IT-DCIT - Troubleshooting Cisco Data Center Infrastructure

Cisco - CCNP Data Center - Networking

Durata:	Lingue:	Certificazione:
5 Giorni	**Italiano**	**Cisco Certified Network Professional Data Center**

Descrizione del corso

The Troubleshooting Cisco Data Center Infrastructure (DCIT) v7.0 course shows you how to troubleshoot LAN, SAN, Cisco Data Center Unified Fabric, Cisco Unified Computing System (UCS), and Cisco Application-Centric Infrastructure (ACI). You will learn methodologies and tools to identify issues that may occur in data center network architecture. You will get extensive hands-on practice troubleshooting installation, configuration and interconnectivity issues on Cisco MDS switches, Cisco Nexus switches, Cisco Fabric Extenders (FEXs), Cisco UCS, Cisco ACI, and more. This course helps you prepare to take the 300-615 DCIT exam, one of the five concentration exams that you can choose after 350-601 DCCOR exam to achieve the CCNP Data Center certification. The 300-615 DCIT exam will be available on February 24, 2020.

Programma

Automating Cisco Unified Communications Manager
Describing the Troubleshooting Process
• Troubleshooting Overview
• Narrow Down the Cause of the Problem
Understanding CLI Troubleshooting Tools
• Ping, Pong, and Traceroute
• Debugging, Event History, and System Monitoring
• Switched Port Analyzer (SPAN) and Encapsulated Remote SPAN
• Ethanalyzer, Embedded Logic Analyzer Module (ELAM), and Data Plane Sampling Capture

• Logging
• Cisco Generic Online Diagnostics
• Simple Network Management Protocol (SNMP), Cisco Embedded Event Manager (EEM), and Remote Network Monitor (RMON)

Troubleshooting VLANs and PVLANs

• Troubleshoot VLAN Trunking Protocol (VTP)
• Troubleshoot Layer 2 Issues
• VLANs and Switched Virtual Interfaces (SVIs) on Cisco Nexus Series Switches
• Troubleshoot VLANs, PVLANs, and SVIs
• Troubleshoot Rapid Per VLAN Spanning Tree+ (PVST+)

Troubleshooting Port Channels and Virtual Port Channels

• Port Channel Overview
• Virtual Port Channel (vPC) Overview
• Troubleshoot vPCs
• Common vPC Issues

Troubleshooting Cisco Overlay Transport Virtualization (OTV)

• Cisco OTV Features
• Common Cisco OTV Issues
• Cisco OTV Troubleshooting
• Hot Standby Routing Protocol (HSRP) Isolation Between Data Centers Using Cisco OTV

Troubleshooting Virtual Extensible LAN (VXLAN)

• VXLAN Overlay Features
• VXLAN Multiprotocol Border Gateway Protocol (MP-BGP) Ethernet VPN
• Common VXLAN Issues
• VXLAN Troubleshooting

Troubleshooting Routing and High-Availability Protocols

• Troubleshoot Basic Routing Issues
• Troubleshoot OSPFv2 and OSPFv3
• Troubleshoot EIGRP
• Troubleshoot PIM
• Troubleshoot First Hop Redundancy Protocol (FHRP)

Troubleshoot Data Center LAN Security

• Troubleshoot Authentication, Authorization, and Accounting (AAA) and Role-Based Access Control (RBAC)
• Troubleshoot First-Hop Security

- Troubleshoot Control Plane Policing (CoPP)
- Troubleshoot Access Control Lists (ACLs)

Troubleshooting Platform-Specific Issues

- Cisco Fabric Services Overview
- Troubleshoot Cisco Fabric Services
- Configure and Troubleshoot Configuration Profiles
- Common Virtual Device Contexts (VDC) Issues
- Troubleshoot VDC
- Troubleshoot Virtual Routing and Forwarding (VRF)
- Cisco FEX Troubleshooting
- Troubleshoot Cisco In-Service Software Upgrade (ISSU)

