DCID (DESIGNING CISCO DATA CENTER INFRASTRUCTURE) 6.1

Objetivo

Designing Cisco Data Center Infrastructure (DCID) v6.0 is a five-day instructor-led course that focuses on data center design based on Cisco solutions. The course includes theoretical content, as well as design-oriented case studies that are in the form of activities. The course is designed to help students prepare for Cisco CCNP® Data Center certification and for professional-level data center roles. The course includes information on designing data centers with Cisco components and technologies. It covers network designs with virtualization, Layer 2 and Layer 3 technologies and routing protocols, and data center interconnect design options. Also covered are device virtualization technologies such as virtual data centers and network function virtualization with virtual appliances including virtual switches, virtual routers, and virtual firewalls. Storage and SAN design is covered, with explanation of Fibre Channel networks and Cisco Unified Fabric. Design practices for the Cisco Unified Computing System (UCS) solution based on Cisco UCS B-Series and C-Series servers and Cisco UCS Manager are covered. Network management technologies include UCS Manager, Cisco Prime Data Center Network Manager, and Cisco UCS Director. Upon completion of this course, you will be able to: Describe Layer 2 switching and Layer 3 forwarding in a data center, including cabling and rack design for the access, aggregation, and core layers. Design vPC, Cisco FabricPath, OTV, and LISP in customer scenarios and describe management options in the LAN. Describe hardware virtualization and FEX technologies, compare the Cisco Nexus 1000v with VM-FEX designs, discuss data center security threats and Cisco Virtual Application Container Services for IaaS, and describe management and automation options for the data center infrastructure. Describe storage and RAID options, describe the Fibre Channel concept and architecture, and design Fibre Channel and FCoE networks, along with management options. Describe the UCS C-Series, M-Series, and B-Series servers, with connectivity and adapter options. For the UCS B-Series deployment, you will be able to describe the blade chassis, I/O modules, and fabric interconnects, with a focus on south- and northbound connectivity and oversubscription. Compare the EHV and NPV network operations modes. Explain and distinguish among the different system integrated stack solutions and the management options for the UCS domains. Design the resource parameters for a UCS domain, starting with the setup and IP concepts, RBAC, and integration with authentication servers. Design the resource pools and policies used in UCS service profiles and templates.

Público Alvo

Professional or career level: Senior Network Engineer, Pre sales Engineer, Design Engineer, Data Center Administrator, Senior Systems Engineer, Senior Technical Solutions Architect

Pré-Requisitos

Students considered for this training should have attended the following classes or obtained an equivalent level of knowledge: Introducing Cisco Data Center Networking (DCICN) v6.0 Introducing Cisco Data Center Technologies (DCICT) v6.0 Implementing Cisco Data Center Infrastructure (DCII) v6.0 Implementing Cisco Data Center Unified Computing (DCUCI) v6.0 Implementing Cisco Data Center Virtualization and Automation (DCVAI) v6.0

Carga Horária

40 horas (5 dias).

Conteúdo Programático

Module 1: Data Center Network Connectivity Design
Lesson 1-1: Describing High Availability on Layer
Lesson 1-2: Describing Layer 3 Forwarding
Lesson 1-3: Designing Data Center Topologies
Lesson 1-4: Designing Data Center Interconnects with Cisco OTV
Lesson 1-5: Designing a LISP Solution

Module 2: Data Center Infrastructure Design
Lesson 2-1: Describing Hardware and Device Virtualization
Lesson 2-2: Describing FEX Options
Lesson 2-3: Describing Virtual Networking
Lesson 2-4: Describing Basic Data Center Security
Lesson 2-5: Describing Advanced Data Center Security
Lesson 2-6: Describing Virtual Appliances
Lesson 2-7: Describing Management and Orchestration

Module 3: Data Center Storage Network Design
Lesson 1-1: Describing Storage and RAID Options
Lesson 3-2: Describing Fibre Channel Concepts
Lesson 3-3: Describing Fibre Channel Topologies
Lesson 3-4: Describing FCoE
Lesson 3-5: Describing Storage Security
Lesson 3-6: Describing Management and Orchestration

Module 4: Data Center Compute Connectivity Design
Lesson 4-1: Describing Cisco UCS C-Series Servers and Use Cases
Lesson 4-2: Describing Cisco UCS M-Series Servers and Use Cases
Lesson 4-3: Describing Cisco UCS B-Series Servers and Use Cases
Lesson 4-4: Describing Fabric Interconnect Connectivity
Lesson 4-5: Describing Hyperconverged and Integrated Systems
Lesson 4-6: Describing Management Systems
Lesson 4-7: Describing Hadoop, SAP Hana, and IoT on Cisco UCS

Module 5: Data Center Compute Resource Parameters Design
Lesson 5-1: Describing System-Wide Parameters
Lesson 5-2: Describing RBAC
Lesson 5-3: Describing Pools for Service Profiles
Lesson 5-4: Describing Policies for Service Profiles
Lesson 5-5: Describing Network Specific Adapters and Policies
Lesson 5-6: Describing Templates in Cisco UCS Manager