

Cisco Certified Technician (CCT)

Introduction

The Cisco Certified Technician (CCT) certification is developed for individuals who want to gain the required skills to diagnose, restore, repair, and replace critical Cisco networking and system devices at their customer sites. The participants will learn about the role of a Cisco Certified Technician and they will work closely with the Cisco Technical Assistance Center (TAC) in order to quickly and efficiently resolve support incidents.

In addition, the Cisco Certified Technician (CCT) certification is available in multiple technology tracks including CCT Collaboration, CCT Data Center, and CCT Routing & Switching, providing an opportunity for Cisco support technicians to expand their area of expertise.

CCT Collaboration

Cisco Certified Technician Collaboration (CCT Collaboration) certification focuses on the skills required for onsite support and maintenance of Cisco collaboration endpoints and operating environments. Technicians in this area can identify Cisco collaboration endpoint models, accessories, cabling, and interfaces; understand the Cisco collaboration software and identify commonly found software, and use the Cisco Command Line Interface (CLI) to connect and service products.

Required exam

100-890 CLTECH: Supporting Cisco Collaboration Devices

The Cisco Certified Technician Supporting Cisco Collaboration Devices (CLTECH) course focuses on the skills required for onsite support and maintenance of Cisco® collaboration endpoints and operating environments. Technicians in this area must be able to identify Cisco collaboration endpoint models, accessories, cabling, and interfaces; understand the Cisco collaboration software and identify commonly found software, and be able to use the Cisco Command-Line Interface (CLI) to connect and service products. You will increase your competency in collaboration fundamentals, use common network tools for Data, Video, and Voice infrastructure components, perform common service-related tasks specific to Cisco Collaboration products, and achieve basic troubleshooting tasks including replacing hardware due to failure or upgrade. This course prepares you for the 100-890 Supporting Cisco Collaboration Devices (CLTECH) exam.

Duration

12–14 hours

Course Objectives

After taking this course, you should be able to:

- Use basic Cisco software configuration and tools: CLI commands, Tera Term, Putty, file transfer protocols, USB Storage, serial connections, and Windows
- Describe video and collaboration fundamentals and Cisco collaboration products, including software and hardware components

- Perform remedial services (hardware break/fix) on Cisco collaboration products including software and configuration backup and restore, test calls, software upgrade/downgrade, endpoint resets, and change passwords
- Recognize correct connections and configuration
- Perform basic Layer 1 and basic Layer 2 troubleshooting

Prerequisites

No prerequisite is required.

Target Audience

This course offers device-specific training and certification program for Field Engineers specifically:

- Cisco Third-Party Maintainer Field Engineers

Course Outline

- **Collaboration Environment Overview**
 - Infrastructure Overview
 - Cisco Converged Network
 - Introducing Cisco Collaboration Technology and Solution
 - Basic Video Concepts
 - Evolution of Cisco IP Video Solutions
 - Cisco Conferencing Infrastructure Overview
 - Cisco On-Premises, Cloud, and Hybrid Deployments
 - Cisco Webex® Product Lines and Their Components
 - Cisco Unified Communications Manager IM and Presence Service
 - Introducing Cisco Unified CM
- **Cisco Collaboration Endpoints Equipment and Related Hardware**
 - Cisco Webex Desktop Series Hardware Components
 - Cisco Webex Board Hardware Components
 - Cisco Webex Room Kit System Hardware Components
 - Cisco Webex Room 55 and Cisco Webex Room 70 G2 Hardware Components
 - Cisco Webex Room Panorama Immersive System Hardware Components
 - Cisco MX and SX Quick Set and SX80 Codec
 - Cisco TelePresence® IX-5000 Hardware Components
 - Cisco Collaboration Peripherals Hardware
- **Service-Related Knowledge**
 - Basic IP Settings
 - Use CLI Commands
 - Use a Terminal Emulator for a Console Connection
 - Use a Serial Connection to the CLI
 - Connect to the Web Interface
 - Use File Transfer Protocols
 - Use USB for File Transfers
 - Backup and Restore
 - CLI Commands for Hardware Status and Verification
 - Perform a Test Call
 - Use the Touch 10 Controller to Find System Information
 - Manage the Lists of Trusted Certificate Authorities (CAs)
 - Manage Software
 - Add an Option or Release Key
 - Reset Endpoint Devices
 - Change the Device Passphrase

