

DESIGN, ASSOCIATE (JNCIA-DESIGN)

Earn an associate-level certification that demonstrates competency in Juniper Networks design principles and associated technologies.

As part of the Juniper® Design track, the JNCIA-Design, Associate, is for networking professionals and designers with beginner knowledge of network design, theory, and best practices. During the multiple-choice exam, you will demonstrate your understanding of network design fundamentals.

Exam Preparation

We recommend the following resources to help you prepare for your exam. However, these resources aren't required, and using them doesn't guarantee you'll pass the exam.

Recommended Training

- [Juniper Networks® Design Fundamentals \(JNDF\)](#)

Exam Resources

- Industry/product knowledge
- [Juniper TechLibrary](#)

Additional Preparation

- [Juniper Learning Portal](#)

Exam Objectives

Here is a high-level view of the skillset required to successfully complete the JNCIA-Design certification exam.

Customer Network Design Requirements

Identify initial network design requirements for:

- Juniper Networks life-cycle service approach
- Proposal boundaries and considerations
- Greenfield and brownfield deployments
- Top-down networks
- Capacity planning

Identify the roles of different Juniper products and solutions, including:

- Routers
- Switches
- Security
- WLAN

- Software-defined networking (SDN)
- Network management

Securing the Network

Identify security design principles for:

- General security design and considerations
- Securing a data center
- Securing the campus WAN
- Zero-trust security
- Secure access service edge (SASE)

Network Management or Reliability

Identify network design considerations for business continuity, including:

- High-resiliency design
- Link- and device-level redundancy
- Multihomed Ethernet Segment Identifier Link Aggregation Groups (ESI LAGs)
- Juniper Networks SRX Firewalls redundancy
- Virtual chassis
- Campus redundancy best practices

Identify design considerations for network automation, including:

- Benefits of network automation
- Juniper automation products
- Junos® XML, Representational State Transfer (REST), JET service process (JSD) APIs
- Junos OS on-box and off-box automation

Identify design considerations for network management strategies, including:

- Network management methodologies
- Separation of production and management traffic
- Configuration backups
- Remote console access
- Juniper network management strategies

Campus and Branch LAN Design

Identify considerations for a wired campus or branch LAN, including:

- Campus LAN design best practices
- Modular design
- Subnet and VLAN design
- Access control design
- Ethernet VPN-Virtual Extensible LAN (EVPN-VXLAN) architecture
- Campus oversubscription ratios
- Campus design architectures

Identify considerations for a wireless LAN, including:

- WLAN design phases
- Gathering business requirements
- Gathering technical requirements
- Device types
- Designing secondary coverage
- Designing real-time location services
- Access point (AP) coverage patterns
- Co-channel contention
- Gathering RF requirements
- RF modeling

Campus and Branch WAN Design

Identify considerations for a campus or branch WAN, including:

- Campus or branch WAN connectivity functions
- Best practices for designing the campus or branch WAN
- Campus WAN performance
- Campus WAN VPN design
- Campus active/active and active/passive high availability (HA)

Identify considerations for an SD-WAN, including:

- SD-WAN design considerations
- SD-WAN devices
- Assurance models
- SD-WAN intersite connectivity

Data Center Network Design

Identify considerations for general data center network, including:

- Data center design best practices
- Traffic patterns
- Virtual chassis
- Environmental considerations
- Data center fabric architectures

Identify considerations for IP fabric-based data center network, including:

- Benefits of IP fabric over other data center architectures
- Design options with IP fabrics
- Spine-and-leaf device placement recommendations
- Underlay and overlay design
- Routing protocol selection
- IP fabric best practices
- IP fabric scaling

Exam Details

Exam questions are derived from the recommended training and the exam resources listed above. Pass/fail status is available immediately after taking the exam. The exam is only provided in English.

Exam Code

JNO-1103

Prerequisite Certification

None

Delivered by

Pearson VUE

Exam Length

90 minutes

Exam Type

65 multiple-choice questions

Recertification

Juniper certifications are valid for three years. For more information, see [Recertification](#).

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