



## CCNP - Data Center



# DCIT – Troubleshooting Cisco Data Center Infrastructure v6.0 (300-180)

### Pre-Requisites:

- DCUCI v6.0
- DCII v6.0
- DCVAI v6.0

### Course Content:

The focus of this skills-building course is troubleshooting of LAN, SAN, Cisco Data Center Unified Fabric, Cisco Unified Computing System (UCS), and Cisco Application Centric Infrastructure (ACI). The course provides rich, hands-on experience in resolving problems on Cisco MDS switches, Cisco Nexus switches, Cisco fabric extenders (FEXs), Cisco UCS, and Cisco ACI.

### Course Objectives:

- Troubleshoot Layer 2 technologies, such as STP, port channels, vPC, Cisco FabricPath, and FEX



- Troubleshoot first-hop redundancy, routing, and CFS in the data center
- Troubleshoot virtualization solutions, such as OTV, VRF, and VXLAN
- Troubleshoot storage area networks, including Fibre Channel, FCoE, zoning, NPV, and NPIV
- Troubleshoot data center unified computing

## Course Outline:

- Module 1: Troubleshooting Data Center LAN Network
- Module 2: Troubleshooting Data Center SAN
- Module 3: Troubleshooting Data Center Unified Computing
- Module 4: Troubleshooting Data Center ACI
- Labs:
  - Lab 1: Document the Network Baseline
  - Lab 2: Troubleshoot LAN—RSTP
  - Lab 3: Troubleshoot LAN—LACP
  - Lab 4: Learning Lab: Troubleshoot LAN—vPC
  - Lab 5: Troubleshoot LAN—FabricPath
  - Lab 6: Troubleshoot LAN—OTV
  - Lab 7: Troubleshoot LAN—OSPF
  - Lab 8: Troubleshoot LAN—FHRP
  - Lab 9: Troubleshoot LAN—VRF
  - Lab 10: Troubleshoot LAN—VXLAN
  - Lab 11: Troubleshoot LAN—CFS
  - Lab 12: Troubleshoot LAN—FEX
  - Lab 13: Troubleshoot SAN—FC Interfaces
  - Lab 14: Troubleshoot SAN—FC VSANs, Zones, and Domain Services
  - Lab 15: Troubleshoot SAN—NPV Mode
  - Lab 16: Troubleshoot SAN—FCoE
  - Lab 17: Troubleshoot SAN—DCB
  - Lab 18: Troubleshoot Compute—Cisco UCS Management and Service Profile Deployment
  - Lab 19: Troubleshoot Compute—Cisco UCS B-Series Server Boot from SAN
  - Lab 20: Troubleshoot Compute—LAN Connectivity, Part 1
  - Lab 21: Troubleshoot Compute—Failover Connectivity, Part 1
  - Lab 22: Troubleshoot Compute—Cisco UCS C-Series Server Boot from SAN
  - Lab 23: Troubleshoot Compute—Network Connectivity
  - Lab 24: Troubleshoot ACI—Bare Metal Hosts
  - Lab 25: Troubleshoot ACI—VMM
  - Lab 26: Troubleshoot ACI—Contracts
  - Lab 27: Troubleshoot ACI—External Layer 3
  - Lab 28: Troubleshoot ACI—External Layer 2