Icon and State Reference

Device Reachability and Admin States

Device Reachability State—Indicates whether Cisco EPN Manager can communicate with the device using all configured protocols.

Table 1: Device Reachability State

Icon	Device Reachability State	Description	Troubleshooting
✅	Reachable	Cisco EPN Manager can reach the device using SNMP, or the NCS 2K device using ICMP.	—
⚠️	Ping reachable	Cisco EPN Manager can reach the device using Ping, but not via SNMP.	Although ICMP ping is successful, check for all possible reasons why SNMP communication is failing. Check that device SNMP credentials are the same in both the device and in Cisco EPN Manager, whether SNMP is enabled on the device, or whether the transport network is dropping SNMP packets due to reasons such as mis-configuration, etc. See Change Basic Device Properties.

	Unreachable	Cisco EPN Manager cannot reach the device using Ping.	Verify that the physical device is operational and connected to the network.
	Unknown	Cisco EPN Manager cannot connect to the device.	Check the device.

Device Admin State—Indicates the configured state of the device (for example, if an administrator has manually shut down a device, as opposed to a device being down because it is not reachable by Ping).

Table 2: Device Admin State

Icon	Device Admin State	Description	Troubleshooting
	Managed	Cisco EPN Manager is actively monitoring the device.	Not Applicable.
	Maintenance	Cisco EPN Manager is checking the device for reachability but is not processing traps, syslogs, or TL1 messages.	To move a device back to Managed state, see Move a Device To and From Maintenance State.
	Unmanaged	Cisco EPN Manager is not monitoring the device.	In the Network Devices table, locate the device and click the "i" icon next to the data in the **Last Inventory Collection Status** column. The popup window will provide details and troubleshooting tips. Typical reasons for collection problems are: • Device SNMP credentials are incorrect. • The Cisco EPN Manager deployment has exceeded the number of devices allowed by its license. • A device is enabled for switch path tracing only. If a device type is not supported, its Device Type will be **Unknown**. You can check if support for that device type is available from Cisco.com by choosing **Administration** > **Licenses and Software Updates** > **Software Update** and then clicking **Check for Updates**.
	Unknown	Cisco EPN Manager cannot connect to the device.	Check the device.

Device Sync State

Device Sync State—Indicates status of the Sync operation performed on a device.

Table 3: Device Sync State

Icon	Device Sync State	Description
	Synchronizing	Device synchronization is in progress.
	Completed	Device synchronization completed successfully.
	Error/Warning	List of errors or warnings indicated: • Add Initiated • Collection Failure • Completed with Warning • Delete In Progress • In Service • In Service Maintenance • No License • Partial Collection Failure • SNMP Connectivity Failed • SNMP User Authentication Failed • Switch Port Trace • Wrong CLI Credentials

Note In Service Maintenance filter is not available for Last inventory collection status.

Port or Interface States

Port or Interface Primary States—Conveys the most important state information for a port or interface by combining the admin and operational states. The Multilayer Trace displays either a port's primary state or alarm status. For the Chassis View, if an element does not support the changing of color to indicate a state change, you can still get the state change information from the alarm that is generated.

✎

Note If there is an alarm associated with a port/interface, alarm icon will show up, port icon will not show. The alarm is shown only in case the port is not in test or admin down state.

Port or Interface Primary State	Icon	Admin Status	Operational State
Unknown	❓	Unknown	Unknown
Down	🔻	Up	Down
Testing	···	Test	—
Admin Down	✖	Admin Down	—
Up	⬆	Up	Up
Auto Up	⬆	Up	Auto Up

Port or Interface Admin Status—Represents the configured state of the port or interface (for example, if an administrator has manually shut down a port).

Port or Interface Admin Status	Icon	Description
Unknown	❓	Port or interface admin status is unknown. There is no response (or insufficient response) from the device.
Admin Down	✖	Port or interface was manually shut down by the administrator.
Up	⬆	Port or interface is enabled by the administrator.
Testing	···	Port or interface is being tested by the administrator.