Troubleshooting Fibre Channel Interfaces

- Fibre Channel Overview
- Troubleshoot Fibre Channel Interfaces and Device Registration
- Troubleshoot Fibre Channel Port Channels
- Troubleshoot Port Security and Fabric Binding

Troubleshooting Fibre Channel Fabric Services

- Troubleshoot Virtual Storage Area Networks (VSANs)
- Troubleshoot Fibre Channel Domain and Name Services
- Troubleshoot Zoning and Fabric Merges
- Troubleshoot Cisco Fabric Services

Troubleshooting NPV Mode

- N-Port ID Virtualization (NPIV) and NPV Overview
- Troubleshoot NPV Mode

Troubleshooting FCoE

- FCoE and FIP Overview
- Troubleshoot FIP
- Troubleshoot FCoE- and QoS-Related Issues
- Troubleshoot Data Center Bridging (DCB)

Troubleshooting Cisco UCS Architecture and Initialization

- Troubleshoot Fabric Interconnect in Standalone and Cluster Mode
- Troubleshoot Cisco UCS Management Access
- Troubleshoot Cisco UCS Manager CLI
- Troubleshoot Cisco UCS with Embedded Tools
- Troubleshoot Cisco UCS Hardware Discovery

Troubleshooting Cisco UCS Configuration

- Stateless Computing

• Troubleshoot Service Profile Association Issues Due to Unavailable Addresses
• Other Service Profile Association Issues
• Cisco UCS Manageability
• Troubleshoot Authentication Failures

Troubleshooting Cisco UCS B-Series Servers

• Troubleshoot Cisco UCS B-Series Blade Server
• Troubleshoot Firmware Upgrade and Operating System Drivers
• Troubleshoot Remote Access
• Troubleshoot Server Hardware

Troubleshooting Cisco UCS B-Series LAN and SAN Connectivity

• Troubleshoot Link-Level Issues
• Troubleshoot Connectivity Issues for Specific Servers
• Troubleshoot Intermittent Connectivity
• Troubleshoot Disjoint Layer 2 Networks
• Troubleshoot Redundant Connectivity
• Troubleshoot Cisco UCS B-Series SAN Connectivity
• Troubleshoot Directly Attached Storage
• Troubleshoot Server Boot from SAN and iSCSI
• Use SPAN for Troubleshooting
• Analyze Packet Flow

Troubleshooting Cisco UCS C-Series Servers

• Troubleshoot Cisco UCS C-Series Initialization and Cisco IMC
• Troubleshoot Cisco UCS C-Series Hardware and Firmware

Troubleshooting Cisco UCS C-Series LAN and SAN Connectivity

• Troubleshoot the Cisco UCS C-Series VIC Module and Connectivity to Cisco IMC
• Troubleshoot Cisco UCS C-Series LAN Connectivity
• Troubleshoot Cisco UCS C-Series SAN Connectivity
• Use SPAN to Capture Cisco UCS C-Series Server Traffic
• Troubleshoot Cisco UCS C-Series Boot from the Fibre Channel Logical Unit Number LUN
• Troubleshoot Cisco UCS C-Series iSCSI Boot

Troubleshooting Cisco UCS C-Series and Cisco UCS Manager Integration

• Integrate Cisco UCS C-Series Servers with Cisco UCS Manager
• Troubleshoot FEX Discovery and VIC Issues

Exploring the Tools and Methodologies for Troubleshooting Cisco ACI

- Troubleshoot the Fabric Discovery Process
- Traditional Troubleshooting Methods in Cisco ACI
- Atomic Counters, Faults, and Health Scores
- Troubleshoot Tenant-Based Policies
- Packet Flow Through Cisco ACI Fabric
- Troubleshoot AAA and RBAC

Troubleshoot Automation and Scripting Tools

- Troubleshoot Cisco Internetwork Operating System (IOS) EEM
- Troubleshoot the Cisco NX-OS Scheduler

Troubleshooting Programmability

- Troubleshoot Bash Shell and Guest Shell for NX-OS
- Troubleshoot Representational State Transfer (REST) API, JavaScript Object Notation (JSON), and Extensible Markup Language (XML) Encodings