
Troubleshooting Cisco Networks

Dauer: 5 Tage Kurscode: TCN

Kursbeschreibung:

Dieser Kurs wurde überarbeitet, bitte besuchen Sie den Nachfolgekurs Troubleshooting Cisco Networks (SHOOT).

Dieser eigens von Global Knowledge entwickelte Cisco Kurs Troubleshooting Cisco Networks (TCN) vermittelt Techniken, Werkzeuge, Tipps und Labore, um erfolgreich Probleme in Cisco Netzwerken erkennen und beheben zu können (Troubleshooting).

Sie erlernen Diagnose-Methodiken lösen Probleme für Cisco Router und Catalyst geschwichte Netzwerke auf den Ebenen „Data Link“, „Network“, „Transport“ und „Application Layer“ für Ethernet und WAN Netzwerke. Sie werden die Troubleshooting Werkzeuge während des Trainings einsetzen und ausprobieren können.

14 praktische Labore auf Catalyst 2950 Layer 2 Switches, Catalyst 3550 Layer 3 Switche und Cisco Router vermitteln ein realistisches Netzwerkszenario, inklusive des Einsatzes von Troubleshooting Tickets.

Zielgruppe:

Netzwerkadministratoren, die Cisco Netzwerke betreiben und lernen möchten, wie man strukturiert Netzwerkfehler erkennt und behebt.

Kursziele:

- Network discovery and documentation
 - End-system discovery and documentation
 - Analyzing traffic flow using IOS tools
 - Creating a network baseline
 - Problem solving methodology
 - Cisco IOS diagnostic commands
 - Troubleshooting the physical and data-link layers, including Ethernet, Frame Relay, and T1 problems
 - Troubleshooting Catalyst switch problems
 - Troubleshooting network layer problems, including EIGRP, OSPF, and BGP
 - Troubleshooting application layer problems
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Voraussetzungen:

Eine gültige Cisco CCNA Zertifizierung bzw. entsprechende Netzwerkkennnisse.

Tests und Zertifizierungen:

nicht verfügbar.

Folgekurse:

Bitte kontaktieren Sie uns.

Schulungsinhalt:

1. Establishing a Baseline

- Creating Network Configuration Documentation
- Components of a Network Configuration Table
- Components of a Topology Diagram
- Discovering Network Configuration on a Router or Multilayer Switch
- Discovering Network Configuration on a Layer 2 Switch

2. Creating End-System Network Configuration Documentation

- Components of an End-System Configuration Table
- Components of an End-System Topology Diagram
- Commands and Applications Used to Discover End-System Network Configuration

3. Determining an Effective Troubleshooting Strategy

- Applying a Layered Model to a Network
- Comparing Layered Network Models
- The Encapsulated Data Flow Process
- The Layers of a Logical Model
- General Troubleshooting Process
- Gathering Symptoms
- Isolating Problems
- Correcting Problems
- Gathering Symptoms
- Network Symptoms
- User Symptoms
- End-System Symptoms
- Selecting a Troubleshooting Approach
- The Bottom-Up Approach
- The Top-Down Approach
- The Divide-and-Conquer Approach

4. Resolving Problems at the Physical and Data Link Layers

- Identifying Physical Layer and Data Link Layer Symptoms
- Cisco IOS Commands
- Windows Commands
- UNIX Commands
- Isolating Problems
- Serial Interface
- Frame Relay
- Ethernet
- FastEthernet

5. Resolving Problems at the Network Layer

- Common Symptoms of Network Layer Problems
- IOS Commands for Network Layer Troubleshooting
- General Commands

6. Resolving Problems at the Transport and Application Layers

- Common Symptoms of Transport Layer Problems
- Common Symptoms of Application Layer Problems
- IOS Commands for Transport and Application Layer Troubleshooting
- General Commands
- Name Resolution Commands
- Policy-Related Commands
- File Management Commands
- DHCP-Related Commands
- SNMP- and NTP-Related Commands
- Testing Network Applications With Telnet
- Windows and UNIX Commands for Transport and Application Layer
- Case Study

Labs

This course features enhanced labs. Download the Lab Topology .

Lab 1: Network Discovery

Use Cisco IOS diagnostic commands to discover and document IP addresses, routing protocols, STP configuration, trunk links, EtherChannels, and more.

Lab 2: End-System Documentation

Use end-system command-line tools and applications to discover and document the configuration of a Windows workstation and a Linux workstation.

Lab 3: Tracing Packet Flow on a Router

Utilize Cisco IOS tools to examine low-level traffic flow on routers. Examine the ARP protocol. Examine the effects of caching on IOS debug tools. Observe ICMP traffic.

Labs 4-6: Physical and Data-Link Trouble Ticket A, B, and C

In these three labs, you'll practice low-level troubleshooting skills on Ethernet, FastEthernet, Frame Relay, and T-1 links. You will be given a pre-configured network with a variety of problems, which you must then diagnose and solve.

Labs 7-10: Network Layer Trouble Tickets A, B, C, and D

These four labs allow you to practice network-layer troubleshooting skills. You will be given a pre-configured network with a variety of problems, which you must then diagnose and solve. Scenarios will include IP addressing problems, EIGRP, OSPF, and BGP problems, interface problems, redistribution problems, etc.

Lab 11: Upper Layer Trouble Ticket A

Practice your troubleshooting skills on problems related to transport and application layer protocols, including HTTP, FTP, TFTP, etc.

Labs 12-14: Comprehensive Trouble Tickets A, B, and C

In these three labs, you'll practice your troubleshooting skills in complex scenarios that include problems at the physical, data-link, network, and application layers. Special additional problems appear as well to keep you on your toes.

- ARP-Related Commands
 - Routing Table Commands
 - Interface-Related Commands
 - BGP-Related Commands
 - Traffic-Related Commands
 - Access List-Related Commands
 - Windows and UNIX Commands for Network Layer Troubleshooting
 - Case Study
 - Identifying Support Resources
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Hinweis:

Das sagen Teilnehmer zu dem Kurs:

„Der Trainer ging sehr auf die Teilnehmer ein, nahm sich Zeit für die einzelnen Probleme. Die Abarbeitung und Erklärungsweise war sehr professionell und ruhig gestaltet. Der Stil der Unterrichtsführung war locker, lehrreich und nicht einschläfernd.“ (A. Müller, Fiducia IT AT)
„Den Trainer kann man super weiterempfehlen. Weiter so.“ (Stefan Baße, Diplom-Ingenieur)

Weitere Informationen:

Für weitere Informationen oder Buchung kontaktieren Sie uns bitte unter 0800 / 295 26 33

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