validation messages shown on MSX, along with next steps.

Site Summary Status	Description	Next Steps
Distrying	ENCS site deployment with a vEdge is in progress.	
Red Connected	Not Connected: vEdge is deployed but is not able to establish connection with the Control Plane.	 If not connected, troubleshoot SD-WAN control plane connectivity issue. For more information, see Troubleshooting SD-WAN Reachability Issues. After the connection is established, you can import bulk data from multiple sites and provisioning one site at a time. See the topic, Provisioning a Site for Cisco SD-WAN.

Table 3: Site Statuses for vEdge Cloud

Site Summary Status	Description	Next Steps
Deployed Connected to Ready to Provision Provisioned	• Deployed: ENCS site is deployed and vEdge is able to communicate to the Control	Troubleshoot the data plane. For more information, see Data Plane Troubleshooting.
Deployed Connected Is Read to Provision Provisioned	 Plane. Deployment Failed: Could not bring up vEdge using ENCS. 	
Connected Connected	Connected: vEdge is deployed and connected to Control Plane. System is now ready for bulk import of data from multiple sites.	After the connection is established, you can import bulk data for provisioning the site. See the topic, Importing Multiple Site Data into MSX.
Desinger Converted to Desinger Converted to Desing	Incomplete: Device is not ready to be provisioned because the data filled was incorrect or incomplete. The device will be in this status	• For site with 'Incomplete' status, see <i>Provisioning</i> <i>Details under Site Summary</i> . This section lists the fields that
Bushy to Provider	until the details are corrected, and the template file is imported again into MSX.	have missing data. Enter the missing details in the Site template file and import again.
	Ready to Provision: Device is connected and bulk data is imported. All provisioning details is complete and device is ready to provision.	• For site with 'Ready to Provision' status, see <i>Provisioning Details under</i> <i>Site Summary</i> , click Provision Site to initiate the provisioning process.

Site Summary Status	Description	Next Steps		
Concord Concord <th> Provisioning: Provisioning process pushes the configuration data into the Control Plane such that the site is set up for day one configurations. The provisioning process on the Control Plane takes approximately 5 to 10 minutes. Provisioning Failed: The Site Status changes to 'Provisioning Failed' if the configuration data imported does not match with the values on the Control Plane. See Next Steps for more details . </th> <th> Provisioning could fail because of one of the following reasons. Data could not be validated as the template on MSX was modified since the last upload. Correct the entries that are missing or incorrect, and import the site template file again. For information, on how to edit, see step 5 in Importing Multiple Site Data into MSX. Note You can directly edit the site template from MSX any number of time as required. If the information does not match with the data on the control plane, provisioning fails, and the missing or incorrect fields are highlighted in the Site Summary. Correct the entries that are missing or incorrect, and import the site template file again. For information, on how to edit, see step 5 in 'Importing Multiple Site Data into MSX. Unexpected errors on the Control Plane. If the state of the site appear as Out-of-Sync under the Basic Details, check the Event Log to get more details on the errors. For more information, see Viewing Event Logs. </th>	 Provisioning: Provisioning process pushes the configuration data into the Control Plane such that the site is set up for day one configurations. The provisioning process on the Control Plane takes approximately 5 to 10 minutes. Provisioning Failed: The Site Status changes to 'Provisioning Failed' if the configuration data imported does not match with the values on the Control Plane. See Next Steps for more details . 	 Provisioning could fail because of one of the following reasons. Data could not be validated as the template on MSX was modified since the last upload. Correct the entries that are missing or incorrect, and import the site template file again. For information, on how to edit, see step 5 in Importing Multiple Site Data into MSX. Note You can directly edit the site template from MSX any number of time as required. If the information does not match with the data on the control plane, provisioning fails, and the missing or incorrect fields are highlighted in the Site Summary. Correct the entries that are missing or incorrect, and import the site template file again. For information, on how to edit, see step 5 in 'Importing Multiple Site Data into MSX. Unexpected errors on the Control Plane. If the state of the site appear as Out-of-Sync under the Basic Details, check the Event Log to get more details on the errors. For more information, see Viewing Event Logs. 		
Lo Low Provide the	 Up: Site was provisioned successfully. Critical: Site was up and was provisioned, but after a while it lost connectivity to the SD-WAN Control Plane. 	If the status is 'Critical', troubleshoot SD-WAN control plane connectivity issue. For more information, see Troubleshooting SD-WAN Reachability Issues.		

Site Statuses for Meraki SD-WAN Devices

The table below shows the site statuses for Meraki SD-WAN sites shown on MSX, along with the next steps.

Site Summary Status	Description	Next Steps
Up	At least one of the devices has uplink connectivity to the WAN network.	Configure SD-WAN Traffic Shaping rules for the network in the Meraki dashboard.
Down	Devices added to the site do not have connectivity to the WAN network.	Check the uplink configuration for the devices added to the site. For more information, see Checking Device Connections.
Needs Input	No devices added to Meraki site.	Add devices to establish connectivity to a WAN network. For more information, see Creating New sites for Meraki.
Unknown	Unable to collect information on device status. Unexpected errors on the Control Plane.	 Check if the Meraki beat is operational. For more information, see the section, Checking Meraki Beat. For a recently added device, wait for a few minutes as the device transitions to the actual status.

