Junos Troubleshooting in the NOC (JTNOC)

COURSE LEVEL
Junos Troubleshooting in the NOC (JTNOC) is an introductory-level course.

AUDIENCE
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.

PREREQUISITES
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, or have equivalent experience prior to attending this class.

ASSOCIATED CERTIFICATION
N/A

RELEVANT JUNIPER PRODUCT
- Software
- Junos OS
- Support
- Routing
- Switching
- EX Series
- SRX Series
- M Series
- MX Series
- PTX Series
- T Series
- Service Provider Routing and Switching Track
- Enterprise Routing and Switching Track

OBJECTIVES
- 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.

RECOMMENDED NEXT COURSE
N/A

CONTACT INFORMATION
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Course content subject to change. See www.juniper.net/courses for the latest details.

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## COURSE CONTENT

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  - Challenging Network Issues |
| 3 | Junos Product Families  
  - The Junos OS  
  - Control Plane and Data Plane  
  - Field-Replaceable Units  
  - Junos Product Families |
| 4 | Troubleshooting Toolkit  
  - Troubleshooting Tools  
  - Best Practices  
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| Lab 1: Identifying Hardware Components |

### Day 2

| 5 | Hardware and Environmental Conditions  
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  - Hardware-Related System Logs  
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| 6 | Control Plane  
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| 7 | Control Plane Protection  
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| 8 | Data Plane – Interfaces  
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Day 3

9 Data Plane – Other Components
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- Data Plane Components
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Lab 9: Monitoring the Network

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Lab 10: Monitoring vMX

11 Troubleshooting Routing Protocols
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Lab 8: Troubleshooting Routing Protocols

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Lab 11: Automated Support and Prevention

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Lab 10: Monitoring vMX

16 Automated Support and Prevention
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- Service Now
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Lab 11: Automated Support and Prevention

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- Troubleshooting Various Interface Types