Cisco EPN Manager Network Administration

Cisco EPN Manager Network Administration is an instructor-led and lab-based course in which you learn to monitor, configure, and provision network devices by using advanced Cisco EPN Manager features.

The Cisco Evolved Programmable Network (EPN) Manager is a simplified and cost-effective device operation, administration, network provisioning, and network assurance management solution for today's converging packet and optical multilayer networks. This all-in-one, next-generation product provides device management, network provisioning, and network assurance across core, edge, aggregation, and access networks. EPN Manager provides end-to-end network management of Carrier Ethernet, optical transport, and circuit emulation over packet networks. Built on a model-based architecture with content decoupled from the platform, it greatly improves agility in content delivery by using a common inventory and data model.

This course is designed for network administrators (tier 2 and 3 operator) who monitor and provision the network by using Cisco EPN Manager.

Other courses in this series address general network operations and system administration. The Operations course addresses key application read-only features. The System Administration course addresses installing and configuring EPN Manager.

Duration

Instructor-Led Training (ILT) delivery: 3 days.

Virtual Instructor-Led Training (VILT) delivery: 6 sessions (Each session is 4 hours or less.)

Target Audience

This course is designed for technical professionals who need to monitor or provision the network by using Cisco EPN Manager advanced functions.

Targeted roles include:

- Network administrators (tier 2 and 3)
- System integrators and professional services

Course Objectives

By the end of this course, you will be able to:

- Archive, view, compare, and restore configuration files.
- Update and manage software images.
- Perform compliance audits.
- Configure devices using templates.
- Provision network services.

Course Prerequisites

Completion of the Cisco EPN Manager Operations course

Recommended Prerequisites

Cisco recommends that you have the following prerequisite knowledge and skills:

- Network management experience (SNMP, polling, syslogs)
- Basic understanding of network and device performance statistics
- Basic understanding of network alarms & events
- Experience with manually configuring network devices and provisioning of services using a device's command line interface (CLI)

Course Outline

- Module 1: Configuration Management
    - o Setup the configuration archive to collect unique versions of device configurations and define how many versions to keep and for how long
    - o View, compare, label, and deploy archived files by using configuration archive functions
- Module 2: Software Image Management
    - o Describe Software Image Management and create a repository of software images
    - o Reliably deploy software images to managed devices
- Module 3: Compliance Management
    - o Recognize the Compliance Management features and requirements
    - o Create compliance policies
    - o Run compliance audits to determine out of compliance devices, and run fix jobs to bring them into compliance
- Module 4: Configuring Devices
    - o Recognize the Cisco EPN Manager features used to configure devices
    - o Configure devices using configuration templates
    - o Create user-defined templates
    - o Create, use, and monitor plug-and-play to provision devices
- Module 5: Managing Services
    - o Recognize the provisioning features provided by Cisco EPN Manager
    - o Create a custom provisioning profile
    - o Use profiles to provision a service (Carrier Ethernet and Optical)
    - o Verify that the service that you provisioned is active and functional
    - o Troubleshoot and monitor a network service
- Module 6: Lifecycle Management (Use Case)
    - o Manage the service lifecycle (configure, monitor, troubleshoot) by using the skills that you learned in the course
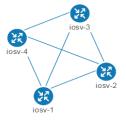
Lab Outline

- Lab 1: Configuration Management
    - o Set configuration archive parameters as to when to archive files and for how long to keep them
    - o View archived configuration files
    - o Use features of configuration archive to label files and compare them to other archived files
    - o Rollback a device's configuration to a previously archived configuration
- Lab 2: Software Image Management
    - o Set software image repository parameters
    - o Collect software images from devices and place in the repository
    - o Schedule and run a job to deploy a software image to a device
- Lab 3: Compliance Management
    - o Create a compliance policy
    - o Perform a compliance audit and subsequent fix job for any devices out of compliance
- Lab 4: Configuring Devices
    - o Configure an object on a single device
    - o Create user-defined templates
    - o Configure devices using configuration user-defined template
- Lab 5: Service Provisioning
    - o Create custom provisioning profile
    - o Provision a Carrier Ethernet service
    - o Provision QoS
    - o Provision an optical circuit
    - o Manage services by using Cisco EPN Manager features
- Lab 6: Lifecycle Management Use Case
    - o Configure service
    - o Monitor service
    - o Troubleshoot service

Lab Topology

The lab guides are written generically to work with almost any topology that includes Cisco EPN Manager supported devices. In this course, you work with the following topologies and devices in the Cisco dCloud simulated environment.

Registration Email

Send your instructor-led Cisco EPN Manager training request to: pdt-training@cisco.com

For more information about Cisco EPN Manager training and access to free job aids and use case videos, visit the Cisco EPN Manager Product Training page.