

45 Days

## Cisco CCIE Data Center

The Cisco CCIE Data Center is an expert level training and certification that imparts the necessary skills needed to plan, design, implement and manage complex, modern IT data center infrastructures.

This CCIE Data Center certification validates the technical expertise of professional by deploying industry best-practices for training. This certification is intended for experienced data center professionals who are seeking advanced skill set for fulfilling leadership roles that involve binding in-depth IT data center solutions and emerging technologies.

This training prepares candidates for the following exams:

### **Step One: CCIE Data Center Written Exam (400-151)**

The candidate needs to pass the two-hour, written exam that focuses the concepts taught in the training related to data center networking, before becoming eligible to take the lab exam.

### **Step Two: CCIE Data Center Lab Exam**

CCIE Data Center Lab is a two-part eight-hour timed exam to test the candidate's skills to diagnose, configure and troubleshoot complex data center topologies. The candidate has to make an early attempt of the CCIE Lab Exam within 18-months of qualifying the CCIE written exam.

Candidates are advised to pass the lab exam within three years of passing the written exam, otherwise, the written exam needs to be retaken prior to retaking the lab exam.

Part 1: Diagnostic module (one hour)

Part 2: Configuration & Troubleshooting module (seven hours)

## Course Details

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### Course Outline

#### **1.0 Cisco Data Center L2/L3 Technologies**

- 1.1 Designing Implementing and Troubleshooting Complex Layer 2 Technologies
- 1.2 Designing, Implementing and Troubleshooting Complex Layer 3 Technologies
- 1.3 Designing, Implementing and Troubleshooting External Fabric Connectivity

#### **2.0 Cisco Data Center Network Services**

- 2.1 Designing, Implementing and Troubleshooting Service Insertion and Redirection
- 2.2 Designing, Implementing and Troubleshooting network services

### **3.0 Data Center Storage Networking and Compute**

- 3.1 Configure and Troubleshooting Data Center Storage Protocols
- 3.2 Designing, Implementing and Troubleshooting Data Center Storage Networking Features
- 3.3 Implementing and Troubleshooting Compute resources
- 3.4 Designing, Implementing and Troubleshooting Data Center Compute Connectivity
- 3.5 Designing, Implementing and Troubleshooting Virtual and Physical End Point Connectivity

### **4.0 Data Center Automation and Orchestration**

- 4.1 Implementing and Troubleshooting Data Center Automation
- 4.2 Implementing and Troubleshooting Data Center Orchestration Tools
- 4.3 Integrating Cisco Cloud offerings into existing Data Center infrastructure

### **5.0 Data Center Fabric Infrastructure**

- 5.1 Designing, Implementing and Troubleshooting policy and non-policy driven Internal Fabric Connectivity
- 5.2 Designing, Implementing and Troubleshooting Infrastructure policies and elements

### **6.0 Evolving Technologies**

#### **6.1 Cloud**

- 6.1.a Comparing and contrasting Cloud deployment models
- 6.1.b Describing Cloud implementations and operations

#### **6.2 Network Programmability (SDN)**

- 6.2.a Describing functional elements of network programmability (SDN) and how they interact
- 6.2.b Describing aspects of virtualization and automation in network environments

#### **6.3 Internet of Things (IoT)**

- 6.3.a Describe architectural framework and deployment considerations for Internet of Things

## Pre Requisite

- There are no specific prerequisites for CCIE certification.
- It is recommended that the candidates must first pass the CCIE Data Center Written Exam, and then the corresponding CCIE Data Center Lab Exam.
- A candidate should possess a thorough understanding of the exam topics and strongly encouraged to have three to eight years of job experience before attempting certification.

## Exams

CCIE Data Center Written Exam v1.0 (350-080 CCIE DC) CCIE Data Center Written Exam v2.0 (400-151 CC [])

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