

Juniper JNCIA-Junos (JN0-105)

This JNCIA-Junos JN0-105 training covers how to configure, monitor and write routing policies and firewall filters for routing devices that run the Junos operating system. This JNCIA exam prep gets you ready for a career as a network administrator on Juniper equipment by getting you ready to earn your JNCIA-Junos certification. Whether you head toward enterprise or service provider routing, or data center administration, you've got the foundation you need.

[CBT Nuggets course material](#) →

WEEK 1

Describe the Basic Structure of a Network

162 min.

Introduction	1
Exploring Networking Models	1
Exploring Physical Connectivity (Layer 1)	1
Exploring Ethernet Networks (Layer 2)	1
Exploring IPv4/IPv6 Protocols (Layer 3)	1
Exploring TCP and UDP (Layer 4)	1
Identifying Network Applications (Layer 7)	1
Identifying Common Types of Network Devices	1
Describing Collisions and Broadcasts	1
Identifying Collision and Broadcast Domain Boundaries	1
Exploring Quality of Service Mechanisms	1

Describe Ethernet and IPv4 Addressing

Overview	1
Introduction	1
Numbering Systems (Binary/Decimal/Hexadecimal)	1
Describing MAC Addresses	1
Describing IPv4 Addresses	1
Defining Subnetting and Supernetting	1
Describing IPv4 Subnet Masks and CIDR Notation	1
Identifying Ethernet and IPv4 Address Types	1
Identifying IPv4 Address Assignment Methods	1

Apply IPv4 Addressing

Overview	1
Introduction	1
Analyzing Subnets	1

Building and Designing Subnets	1
Applying Supernetting with Route Summarization	1
Resolving IPv4 Addresses to MAC Addresses	1

Describe IPv6 Addressing

Overview	1
Introduction	1
Exploring the IPv6 Protocol	1
Describing IPv6 Addresses	1
Identifying IPv6 Address Types	1
Simplifying Subnetting with IPv6	1
Exploring the Neighbor Discovery Protocol (NDP)	1
Analyzing IPv6 Router Discovery	1
Analyzing Stateless Address Autoconfiguration (SLAAC)	1
Analyzing IPv6 Neighbor Discovery	1

Introducing Juniper Certifications and Labs

Overview	1
Introducing the JNCIA-Junos	1
Understand Juniper Certification Tracks	5
Understand the Spirit of the JNCIA-Junos Exam	9
Creating a Hardware Home Lab	5
Creating a Software Virtual Home Lab	7
Using Juniper's Online Virtual Labs	2
Other Juniper Learning Resources	16
Summarizing the JNCIA-Junos	1

Understand the Junos OS Architecture

Overview	1
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Introducing the Architecture of Junos	1
The Junos Operating System Design	6
Separating Control and Data Planes	9
Examples of Junos Transit Traffic Handling	5
Examples of Junos Exception Traffic Handling	8
Junos Release Numbering	8
Explore Juniper Hardware Platforms	8
Summarizing the Junos Architecture	1

Navigate the Junos CLI

Overview	1
Navigating the Junos CLI	1
Navigating FreeBSD	12
Navigating Junos Operational Mode	12

WEEK 2

151 min.

Navigating Configuration (or Edit) Mode	11
The Help Command	7
Filtering and Altering Output	7
Summarizing How to Navigate the Junos CLI	1

Create a Junos Base Configuration

Overview	1
Create a Base Config for Junos	1
Set the Root Password (and More...)	8
Create a User Account	5
Configure Device Parameters and Services	5
Configure Network Management Services	8

Understand Authentication Orders and Methods	4
Configure Syslog	16
Considerations for Various Juniper Platforms	9
Summarizing Junos Base Configuration	1

Configure Junos Interfaces

Overview	1
Introducing Junos Interfaces	1
Interface Configuration and Naming Conventions	12
Understand Units	10
Understand Address Families	5
Set an IPv4 Address	4
Set an IPv6 Address	5
Review and Quiz	9

Understand Junos Configuration Datastores

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Understand Junos Configuration Datastores	1
Introducing the Candidate Datastore (and Commit)	9
Configure Private	6

WEEK 3

152 min.

Configure Exclusive	3
Other Commit Mechanisms	9
Comparing Candidate and Active Configurations	5
Rollbacks	8
Rescue Configurations	4
Archiving Configurations to Remote Servers	4

Encrypting Configuration Files	4
Summarizing Junos Candidate Datastores	2

Understand and Configure Junos Routing

Overview	1
Introducing Junos Routing	1
The Fundamentals of Routing	8
Junos Routing and Forwarding Tables	10
How Junos Selects Routes	8
Static Routing	8
Dynamic Routing	4
OSPF Configuration and Verification	8
Junos Routing Instances	6
IPv6 Routing	5
Summarizing Junos Routing	1

Multi-Vendor OSPF Deep Dive

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Introducing OSPF - The IGP of Choice	3
OSPF Adjacency Formation	17
OSPF Areas	6
Configure OSPF on Cisco Devices	10
Configure OSPF on Juniper Devices	7
Verify OSPF on Each Device	7

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154 min.

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Summarizing Multi-Vendor OSPF	1

Understand Junos Route Policies

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The Point of Route Policies	8
The Point of Route Redistribution	8
The Structure of a Route Policy	11
Route Filters and Prefix Lists	8
Adding Route Policy Rules with Terms	5
Digging a Little Bit Deeper into Route Policies	7
Summarizing Route Policies	1

Understand Junos Firewall Policies

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Firewall, or Really an ACL?	8
Structure of a Firewall Filter	11
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Applying a Firewall Filter	6
Use Case: Limit Inbound SSH Traffic	6
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Unicast Reverse Path Forwarding (RPF)	6
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Operate and Maintain a Junos Device

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Show Chassis Commands	9
Other Show Commands You Need to Know	7

Extensive Show Interfaces Output 6

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26 min.

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Reboot or Shut down a Junos Device	6
Perform a Storage Cleanup	4
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