Table 4: Site Statuses for Meraki Devices

Monitoring SD-WAN Control Plane Status

In MSX SD-WAN, Control Plane allows you to centrally manage the devices for a tenant, including provisioning, monitoring, and so on.

Before you begin

• Set up a control plane for your tenant.

- · For Cisco SD-WAN control plane, see Setting Up Control Plane for Cisco SD-WAN
- For Meraki SD-WAN control plane, see Setting Up SD-WAN Control and Management Plane for Meraki
- Complete control plane's post deployment configurations.
 - For Cisco SD-WAN control plane, see Postdeployment Tasks for SD-WAN Control Plane.
 - For Meraki SD-WAN control plane, see Postdeployment Tasks for Meraki SD-WAN.

To monitor the status of the SD-WAN control plane:

- **Step 1** Log in to the MSX portal using your credentials.
- **Step 2** From the left hand pane, choose **Tenant Workspace > Services**.

The Services Overview window is displayed.

- Step 3 Click on the SD-WAN Home option to display the tenant-specific Site Summary window.
- **Step 4** Click the **Toggle** button on the top right-hand side of the page to toggle between the list and map view with the list of sites for the selected tenant.
 - Note Both list view and map view displays all the sites (Meraki and Cisco SD-WAN) for the selected tenant.
- **Step 5** Select the desired control type (either Cisco SD-WAN or Meraki SD-WAN). Depending on the controller type Cisco SD-WAN or Meraki SD-WAN control plane is displayed.

The following is the Meraki Control Plane status.

Figure 3: Meraki Control Plane Status

Meraki SD-WAN Control Plane Status

Meraki Control Plane								
Sta	tus Organization ID	Organization Name	Number Of Sites 🔞					
•	901695	MSX-SDWAN	10					
Detach Control Plane								

The following is the Cisco SD-WAN Control plane status after the certification, the security groups, and other configurations are completed.

Figure 4: SD-WAN Control Plane Status

14 Sites						Add Site
Control Plane Status	Overall (4)	vManage (O issues	1)	vSmart (2)	vBond (1)	
	Status •	Controller Type vManage vSmart	Host Name vmanage vsmart	Controller Status Ready Ready	Sync Status In Sync	
	•	vSmart	second-vsmart	Ready	In Sync	
	Detach Control F	Plane	iew Control Plane	Portal	dit Control Plane	

Note If your Cisco SD-WAN control plane remains in the 'Not Configured' state or is unable to connect to the control plane due to the authentication issue, see Troubleshooting Control Plane.

Monitoring Tunnel Health

The tunnel health graph gives an overview of the health of the IPSec tunnels from the SD-WAN device.

The tunnel report in MSX shows how many of these tunnels are up, which is an indication of whether the device is at risk of losing connectivity.

For example: In the following figure, tunnels are established for vEdge with every other vEdge in the network. If more tunnels are down, it could indicate that vEdge device from where tunnels are established is experiencing degradation. If only a small subset of tunnel links are down, it means other vEdge devices may be possibly experiencing degradation.

Figure 5: Tunnel Connectivity Between vEdge Devices



Tunnel Health Reporting or Tunnel Health Status Calculations:

Tunnels Up % = (Number of Tunnels in Up state / Total Number of Tunnels) * 100

For example:

If there are 200 tunnels and 80 tunnels are up, the Tunnel Up % will be (80/200)*100 = 40%

For other tunnel performance metrics, such as data loss, latency, jitter information, click **View Tunnel details on Control Plane** to launch the tunnel details. For more information on these metrics, see *Cisco SD-WAN documentation*.

To view the control plane status for the SD-WAN service:

Before you begin

To monitor tunnel health, make sure users have the following permission assigned:

- Under Services, Configurations, and Devices category, select Service Metrics (View) permission permission.
- **Step 1** Log in to the MSX portal using your credentials.
- **Step 2** From the left hand pane, choose **Tenant Workspace > Services**.

The Services Overview window is displayed.

- **Step 3** Click on the **SD-WAN Home** option to display the tenant-specific **Site Summary** window.
- **Step 4** Click the **Toggle** button on the top right-hand side of the page to toggle between the list and map view with the list of sites for the selected tenant.

Note Both list view and map view displays all the sites (Meraki and Cisco SD-WAN) for the selected tenant.

Step 5 Select a site/device from the list of devices. The Site Summary window appears with site information and basic device details, such as chassis number, system IP, site ID, and so on.

The Site Status in the details page changes based on the various status of SD-WAN devices along with status of tunnel health. For more information on the the site/device lifecycle statuses, see #unique_81.

The following table **displays the Tunnel Health status that appears below the overall Site Status image** based on the Tunnel Up %.

