Junos Troubleshooting in the NOC

Duración: 3 Días   Código del Curso: JTNOC

Temario:

This three-day course is designed to provide introductory troubleshooting skills for engineers in a network operations center (NOC) environment. Key topics within this course include troubleshooting methodology, troubleshooting tools, hardware monitoring and troubleshooting, interface monitoring and troubleshooting, troubleshooting the data plane and control plane on devices running the Junos operating system, staging and acceptance methodology, troubleshooting routing protocols, monitoring the network, and working with JTAC. This course is based on Junos OS Release 16.1R1.7.

Dirigido a:

The course content is aimed at operators of devices running the Junos OS in a NOC environment. These operators include network engineers, administrators, support personnel, and reseller support personnel.
Junos Troubleshooting in the NOC is an introductory-level course.

Objetivos:

- After successfully completing this course, you should be able to:

- Reduce the time it takes to identify and isolate the root cause of an issue impacting your network.

- Gain familiarity with Junos products as they pertain to troubleshooting.

- Become familiar with online resources valuable to Junos troubleshooting.

- Gain familiarity with Junos tools used in troubleshooting.

- Identify and isolate hardware issues.

- Troubleshoot problems with the control plane.

- Describe control plane protection features.

- Troubleshoot problems with interfaces and other data plane components.

- Describe the staging and acceptance methodology.

- Troubleshoot routing protocols.

- Describe how to monitor your network with SNMP, RMON, Junos Telemetry

- Interface, Junos Traffic Vision (formerly known as JFlow), and port mirroring.

- Monitor and troubleshoot vMX routers.

- Become familiar with JTAC procedures.

- Become familiar with Automated Support and Prevention tools in Junos Space.

Prerequisitos:

Students should have basic networking knowledge and an understanding of the Open Systems Interconnection (OSI) reference model and the TCP/IP protocol suite.

Students should also attend the Introduction to the Junos Operating System (IJOS) course and the Junos Routing Essentials (JRE) course, or have equivalent experience prior to attending this class.

Contenido:

Day 1

Chapter 1: Course Introduction

Chapter 2: Troubleshooting as a Process

- Before You Begin
- The Troubleshooting Process
- Challenging Network Issues

Chapter 3: Junos Product Families

- The Junos OS
- Control Plane and Data Plane
- Field-Replaceable Units
- Junos Product Families
- Lab 1: Identifying Hardware Components

Chapter 4: Troubleshooting Toolkit

- Troubleshooting Tools
- Best Practices
- Lab 2: Monitoring Tools and Establishing a Baseline

Day 2

Chapter 5: Hardware and Environmental Conditions

- Hardware Troubleshooting Overview
- Memory and Storage
- Boot Monitoring
- Hardware-Related System Logs
- Chassis and Environmental Monitoring
- Monitoring Hardware and Environmental Conditions Lab

Chapter 6: Control Plane

- Control Plane Review
- System and User Processes
- Monitoring Routing Tables and Protocols
- Monitoring Bridging
- Monitoring the Address Resolution Protocol
- Lab 3: Control Plane Monitoring and Troubleshooting

Chapter 7. Data Plane – Interfaces

- Interface Properties
- General Interface Troubleshooting
- Ethernet Interface Troubleshooting
- Lab 4: Monitoring and Troubleshooting Ethernet Interfaces

Chapter 8. Data Plane – Other Components

- Definition of a Data Plane Problem
- Data Plane Components
- Data Plane Forwarding
- Load-Balancing Behavior
- Firewall Filters and Policers
- Data Plane Troubleshooting Case Study
- Lab 5: Isolate and Troubleshoot PFE Issues

Day 3

Chapter 9: Staging and Acceptance Testing

- Physical Inspection and Power-on
- General System Checks
- Interface Testing

Chapter 10: Troubleshooting Routing Protocols

- Troubleshooting OSPF
- Troubleshooting BGP
- Troubleshooting Routing Loops and Route Oscillation
- Lab 6: Troubleshooting Routing Protocols

Chapter 11: High Availability

- High Availability Overview
- Graceful Routing Engine Switchover
- Graceful Restart
- Nonstop Active Routing and Bridging
- Unified In-Service Software Upgrade

Chapter 12: Network Monitoring

- SNMP
- RMON
- Telemetry
- Flow Monitoring
- Lab 7: Monitoring the Network

Chapter 13: Network Monitoring

- Opening a Support Case
- Customer Support Tools
- The Content of a PR
- Transferring Files to JTAC

Appendix A: Interface Troubleshooting

- Troubleshooting OSPF
- Troubleshooting BGP
- Troubleshooting Routing Loops and Route Oscillation

Más información:

Para más información o para reservar tu plaza llámanos al (34) 91 425 06 60

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