Cisco Data Center Nexus Dashboard Essentials

Duration: 180 Days **Course Code: DCNDE** **Version: 1.0** **Delivery Method: Elearning (Self-paced)**

Overview:

The **Cisco Data Center Nexus Dashboard Essentials** training teaches you how to plan, implement, manage, operate, monitor, and troubleshoot the infrastructure of your data centers using the Cisco Nexus Dashboard platform.
The goal of this training is to provide fundamental knowledge for the Cisco Nexus Dashboard platform. It discusses the components and the structure of the platform, as well as how to plan for the installment and deployment, looking at the physical and virtual resource requirements, licensing, connectivity, cluster size, and software stack. Additionally, you will be acquainted with the Graphical User Interface (GUI) and the different functions to create and manage sites in the Cisco Nexus Dashboard.
You will learn how to monitor, troubleshoot, and administer the platform, including the authentication and authorization of the administrators' access.

This training is worth 26 Continuing Education (CE) credits toward recertification.

Target Audience:

Anyone who uses the Cisco Nexus Dashboard

Objectives:

- **After completing this course you should be able to:**
- Explore the Cisco Nexus Dashboard platform
- Explain Cisco Nexus Dashboard licensing options, cluster connectivity, GUI, software stack, roles, permissions, tech support, troubleshooting, and installation procedure for adding applications
- Perform Cisco Nexus Dashboard firmware upgrades
- Configure Cisco Nexus Dashboard remote authentication
- Monitor Cisco Nexus Dashboard resources
- Describe Cisco Nexus Dashboard Fabric Controller (NDFC) and its dashboards
- Explore the Data Center with Cisco NDFC topology, including customizable templates, deployment, existing network devices, Virtual eXtensible Local Area Network (VXLAN) Ethernet Virtual Private Network (EVPN), Representational State Transfer (REST) Application Program Interface (API), migration, and image, license, and network management
- Describe enhanced Role-Based Access Control (RBAC) for fabric objects

Prerequisites:

Attendees should meet the following prerequisites:

- Understanding of Cisco Routing and Switching in a Data Center
- Fundamentals of Network Management and Network Operation
- DCFNDU - Understanding Cisco Data Center Foundations

Testing and Certification

Recommended as preparation for the following exams:

- There is no exam currently aligned to this course

Content:

Pre-Assessment

Cisco Nexus Dashboard Platforms

- The need for Day-2 Operations Tools
- Cisco Nexus Dashboard Insights Application Use Cases
- Cisco Nexus Dashboard Orchestrator Application Use Cases
- Cisco Nexus Dashboard Fabric Controller Application Use Cases
- Cisco Nexus Dashboard Data Broker Application Use Cases
- Physical and Virtual Cisco Nexus Dashboard Platforms
- Cisco Nexus Dashboard Cluster Node Roles
- Deployment and Placement of Nodes Across Sites
- Cisco Nexus Dashboard One View

Cisco Nexus Dashboard Licensing Options

- Cisco Nexus Dashboard Licences
- Licensing the Cisco Nexus Dashboard

Cisco Nexus Dashboard Cluster Connectivity

- Cisco Nexus Dashboard Logical Network Connectivity
- Physical Cisco Nexus Dashboard Cluster Connection
- IP Pools for Services Configuration
- Connection Mode Comparison

Cisco Nexus Dashboard GUI Overview

- One View
- Admin Console
- Sites Menu
- Services Menu
- System Resources Menu
- Operations and Infrastructure Menus
- Administrative Menu

Cisco Nexus Dashboard Software Stack

- Cisco Nexus Dashboard Software Stack

Cisco Nexus Dashboard Installation Procedures

- User Interface Bootstrap
- Node registration
- Connection to Cisco Intersight
- Onboarding Sites

Cisco Nexus Dashboard Firmware Upgrades

- Firmware Upgrade Prerequisites and Guidelines
- pND Platform Upgrade
- vND Platform Upgrade

Cisco Nexus Dashboard Tech Support and Troubleshooting

- Generating a Tech Support Package
- Using Basic CLI (rescue-user)

