
Advanced Junos Service Provider Troubleshooting

Duración: 2 Días **Código del Curso: AJSPT**

Temario:

This two-day course is designed to provide students with information about troubleshooting hardware, the Junos operating system, and more obscure problems like packet loss and latency, interior gateway protocols, BGP, routing policy, MPLS, Layer 2 and Layer 3 VPNs, multicast, and class of service. Students will gain experience in monitoring and troubleshooting these topics through demonstration as well as hands-on labs. The course exposes students to common troubleshooting commands and tools used to troubleshoot various intermediate to advanced issues.

This course uses Juniper Networks MX Series 3D Universal Edge Routers for the hands-on component, but the lab environment does not preclude the course from being applicable to other Juniper hardware platforms running the Junos OS. This course is based on Junos OS Release 12.2R2.4.

Dirigido a:

The primary audiences for this course are the following: Individuals responsible for configuring and monitoring devices running the Junos

Objetivos:

- **After successfully completing this course, you should be able to:**
 - Determine the right questions to ask when troubleshooting an issue.
 - Identify general outputs and the type of information found in outputs.
 - Simplify a complex network and recreate an issue in the lab environment.
 - Describe packet loss in a network.
 - List the general chassis components.
 - Identify different methods for troubleshooting major chassis components.
 - Troubleshoot redundant Routing Engine and Control Board communication.
 - Isolate problems with interfaces.
 - Troubleshoot IPv4 interfaces.
 - Troubleshoot IPv6 interfaces.
 - Identify an issue with software and the process of events to recreate the issue.
 - Find relevant topics within the Juniper Networks Knowledge Base.
 - List common commands used to troubleshoot and verify different interior gateway protocol (IGP) routing protocols.
 - Troubleshoot and isolate different IGP issues.
 - List common commands used to troubleshoot and verify BGP.
 - Isolate different issues with BGP communication and configuration.
 - Isolate problems on routing policy structure and configuration.
 - Identify common commands for troubleshooting routing policy.
 - Troubleshoot the MPLS signaling and forwarding plane.
 - Troubleshoot Layer 3 VPNs.
 - Troubleshoot Layer 2 VPNs.
 - Troubleshoot virtual private LAN service (VPLS).
 - Verify and troubleshoot multicast.
 - Verify and troubleshoot class of service.
-

Prerequisites:

The following are the prerequisites for this course:

- Junos Troubleshooting in the NOC (JTNOOC);
- Advanced Junos Service Provider Routing (AJSPR);
- Junos MPLS and VPNs (JMV);
- Junos Multicast Routing (JMR); and
- Junos Class of Service (JCOS).

Contenido:

Day 1

Chapter 1: Course Introduction

Chapter 2: Advanced Troubleshooting Methodology

- The Troubleshooting Process
- Gathering Relevant Details
- Reproducing a Problem in a Lab Environment
- Root Cause Analysis
- Troubleshooting Packet Loss
- Troubleshooting Latency
- Troubleshooting Packet Loss Lab

Chapter 3: Hardware Troubleshooting

- General Chassis Components
- Redundancy
- Case Study

Chapter 4: Interface Troubleshooting

- Interfaces Overview
- General Interfaces
- IPv4 and IPv6
- Case Studies
- Interfaces Lab

Chapter 5: Troubleshooting Software Issues

- Identifying the Problem
- PR Searches
- KB Searches
- Identifying Workarounds and Permanent Fixes
- Case Studies

Chapter 6: IGP Troubleshooting

- OSPF
- OSPFv3
- ISIS
- IGP Lab

Day 2

Chapter 7: BGP Troubleshooting

- IBGP
- EBGP
- Troubleshooting BGP Lab

Chapter 8: Policy Troubleshooting

- Routing Policy Overview
- Policy Structure
- Using Regular Expressions
- Useful Commands
- Case Studies
- Policies Lab

Chapter 9: Troubleshooting MPLS and VPNs

- MPLS
- Layer 3 VPN
- Layer 2 VPN
- VPLS
- Troubleshooting MPLS and VPNs Lab

Chapter 10: Troubleshooting Advanced Features

- Multicast
- Class of Service
- Troubleshooting Advanced Features Lab
- Appendix A: Troubleshooting RIP
- RIP
- RIPng

Información Adicional:

Course Level

Advanced Junos Service Provider Troubleshooting is an advanced-level course.

Más información:

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

info.cursos@globalknowledge.es

www.globalknowledge.com/es-es/

Global Knowledge Network Spain, C/ Retama 7, 6ª planta, 28045 Madrid