Cisco ASR 1000 Series Essentials

Dauer: 4 Tage Kurscode: ASR1K

Kursbeschreibung:

This is an instructor-led course that presents the major features, functions, characteristics, and connectivity options of the Cisco® ASR 1000 Series Aggregation Services Routers in enterprise and service provider environments. It includes detailed platform-specific information on the hardware and software operations. Also included is the functional operation of high availability, In-Service Software Upgrade (ISSU), quality of service (QoS), security, and multicast services in the Cisco ASR 1000 Series routers.

Zielgruppe:

This course is for technical professionals who need to know how to implement Cisco ASR 1000 Series routers in their network environment. The following are considered the primary audience for this course:Customer technical support personnel, System engineers, System integrators.

Kursziele:

- **Upon completion of this course, you should be able to:**
- List and describe features, benefits, and functions of the Cisco ASR 1000 Series routers
- List and describe the architecture, features, and functions of hardware elements of the 2RU, 4RU, and 6RU chassis; route processor; embedded services processor (ESP); SPA interface processor (SIP); QuantumFlow processor; and power requirements
- Explain the Cisco ASR 1000 operating system and functionality
- Describe the way packets are processed and list the various components in this process
- Install software and successfully reboot a Cisco ASR 1000 Series router
- Initiate a failover and describe the Cisco ASR 1000 high availability capabilities
- Install software and describe the Cisco ASR 1000 ISSU capabilities
- Explain how QoS is implemented in hardware and how QoS features provide improved and more predictable network service
- Describe and configure QoS for ingress queueing and egress shaping
- Describe and configure multicast services
- Describe and configure IPSec and firewall/Network Address Translation (NAT) services

Voraussetzungen:

Following are the prerequisites for this course:

- Attendance at the Interconnecting Cisco Network Devices (ICND) course or equivalent experience
- Knowledge of Cisco IOS® Software commands
- Understanding of principles of QoS, multicast, and IPSec services

Tests und Zertifizierungen

Nicht verfügbar.

Folgekurse:

Bitte kontaktieren Sie uns.

Schulungsinhalt:

Module 1—Cisco ASR 1000 System Introduction

Provides an introduction to each of the subsequent modules by introducing concepts and terminology used throughout the course. Includes high-level overviews of the hardware and software architectures and platform features. Presents an overview of the positioning of the Cisco ASR 1000 Series routers in enterprise and service provider networks.

Module 2—Cisco ASR 1000 Hardware Architecture

Provides detailed descriptions of the hardware components.

Module 3—Cisco ASR 1000 Software Architecture

Includes detailed descriptions of the software architecture and components. Includes information about the boot process, Cisco IOS XE Software packaging, release plans, and a high-level overview of troubleshooting Cisco IOS XE Software.

Module 4—Cisco ASR 1000 High Availability

Introduces the high-availability functionality. Includes details of the process involved in hardware failures.

Module 5—Cisco ASR 1000 In-Service Software Upgrade

Defines the IISSU features. Provides details of the ISSU process.

Module 6—Quality of Service

Describes the features of QoS specifically pertaining to the Cisco ASR 1000 Series platform.

Module 7—Multicast Services

Describes the Cisco ASR 1000 Series multicast services. Includes details about the control and data planes and describes multicast packet flows. Explains the multicast replication process and multicast HA process and includes commands used for troubleshooting multicast

Module 8—Security Services

Introduces security services and includes information about IPSec and IPSec highavailability implementations. Details of multigigabit firewall and NetFlow Event Logging are included.

(Optional) Appendix

Enterprise and Service Provider Solutions

The lab outline is as follows:

Lab 1—Lab Access and Cisco ASR 1000 Orientation

Students perform lab exercises to become familiar with access to the remote Cisco ASR 1000 lab and the Cisco ASR 1000 hardware modules.

Lab 2—Performing System Software Maintenance Functions

Students boot the router from ROMMON, become familiar with the file system, and reload the software.

Lab 3—Configuring and Testing High Availability

Students practice forcing a failover of the redundant route processor and ESP and observe any traffic loss.

Lab 4—Configuring and Testing ISSU

Students practice performing software upgrades in various modes, including the super and subpackages using legacy and native CLI methods.

Lab 5—Configuring QoS and Viewing Results

Students configure and test QoS implementation of ingress queuing and egress shaping of multiple traffic classes.

Lab 6—Configuring and Testing Multicast

Students configure multicast services on the Cisco ASR 1000 and observe the results using various show and debug commands. Students also force a high-availability failover and observe the effects that is has on multicast traffic.

Lab 7—Configuring and Testing Firewall and NAT

Students configure zone-based firewall and NAT and view stateful sessions. They then force a high-availability failover and observe the effects it has on stateful sessions.

Hinweis:

Cisco Advanced Trainings werden vom Global Knowledge Partner Cisco Systems selber durchgeführt.
Bitte bringen Sie ggfs. Ihr eigenes Notebook und Patchkabel mit zum Seminar.

Weitere Informationen:

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

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