

CISC-13 - DCIT - TROUBLESHOOTING CISCO DATA CENTER INFRASTRUCTURE

Categoria: **Cisco**

INFORMAZIONI SUL CORSO



Durata:
5 Giorni



Categoria:
Cisco



Qualifica Istruttore:
**Cisco Certified
Instructor**



Dedicato a:
Professionista IT



Produttore:
Cisco

OBIETTIVI

After completing this course you should be able to:

- Describe how to troubleshoot the data center network
- Describe the troubleshooting tools and methodologies that are available from the CLI and are used to identify and resolve issues in a Cisco Data Center network architecture
- Identify and resolve issues that are related to: VLANs and PVLANS, port channels and virtual port channels; VXLAN
- Describe troubleshooting of routing and high-availability protocols
- Describe troubleshooting of the LAN security features
- Identify and resolve issues that are related to a single device
- Identify and resolve issues that are related to Fibre Channel interface operation
- Identify and resolve Fibre Channel switching issues when the Cisco NX-OS Software is used in switched mode and NPV mode
- Identify and resolve issues that are related to FIP and FCoE, including FCoE performance
- Describe Cisco UCS architecture, initial setup, tools, and service aids that are available for Cisco UCS troubleshooting and interpretation of the output
- Describe Cisco UCS configuration and troubleshoot
- Describe Cisco UCS B-Series Blade Server operation and troubleshoot related issues
- Describe Cisco UCS B-Series LAN, SAN, and Fibre Channel operations, including in-depth troubleshooting procedures
- Describe Cisco IMC tools for validating performance and facilitating data-gathering activities for Cisco UCS C-Series server troubleshooting, and the troubleshooting approach for hardware and firmware failures
- Define the proper procedures for configuring Cisco UCS C-Series LAN and SAN connectivity, avoiding issues with the VIC, and troubleshooting connectivity issues
- Troubleshoot Cisco UCS C-Series server integration with Cisco UCS Manager
- Identify the tools, protocols, and methods to effectively troubleshoot Cisco ACI
- Describe how to troubleshoot automation, scripting tools, and programmability

PREREQUISITI

Attendees should meet the following prerequisites:

- Configure, secure, and maintain LAN and SAN based on Cisco Nexus and MDS switches
- Configure, secure, and maintain Cisco Unified Computing System
- Configure, secure, and maintain Cisco ACI

Recommended prerequisites:

- CCNA - Implementing and Administering Cisco Solutions
- DCFNDU - Understanding Cisco Data Center Foundations
- DCCOR - Implementing and Operating Cisco Data Center Core Technologies

CONTENUTI

Troubleshooting Process Overview

- Troubleshooting Overview
- Narrow Down the Cause of the Problem

Understanding CLI Troubleshooting Tools

- Ping, Pong, and Traceroute
- Debugging, Event History, and System Monitoring
- SPAN and Encapsulated Remote SPAN
- Ethanalyzer and Data Plane Sampling Capture
- Logging
- Cisco Generic Online Diagnostics
- SNMP, Cisco EEM, and RMON

Troubleshooting VLANs and PVLANS

- Troubleshoot VTP
- Troubleshoot Layer 2 Issues
- VLANs and SVIs on Cisco Nexus Series Switches
- Troubleshoot VLANs, PVLANS, and SVIs
- Troubleshoot Rapid PVST+

Troubleshooting Port Channels and Virtual Port Channels

- Port Channel Overview
- vPC Overview
- Common vPC Issues

Troubleshooting VXLAN

- VXLAN Overlay Features
- VXLAN 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 FHRP
- Troubleshoot Data Center LAN Security

- Troubleshoot AAA and RBAC
- Troubleshoot First-Hop Security
- Troubleshoot ACLs

Troubleshooting Platform-Specific Issues

- Cisco Fabric Services Overview
- Troubleshoot Cisco Fabric Services
- Configure and Troubleshoot Configuration Profiles
- Common VDC Issues
- Troubleshoot VDC
- Troubleshoot VRF
- Cisco FEX Troubleshooting
- Troubleshoot Cisco ISSU

Troubleshooting Fibre Channel Interfaces

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

Troubleshooting Fibre Channel Fabric Services

- Troubleshoot VSANs
- Troubleshoot Fibre Channel Domain and Name Services
- Troubleshoot Zoning and Fabric Merges
- Troubleshoot Cisco Fabric Services

Troubleshooting NPV Mode

- NPIV and NPV Overview
- Troubleshoot NPV Mode
- Troubleshooting FCoE
- FCoE and FIP Overview
- Troubleshoot FIP
- Troubleshoot FCoE- and QoS-Related Issues
- Troubleshoot 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
- Cisco Intersight Overview
- Cisco Nexus Dashboard Overview

Troubleshooting Cisco UCS Configuration

- Stateless Computing
- Troubleshoot Service Profile Association Issues
- Cisco UCS Manageability
- Troubleshoot Authentication Failures

Troubleshooting Cisco UCS B-Series Servers

- Troubleshoot Cisco UCS B-Series Server Boot
- Troubleshoot 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 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 IOS EEM
- Troubleshoot the Cisco NX-OS Scheduler

Troubleshooting Programmability

- Troubleshoot Bash Shell and Guest Shell for NX-OS
- Troubleshoot REST API, JSON, and XML Encodings

-On-Box Programmability on Cisco NX-OS

Labs

- Discovery Lab 1: Document the Network Baseline
- Discovery Lab 2: Troubleshoot Rapid PVST+
- Discovery Lab 3: Troubleshoot LACP
- Discovery Lab 4: Troubleshoot vPC
- Discovery Lab 5: Troubleshoot VXLAN
- Discovery Lab 6: Troubleshoot OSPF
- Discovery Lab 7: Troubleshoot FHRP
- Discovery Lab 8: Troubleshoot Cisco Fabric Services
- Discovery Lab 9: Troubleshoot VRF
- Discovery Lab 10: Troubleshoot Cisco FEX
- Discovery Lab 11: Troubleshoot Fibre Channel Interfaces
- Discovery Lab 12: Troubleshoot Fibre Channel VSANs, Zones, and Domain Services
- Discovery Lab 13: Troubleshoot NPV Mode
- Discovery Lab 14: Troubleshoot FCoE
- Discovery Lab 15: Troubleshoot DCB
- Discovery Lab 16: Troubleshoot Cisco UCS Management and Service Profile Deployment
- Discovery Lab 17: Troubleshoot Cisco UCS C-Series Server LAN Connectivity
- Discovery Lab 18: Troubleshoot Cisco UCS C-Series Server Boot from the Fibre Channel LUN
- Discovery Lab 19: Troubleshoot Cisco UCS C-Series Server Management Connectivity
- Discovery Lab 20: Troubleshoot Cisco ACI Integration with VMware vCenter
- Discovery Lab 21: Troubleshoot Contracts in Cisco ACI
- Discovery Lab 22: Troubleshoot Cisco ACI External Layer 3 Connectivity
- Discovery Lab 23: Troubleshoot Cisco ACI External Layer 2 Connectivity

INFO

Esame: 300-615 - Troubleshooting Cisco Data Center Infrastructure

Materiale didattico: Materiale didattico ufficiale Cisco in formato digitale

Costo materiale didattico: incluso nel prezzo del corso a Calendario

Natura del corso: Operativo (previsti lab su PC)