Arrow ECS Finland Oy - Education Services

TRAINING OFFERING

You can reach us at:

Arrow ECS Finland Oy, Lars Sonckin kaari 16, 02600 Espoo, Finland

Email: education.ecs.fi@arrow.com
Phone: 0870 251 1000

Junos Troubleshooting in the NOC (JTNOC)

CODE:	LENGTH:	PRICE:
JUN_JTNOC	24 Hours (3 days)	€2,850.00

Description

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 12.2R2.5.

Objectives

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.
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 Traffic Vision (formerly known as JFlow), and port mirroring.
Become familiar with JTAC procedures.

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 and the Junos Routing Essentials (JRE) course, or have equivalent experience prior to attending this class.

Programme

Day 1

Chapter 1: Course Introduction

Chapter 2: Troubleshooting as a Process

Before You Begin
The Troubleshooting Process
Challenging Network Issues
The Troubleshooting Process Lab
Chapter 3: Junos Product Families

The Junos OS

Control Plane and Data Plane
Field-Replaceable Units
Junos Product Families
Identifying Hardware Components Lab
Chapter 4: Troubleshooting Toolkit

Troubleshooting Tools
Best Practices
Monitoring Tools and Establishing a Baseline Lab
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
Control Plane Monitoring and Troubleshooting Lab
Chapter 7: Data Plane: Interfaces

Interface Properties
General Interface Troubleshooting
Ethernet Interface Troubleshooting
Monitoring and Troubleshooting Ethernet Interfaces Lab
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
Isolate and Troubleshoot PFE Issues Lab
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
Troubleshooting Routing Protocols Lab
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
Flow Monitoring
Monitoring the Network Lab
Chapter 13: JTAC Procedures

Opening a Support Case
Customer Support Tools
The Content of a PR
Transferring Files to JTAC
Appendix A: Interface Troubleshooting

Interface Troubleshooting Chart
Troubleshooting Various Interface Types

Session Dates

Aikataulutamme kiinnostuksen mukaan. Ota yhteyttä

Additional Information

This training is also available as onsite training. Please contact us to find out more.