Cisco - Data Center Application Centric Infrastructure Fundamentals

Code:	DCACIF-v3-1
Length:	5 days
URL:	[View Online](#)

DCACIF v3.1 is a 5-day instructor-led training course that is designed for system and field engineers who install and implement the Cisco Nexus 9000 Switches in ACI mode. The course uses the updated 3.1(1) software version and updated Cisco Nexus 9000 hardware platform. The course covers the key components and procedures that an engineer needs to know to understand, configure and manage Cisco Nexus 9000 Switches in ACI mode connected to the ACI Fabric to external networks and services. All lab exercises included in this course will utilize Cisco ACI Release 3.1(1) version.

Skills Gained

- Describe the three tier application flow and how networks restrict the optimal flow that applications need.

- Understand the flexible approach that allows the hardware and software constructs of the ACI solution to match that of the application flow.

- Configure a Tenant, VRF, Bridge Domain and EPG.

- Configure a Contract, Subject and Filter to provide stateless policy between EPG's.

- Use the CLI alternative for each of the constructs of a Tenant.

- Understand the process of how the APIC relates to a hypervisor controller.

- Configure the Interface and Switch Policies that are used to help build a VMM Domain.

- Configure the VMM Domain and create the DVS that will connect to the guest machines.

- Observe the Hypervisor Controller Integration connectivity.

- Understand the challenges of connecting the fabric to a Routed Outside Network.

- Discuss the process of how routes are injected and redistributed through the fabric components and the various options of Routing Protocols used for peering.

- Understand the Bridged Outside functions and protocols that are bypassed or utilized to provide a scalable solution.

- Configure a bridged connection to a trunking device through a border leaf switch.

- Provide a concrete device to be presented to the APIC as a physical or logical entity and learn the basic connectivity required.

- Understand a function profile and how it interacts with a device package to provide control over an appliance that is under the control of the APIC controller.

- Understand the basic components of RBAC and how to configure these into a security domain construct.

- Learn how to upload software to the APIC and perform an upgrade to the firmware of an APIC controller and Leaf Switch.
- Review a troubleshooting process and use tools to help isolate and log failures.
- Back up configurations through snapshots and rollbacks.
- Understand how to read and build XML or JSON documents.
- Understand the REST interface and how it uses XML or JSON documents for running scripts.
- Review common Server, Networking, Storage and Security concepts in a current design.
- Review the physical placement of devices when migrating to the Spine and Leaf architecture.
- Plan and apply Contracts for stateless control.
- Configure a Service Graph template between 2 active EPG's for both Internal and External connectivity.
- Place an L4 - L7 device for three Tier and External EPG service insertion.

Who Can Benefit

This course is for systems engineers, technical architects, and product specialists in data center technical roles. Students include those who need to gain experience with understanding, configuring, and designing the data center networking environment with Cisco Nexus 9000 Series Switches.

Prerequisites

- Students should be familiar with Cisco Ethernet Nexus switching products.
- Students should understand Cisco Data Center architecture.
- Students should be familiar with virtualization (preferably VMware).
- During the course of instruction, the learner will be exposed to the configuration of advanced technologies, such as BGP, OSPF and IS-IS. The learner will not be required to have experience with these technologies in order successfully complete the class.

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