- Find and Edit IP Information
- Access Device and Setup Configuration
- Identify MAC Address Mismatch
- Determining Endpoint Device Status
- Special Safety Precautions
- Hardware Replacement
- Verifying Successful Operation
- Content Sharing
- Speaker Tracking
- Snap to Whiteboard
- Presenter Tracking

CCT Data Center

Cisco Certified Technician Data Center (CCT Data Center) certification focuses on the skills required for onsite support and maintenance of Cisco Unified Computing Systems and servers. Technicians in this area must be able to identify Cisco Unified Computing System components and servers, accessories, cabling, and interfaces; understand the Cisco UCS and NX-OS operating modes and identify commonly found software, and be able to use the Cisco Graphical User Interface to connect and service product components.

Required exam

010-151 DCTECH: Supporting Cisco Data Center System Devices

The Cisco Certified Technician (CCT) for Data Center validates a technician's competency in the following areas;

- Basic Cisco NX-OS configuration
- Cisco Data Center products and hardware components with an emphasis on the Cisco Unified Computing System (UCS).

The curriculum covers remedial services (HW break fix) on Cisco Data Center products, including hardware replacement, software, and configuration backup and restores, check the safety and environmental requirement, recognize connection type and cable requirement, and perform basic physical layer troubleshooting. The Cisco Certified Technician (CCT) should be competent in the following areas; basic Cisco NX-OS configuration, Cisco Data Center products, and hardware components.

The Cisco Certified Technician should be able to perform remedial services (HW break fix) on Cisco Data Center products, including software and configuration backup and restore, check the safety and environmental requirement, recognize connection type and cable requirement, and perform basic physical layer troubleshooting.

Duration

7–8 hours

Course Objectives

After taking this course, you should be able to:

- Review Cisco data center networking fundamentals, including SAN, unshielded twisted-pair (UTP) and fiber connectors, the unified computing fabric, and server options.

- Identify Cisco Unified Computing System (Cisco UCS) component models, Cisco Nexus and MDS switches, accessories, cabling, and interfaces.
- Understand Cisco UCS and Cisco Nexus Operating System (Cisco NX-OS) operating modes and identify commonly found software.
- Use the Cisco GUI to connect and service Cisco UCS product components.
- Demonstrate effective field servicing and equipment replacement, and how to troubleshoot most common issues with Cisco UCS servers.

Prerequisites

No prerequisite is required.

Target Audience

Cisco field support technicians and other support engineers

Course Outline

- **Data Center Basics**
 - Describe a data center
 - Describe cloud computing
 - Describe virtualization (server, network, and storage)
 - Describe PCIe SSDs and NVMe
 - Describe raid storage
 - Differentiate between these Layer 2 technologies (Ethernet, Fast Ethernet, Gigabit Ethernet)
 - Describe SAN technology (SAN network type)
 - Describe SAN cabling (FCoE, PCIe)
 - Describe UTP and connectors
 - Describe fiber and connectors
 - Describe twinaxial and connectors
 - Describe SFP and QSFP transceivers
- **Cisco Equipment and Related Hardware**
 - Describe the Cisco Unified Computing System (UCS) components
 - Describe the Cisco UCS B-series Blade servers components and chassis layout
 - Describe the Cisco UCS C-series rack mount servers components and chassis layout
 - Describe Cisco UCS fabric interconnects and fabric extenders
 - Identify the Cisco UCS LED and chassis layout
 - Describe the Cisco UCS network adapters and expansion modules
 - Describe the Cisco UCS S-series Storage servers components and chassis layout
 - Describe the Cisco UCS E-series servers components and chassis layout
 - Describe the Cisco Nexus switches family components
 - Describe Cisco ACI and NX-OS mode
 - Describe the Cisco MDS 9700 product family components
 - Identifying the MDS 9700 Family Storage networking modules
- **Cisco UCS and Cisco NX-OS software operation**
 - Describe the Cisco Integrated Management Controller (CIMC)
 - Describe features and functionality of Cisco UCS Manager
 - Describe the different command modes for Cisco NX-OS software
 - Determine the current mode of the device
 - Verify the device configuration
 - Know how to use and interpret the basic Cisco NX-OS commands
 - Identify a configuration file from a Cisco device
 - Using the device file systems, directories, and files
 - Perform password recovery on a Cisco NX-OS switch device

