DCNDE 1.0 (DATA CENTER NEXUS DASHBOARD ESSENTIALS) 1.0

Objetivo

Upon completing this course you will be able to: â□¢ Describe the Cisco Nexus Dashboard platform and the need for Day 2 Operations tools in a modern data center. â□¢ Describe the Cisco Nexus Dashboard licensing options. â□¢ Describe Cisco Nexus Dashboard logical network connectivity for the virtual and physical appliance, and the IP pools and routes used by various Cisco Nexus Dashboard applications. â□¢ Describe the Nexus Dashboard GUI for operation and configuration. â□¢ Describe the software stack of a Cisco Nexus Dashboard cluster and explain different Cisco Nexus Dashboard cluster deployment options and cluster components for scalability and high availability. â□¢ Describe the Cisco Nexus Dashboard installation procedure including how to perform the GUI bootstrap upon installation, how to register nodes to the cluster, how to claim the ND cluster to Intersight, and how to onboard Cisco ACI and Cisco NDFC Sites. â□¢ Describe how to perform Cisco Nexus Dashboard firmware upgrades by considering the prerequisites and guidelines, and learn how to perform a software upgrade of a physical and virtual Cisco Nexus Dashboard appliance. â□¢ Describe application installations on Cisco Nexus Dashboard as well as list CPU and memory requirements for application-specific deployment profiles. â□¢ Describe Cisco Nexus Dashboard roles and permissions. These include the various user roles available within the Cisco Nexus Dashboard, and the procedure of adding a user to the Cisco Nexus Dashboard and assigning roles to that user. â□¢ Configure RADIUS, TACACS+, and LDAP authentication providers on the Cisco Nexus Dashboard platform. â□¢ Describe how to monitor Cisco Dashboard resources, and what the available options are in the System Resources and Resource Utilization menus. â□¢ Describe how to generate a technical support package using both GUI and CLI to submit to Cisco Technical Assistance Center (TAC), and use the CLI commands for basic application management of Cisco Nexus Dashboard. â□¢ Add a Cisco Application Centric Infrastructure (ACI) and a Cisco NDFC site, and perform tasks, such as adding the Cisco NDFC site on the One View map. â□¢ Explore the Cisco Nexus Dashboard web GUI, walk through all of the menus, and experience where specific tasks, such as adding sites, can be accomplished. â□¢ Provide an overview of the Cisco Nexus Dashboard Fabric Controller application. â□¢ Explain various available dashobards within Cisco Nexus Dashboard Fabric Controller. â□¢ Explore the Data Center with Cisco NDFC topology views, LAN Fabric view, LAN Switches view, and credential management. â□¢ Explain Cisco NDFC customizable templates. â□¢ Perform firmware image management using Cisco NDFC. â□¢ Describes license management using Cisco NDFC. â□¢ Use the RBAC model that Nexus Dashboard provides to Cisco NDFC to assign a mix of read-only and read/write privileges to users. â□¢ Exploring the Cisco NDFC dashboards, Topology view, LAN menu, settings, and operations; manage alarms, create reports, configure credentials, add switches, assign licenses to devices and servers. â□¢ Create and deploy a working VXLAN fabric on your Cisco Nexus switches using Cisco NDFC. â□¢ Installing the Cisco Nexus Dashboard cluster and Cisco NDFC. â□¢ Discover existing network devices with Cisco NDFC. â□¢ Deploy a VXLAN EVPN fabric with Cisco NDFC. â□¢ Manage and monitor the data center fabric with Cisco NDFC, including: building fabrics, adding switches, creating multisite domains, configure eBGP peering, set up a border gateway, and administer fabrics. â□¢ Describe APIs for network management via Cisco NDFC, REST architecture and Cisco NDFC REST API, and use Ansible to automate and orchestrate your network management tasks. â□¢ Migrate from Cisco Data Cetner Network Manager (DCNM) to Cisco Nexus Dashboard Fabric Controller â□¢ Configure and execute PowerOn Auto Provisioning (POAP) to discover new switches and add them to the fabric automatically. â□¢ Create a VXLAN EBGP fabric on Cisco Nexus 9000 series switches. VXLAN EVPN fabrics can use underlays where routing is provided by several routing protocols: OSPF, IS-IS, and EBGP. This activity focuses on the latest example. Cisco NDFC lets you create a fabric with EBGP underlay very quickly and easily. The overlay routing protocol in this case is also BGP,

which takes care of reachability of particular endpoints in an EVPN that uses VXLAN encapsulation.

PÃºblico Alvo

This course is ideal for the following professionals: â□¢ Data Network Engineers and Administrators â□¢ Data Center Technical Managers

PrÃ©-Requisitos

Before enrolling in this course, you should have knowledge in the following areas: â□¢ Understanding of Cisco routing and switching in a data center. â□¢ CCNA certification recommended. â□¢ Fundamentals of network management.

Carga HorÃiria

40 horas (5 dias).

ConteÃºdo ProgramÃitico

Course Introduction
Course Outline
Course Goals & Objectives

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 OneView

Cisco Nexus Dashboard Licensing Options
Cisco Nexus Dashboard Licenses
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 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

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

Cisco Nexus Dashboard Tech Support and Troubleshooting
Generating a Tech Support Package
Using Basic CLI (rescue-user)

Cisco Nexus Dashboard Fabric Controller
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 Control
Cisco NDFC Roles
Enhanced RBAC Use Cases
Cisco NDFC Integration with External AAA

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, Deploy Diffs & 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 Cisco DCNM Configuration with Upgrade Tool
Migrating a Cisco DCNM Configuration to Cisco NDFC
Post-Migration Steps

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