



Implementing Cisco Data Center Virtualization and Automation (300-170)

Exam Description: The Implementing Cisco Data Center Virtualization and Automation (DCVAI) exam (300-170) is a 90-minute, 60–70 question assessment. This exam is one of the exams associated with the CCNP Data Center Certification. This exam tests a candidate's knowledge of implementing Cisco data center infrastructure including virtualization, automation, Application Centric Infrastructure, Application Centric Infrastructure network resources, and Application Centric Infrastructure management and monitoring. The course, Implementing Cisco Data Center Virtualization and Automation v6 (DCVAI), helps candidates to prepare for this exam because the content is aligned with the exam topics.

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. In order to better reflect the contents of the exam and for clarity purposes, the guidelines below may change at any time without notice.

- 19%** **1.0** **Implement Infrastructure Virtualization**
 - 1.1 Implement logical device separation
 - 1.1.a VDC
 - 1.1.b VRF
 - 1.2 Implement virtual switching technologies

- 16%** **2.0** **Implement Infrastructure Automation**
 - 2.1 Implement configuration profiles
 - 2.1.a Auto-config
 - 2.1.b Port profiles
 - 2.1.c Configuration synchronization
 - 2.2 Implement POAP
 - 2.3 Compare and contrast different scripting tools
 - 2.3.a EEM
 - 2.3.b Scheduler
 - 2.3.c SDK

- 27%** **3.0** **Implementing Application Centric Infrastructure**
 - 3.1 Configure fabric discovery parameters
 - 3.2 Implement access policies
 - 3.2.a Policy groups
 - 3.2.b Protocol policies
 - 1.2.b (i) LLDP, CDP, LCAP, and link-level
 - 1.2.c AEP

- 1.2.d Domains
- 1.2.e Pools
- 1.2.f Profiles
 - 1.2.f (i) Switch
 - 1.2.f (ii) Interface
- 1.3 Implement VMM domain integrations
- 1.4 Implement tenant-based policies
 - 1.4.a EPGs
 - 1.4.a (i) Pathing
 - 1.4.a (ii) Domains
 - 1.4.b Contracts
 - 1.4.b (i) Consumer
 - 1.4.b (ii) Providers
 - 1.4.b (iii) vzAny (TCAM conservation)
 - 1.4.b (iv) Inter-tenant
 - 1.4.c Private networks
 - 1.4.c (i) Enforced/unenforced
 - 1.4.d Bridge domains
 - 1.4.d (i) Unknown unicast settings
 - 1.4.d (ii) ARP settings
 - 1.4.d (iii) Unicast routing
- 25%** **4.0 Implementing Application Centric Infrastructure Network Resources**
 - 4.1 Implement external network integration
 - 4.1.a External bridge network
 - 4.1.b External routed network
 - 4.2 Implement packet flow
 - 4.2.a Unicast
 - 4.2.b Multicast
 - 4.2.c Broadcast
 - 4.2.d Endpoint database
 - 4.3 Describe service insertion and redirection
 - 4.3.a Device packages
 - 4.3.b Service graphs
 - 4.3.c Function profiles
- 13%** **5.0 Implementing Application Centric Infrastructure Management and Monitoring**
 - 5.1 Implement management
 - 5.1.a In-band management
 - 5.1.b Out-of-band management
 - 5.2 Implement monitoring
 - 5.2.a SNMP
 - 5.2.b Atomic counters

- 5.2.c Health score evaluations
- 5.3 Implement security domains and role mapping
 - 5.3.a AAA
 - 5.3.b RBAC
- 5.4 Compare and contrast different scripting tools
 - 5.4.a SDK
 - 5.4.b API Inspector / XML