

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.

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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.

PARTICIPANTS

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.

TRAINER QUALIFICATIONS

The experts who lead the training courses are specialists in the subjects covered. They are approved by the publisher and certified for the course. They have also been validated by our teaching teams in terms of both professional knowledge and teaching skills for each course they teach. They have at least three to ten years of experience in their field and hold or have held positions of responsibility in companies.

ASSESSMENT TERMS

Assessment of targeted skills prior to training.

Assessment by the participant, at the end of the training course, of the skills acquired during the training course.

Validation by the trainer of the participant's learning outcomes, specifying the tools used: multiple-choice questions, role-playing exercises, etc.

At the end of each training course, ITTCERT provides participants with a course evaluation questionnaire, which is then analysed by our teaching teams. Participants also complete an official evaluation of the publisher.

An attendance sheet for each half-day of attendance is provided at the end of the training course, along with a certificate of completion if the participant has attended the entire session.

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.

TEACHING AIDS AND TECHNICAL RESOURCES

The teaching resources used are the publisher's official materials and practical exercises.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training course.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you have specific accessibility requirements? Contact Ms FOSSE, disability advisor, at the following address: psh-accueil@orsys.fr so that we can assess your request and its feasibility.

2 Official practical work

- 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.