

A black and white photograph of a hand reaching out to touch a wireframe globe. The globe is composed of a network of white lines and dots, representing a global network. The background is dark and out of focus, showing a crowd of people. The image is framed by a red border at the top and bottom.

**Conectamos un mundo  
con diferencia**

**CISCO CCIE ENTERPRISE INFRASTRUCTURE  
LAB.**

## Course Content:

The new CCIE Enterprise Infrastructure certification has been redesigned to leverage the skills obtained at the new CCNP level.

The certification covers core technology areas and validates your end-to-end lifecycle skills in complex enterprise networks from planning and design to operating and optimizing.

To earn the CCIE Enterprise Infrastructure certification you must complete two exams:

- The qualifying exam, Implementing Cisco Enterprise Network Core Technologies (350-401 ENCOR), focuses on your knowledge of enterprise infrastructure including dual-stack (IPv4 and IPv6) architecture, virtualization, infrastructure, network assurance, security, and automation.
- The 8-hour, hands-on lab exam, CCIE Enterprise Infrastructure v1.0, covers the end-to-end lifecycle of complex enterprise networks from designing and deploying to operating and optimizing
- **Prerequisites:**
  - There are no formal prerequisites, but ideally candidates will have five to seven years' experience of designing, deploying, operating and optimizing enterprise networking technologies and solutions.

## Labs

- Lab 1: Investigate the CAM
- Lab 2: Analyse Cisco Express Forwarding
- Lab 3: Troubleshoot VLAN and Trunk Issues
- Lab 4: Tuning STP and Configuring RSTP
- Lab 5: Configure Multiple Spanning Tree Protocol
- Lab 6: Troubleshoot EtherChannel
- Lab 7: Implementing Multiarea OSPF
- Lab 8: Implement OSPF Tuning
- Lab 9: Apply OSPF Optimization
- Lab 10: Implement OSPFv3
- Lab 11: Configure and Verify Single-Homed EBGP
- Lab 12: Implementing HSRP
- Lab 13: Configure VRRP
- Lab 14: Implement NAT
- Lab 15: Configure and Verify VRF
- Lab 16: Configure and Verify a GRE Tunnel
- Lab 17: Configure Static VTI Point-to-Point Tunnels
- Lab 18: Configure Wireless Client Authentication in a Centralized Deployment (No Extended Access)

- Lab 19: Troubleshoot Wireless Client Connectivity Issues (No Extended Access)
- Lab 20: Configure Syslog
- Lab 21: Configure and Verify Flexible NetFlow
- Lab 22: Configuring Cisco IOS Embedded Event Manager (EEM)
- Lab 23: Troubleshoot Connectivity and Analyse Traffic with Ping, Traceroute and Debug
- Lab 24: Configure and Verify Cisco IP SLA's
- Lab 25: Configure Standard and Extended ACLs
- Lab 26: Configure Control Plane Policing
- Lab 27: Implement Local and Server-Based AAA (No Extended Access)
- Lab 28: Writing and Troubleshooting Python Scripts (No Extended Access)
- Lab 29: Explore JSON Objects and Scripts in Python (No Extended Access)
- Lab 30: Use NETCONF via SSH (No Extended Access)
- Lab 31: Use RESTCONF with Cisco IOS XE Software (No Extended Access)

**Attendees should meet the following prerequisites:**

- Implementation of Enterprise LAN networks
- Basic understanding of Enterprise routing and wireless connectivity
- Basic understanding of Python scripting

**Duration: 10 days (6 hours per day)**