- **Service-Related Information**
 - Use the hardware tools needed for repair
 - Make a physical connection from laptop to Cisco console port
 - Perform installation process steps and expected outcomes
 - Perform initial setup tasks
 - Service restoration verification
 - Perform remedial procedures on Cisco devices
 - Upgrade the BIOS on a Cisco UCS Server Blade with the GUI
 - Perform Cisco UCS Fabric Interconnect (FI) upgrade/downgrade procedure
 - Firmware Automatic Synchronization
 - Upgrade Cisco Integrated Management Controller firmware on a Cisco UCS Server C-Series
 - Troubleshoot Cisco UCS servers

CCT Routing and Switching

Cisco Certified Technician Routing and Switching (CCT Routing and Switching) certification focuses on the skills required for onsite support and maintenance of Cisco routers, switches, and operating environments. Technicians in this area must be able to identify Cisco router and switch models, accessories, cabling, and interfaces; understand the Cisco IOS Software operating modes and identify commonly found software, and be able to use the Cisco Command Line Interface (CLI) to connect and service products. Achieving CCT Routing and Switching certification is considered the best foundation for supporting other Cisco devices and systems.

Required exam

100-490 RSTECH: Supporting Cisco Routing & Switching Network Devices

Cisco Certified Technician Collaboration certification focuses on the skills required for onsite support and maintenance of Cisco collaboration endpoints and operating environments. Technicians in this area must be able to identify Cisco collaboration endpoint models, accessories, cabling, and interfaces; understand the Cisco collaboration software and identify commonly found software, and be able to use the Cisco Command Line Interface (CLI) to connect and service products.

Duration

6–7 hours

Course Objectives

After taking this course, you should be able to:

- Use basic Cisco software configuration and tools: Tera Term, Putty, Trivial File Transfer Protocol (TFTP) server, FTP server, USB Storage, loopback plug, and Windows
- Understand network fundamentals, Cisco products, and hardware components
- Perform remedial services (hardware break/fix) on Cisco products including software and configuration backup and restore, software upgrade/downgrade
- Recognize connection type and cable requirement
- Perform basic Layer 1 and basic Layer 2 troubleshooting

Prerequisites

No prerequisite is required.

Target Audience

This course offers device-specific training and certification program for Field Engineers specifically:

- Cisco's Third-Party Maintainer Field Engineers

Course Outline

- **General Networking Knowledge**
 - Examining LAN and WAN Connectivity
 - Describe the function of FTP, TFTP, Telnet, Secure Shell (SSH), and Ping
- **Cisco Equipment and Related Hardware**
 - Identifying Cisco router and switch models, and their interfaces
 - Identifying and describing commonly used components
- **Cisco IOS Software Operation**
 - Describing Cisco IOS CLI Functions
 - Using and interpreting the basic Cisco IOS Software commands
- **Service-Related Knowledge**
 - Managing Configurations via the Console Port and Terminal Program
 - Performing software upgrade or downgrade using TFTP, FTP, XMODEM, tftpdnld, and USB Storage