Juniper Networks learning paths

Juniper Networks Education Services

February 2021
# Juniper Networks Certification Program framework

<table>
<thead>
<tr>
<th>Level</th>
<th>Certification</th>
<th>Specialization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate</td>
<td>JNCIA-Junos</td>
<td>Routing and Switching, Data Center, Security, Cloud, Automation and DevOps, Mist AI, Design</td>
</tr>
<tr>
<td></td>
<td>JNCIA-SEC</td>
<td>Junos, Cloud, Automation and DevOps, Mist AI, Design</td>
</tr>
<tr>
<td>Professional</td>
<td>JNCIP-SP</td>
<td>Service Provider, Routing and Switching, Cloud, Automation and DevOps, Mist AI, Design</td>
</tr>
<tr>
<td></td>
<td>JNCIP-ENT</td>
<td>Service Provider, Routing and Switching, Cloud, Automation and DevOps, Mist AI, Design</td>
</tr>
<tr>
<td></td>
<td>JNCIP-DC</td>
<td>Data Center, Security, Cloud, Automation and DevOps, Mist AI, Design</td>
</tr>
<tr>
<td></td>
<td>JNCIP-SEC</td>
<td>Security, Cloud, Automation and DevOps, Mist AI, Design</td>
</tr>
<tr>
<td>Expert</td>
<td>JNCIE-SP</td>
<td>Service Provider, Routing and Switching, Cloud, Automation and DevOps, Mist AI, Design</td>
</tr>
<tr>
<td></td>
<td>JNCIE-ENT</td>
<td>Junos, Cloud, Automation and DevOps, Mist AI, Design</td>
</tr>
<tr>
<td></td>
<td>JNCIE-DC</td>
<td>Data Center, Security, Cloud, Automation and DevOps, Mist AI, Design</td>
</tr>
<tr>
<td></td>
<td>JNCIE-SEC</td>
<td>Security, Cloud, Automation and DevOps, Mist AI, Design</td>
</tr>
<tr>
<td></td>
<td>JNCIE-Cloud</td>
<td>Mist AI, Design</td>
</tr>
</tbody>
</table>

*In planning. Refer to [www.juniper.net/certification](http://www.juniper.net/certification) for the most current information.
Juniper Networks
Junos-Based Curriculum

Service Provider Routing & Switching
- JNCIE-SP
- JNCIE-SP Self-Study Bundle
- JNCIP-SP
  - Advanced Junos Service Provider Routing (AJSPR)
  - Junos Layer 3 VPNs (JL3V)
  - Junos Layer 2 VPNs (JL2V)
- JNCIS-SP
  - Junos MPLS Fundamentals (JMF)
  - Junos Service Provider Switching (JSPX)
  - Junos Intermediate Routing (JIR)
- JNCIA-Junos
  - Introduction to the Junos Operating System (IJOS)

Enterprise Routing & Switching
- JNCIE-ENT
- JNCIE-ENT Self-Study Bundle
- JNCIP-ENT
  - Advanced Junos Enterprise Switching (AJEX)
  - Advanced Junos Enterprise Routing (AJER)
- JNCIS-ENT
  - Junos Enterprise Switching (JEX)
  - Junos Intermediate Routing (JIR)

Data Center
- JNCIE-DC
- JNCIE-DC Self-Study Bundle
- JNCIP-DC
  - Data Center Fabric with EVPN and VXLAN (ADCX)

Junos Security
- JNCIE-SEC
- JNCIE-SEC Self-Study Bundle
- JNCIP-SEC
  - Advanced Juniper Security (AJSEC)
- JNCIS-SEC
- JNCIA-SEC
  - Introduction to Juniper Security (IJSEC)

Notes: Information current as of February 2021. Course and exam information (length, availability, content, etc.) is subject to change; refer to www.juniper.net/training for the most current information.
Juniper Networks Curriculum

Service provider routing and switching

- **Juniper Networks Certified Expert Service Provider Routing and Switching (JNCIE-SP)**
  - Service Provider Routing and Switching, Expert (JNCIE-SP)

- **Juniper Networks Certified Professional Service Provider Routing and Switching (JNCIP-SP)**
  - Service Provider Routing and Switching, Professional (JNCIP-SP)

