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## Troubleshooting Cisco Data Center Infrastructure v1.1 (300-615)

**Exam Description:** Troubleshooting Cisco Data Center Infrastructure v1.1 (DCIT 300-615) is a 90-minute exam associated with the CCNP Data Center Certification. This exam certifies a candidate's knowledge of troubleshooting a data center infrastructure including network, compute platforms, storage network, automation, management and operations. The course, Troubleshooting Cisco Data Center 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.

- 25%**    **1.0**    **Network**
  - 1.1    Troubleshoot routing protocols
    - 1.1.a    OSPFv2, OSPFv3
    - 1.1.b    MP-BGP
    - 1.1.c    PIM
    - 1.1.d    FHRP (HSRP, VRRP)
  - 1.2    Troubleshoot switching protocols, such as RSTP+, LACP, and vPC
  - 1.3    Troubleshoot overlay protocols, such as VXLAN EVPN
  - 1.4    Troubleshoot Application Centric Infrastructure
    - 1.4.a    Fabric discovery
    - 1.4.b    Access policies
    - 1.4.c    VMM domain integration
    - 1.4.d    Tenant policies
    - 1.4.e    Packet flow (unicast, multicast, and broadcast)
    - 1.4.f    External connectivity
  
- 25%**    **2.0**    **Compute Platforms**
  - 2.1    Troubleshoot Cisco Unified Computing System rack servers
  - 2.2    Troubleshoot Cisco Unified Computing System blade chassis
    - 2.2.a    Infrastructure such as chassis, power, IOM
    - 2.2.b    Network (VLANs, pools and policies, templates)
    - 2.2.c    Storage (SAN connectivity, FC zoning, VSANs, pools, policies, templates)
    - 2.2.d    Server pools and boot policies
  - 2.3    Troubleshoot packet flow from server to the fabric
  - 2.4    Troubleshoot hardware interoperability
    - 2.4.a    Converged Network Adapters / port expanders

- 2.4.b Firmware
- 2.4.c I/O modules / FEX
- 2.4.d Fabric interconnects
- 2.5 Troubleshoot firmware upgrades, packages, and interoperability
- 15% 3.0 Storage Network**
  - 3.1 Troubleshoot Fibre Channel
    - 3.1.a Switched fabric initialization
    - 3.1.b Fibre Channel buffer credit starvation
    - 3.1.c FCID
    - 3.1.d Cisco Fabric Services
    - 3.1.e Zoning
    - 3.1.f Device alias
    - 3.1.g NPV and NPIV
    - 3.1.h VSAN
  - 3.2 Troubleshoot FCoE Cisco Unified Fabric
- 15% 4.0 Automation**
  - 4.1 Troubleshoot automation and scripting tools
    - 4.1.a EEM
    - 4.1.b Scheduler
  - 4.2 Troubleshoot programmability
    - 4.2.a Bash shell and guest shell for NX-OS
    - 4.2.b REST API
    - 4.2.c JSON and XML encodings
    - 4.2.d Python
    - 4.2.e Ansible
- 20% 5.0 Management and Operations**
  - 5.1 Troubleshoot firmware upgrades, packages, and interoperability
  - 5.2 Troubleshoot integration of centralized management such as Nexus Dashboard and Cisco Intersight
  - 5.3 Troubleshooting network security
    - 5.3.a Fabric binding and port security
    - 5.3.b AAA and RBAC
    - 5.3.c First-hop security such as dynamic ARP, DHCP snooping, and port security
  - 5.4 Troubleshoot ACI security domains and role mapping
  - 5.5 Troubleshoot data center compute security
    - 5.5.a AAA and RBAC
    - 5.5.b Key management

- 5.6 Troubleshoot storage security
  - 5.6.a AAA and RBAC
  - 5.6.b Port security
  - 5.6.c Fabric binding