Catalyst Center (formerly DNAC) and SD-Access Training (SDAINT)

Duration: *2 Day(s)*

Course Overview

Introduction to Cisco SD-Access and Catalyst Center (formerly DNA Center) offer Cisco's next-generation programmable digital network to help automate common network access security features and streamline the redundant, complex configuration required to allow different groups of users access to the network infrastructure. This 2-day network security training course allows network administrators to quickly allow differentiated access for end users on the network while allowing the network to react automatically to day zero and other types of attacks using integration with Cisco ISE for Policy Enforcement with Cisco Catalyst Center (formerly DNA Center).

The course qualified for 21 Cisco Continuing Education Credits (CE).

Review this course online at https://www.alta3.com/courses/SDAINT

Objectives

- Understand Cisco's SD-Access concepts, features, and benefits.
- Differentiate the building blocks of the SD-Access Solution.
- Explain the 'Fabric' concept and node types within SD-Access.
- Understand the role of Catalyst Center as a solution orchestrator.

Who Should Attend

- Network Administrators
- Network Architects
- Network Engineers
- IT Security Professionals

Prerequisites

- Knowledge level equivalent to Cisco CCNA Routing & Switching
- Basic knowledge of Software Defined Networks
- Basic knowledge and experience with Cisco IOS, IOS XE and CLI

Course Outline

Module 1: Introduction to Cisco's Software Defined Access (SD-Access)

1. Software Defined Access (SDA) Overview
2. SD-Access Benefits
3. SD-Access Key Concepts
4. SD-Access Main Components
    1. Catalyst Center (formerly DNA Controller)
    2. NDP (Analytics and Assurance)

Module 2: SD-Access Campus Fabric

5. SD-Access Campus Fabric Overview
6. Key Components
    1. Control Plane Based on LISP
    2. Data Plane Based on VXLAN
    3. Policy Plane Based on CTS
7. Cisco SD-Access Platform Support
    1. Fabric Edge Node
    2. Fabric Control Plane
    3. Fabric Border Node
    4. Fabric Extended Node
8. Fabric-Enabled WLAN
9. Cisco SD-Access Scaling Considerations

Module 3: Catalyst Center (formerly DNA Center) and Workflow for SD-Access

10. Cisco Catalyst/DNA Center Automation Overview
11. Workflow for SD-Access in Catalyst Center
12. Integration with Cisco ISE for Policy Enforcement
13. Integration with Cisco NDP for Analytics and Assurance

Module 4: Catalyst/DNA Center Workflow First Step – Design

14. Catalyst / DNA Center Workflow Design Overview
15. Creating Enterprise and Sites Hierarchy
16. Discuss and Demonstrate General Network Settings
17. Loading Maps into the GUI
18. IP Address Administration
19. Administering Software Images
20. Network Device Profiles
21. Underlay Automation
22. Network Planning
23. Underlay Network Design

Module 5: Catalyst/DNA Center Workflow Second Step – Policy

24. Cisco Catalyst/DNA Center Policy Overview
25. 2-Level Hierarchy
    1. Macro Level: Virtual Network (VN)
    2. Micro Level: Scalable Groups (SG)
26. Policy Types
    1. Access Policy
    2. Access Control Policy
    3. Traffic Copy Policy

    4. Access Controls Based on Group-Based Policies
27. ISE Integration with Catalyst/DNA Center
28. Cross Domain Policies

Module 6: Catalyst/DNA Center Workflow Third Step – Provision

29. Catalyst/ DNA Center Provision Overview
30. Device Onboarding
31. Underlay Network Provisioning
32. Fabric Domains
33. Adding Nodes

Module 7: DNA Center Workflow Fourth Step – Assurance

34. Introduction to Analytics
35. NDP Fundamentals
36. Overview of Catalyst/ DNA Assurance
37. Assurance within SD-Access
38. Assurance Use Cases
39. DNA Center Assurance Dashboard
40. Understand Assurance Health Scores

Module 8: Implementing WLAN in SD-Access Solution

41. WLAN Integration Strategies in SD-Access Fabric
42. SD-Access Wireless Architecture
43. Sample Design for SD-Access Wireless
    1. Guest Design Options

Module 9: Campus Fabric External Connectivity for SD-Access

44. Enterprise Sample Topology for SD-Access
45. Cisco SD-Access Border
    1. SD-Access Border
    2. SD-Access Default Border
46. Single Border vs. Multiple Border Designs
47. Collocated vs. Distributed Border and Control Plane Nodes
    1. Use Case 1: Border with Collocated Control Plane Node
    2. Use Case 2: Border with Distributed Control Plane Node
    3. FiaB Deployment
48. Cisco SD-Access Distributed Campus