- **Juniper Networks Certified Specialist Service Provider Routing and Switching (JNCIS-SP)**
  - Service Provider Routing and Switching, Specialist (JNCIS-SP)

- **Juniper Networks Certified Associate Junos (JNCIA-Junos)**
  - Junos, Associate (JNCIA-Junos)

- **Introduction to the Junos Operating System (JIOS)**
  - 3 days or On-Demand

- **Junos Troubleshooting in the NOC (JTNOC)**
  - 4 days or On-Demand

- **Advanced Junos Service Provider Routing (JSPX)**
  - 5 days or On-Demand
  - Junos Layer 3 VPNs (JL3V)
    - 3 days or On-Demand
  - Junos Layer 2 VPNs (JL2V)
    - 2 days or On-Demand

- **Junos MPLS Fundamentals (JMF)**
  - 2 days or On-Demand
  - Junos Service Provider Switching (JSPX)
    - 2 days or On-Demand
  - Junos Intermediate Routing (JIR)
    - 2 days or On-Demand

- **JNCIE–SP Self-Study Bundle**
  - 120 Hours

- **JNCIA–Junos Self-Study Bundle**
  - 120 Hours

**Additional Training**

- **Getting Started with Networking**
  - 5 hours

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### Emerging Service Provider Technology Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junos Segment Routing (JSR)</td>
<td>1 day or On-Demand</td>
</tr>
<tr>
<td>DiffServ-Aware MPLS Traffic Engineering (DSTE)</td>
<td>1 day</td>
</tr>
<tr>
<td>Packet Optical Transport Workshop (TCXW)</td>
<td>1 day</td>
</tr>
<tr>
<td>MPLS and Segment Routing Automation Using NorthStar (MSRN)*</td>
<td>4 days</td>
</tr>
</tbody>
</table>

### Related Service Provider Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junos Multicast Routing (JMR)</td>
<td>2 days</td>
</tr>
<tr>
<td>Junos Class of Service (JCOS)</td>
<td>2 days</td>
</tr>
<tr>
<td>Introduction to Junos OS Evolved (IJE)</td>
<td>1 day</td>
</tr>
<tr>
<td>Cert Prep: Migrating from the Cisco CCNA to the JNCIA-Junos</td>
<td>5 hours</td>
</tr>
<tr>
<td>Junos Edge Security Services (JESS)</td>
<td>2 days</td>
</tr>
<tr>
<td>Junos Subscriber Management (JSM)</td>
<td>4 days</td>
</tr>
<tr>
<td>Automation and DevOps Learning Path</td>
<td>2 days</td>
</tr>
<tr>
<td>Junos IP version 6 (J-IPv6)</td>
<td>2 days</td>
</tr>
<tr>
<td>Circuit to Packet (CTP)</td>
<td>3-day On-Demand</td>
</tr>
</tbody>
</table>

### Notes:
* Formerly known as Network Automation in the WAN (NA-WAN). Information current as of February 2021. Course and exam information (length, availability, content, etc.) is subject to change; refer to [www.juniper.net/training](http://www.juniper.net/training) for the most current information.
Juniper Networks Curriculum
Enterprise routing and switching

- Juniper Networks Certified Associate Junos (JNCIA-Junos)
  - Introduction to the Junos Operating System (IJOS)
    - 3 days or On-Demand
  - Junos Intermediate Routing (JIR)
    - 2 days or On-Demand
  - Junos Enterprise Switching (JEX)
    - 2 days or On-Demand

- Juniper Networks Certified Specialist Enterprise Routing and Switching (JNCIS-ENT)
  - Junos Intermediate Routing (JIR)
    - 2 days or On-Demand
  - Junos Enterprise Switching (JEX)
    - 2 days or On-Demand

- Juniper Networks Certified Professional Enterprise Routing and Switching (JNCIP-ENT)
  - Advanced Junos Enterprise Switching (AJEX)
    - 2 days or On-Demand
  - Advanced Junos Enterprise Routing (AJER)
    - 5 days or On-Demand

- Juniper Networks Certified Expert Enterprise Routing and Switching (JNCIE-ENT)
  - Advanced Junos Enterprise Switching (AJEX)
    - 2 days or On-Demand
  - Advanced Junos Enterprise Routing (AJER)
    - 5 days or On-Demand