Port or Interface Operational State—Conveys the port or interface's running state and whether it is working properly.

Port or Interface Operational State	Icon	Description
Unknown	❓	Port or interface operational state is unknown. There is no response (or insufficient response) from the device.
Down	🔻	Port or interface is not working properly.
Up	⬆	Port or interface is receiving and transmitting data.
Auto Up	⬆	Port or interface is receiving and transmitting data (only certain devices support this state; other devices use "Up").

Circuit or VC States

Circuit or VC Primary States— Conveys the most important state information for a circuit, in this order: Serviceability, Discovery, Alarm, Provisioning. It is normally shown in the first column of a circuit or VC table.

Circuit or VC Primary State	Icon	Serviceability	Discovery	Alarm	Provisioning
Missing		—	Missing	—	—
Down		Down	—	—	—
Critical		—	—	Critical	—
Major		—	—	Major	—
Minor		—	—	Minor	—
Partially Down		Partial	—	—	—
Admin Down		Admin Down	—	—	—
Partially Discovered		—	Partial	—	—
Failed		—	—	—	(Create, modify, or delete) failed
In progress		—	—	—	(Create, modify, or delete) in progress
Warning			—	Warning	—
Up		Up	—	—	—
Auto Up		Auto Up	—	—	—
Info		—	—	Info	—
Cleared		—	—	Cleared	—

Circuit or VC Serviceability State— This value is a combination of the circuit or VC's admin and operational states. The admin state is shown because it impacts service operability. For optical circuits, the admin state also determines whether the Activate and Deactivate actions are available. The operational state is shown to quickly identify whether a service is working or not.

Circuit or VC Serviceability State	Icon	Description

Admin Down		Circuit or VC manually shut down by the administrator.
Down		Circuit or VC is operationally down and administratively up.
Up		Circuit or VC is operationally and administratively up.
Auto Up		Circuit or VC is operationally auto up and administratively up. Only certain devices support the Auto Up operational state.
Unavailable		Circuit or VC has not been discovered yet, or its operational status is unavailable.
Partial		Circuit/VC operational or administrative state is partial. • Partial admin state—The circuit or VC has a mixed administrative request (to activate some service resources and deactivate others), has a mix of resources that are administratively up and down, or has resources whose operational state is unavailable. • Partial operational state—The circuit or VC has a mix of some active and deactivated resources, or the operational state for some of its resources are unavailable.
Up - Unprotected		The circuit/VC that was configured with a protection path is operational but cannot switch to the alternate path because of severe failures. **Note** This serviceability status indication is supported for OCHCC WSON circuits with Y-Cable protection and protected ODU.

Following table provides details of the serviceability states of Circuits/VCs under various scenarios:

Technology	**Service Type**	**Scenario**	**Serviceability State**

Carrier Ethernet	EPL, EVPL, Access EPL, and Access EVPL	If the operational state of the endpoints (service instance / sub-interface), cross connects, and pseudowire participating in the service is up	Up
		If the admin state of both, the source and destination endpoints (service instance / sub-interface) participating in the service is down	Admin Down
		In all the other scenarios, when at least one endpoint (service instance / sub-interface), cross connect, or the pseudowire participating in the service is down	Down
	EP-LAN, EVP-LAN, EP-Tree, and EVP-Tree	If all the endpoints (service instance / sub-interface), bridge domains, VFIs, and pseudowires participating in the service are up	Up
		If the operational state of at least two endpoints (service instance / sub-interface) participating in the service are up and the rest of the endpoints are down	Partial
		If the admin state of all the endpoints (service instance / sub-interface) participating in the service is down	Admin Down
		If the operational state of at least one endpoint (service instance / sub-interface) participating in the service is up and the rest of the endpoints are down	Down

