

Course Description: Interconnecting Cisco Networking Devices Part 2 (ICND2) v1.1 is an instructor-led course presented by Cisco training partners to their end-user customers. This five-day course focuses on using Cisco Catalyst switches and Cisco routers connected in LANs and WANs typically found at medium-sized network sites.

Who Should Attend: The primary audience for this course include Network Administrators, Network Engineers, Network Managers, and Systems Engineers. The secondary audience for this course includes Network Designers and Project Managers.

Prerequisites: The knowledge and skills that a learner must have before attending this course include basic computer literacy, basic Microsoft Windows navigation skills, basic Internet usage skills, basic email usage skills, skills and knowledge equivalent to those learned in Interconnecting Cisco Networking Devices Part 1 (ICND1), and the ability to install, configure, and troubleshoot a small network.

Benefits of Attendance: Upon completion of this course, students will be able to:

- Review how to configure and troubleshoot a small network
- Expand the switched network from a small LAN to a medium-sized LAN with multiple switches, supporting VLANs, Trunking, and Spanning Tree
- Describe routing concepts as they apply to a medium-sized network and discuss considerations when implementing routing on the network
- Configure, verify, and troubleshoot OSPF
- Configure, verify, and troubleshoot EIGRP
- Determine how to apply ACLs based on network requirements, and to configure, verify, and troubleshoot ACLs on a medium-sized network
- Describe when to use NAT or PAT on a medium-sized network, and configure NAT or PAT on routers
- Identify and implement the appropriate WAN technology based on network requirements

Course Outline:

Course Introduction

Module 1: Small Network Implementation

Introducing the Review Lab

Lab 1-1: Implementing a Small Network (Review Lab)

Module 2: Medium-Sized Switched Network Construction

Implementing VLANs and Trunks

Optimizing Spanning Tree Performance

Routing Between VLANs

Securing the Expanded Network

Trouble shooting Switched Networks

Lab 2-1: Configuring Expanded Switched Networks

Lab 2-2: Troubleshooting Switched Networks

Module 3: Medium-Sized Routed Network Construction

Reviewing Routing Operations

Implementing VLSM

Module 4: Single Area OSPF Implementation

Implementing OSPF

Troubleshooting OSPF

Lab 4-1: Implementing OSPF

Lab 4-2: Troubleshooting OSPF

Module 5: EIGRP Implementation

Implementing EIGRP

Troubleshooting EIGRP

Lab 5-1: Implementing EIGRP

Lab 5-2: Troubleshooting EIGRP

Module 6: Access Control Lists

Introducing ACL Operation

Configuring and Troubleshooting ACLs

Lab 6-1: Implementing and Troubleshooting ACLs

Module 7: Address Space Management

Scaling the Network with NAT and PAT

Transitioning to IPv6

Lab 7-1: Configuring NAT and PAT

Lab 7-2: Implementing IPv6

Module 8: LAN Extension into a WAN

Introducing VPN Solutions

Establishing a Point-to-Point WAN Connection with PPP

Establishing a WAN Connection with Frame Relay

Troubleshooting Frame Relay WANs

Lab 8-1: Establishing a Frame Relay WAN

Lab 8-2: Troubleshooting Frame Relay WANs