Optional: Continue to Juniper Networks Certified Professional, Data Center (JNCIP-DC)

Additional Training
- Juniper Mist AI-Driven Networks (MIST)
  - 4 days
- Getting Started with Networking
  - 5 hours
- Cert Prep: Migrating from the Cisco CCNA to the JNCIA-Junos
  - 5 hours
- Juniper Switching for Cisco Engineers
  - TBD hours
- Junos IP version 6 (J-IPv6)
  - 2 days
- Automation and DevOps Learning Path

Note: Information current as of February 2021. Course and exam information (length, availability, content, etc.) is subject to change; refer to www.juniper.net/training for the most current information.
Juniper Networks Curriculum
Data center

- **Juniper Networks Certified Expert Data Center (JNCIE-DC)**
  - Data Center, Expert (JNCIE-DC)
  - JNCIE-DC Self-Study Bundle | 120 hours

- **Juniper Networks Certified Professional Data Center (JNCIP-DC)**
  - Data Center, Professional (JNCIP-DC)
  - Data Center Fabric with EVPN and VXLAN (ADCX)* | 5 days or On-Demand

**Additional Training**

- **Automation and DevOps Learning Path**
  - Juniper Networks Design—Data Center (JND-DC) | 5 days
  - Introduction to Junos OS Evolved (IJEVO) | 1 day

**Notes:** * Formerly known as Advanced Data Center Switching (ADCX). Information current as of February 2021. Course and exam information (length, availability, content, etc.) is subject to change; refer to [www.juniper.net/training](http://www.juniper.net/training) for the most current information.
Juniper Networks Curriculum

Security

- **Juniper Networks Certified Expert Security (JNCIE-SEC)**
  - Security, Expert (JNCIE-SEC)
- **Juniper Networks Certified Professional Security (JNCIP-SEC)**
  - Security, Professional (JNCIP-SEC)
- **Juniper Networks Certified Specialist Security (JNCIS-SEC)**
  - Security Specialist (JNCIS-SEC)
- **Juniper Networks Certified Associate Security (JNCIA-SEC)**
  - Security Associate (JNCIA-SEC)

**JNCIE-SEC Self-Study Bundle** 120 hours

- **Advanced Juniper Security (AJSEC)** 4 days
- **Juniper Security (JSEC)** 5 days or On-Demand
- **Introduction to Juniper Security (IJSEC)** 3 days or On-Demand

**Additional Training**

- **Juniper Cloud Networking with AWS and Azure (JCNAA)** 4 days
- **Cert Prep: Migrating from the Cisco CCNA to the JNCIA-Junos** 5 hours
- **Juniper Networks Design—Security (JND-SEC)** 5 days
- **Junos Space—Security Director (JS-SD)** 2 days
- **Implementing Juniper Networks Secure Analytics (JSA)** 3 days
- **Getting Started with Security (TBD)**

**Notes:** Information current as of February 2021. Course and exam information (length, availability, content, etc.) is subject to change; refer to [www.juniper.net/training](http://www.juniper.net/training) for the most current information.
Juniper Networks Curriculum
Cloud, automation & DevOps, design

Cloud

- JNCIE-Cloud
  - JNCIE-Cloud Self-Study Bundle
- JNCIS-Cloud
  - Cloud Automation Using Contrail (CAC)
- JNCIP-Cloud
  - Enterprise Multicloud Automation and Orchestration Using Contrail (EMCC)
- JNCIA-Cloud
  - Juniper Cloud Fundamentals (JCF)
- Red Hat, OpenShift, Kubernetes, Docker in Cloud Deployments (ROKD)
- Contrail Networking for Service Providers (CNSP)
- Deploying Juniper Contrail Cloud for Telcos (JCCT)

Automation and DevOps

- JNCIS-DevOps
  - Junos Platform Automation and DevOps (JAUT)
- JNCIA-DevOps
  - Introduction to Junos Platform Automation and DevOps (IJAUT)
- SD-WAN with Contrail Service Orchestration (SD-CSO)
- MPLS and Segment Routing Automation Using NorthStar (MSRN)

