

Resources - JNCIA-ER Exam Objectives (Exam: JN0-342)

This list is intended to provide a general view of the skill set required to successfully complete the specified certification exam. Topics listed are subject to change.

- [Enterprise Router Overview, Management, and Architecture](#)
- [User Interface of Enterprise Routers](#)
- [Installation and Initial Configuration](#)
- [Monitor and Maintain J-series Platforms](#)
- [Routing Protocols](#)
- [Services](#)
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Enterprise Router Overview, Management, and Architecture

- Describe network management features of Enterprise Routers
- Define the portions of the JUNOS software architecture. Include information on protected memory spaces, individual daemon process, and locations where the JUNOS software may operate.
- List the Enterprise Router Product Line
- Describe Transit and Host Processing
- Identify the difference between packet flow on the M7i/M10i and J-series routers
- Identify key differences between the M7i/M10i and J-series routers
- Identify Field-Replaceable Units on M7i/M10i and J-series routers

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User Interface of Enterprise Routers

- List the various user authentication methods
- Describe the uses of login classes

- Describe authentication order
- Describe the way to access and navigate the J-Web interface
- Identify J-Web installation and operational status
- Identify the features of the JUNOS CLI. (cli modes, prompts, auto-complete, EMACS shortcuts, help, pipe)
- Identify the commands used in configuration mode (edit, set, delete, commit)
- Identify options for manipulating "saved" configuration files. Include rollback options, load options, and rollback file locations
- Describe the configuration hierarchy
- Describe active, candidate, and rollback configurations

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Installation and Initial Configuration

- Define autoinstallation and describe its basic operation
- Describe how to activate the rescue and default configurations
- Identify Initial configuration steps via J-web (user accounts, SNMP, time, DNS, remote access)
- Identify Initial configuration steps via the CLI (user accounts, SNMP, time, DNS, remote access)
- Configure an interface (CLI and J-Web)
- List options for initial configuration and platform dependencies of those options.

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Monitor and Maintain J-series Platforms

- Identify the commands to monitor enterprise router system components (CLI and J-Web)
- Identify the commands to monitor enterprise router Chassis (CLI and J-Web)
- Identify valid options for interface names, logical unit and protocol families within the JUNOS software

- Describe how to monitor interfaces in real-time
- Describe the information contained within the show interfaces extensive command
- Describe the uses of network utilities such as ping and traceroute
- Describe system logging and tracing
- Identify Commands needed to manage the licenses on a J-series
- Describe the boot devices available to a Juniper Networks router
- List the upgrade options available for the router's software
- Identify the system snapshot options
- Perform file system maintenance on the router.
- Perform password recovery on the router.

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Routing Protocols

- Describe JUNOS software routing policy design considerations including: import and export, when to define routing policies, components of a routing policy (terms, match criteria, actions), default routing policy actions, and how routing policies are evaluated.
- List the main reasons to create and apply policies.
- Describe the configuration of Static Routes
- Describe the basic characteristics of the RIP protocol
- Identify the steps needed to configure RIP
- Identify commands used to monitor and troubleshoot an RIP network.
- Describe OSPF area types and router types
- Identify the steps needed to configure OSPF
- Identify commands used to monitor and troubleshoot an OSPF network.
- Describe characteristics of link-state routing protocols
- Describe the purpose and operation of multiple routing tables
- Describe route preferences

- List the support IGPs and describe the purpose and benefits of each.

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Services

- List the available interfaces used for services and describe the benefits and features for each type
- Describe the purpose and benefits of MLPPP
- Identify MLPPP configuration and monitoring options
- Describe the purpose and benefits of NAT and PAT
- Identify NAT and PAT configuration and monitoring options

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Miscellaneous Features

- Describe the benefits and basic operation of VRRP
- Identify configuration and monitoring options of VRRP
- Describe the benefits and basic operation of DHCP
- Identify configuration and monitoring options for DHCP

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