Add Sites to Cisco Nexus Dashboard

Explore Cisco Nexus Dashboard

Cisco Nexus Dashboard Fabric Controller Overview

- Cisco NDFC Overview
- Cisco NDFC Features
- Cisco NDFC Use Cases
- Cisco NDFC High Availability
- Cisco NDFC Connectivity
- Cisco NDFC Automation and REST APIs

Cisco Nexus Dashboard Fabric Controller Dashboards

- Dashboard Overview
- Endpoint Locator Dashboard
- VM Dashboards

Data Center Exploration with Cisco NDFC Topology

- Topology Window
- LAN Fabrics
- LAN Credential Management
- LAN Switches

Cisco NDFC Customizable Templates

- Customizable Templates
- Using Templates in Cisco NDFC

Image Management Using Cisco NDFC

- Image Management Overview
- Upgrading Switches with New Images

License Management Using Cisco NDFC

- Licensing of Cisco NDFC Fabrics
- License Management in Cisco NDFC

Enhanced RBAC for Fabric Objects

- Cisco NDFC Role-Based Access Contol
- Cisco NDFC Roles
- Enhanced RBAC Use Cases
- Cisco NDFC Integration with External AAA

Explore Cisco Nexus Dashboard Fabric Controller

Deploying Cisco Nexus Dashboard Fabric Controller

- Cisco NDFC Form Factors
- Cisco NDFC Deployment and Connectivity Options
- Co-Hosting Cisco NDI and Cisco NDFC

Discovering Network Devices with Cisco NDFC

- Configuring Switches for Discovery
- Using Cisco NDFC to Discover Network Devices

Deploy VXLAN EVPN with Cisco NDFC

- VXLAN Overlays and Underlays
- Data Center VXLAN EVPN Fabric Underlay Model
- Configuration Policy
- Configuration Compliance
- Deploy vPCs Fabric Peering
- Fabric Recalculate and Deploy Diffs and Configuration Troubleshooting

Managing and Monitoring the Data Center with Cisco NDFC

- Deploying changes to the Fabric
- Enabling Freeform Switch Config
- Fabric Builder for VXLAN EVPN Fabrics
- Adding Switches to Fabric with POAP
- MSD VXLAN EVPN Fabric Creation
- EBGP Peering Session from Fabric
- Border Gateway Setup as Part of MSD
- Backup and Restore Fabric Configurations
- Create Programmable Reports
- Alarms, Alerts and Monitoring Health

Cisco Nexus Dashboard Fabric Controller REST API

- Exploring APIs for Network Management
- REST, JSON and Postman
- Cisco NDFC REST API
- Automating Cisco NDFC with Ansible

Cisco Data Center Network Manager to Cisco NDFC Migration

- Migration Guidelines and Prerequisites
- Backing Up a Csico DCNM Configuration with Upgrade Tool
- Migrating a Cisco DCNM Configuration to Cisco NDFC
- Post-Migration Steps

Configure and Execute Cisco NDFC POAP

Configure VXLAN with a BGP Control Plane

Application Installation on Cisco Nexus Dashboard

- Installation from the App Store
- Installation Using a Downloaded Application Package

Cisco Nexus Dashboard Roles and Permissions

- User Roles Configuration
- Adding a Local User

Cisco Nexus Dashboard Remote Authentication

- Remote Authentication Configuration

Cisco Nexus Dashboard Resource Monitoring

- Introduction to Resource Monitoring
- System Resources Menu
- Resource Utilization Dashboards

Manage the Network with Cisco NDFC

Post Assessment

Labs:

- Discovery Lab 1: Connect Sites to Cisco Nexus Dashboard
- Discovery Lab 2: Explore Cisco Nexus Dashboard
- Discovery Lab 3: Explore Cisco Nexus Dashboard Fabric Controller
- Discovery Lab 4: Manage the Network with Cisco NDFC
- Discovery Lab 5: Configure and Execute Cisco NDFC POAP
- Discovery Lab 6: Configure VXLAN with a BGP Control Plane

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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