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## Designing Cisco Application Centric Infrastructure v1.0 (500-650)

**Exam Description:** Designing Cisco Application Centric Infrastructure v1.0 (DCACID 500-650) is a 60-minute exam. This exam tests a candidate's knowledge of designing Cisco ACI access policies, fabric system settings, logical components, physical structure, and L3Outs and service insertion. The course Designing Cisco Application Centric Infrastructure helps candidates to prepare for this exam.

The following topics are general guidelines for the content likely to be included on the exam. However, other related topics may also appear on any specific delivery of the exam. To better reflect the contents of the exam and for clarity purposes, the guidelines below may change at any time without notice.

**10% 1.0 Access Policies**

- 1.1 Describe Cisco ACI access policy components
- 1.2 Describe Cisco ACI default access policies, custom policies creation, and naming conventions
- 1.3 Describe Cisco ACI access policy optimization and reuse

**10% 2.0 Fabric System Settings**

- 2.1 Use fabric wide settings to optimize and control endpoint learning
- 2.2 Use fabric loop detection mechanisms
- 2.3 Use fabric policies for NTP, DNS, SNMP, and syslog configuration

**20% 3.0 Logical Components**

- 3.1 Describe the tenant in Cisco ACI
- 3.2 Describe the reuse of objects from the common tenant
- 3.3 Describe VRF design considerations
- 3.4 Describe bridge domain design considerations
- 3.5 Describe EPG design considerations
- 3.6 Describe application segmentation with EPGs and ESGs
- 3.7 Describe contracts design considerations and vzAny usage
- 3.8 Select the approach to migrate IP and logical components from an existing data center to Cisco ACI

**20% 4.0 Physical Structure**

- 4.1 Describe Cisco APIC design considerations
- 4.2 Describe Cisco ACI fabric discovery and initialization process
- 4.3 Describe out-of-band and in-band management
- 4.4 Describe Cisco ACI Multi-Pod design
- 4.5 Describe Cisco ACI Multi-Site design

- 4.6 Describe options for device connectivity to the fabric
- 4.7 Select the approach to migrate existing data center connectivity and physical components from an existing environment to Cisco ACI

**40% 5.0 L3Outs and Service Insertion**

- 5.1 Select the design approach for Cisco ACI external Layer 3 connectivity
- 5.2 Select the design approach for Cisco ACI Layer 4–7 service insertion
- 5.3 Select the design approach for Cisco ACI PBR-based service redirection
- 5.4 Select the design approach for the L4-L7 service insertion in single-pod Cisco ACI
- 5.5 Select the design approach for L4-L7 service insertion in Cisco ACI Multi-Pod
- 5.6 Select the design approach for a transit routing solution
- 5.7 Select the design approach for service sharing using vzAny
- 5.8 Select the approach to build a migration plan for Layer 2 and Layer 3 connectivity, including L3Outs and contracts
- 5.9 Select the approach to migrate vSphere compute environment to Cisco ACI
- 5.10 Select the design approach for QoS for inter-pod and inter-site networks
- 5.11 Select the design approach for auxiliary features, such as DHCP Relay and Switched Port Analyzer (SPAN)