Tunnel Health Status	Tunnel Up %
Good	70-100
Fair	35-69
Critical	0-34

Note If MSX is unable to determine the tunnel health, the Tunnel Health status changes to an 'Unknown' state.

The following are a few examples of the overall Site/Device Status depending on control plane status and the text beneath the image is based on the tunnel health status.

Figure 6: Connected to control plane but the tunnels are starting to degrade (fair)



Figure 7: No connectivity to Control Plane but tunnel performance is fair



• Critical : Site has lost connectivity to the control plane. Tunnel performance is fair.

Step 6 On the **Site Summary** window, scroll down to the Tunnel Health section to view the current tunnel metrics. A graphical representation of all existing tunnels for the device appears.

Figure 8: Tunnel Health Graph

Where:

X axis - Time range

Y axis - Tunnels Up % (values 0-100)

Step 7 Select the time interval for displaying the tunnel health for that period. Choose one of the available time intervals from the **Viewing** drop-down list or click **Custom** to choose a time duration of your choice for which the reporting is displayed. Provide the day and time from when the reporting data must be collected until the specified end time. By default, last 24 hours chart is loaded.

Hover over the aggregated data points on the chart to get specific details, including the timestamp when the event occurred. These aggregated data points are system-generated. For more information on these data points, click on the **Learn More** link.

Monitoring SD-WAN Reporting Metrics Using Third-Party Network Monitoring Applications

You can integrate third-party network monitoring applications with SD-WAN on Cisco MSX, for example, LiveAction for real-time network insight. If integrated with SD-WAN, users can launch the application dashboard from the MSX Portal.

Before You Begin

Integrate LiveAction with MSX. For more information, see 'Integrating Cisco MSX with LiveAction' in the post-installation section of Cisco Managed Services Accelerator 3.7 Install and Upgrade guide .

To launch a third-party monitoring portal from the Cisco MSX Portal:

- **Step 1** Log in to the MSX portal using your credentials.
- **Step 2** From the left hand pane, click **Dashboard**. The **Dashboard** window is displayed.
- Step 3 Click the SD-WAN Home button. The SD-WAN Home window is displayed.
- **Step 4** Select the tenant from the drop-down. The **SD-WAN Home** window refresh and displays the control plane status for the selected tenant.
- **Step 5** To launch the application dashboard, click **Launch Monitoring Portal**. The application dashboard opens up in a separate browser.

Monitoring the Traffic Policy

Monitoring the Traffic Paths

To confirm traffic path:

- **Step 1** Log in to the vEdge or cEdge (IOX XE) server.
- **Step 2** Turn on application visibility on the vEdge or cEdge. To do so use the following commands:

Example:

config policy flow-visibility commit

- **Step 3** Send traffic through the vEdge or cEdge.
- **Step 4** Check the path for vEdge and cEdge:
 - For vEdge, use the following command:

Example:

show app cflowd flows | tab

• For cEdge, use the following command:

Example:

Monitoring the Application Queue

To confirm application queues:

- **Step 1** Log in to the vEdge or the cEdge server.
- **Step 2** Send traffic through the vEdge or cEdge.
- **Step 3** Check the queues for vEdge and cEdge:
 - For vEdge, use the following command:

show policy data-policy-filter

• For cEdge, use the following command:

show sdwan policy data-policy-filter

The output will show all the available application queue.

Viewing Event Logs

To view the event logs:

Before you begin

Ensure you have the View Event Log permissions to view the status of the policies in the event log.

- **Step 1** Log in to the Cisco MSX Portal.
- **Step 2** In the main menu, click **Event Log**. The Event Log screen appears.

Fig	ure 9: MS)	K Event Log								
E١	vent Log							Search Events		۵
	Available tena	nts: All tenants	8	Severity: All	Custom Range	From Date: Select date and time	To Date: Select da	te and time		
	SEVERITY TENANT SERVICE		OBJECT "cliantd":1ntv- service", vasertd":41e19900- cofa-11ea-90bc- 33b3b5253429", vasername"."sy cofa-11ea-90bc- 33b3b5253429", treantName": tenant", "providerd": "f63ad0viderd"."f63ad0viderd". 449f-42f2-b4f8-b10ab7bc0266"	DESCRIPTION Can't find device by 29143 Failed to registerDevice to	328ce03-f852f1b9419c4d50b282ba2 UFP	8bf0700f9-sdwan.	USER	TIMESTAMP 7/9/20, 9:32 AM		
	0			Schedule_task: 218aa7f7-acfd- bcab-3f36-1e52927a6af0	Scheduled a new task for ce03-48ec-94ad-f319148	POST:sdwanservice/v1/controlplanem 330ca5/synchronize] api. Task Id: [218a	anager/29147328- aa7f7-acfd-bcab-3f36-	superuser	7/9/20, 9:32 AM	

- **Step 3** Select the tenant from the drop-down for which the event log has to be displayed.
- **Step 4** To filter the event log records, select the filter type from the drop-down. To list event logs for a specific duration, select the **Custom Range**check box and specify the dates.

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