Design

- JNCDS-DC
  - Juniper Networks Design—Data Center (JND-DC)
- JNCDS-SP
  - Juniper Networks Design—Service Provider (JND-SP)
- JNCDS-SEC
  - Juniper Networks Design—Security (JND-SEC)
- JNCDS-DC
  - Juniper Networks Design Fundamentals (JNDF)

Notes: See individual learning paths for full prerequisite course recommendations. Information current as of February 2021. Course and exam information (length, availability, content, etc.) is subject to change; refer to www.juniper.net/training for the most current information.
Juniper Networks Curriculum

Cloud

Juniper Networks Certified Expert Cloud (JNCIE-Cloud)
- Cloud, Expert (JNCIE-Cloud)
- JNCIE-Cloud Self-Study Bundle

Juniper Networks Certified Professional Cloud (JNCIP-Cloud)
- Cloud, Professional (JNCIP-Cloud)
- Enterprise Multicloud Automation and Orchestration Using Contrail (EMCC)*
  - 3 days

Juniper Networks Certified Specialist Cloud (JNCIS-Cloud)
- Cloud, Specialist (JNCIS-Cloud)
- Cloud Automation Using Contrail (CAC)
  - 5 days

Juniper Networks Certified Associate Cloud (JNCIA-Cloud)
- Cloud, Associate (JNCIA-Cloud)
- Juniper Cloud Fundamentals (JCF)†
  - 3 days or On-Demand

Additional Training

- Deploying Juniper Contrail Cloud for Telcos (JCCT) 5 days
- Juniper Cloud Networking with AWS and Azure (JCNAA) 4 days
- Getting Started with Cloud 4 hours
- Introduction to Junos OS Evolved (UEVO) 1 day
- Contrail Networking for Service Providers (CNSP) 5 days
- Red Hat, OpenShift, Kubernetes, Docker in Cloud Deployments (ROKD) 4 days
- MPLS and Segment Routing Automation Using NorthStar (MSRN)**
  - 4 days
- SD-WAN with Contrail Service Orchestration (SD-CSO) 3 days
- SD-WAN with Contrail Service Orchestration (SD-CSO) 3 days

Notes: *Attendance in the Data Center Fabric with EVPN and VXLAN (ADCX) course is recommended prior to the EMCC course. †Attendance of the Introduction to the Junos Operating System (IJO) course is strongly recommended prior to the JCF course. **Attendance in the Junos MPLS Fundamentals (JMF) course is strongly recommended prior to the MSRN course. Information current as of February 2021. Course and exam information (length, availability, content, etc.) is subject to change; refer to www.juniper.net/training for the most current information.
### Juniper Networks Curriculum

#### Automation and DevOps

<table>
<thead>
<tr>
<th>Course</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Junos Platform Automation and DevOps (AJAUT)</td>
<td>3 days</td>
</tr>
<tr>
<td>Junos Platform Automation and DevOps (JAUT)</td>
<td>5 days or On-Demand</td>
</tr>
<tr>
<td>Introduction to Junos Platform Automation and DevOps (IJAUT)</td>
<td>3 days or On-Demand</td>
</tr>
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<table>
<thead>
<tr>
<th>Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juniper Networks Certified Professional Automation and DevOps (JNCIP-DevOps)*</td>
</tr>
<tr>
<td>Juniper Networks Certified Specialist Automation and DevOps (JNCIS-DevOps)</td>
</tr>
<tr>
<td>Automation and DevOps, Specialist (JNCIS-DevOps)</td>
</tr>
<tr>
<td>Juniper Networks Certified Associate Automation and DevOps (JNCIA-DevOps)</td>
</tr>
<tr>
<td>Automation and DevOps, Associate (JNCIA-DevOps)</td>
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**Additional Automation Training**

<table>
<thead>
<tr>
<th>Course</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junos Space Essentials (JSE)</td>
<td>2 days</td>
</tr>
<tr>
<td>Junos Space Security Director (JS-SD)</td>
<td>2 days</td>
</tr>
<tr>
<td>Junos Space Network Director (JS-ND)</td>
<td>1 day</td>
</tr>
<tr>
<td>Juniper Learning Bytes</td>
<td>Varies</td>
</tr>
</tbody>
</table>