Circuit Emulation	All service types	If the operational state of the endpoints (cemGroup), underlying TDM controller, cross connect, and pseudowire participating in the service are up	Up
		If the admin state of both, the source and destination endpoints (cemGroup) participating in the service is down	Admin Down
		In all the other scenarios, when the operational state of one of the endpoint (cemGroup), underlying TDM controller, cross connect, and pseudowire participating in the service is down	Down
MPLS	Unidirectional TE Tunnel	If the operational state of the tunnel interface is up	Up
		If the admin state of the tunnel interface is down	Admin Down
		In all the other scenarios, when the operational state of the tunnel is down	Down
	Bidirectional TE Tunnel	If the operational states of the interfaces on both ends of the tunnel is up	Up
		If the admin states of the interfaces on both ends of the tunnel is down	Admin Down
		In all the other cases, when the operational state of the tunnel interface is down	Down

Serial	RS232, RS422, and RS485	If the operational state of the endpoints (channelGroup), underlying Serial interface, cross connect, and pseudowire participating in the service are up	UP
		If the admin state of both, the source and destination endpoints (channelGroup) participating in the service is down	Admin Down
		If the admin state of either source or destination endpoint (channelGroup) is down	
		In all the other scenarios, when the operational state of one of the endpoint (channelGoup), underlying Serial interface, cross connect, and pseudowire participating in the service is down	Down
	Raw Socket	If server and all its associated client sessions are up	Up
		If server is up and all its associated client sessions are down	Down
		If the admin state of both, the source and destination endpoints (channelGroup) participating in the service is down	Admin Down
		If the admin state of a server or admin state of all the participating clients are down	
		If server and all its associated client sessions are down	Down

		If server is up and if any one of its associated clients is up	Partial
Layer 3 VPN		If the operational state of all the endpoints (sub-interface, BDI, and BVI) participating in the service is up	Up
		If the operational state of at least two endpoints (sub-interface, BDI, and BVI) participating in the service are up and the rest of the endpoints are down	Partial
		If the admin state of all the endpoints (sub-interface, BDI, and BVI) participating in the service is down	Admin Down
		If the operational state of at least one endpoint (sub-interface, BDI, and BVI) participating in the service is up and the rest of the endpoints are down.	Down
SR TE	SR Policy	If the operational state of the SR policy us up	Up
		If the admin state of the SR policy is down	Admin Down
		In all the other scenarios, if the operational state of the SR policy is down	Down

Circuit or VC Discovery State—Represents the latest state and structure of a service and its components, as discovered from the network. Having a Discovered version means that the application is actually monitoring the service itself, e.g. it can define meaningful operational and performance data.

Circuit or VC Discovery State	Icon	Description
Partial	◑	Circuit or VC partially discovered by Cisco EPN Manager; not all of its expected entities have been discovered.

Full	✓	Circuit or VC fully discovered by Cisco EPN Manager, so Cisco EPN Manager can monitor the service and provide meaningful operational and performance data.
Missing	✎	Circuit or VC not yet discovered by Cisco EPN Manager (though it may have been provisioned).
Resync	⋯	Circuit or VC are resynced.

Circuit or VC Provisioning State—Represents whether there is a provisioning intent for a circuit or VC and, if so, its status. If a reconciliation report has been generated, the state of the reconcile action is reflected.

Circuit or VC Provisioning State	Icon	Description
None	⊘	Circuit or VC was discovered but has not yet been provisioned. The circuit/VC must be promoted in order to modify or delete it.
Failed	❗	Action has failed.
In Progress	⋯	Action was initiated but not yet completed.
Planned	📅	Action is planned but not yet initiated.
Succeeded	✓	Action has completed successfully.
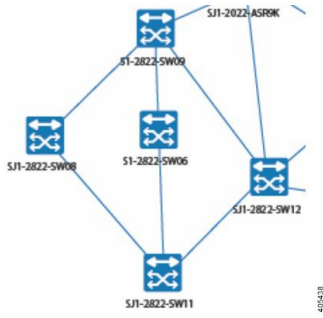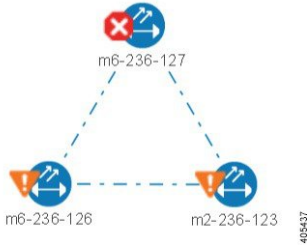
Link Serviceability States

Serviceability State	Icon	Description
Admin Down	✗	Link was purposefully shut down by the administrator.
Down	⬇	Link is down (but it should not be).
Up	⬆	Link is up and traffic is passing through the link.
Auto Up	⬆	Link is up because it detected a signal (this state is only supported by optical devices).
Unavailable	✎	Link is not discovered yet or its status is unavailable.

