Understanding Cisco Data Center Foundations (DCFNDU)

Description

Discover the basics of Cisco data centers

The “Understanding Cisco Data Center Foundations (DCFNDU)” course is ideal for those looking to master the foundational technologies of Cisco data centers. This course will equip you with essential skills to configure and manage modern data center environments. You will learn about network architectures, virtualization technologies, and cloud storage solutions. By completing this program, you will be able to effectively manage complex data center infrastructures and use Cisco tools to optimize system performance.

The training is designed for beginners in the data center field, but also for engineers looking to enhance their knowledge. Thanks to well-structured modules and clear explanations, you will have all the tools needed for success. With the expertise of our certified instructors, you will understand and apply key concepts quickly.

Why take this Cisco Data Center training?

With the rapid evolution of IT infrastructures, it’s essential to familiarize yourself with the latest technologies. By following this course, you will not only improve your skills but also better understand Cisco solutions, including Cisco Nexus and Cisco ACI. Mastering these tools will help you perform better in your daily tasks and open up new career opportunities.

Reference
DCFNDU
Course Content
Module 1: Describing the Data Center Network Architectures

- Cisco Data Center Architecture Overview
- Three-Tier Network: Core, Aggregation, and Access
- Describing the Cisco Nexus Family and Cisco NX-OS Software

Module 2: Describing Layer 3 First-Hop Redundancy

- Default Gateway Redundancy
- Hot Standby Router Protocol
- Describing Port Channels and vPCs

Module 3: Describing Switch Virtualization

- Cisco Nexus Switch Basic Components
- Virtual Routing and Forwarding

Module 4: Describing Machine Virtualization

- Virtual Machines
- Hypervisor

Module 5: Describing Network Virtualization

- Overlay Network Protocols
- VXLAN Overlay

Module 6: Introducing Basic Data Center Storage Concepts

- Storage Connectivity Options in the Data Center
- Fibre Channel Storage Networking
- Describing Fibre Channel Communication Between the Initiator Server and the Target Storage

Module 7: Describing Fibre Channel Zone Types and Their Uses

- Fibre Channel Zoning
- Zoning Configuration

Module 8: Describing Cisco NPV Mode and NPIV

- Cisco NPV Mode
- NPIV Mode

Module 9: Describing Data Center Ethernet Enhancements

- IEEE Data Center Bridging
- Priority Flow Control

Module 10: Describing FCoE

- Cisco Unified Fabric
- FCoE Architecture

Module 11: Describing Cisco UCS Components

- Physical Cisco UCS Components
- Cisco Fabric Interconnect Product Overview

Module 12: Describing Cisco UCS Manager

- Cisco UCS Manager Overview
- Identity and Resource Pools for Hardware Abstraction

Module 13: Using APIs

- Common Programmability Protocols and Methods
- How to Choose Models and Processes

Module 14: Automating the Data Center

- Describing Cisco ACI
- Cisco ACI Overview
- Multitier Applications in Cisco ACI

Module 15: Describing Cloud Computing

- Cloud Computing Overview
- Cloud Deployment Models

Lab / Exercises

- Explore the Cisco NX-OS CLI interface
- Explore topology discovery
- Configure HSRP
- Configure vPC
- Configure VRF
- Explore VDC elements
- Install ESXi and vCenter
- Configure VSAN
- Validate FLOGI and FCNS
- Configure zoning
- Configure unified ports on a Cisco Nexus switch and implement FCoE
- Explore the Cisco UCS server environment
- Configure a Cisco UCS service profile
- Configure Cisco NX-OS with APIs
- Explore the XML API Management Information Tree of Cisco UCS Manager
- Explore Cisco ACI

Documentation

- Digital course material included

Participant profiles

- Data center administrators
- System and network engineers
- Server administrators
- IT infrastructure managers
- IT maintenance technicians

Prerequisites

- Good understanding of network protocols (TCP/IP, Ethernet)

- Basic knowledge of virtualization (VMware or others)
- Experience with operating systems like Windows or Linux
- Understanding of Fibre Channel storage and connectivity

Objectives

- Describe the architecture of Cisco data centers
- Explain first-hop redundancy technologies
- Master switch and network virtualization
- Understand Fibre Channel communication in a data center
- Configure and manage Cisco UCS solutions
- Apply data center automation concepts

Description
Understanding Cisco Data Center Foundations (DCFNDU)
Niveau
Intermédiaire
Classroom Registration Price (CHF)
4350
Virtual Classroom Registration Price (CHF)
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Duration (in Days)
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