

Managing Cisco Network Operating Systems (CNIOS)

Duration: 5 Days

Course Description:

The Managing Cisco Network Operating Systems (CNIOS) training introduces the fundamental concepts of Cisco networking operating systems, including IOS XE, NX-OS, and IOS XR. This training is designed for individuals who are new to Cisco or networking professionals who want to deepen their understanding of Cisco operating systems used across various network devices. Upon completion of this training, you will be able to navigate the command-line interface (CLI), configure basic settings as well as advanced protocols, and understand the unique features and architectures of Cisco network operating systems.

Target Audience:

- This Junior network engineers
- NOC engineers
- IT operations engineers
- Network administrators

Prerequisites:

There are no prerequisites for this training. However, the knowledge and skills you are recommended to have before attending this training are:

- Familiarity and basic understanding of core networking concepts
- Fundamental knowledge and understanding of Cisco network devices, such as routers and switches
- Basic understanding of network security concepts, including common threats, firewalls, and how to harden a network

These skills can be found in the following Cisco Learning Offerings:

- Implementing and Administering Cisco Solutions (CCNA)
- Network Fundamentals for Network Adjacent Engineers (NETFND)
- Understanding Cisco Data Center Foundations (DCFNDU)
- Understanding Cisco Service Provider Network Foundations (SPFNDU)
- Network Administrator (NETADM)

Course Objectives:

After taking this training, you should be able to:

- Navigate the CLIs of IOS XE, NX-OS, and IOSXR
- Perform initial setup, upgrades, and troubleshooting on various Cisco platforms
- Configure essential network features, such as vPCs, Fibre Channel, VXLAN, and router clustering
- Explore automation options and learn how to interact with Cisco TAC
- Gain proficiency in navigating Cisco documentation and securing network environments

Course Outlines:

- Overview of Cisco Network Operating Systems
- > Evolution of Cisco Network Operating Systems
- Comparison of Cisco IOS, IOS XE, NX-OS, and IOS XR
- > Introduction to Cisco Modeling Labs
- Introduction to Cisco ISO XE
- Use of Cisco IOS XE CLI and Configuration Management
- Unique Features of Cisco IOS XE
- > IOS XE Software Management and Upgrade Process
- Introduction to Cisco NX-OS
- > Use of Cisco NX-OS CLI and Configuration Management
- Unique Features of Cisco NX-OS
- Cisco NX-OS Software Management and Upgrade Process
- Introduction to Cisco IOS XR
- Use of Cisco IOS XR CLI and Configuration Management
- Unique Features of Cisco IOS XR
- Cisco IOS XR Software Management and Upgrade Process
- > Common Protocols and Configurations
- Automation and Programmability
- Cisco Network Automation Platforms
- Monitoring Tools
- Troubleshooting and Best Practices
- Cisco Documentation Navigation
- Cisco Operating Systems Licensing
- Security and Device Hardening
- Cisco Network Security Tools and Sites