Partial	◖	Link has a mismatch between requests, resources, or resource states. Examples: • Link is processing a request to activate some service resources and deactivate others. • Link has some active and some deactivated resources. • Some link resources are up and others are down. • The state for one of the link's resources is not known.

Link Characteristics

The following table describes the different types of links used to represent the connection between devices in the Topology Map view of Cisco EPN Manager.

Link Type	Description
	Solid Line—Indicates a physical, topological, or service link, such as a link between two devices.
	Dashed Line—Indicates an association or business link between elements such as EVCs, VPLS service instances, or VPN components.

Equipment Operational States (Chassis View)

The equipment operational states represent the running state of the network element.

Equipment Operational State	Icon	Description
In Service	(none)	Equipment is operating properly.

Pre-provisioned	··········	(Cisco NCS 2000 and Cisco ONS devices only) Equipment has been configured but is not physical present in the chassis.
Failed/Disabled/Down/Out of Service/Out of Service Maintenance	——	Equipment is not operating properly.
Unknown	——	Equipment operational state is unknown. No response (or insufficient response) from the device.

Alarm Severity Icons

The table below lists the alarm colors and their respective severity levels for the icons displayed in various parts of the web GUI.

Severity Icon	Description	Color
⊗	Critical alarm	Red
⚠	Major alarm	Orange
⚠	Minor alarm	Yellow
⚠	Warning alarm	Light Blue
✓	Alarm cleared; normal, OK	Green
ⓘ	Informational alarm	Medium Blue
?	Indeterminate alarm	Dark Blue

Device Type Icons

Table below defines the icons used to represent different device types in the Topology and the Multi-layer Trace views in Cisco EPN Manager.

Icon	Definition
⇄⇄	Switch

Icon	Definition
	Router
	Router Aggregated
mySDR	Cisco NCS 6000 device on which a Secure Domain Router (SDR) resides. The SDR's name is listed directly above the device's icon. **Note** There may be cases where the SDR label for a device that belongs to a cluster or user-defined group is not displayed (since auto-clustering is applied to devices based on their proximity).
	Router configured with an L3VPN service.
	Switch Aggregated
	Access Point
	Service Module
	UCS C-Series
	NAM Blade

Icon	Definition
	Group
	Generic Device
	Virtual Server
	Wireless LAN Controller
	Unknown
	DWDM ROADM Regeneration/NCS 2000

Circuit or VC Network Topology Overlay Icons

Overlay Icon	Definition
	Source endpoint
	Destination endpoint
	EVC or CEM service with local switching

Overlay Icon	Definition
	Endpoint included by the user during creation of the circuit. **Note** "S" appears for both adjacent and node SID for Segment Routing technology types.
	Endpoint excluded by the user during the creation of the circuit.
	Endpoint with some ports that were either included or excluded during creation of the circuit. This endpoint contains multiple ports that are participating in various routes of the circuit.
	E-TREE EVC endpoint that has been designated as a root.
	S on the icon represents that the server is configured on the device.
	C on the icon represents that the client is configured on the device.
	S and C on the icon represents that both server and client are configured on the same device.
	Selected endpoint.
	Hub; If the hub and root are on the same device (VPLS scenario), the brown circle is combined with the root icon.
	Link included during creation of the circuit.
	Link excluded during creation of the circuit.

Overlay Icon	Definition
	Endpoint with some ports that were either included or excluded during creation of the circuit. This represents the aggregated link that contains multiple ports participating in various routes of the same circuit.