

Cisco Evolved Programmable Network Manager

Product overview

Prevent blind spots in your network

As network operator, you are constantly facing an ever increasing in number of trouble tickets from customers reporting temporary degradation of service levels across their virtual private network services. These degradations seem to recur at irregular intervals and affect different customers.

Using the Cisco® Evolved Programmable Network (EPN) Manager you can determine that an automated protection switch to a backup link has created the condition for recurring, temporary degradations.

Starting with detailed device discovery, inventory and network topology, EPN Manager guides to troubleshoot and pinpoint the root cause of raised alarms. EPN Manager facilitates troubleshooting further via current status and alarm information overlaid on network topology, history of network service changes, and active testing and metrics collection functions.

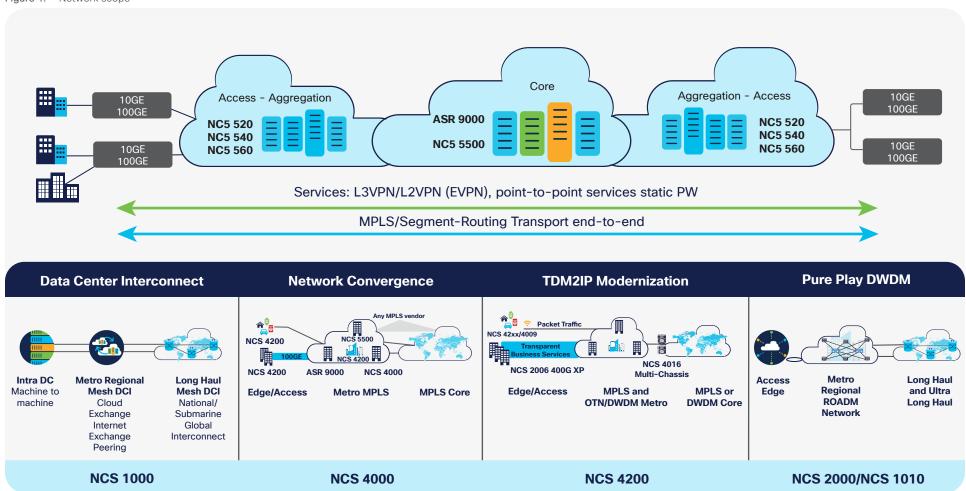
The EPN Manager provides these trouble isolation capabilities, device management, network service provisioning, and network monitoring across core, edge, aggregation, and access networks consisting of a wide range of Cisco device families.

Benefits

Element management and network management across converged access, aggregation, and core infrastructures that enables you to:

- Know your network with greater precision
- Reduce time to activate network capacity
- Reduce time to know the state of your network
- Reduce time to restore network capacity

Figure 1. Network scope



You can rely on the EPN Manager for streamlining day-to-day device and network administration tasks as well as streamlining network service management of Carrier Ethernet, Layer 3 MPLS VPN, segment routing, optical transport, and circuit emulation over packet networks.



What it does

The EPN Manager differentiates itself from other network management systems with the ability to discover the physical and logical configuration of managed devices, plus network services from the network, and maintain an up-to-date representation of devices and network topology. At the control plane level, the EPN Manager discovers and maintains representations of protocol neighbor associations across the network, including IS-IS, OSPF, BGP, and LDP connectivity.

Leveraging this uniquely comprehensive inventory information, the element and network management scope of the Cisco EPN Manager helps network operations:

- Reduce time to know and reduce time to action through comprehensive monitoring capabilities
- Reduce mean time to repair through troubleshooting functions that leverage detailed network-resident data and functions
- Reduce mean time to value and increase configuration accuracy through graphical configuration features and provisioning wizards as well as a comprehensive RESTCONF API for integration with an external Operations Support System (OSS)
- Reduce time spent on routine, day-today tasks through a centralized graphical network administration user interface

The rich set of device and network management functions is easily accessible to network operators via a graphical user interface, including a configurable home screen that summarizes the state of the network at-a-glance.

Figure 2. EPNM for Routing and optical infrastructure operation baseline

Fault Management

· Multi-layer traces

to restore service

Management

connectivity)

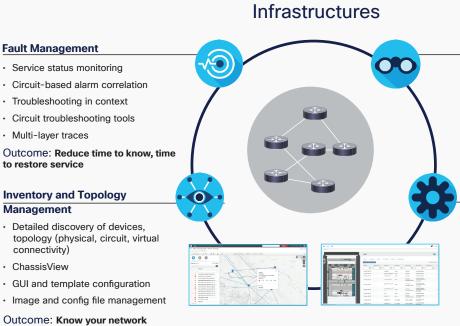
ChassisView

· Service status monitoring

· Troubleshooting in context

· Circuit troubleshooting tools

Inventory and Topology



Performance Management

- · KPI Monitoring (device, interface, and circuit/virtual connection)
- · Real-time and Historical PM
- Leverage network features and probes, e.g. IP SLA, Y.1731

Outcome: Reduce time to know, time to action

Configuration/Provisioning

- Discover circuits and virtual connections
- Edit or delete discovered circuits/virtual connections
- Device-level configuration
- UI and NBI driven Provisioning
- Centralized control plane for optical circuit provisioning and restoration

Outcome: Reduce time to value, Increase provisioning accuracy

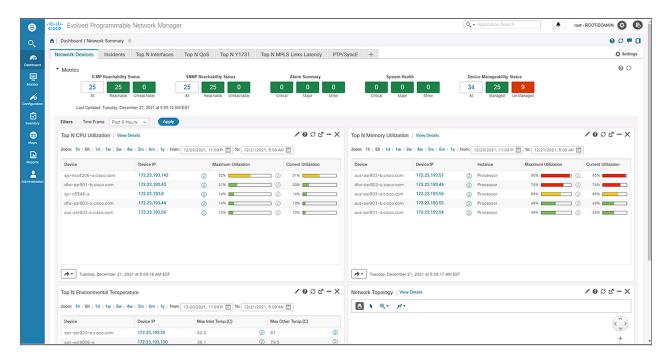


Learn more

Can Cisco EPN Manager help you avoid blind spots in the network?

To find out, visit the Cisco EPN-Manager product page at www.cisco.com/go/epn-manager or for a demo contact your Cisco sales representative.

For more information on Cisco's network automation portfolio for Service Providers please visit https://www.cisco.com/go/crosswork.



The EPN Manager's inventory information and management functions can also be used via APIs with northbound OSS systems. This can be achieved using EPN Manager's comprehensive RESTCONF APIs.