

# Implementing Cisco Data Center Unified Fabric (DCUFI)

Duration 5 Days

This course is designed for Systems and Field Engineers, Consulting Systems Engineers, Technical Solutions Architects, and Cisco integrators and partners who install and implement the Cisco Nexus 7000 and 5000 Switches, the Cisco Nexus 2000 Fabric Extenders, and Cisco MDS Multilayer Fabric Switches. The course covers the key components and procedures needed to install, configure, and manage the Cisco Nexus 7000, 5000, 2000 and MDS Switches in the network and SAN environment.

## COURSE OBJECTIVES

Upon completing this course, you will be able to meet these overall objectives:

- Describe the Cisco Unified Fabric products in a Cisco Data Center network architecture
- Select and configure the distinctive Cisco Nexus Series Switch features to meet the implementation requirements and expectations in the Cisco Data Center Architecture
- Configure advanced features such as OTV, MPLS, LISP, security, and Quality of Service (QoS)
- Identify which management tools are available for the Cisco Nexus Switches and how to configure the relevant management tool to support the given design
- Understand the Fibre Channel protocol, the FCoE protocol, and the Data Center Bridging (DCB) enhancements, as well as how to configure FCoE on the Cisco Nexus 5000, 5500, 7000 and MDS Switches

## WHO SHOULD ATTEND

The primary audience for this course is as follows:

- Data center designers, data center administrators, and system engineers.

The secondary audience for this course is as follows:

- Data center engineers and managers.

## PREREQUISITES

The knowledge and skills that you must have before attending this course are as follows:

- Cisco Certified Network Associate Data Center (CCNA Data Center) certification
- Good understanding of the Fibre Channel protocol and the SAN environment
  - Recommended attendance of a Fibre Channel protocol class or equivalent experience
  - Recommended attendance of the Implementing Cisco Storage Networking Solutions (ICSNS) course or equivalent experience
  - Recommended to read Robert Kembel's books on Fibre Channel and Fibre Channel switched fabrics

## COURSE OUTLINE

### Cisco Nexus Product Overview

- The Cisco Data Center Network Architecture
- Identifying Cisco Nexus Products

### Cisco Nexus Switch Feature Configuration

- Understanding High Availability and Redundancy
- Configuring Virtual Device Contexts
- Configuring Layer 2 Switching Features
- Configuring PortChannels
- Implementing Cisco FabricPath
- Configuring Layer 3 Switching Features
- Configuring IP Multicast

### Cisco Nexus Switch Advanced Feature Configuration

- Understanding Overlay Transport Virtualization
- Configuring MPLS
- Configuring LISP
- Configuring Quality of Service (QoS)
- Configuring Security Features

### Cisco Nexus Storage Features

- Understanding Fibre Channel Protocol
- Understanding FCoE Protocol
- Identifying Data Center Bridging Enhancements
- Configuring FCoE
- Configuring NPV Mode
- Using SAN Management Tools

### Cisco Nexus Series Switch Management

- Using the Connectivity Management Processor
- Configuring User Management
- Understanding System Management

### Course labs and case studies

- Lab 2-1: Configure Layer 2 Switching
- Lab 2-2: Configure vPCs
- Lab 2-3: Configure Cisco FabricPath
- Lab 2-4: Configure Layer 3 Switching
- Lab 3-1: Configure OTV
- Lab 3-2: Configure QoS
- Lab 3-3: Configure Security Features
- Lab 4-1: Configure FCoE
- Lab 4-2: Configure NPV
- Lab 5-1: Configure System Management
- Lab 5-2: Implement Cisco DCNM for LAN