ITTcert
BY ORSYS

Course : Implementing and operating Cisco Enterprise Network Core Technologies (ENCOR) v1.4

Official course, exam preparation 350-401 ENCOR

Practical course - 5d - 35h00 - Ref. TWY
Price : 4040 € E.T.

★★★★★ **5 / 5**

With this 5-day classroom course and 3 days of self-study, you'll learn how to configure, troubleshoot and secure wired and wireless networks. You'll learn about automation, programmability and modern network design with Cisco SD-Access and SD-WAN solutions.

🎯 Teaching objectives

At the end of the training, the participant will be able to:

- ✅ Illustrate hierarchical network architecture: access, distribution and core
- ✅ Compare switching mechanisms (TCAM, CAM, CEF, etc.)
- ✅ Troubleshooting Layer 2 with VLANs, trunks, STP and EtherChannel
- ✅ Implement and optimize EIGRP, OSPFv2/v3 and EBGP for IPv4 and IPv6
- ✅ Ensure redundancy with HSRP, VRRP and configure static/dynamic NAT
- ✅ Describe the virtualization of servers, switches and network components
- ✅ Implement VRF, GRE, VPN, LISP for overlay networks
- ✅ Explain the basics of wireless: RF, antennas, standards, roaming and deployment models
- ✅ Manage Wi-Fi security (EAP, PSK, WebAuth) and troubleshoot customer connectivity
- ✅ Use CLI, SNMP, NetFlow, AAA and harden devices for security and management

Intended audience
Helpdesk technicians, network administrators, and entry-level to intermediate network engineers and technicians.

Prerequisites

No specific prerequisites, but basic knowledge of LAN networks, routing, Wi-Fi and Python scripting is recommended.

Practical details

Teaching methods

Training in French. Official course material in digital format and in English. Good understanding of written English. Course duration: 5 days in class and 3 days self-study.

Course schedule

(1) Official program

- Examine the architecture of the Cisco enterprise network.
- Explore Cisco switching paths.
- Implement campus LAN connectivity.
- Build a redundant switched topology.
- Implement Layer 2 port aggregation.
- Implement and optimize OSPF.
- Explain EIGRP.
- Explore EBGP.
- Implement network redundancy.
- Implement NAT.
- Introduction to virtualization protocols and techniques.
- Explore virtual private networks and interfaces (VPNs).
- Review wireless deployment options.
- Examine the operation of wireless access points (APs).
- Implement wireless client authentication.
- Troubleshoot wireless client connectivity.
- Introduction to multicast protocols.
- Introduction to Quality of Service (QoS).
- Use network analysis tools.
- Implement infrastructure security.
- Implement secure access control.
- Discover the basics of Python programming.
- Introduction to network programming protocols.
- Explain wireless principles.
- Explore wireless roaming and location-based services.
- Explore the security architecture of enterprise networks.
- Explore Cisco Catalyst Center - network automation and management.
- Examine the Cisco SD-Access solution.
- Explore the operating principles of the Cisco Catalyst SD-WAN solution.
- Introduction to APIs in Cisco Catalyst Center and Cisco Catalyst SD-WAN Manager.

- Examine the CAM (Content Addressable Memory).
- Analyze Cisco Express Forwarding.
- Troubleshoot VLAN and trunk problems.
- Optimize STP and configure RSTP.
- Configure MSTP (Multiple Spanning Tree Protocol).
- Troubleshoot EtherChannel.
- Implement multi-route OSPF.
- Implement OSPF optimization.
- Apply OSPF optimization.
- Implement OSPFv3.
- Configure and verify EBGP in single-homed mode.
- Implement HSRP.
- Configure VRRP.
- Implement NAT.
- Configure and verify VRF (Virtual Routing and Forwarding).
- Configure and verify a GRE tunnel.
- Set up static point-to-point VTI tunnels.
- Configure wireless client authentication in a centralized deployment.
- Troubleshoot wireless client connectivity problems.
- Configure Syslog.
- Configure and verify Flexible NetFlow.
- Configure Cisco IOS EEM (Embedded Event Manager).
- Troubleshoot connectivity and analyze traffic with Ping, Traceroute and Debug.
- Configure and verify Cisco IP SLAs.
- Configure standard and extended ACLs.
- Configure Control Plane Policing.
- Implement local and server-based AAA.
- Write and troubleshoot Python scripts.
- Explore JSON objects and Python scripts.
- Use NETCONF via SSH.
- Using RESTCONF with Cisco IOS XE software.

Options

Certification : 420 € HT

To obtain Cisco Certified Network Professional Enterprise (CCNP Enterprise) certification, you need to pass exam 350-401 ENCOR and one of the following exams (your choice): 300-410 ENARSI, 300-420 ENSLD, 300-425 ENWLSD and 300-430 ENWLSI.

Comment passer votre examen ?

Dates and locations

REMOTE CLASS
2026 : 23 Mar., 15 June, 28 Sep., 7 Dec.

PARIS LA DÉFENSE
2026 : 23 Mar., 15 June, 28 Sep., 7 Dec.