Configuring and Operating Cisco EPN Manager (EPNM100) v3.0

What you’ll learn in this course
The Configuring and Operating Cisco EPN Manager (EPNM100) v3.0 course shows you how to install, provision, monitor, and maintain a packet and optical multilayer network using Cisco® Evolved Programmable Network (EPN) Manager. This course also covers configuration and compliance management, device configuration, and service management.

The Cisco EPN Manager is a simplified and cost-effective solution for device operation, administration, network provisioning, and network assurance management for today’s converging packet and optical multilayer networks. It enables end-to-end lifecycle management across core, edge, aggregation, and access networks.

Course duration
- Instructor-led training: 4 days in the classroom with hands-on lab practice
- Virtual instructor-led training: 5 days of web-based classes with hands-on lab practice

How you’ll benefit
This course will help you:
- Learn how to deploy Cisco EPN Manager and perform end-to-end network management of Carrier Ethernet, optical transport, and circuit emulation over packet networks
- Gain the knowledge and skills you need to improve network agility and operational efficiencies through automated device operations, fast provisioning, and proactive assurance management with Cisco’s unique combination of theory and hands-on practice
- Succeed in today’s demanding network management roles

Who should enroll
- Network operators
- Network administrators
- Optical network administrators
- System administrators
- System integrators and professional services
- Cisco integrators and partners

How to enroll
- For instructor-led training, visit the Cisco Learning Locator.
- For private group training, visit Cisco Private Group Training.
Technology areas

- Network management

Course details

Objectives

After taking this course, you should be able to:

- Recognize the Cisco EPN Manager’s features
- Access Cisco EPN Manager and understand user accounts (roles, virtual domains)
- Navigate the Cisco EPN Manager’s user interface
- View the network inventory
- Monitor health and performance
- Manage alarms and events
- Generate reports
- Recognize the system requirements for Cisco EPN Manager, and procedures for new installations, upgrades, and high availability
- Manage licensing
- Configure the initial server settings and prepare the server for day-1 operations
- Establish initial device inventory and virtual domains
- Establish user accounts and their role-based access to EPN Manager’s features and devices
- Configure monitoring policies and alarm and event preferences
- Manage backup and restore, data retention and purging, and software updates
- Tune and monitor a server’s performance
- Archive, view, compare, and restore configuration files
- Update and manage software images
- Perform compliance audits
- Configure devices using templates
- Provision network services
- Archive and restore TL1 database files
- Update and manage optical devices’ software images
- Configure optical devices using the Detailed Device View
- Provision optical network services
Prerequisites

To benefit fully from this course, you should have the following knowledge and skills:

- Network management experience (polling, syslogs, IP addressing, ports, device access, credentials, Simple Network Management Protocol [SNMP], Secure Shell [SSH])
- Basic understanding of network and device performance statistics
- Basic understanding of network alarms and events
- Experience with manually configuring network devices and provisioning services using a device’s Command-Line Interface (CLI)
- VMware experience with the installation of OVA files on virtual machines and/or ISO software on bare-metal machines
- Experience with configuring optical network devices and provisioning optical circuits using either TL1 (CLI) or the Cisco Transport Controller application

Outline

- Introduction
  - Service Provider Market Trends
  - Cisco EPN Manager Overview
- Getting Started
  - Accessing Cisco EPN Manager
  - Lesson Summary for “Accessing Cisco EPN Manager”
  - Exploring the GUI
  - Populating the Inventory
- Network Views
  - Viewing Device Inventory and Device Details
  - Viewing the Topology
- Network Monitoring
  - Monitoring Dashboards
  - Monitoring Policies Overview
  - Exploring Alarms and Events
  - Taking Action on Alarms and Events
  - Exploring Reports
  - Managing Reports
- System Administration
  - Pre-Installation Activities
  - Installing Cisco EPN Manager
  - Installing High Availability
  - Post-Installation Activities
  - Performing Server Setup Tasks
  - Customizing Alarm and Event Preferences
- Managing Groups and Virtual Domains
- Managing User Accounts

- Maintenance
  - Backup and Restore
  - Software Updates
  - Data Retention and Purging
  - Monitor and Tune Cisco EPN Manager

- Configuration Management
  - Setting Up Configuration Management
  - Using Configuration Management

- Software Image Management
  - Software Image Management Basics
  - Deploying Software Images

- Device Configuration
  - Cisco EPN Manager Configuration Methods
  - Configuring Devices by Using Templates
  - Creating Custom Templates

- Compliance Management
  - Compliance Prerequisites
  - Compliance Policies
  - Compliance Audit and Fix Jobs

- Carrier Ethernet Service Management
  - Examining Provisioning Features
  - Creating Customers and Custom Profiles
  - Provisioning a Carrier Ethernet Service
  - Verifying Services
  - Monitoring and Troubleshooting Services

- Optical Devices, Circuits, and Services
  - Exploring Optical Provisioning Features
  - Setting Up Configuration Management
  - Using Configuration Management
  - Configuring Optical Devices with Detailed Device View
  - Creating Customers and Custom Profiles
  - Provisioning a Service
  - Assuring Services
  - Monitoring and Troubleshooting Services
Lab outline

- Access and Navigation
- Populating the Inventory
- Viewing the Network
- Monitoring Dashboards
- Monitoring Policies
- Alarms and Events
- Reports
- OVA Installation Video
- Server Setup
- Customizing Alarm Preferences
- Managing Groups and Virtual Domains
- User Accounts
- Maintenance
- Configuration Management
- Software Image Management
- Configuring Devices
- Manage Compliance Features
- CE Service Provisioning
- Lifecycle Use Case
- Optical Custom Profile
- Provision Optical Circuits
- Monitor Optical Services