

Introduction to Cisco IOS XR

Outline:

- Cisco IOS XR Software Overview
 - Platform Overview
 - Cisco IOS XR Architecture
 - Cisco IOS XR High Availability
- Cisco IOS XR Software Configuration Basics
 - Cisco IOS XR Configuration Operations
 - Cisco IOS XR Initial Configuration
 - Reviewing the Configuration
- Cisco IOS XR Software Operations
 - Examining Configuration Operations
 - Examining Configuration Rollback and Recovery
- Configuration File System Overview
 - Examining the Binary Configuration
 - Examining the Commit Database
 - Examining the ASCII Configuration
 - Examining the Nonvolatile Generation (NVgen) Files
 - Verifying Cisco Fabric Services (CFS) Integrity
- Cisco IOS XR Software Installation
 - Software Package Basics
 - Installing Software Packages
- AAA Security
 - AAA Fundamentals
 - Task-Based Security
 - Configuring a User Security Policy
 - Authentication with Remote Servers
 - Configuring Router to AAA Server Communication
 - Configuring Authentication

- Terminal Access Controller Access-Control System Plus (TACACS+) Command Authorization
 - Configuring Accounting
 - AAA Troubleshooting
- Network Time Synchronization
 - Network Time Protocol
- SNMP, Telemetry, and Logging
 - Examining SNMP
 - Examining Telemetry
 - Examining Logging
- Basic Routing Configuration
 - Configuring Intermediate System to Intermediate System (IS-IS)
 - Configuring Open Shortest Path First (OSPF)
 - Configuring Border Gateway Protocol (BGP)
 - Configuring Routing Protocol for LLN (RPL) Policy
- Packet Filtering
 - Access Control Lists
 - Unicast Reverse Path Forwarding
 - Management Plane Protection
- Monitoring Process
 - Examining Processes and Threads
 - Process Crashes
 - Commands for Debugging Processes
 - Restartability of Processes
 - Process Monitoring
 - Identifying Memory Problems
 - Memory Depletion
- Core Dumps
 - Core Dump Fundamentals
 - Using Core Dump Information

Lab outline

- Initial Configuration of a Cisco IOS XR Router
- Configuration Commit and Rollback
- Configuration File System
- Cisco IOS XR Software Installation
- Configuring User Security Policies
- Cisco IOS XR AAA Configuration
- Configuring NTP
- Configuring SNMP, Telemetry, and Logging
- Configuring Routing Protocols
- Configuring IPv4 and IPv6 Filtering
- Configuring uRPF and MPP
- Using Monitoring and Restarting Processes