**Notes:**
- *In planning. Information current as of February 2021. Course and exam information (length, availability, content, etc.) is subject to change; refer to [www.juniper.net/training](http://www.juniper.net/training) for the most current information.
# Juniper Networks Curriculum

## MIST AI

### Juniper Networks Certified Specialist, Mist AI (JNCIS-MistAI)

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mist, Specialist (JNCIS-MistAI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juniper Mist AI-Driven Networks (MIST)</td>
<td></td>
<td>4 Days</td>
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</table>

### Juniper Networks Certified Associate, Mist AI (JNCIA-MistAI)

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mist, Associate (JNCIA-MistAI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mist Masters: Self-Paced Online Training</td>
<td></td>
<td>6 Hours</td>
</tr>
<tr>
<td>Getting Started with Wi-Fi</td>
<td></td>
<td>2 Hours</td>
</tr>
</tbody>
</table>

**Notes:** Information current as of February 2021. Course and exam information (length, availability, content, etc.) is subject to change; refer to [www.juniper.net/training](http://www.juniper.net/training) for the most current information.
Juniper Networks Curriculum
Design

Data Center Design Track

Juniper Networks Certified Design Specialist, Data Center (JNCD-DC)
Juniper Networks Design—Data Center (JND-DC) 5 days

Service Provider Design Track

Juniper Networks Certified Design Specialist, SP (JNCD-SP)**
Juniper Networks Design—Service Provider (JND-SP) 5 days

Security Design Track

Juniper Networks Certified Design Specialist, Security (JNCD-SEC)
Juniper Networks Design—Security (JND-SEC) 5 days

Notes: Information current as of February 2021. Course and exam information (length, availability, content, etc.) is subject to change; refer to www.juniper.net/training for the most current information.
<table>
<thead>
<tr>
<th>Course</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junos Troubleshooting in the NOC (JTNOC)</td>
<td>4 days or On-Demand</td>
</tr>
<tr>
<td>Introduction to the Junos Operating System (IJOS)</td>
<td>3 days or On-Demand</td>
</tr>
<tr>
<td>Getting Started with Networking</td>
<td>5 hours</td>
</tr>
</tbody>
</table>

**Note:** The professional-level courses in the Service Provider Routing and Switching, Enterprise Routing and Switching, and Junos Security learning paths contain additional troubleshooting training.
Juniper Networks Curriculum

Junos Space

Related Courses

- JA1500 Junos Space Appliance Installation and Initial Configuration (4 hours)

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## Juniper Networks Curriculum
### Getting started

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting Started with Networking</td>
<td>5</td>
</tr>
<tr>
<td>Getting Started with Cloud</td>
<td>4</td>
</tr>
<tr>
<td>Getting Started with Wi-Fi</td>
<td>2</td>
</tr>
<tr>
<td>Getting Started with Security</td>
<td>TBD</td>
</tr>
<tr>
<td>Getting Started with 5G</td>
<td>TBD</td>
</tr>
<tr>
<td>Getting Started with Telco Cloud</td>
<td>TBD</td>
</tr>
</tbody>
</table>

**Note:** These courses teach foundational, industry-standard content and are not-related to each other. They may be taken in any order.

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Delivery methods

Private Training - Standard or Customized Delivery
Contact us: training-amer@juniper.net, training-emea@juniper.net, or training-apac@juniper.net
Juniper will host a private, instructor-led class for up to 16 students. Training can be delivered at a customer's facility, virtually (remote instructor and remote students), or a blend of both onsite with remote students. Private classes have the ability to be customized based on the client's exact needs.

On-Demand Courses: www.juniper.net/ondemand
Each course includes self-paced, eLearning modules along with access to real online lab exercises. Students perform the same detailed lab exercises that are taught in instructor-led classes. Courses include six months of access to the materials and lab environment.

Open Enrollment Classes: www.juniper.net/courses
Juniper and/or its Authorized Education Partners host public classrooms in which the customer can send one or more students to attend. Training will be attended either virtually or at a Juniper or Education Partner’s facility.

NEW – All-Access Training Pass: www.juniper.net/allaccess
Access to all Juniper courses, for one low price, for a full year. Available for individuals, teams, and enterprises.