

Hands-On

# ICND2 - Interconnecting Cisco Network Devices 2



## Course Description

Building on the skills provided by ICND1 (Interconnecting Cisco Network Devices 1), ICND2 not only delivers essential information needed to pass the CCNA certification exams (if desired), it also gives you a solid technical foundation to ensure that you can succeed on the job.

We've added our own real-world, Hands-On labs designed by expert instructors to give you experience with practical scenarios, including issues involved when you expand the switched network from a small to medium network environment.

## Students Will Learn

- Review how to configure and troubleshoot a switch and router in a small network environment
- Expand the switched network from a small to medium network environment
- Issues with redundant switching
- Spanning Tree Protocol (STP)
- Concepts of VLANs and trunking
- Routing between VLANs
- Implementing VLSM
- Configure, verify, and troubleshoot OSPF and EIGRP
- When to use access control lists (ACLs) and how to configure, verify, and troubleshoot them
- Configure NAT and PAT
- Configure IPv6 addressing and Routing Information Protocol new generation (RIPng)
- VPN solutions
- Configure PPP, CHAP, and PAP
- Frame Relay operation and troubleshooting
- And More...

## Target Audience

Network technicians and specialists looking to increase their knowledge of medium-sized switched and routed networks and anyone looking to achieve CCNA certification

## Prerequisites

Our CCNA 1 course

## Course Outline

### 1. Small Network Implementation 2. Medium-Sized Switched Network Construction

- VLANs and Trunks
- Spanning Tree Performance Optimization
- Routing Between VLANs
- Securing the Expanded Network
- Troubleshooting Switched Networks

### 3. Medium-Sized Routed Network Construction

- Routing Operations
- Implementing VLSM

### 4. Single-Area Open Shortest Path First (OSPF)

- Implementing OSPF
- Troubleshooting OSPF

### 5. Enhanced Interior Gateway Routing Protocol (EIGRP)

- Implementing EIGRP
- Troubleshooting EIGRP

### 6. Access Control Lists (ACLs)

- ACL Operation
- Configuring and Troubleshooting ACLs

### 7. Address Space Management

- Scaling the Network with NAT and PAT
- Transitioning to IPv6

### 8. LAN Extension into a WAN

- VPN Solutions
- Establishing a Point-to-Point WAN Connection with PPP
- Establishing a WAN Connection with Frame Relay
- Troubleshooting Frame Relay WANs

## Delivery Method

Instructor-Led with numerous Hands-On labs and exercises.

## Equipment Requirements

(This apply's to our hands-on courses only)

BTS always provides equipment to have a very successful Hands-On course. BTS also encourages all attendees to bring their own equipment to the course. This will provide attendees the opportunity to incorporate their own gear into the labs and gain valuable training using their specific equipment.

## Course Length

5 Days