Juniper Networks learning paths

Juniper Networks Education Services

September 2021
Juniper Networks Certification Program framework

Routing and Switching
- JNCIE-SP
- JNCIE-ENT
- JNCIE-DC
- JNCIE-SEC
- JNCIE-Cloud

Data Center
- JNCIE-DC
- JNCIE-SEC
- JNCIE-Cloud

Security
- JNCIE-SEC

Cloud
- JNCIE-Cloud

Automation and DevOps
- JNCIE-Cloud

Mist AI
- JNCIE-Cloud

Design
- JNCIE-Cloud

Professional
- JNCIP-SP
- JNCIP-ENT
- JNCIP-DC
- JNCIP-SEC
- JNCIP-Cloud

Design
- JNCIP-Cloud

Routing and Switching
- JNCIP-SP
- JNCIP-ENT
- JNCIP-DC
- JNCIP-SEC
- JNCIP-Cloud

Security
- JNCIP-SEC

Cloud
- JNCIP-Cloud

Automation and DevOps
- JNCIP-Cloud

Mist AI
- JNCIP-Cloud

Data Center
- JNCIP-Cloud

Service Provider Routing and Switching
- JNCIS-SP
- JNCIS-ENT
- JNCIS-SEC
- JNCIS-Cloud
- JNCIS-DevOps
- JNCIS-MistAI
- JNCDS-DC
- JNCDS-SP
- JNCDS-SEC

Enterprise Routing and Switching
- JNCIS-ENT
- JNCIS-SEC
- JNCIS-Cloud
- JNCIS-DevOps
- JNCIS-MistAI
- JNCIS-DC
- JNCIS-SP
- JNCIS-SEC

Data Center
- JNCIS-DC
- JNCIS-SEC
- JNCIS-Cloud
- JNCIS-DevOps
- JNCIS-MistAI
- JNCIS-DC
- JNCIS-SP
- JNCIS-SEC

Security
- JNCIS-SEC

Cloud
- JNCIS-Cloud

Automation and DevOps
- JNCIS-Cloud

Mist AI
- JNCIS-Cloud

Data Center
- JNCIS-Cloud

Enterprise Routing and Switching
- JNCIS-ENT
- JNCIS-SEC
- JNCIS-Cloud
- JNCIS-DevOps
- JNCIS-MistAI
- JNCIS-DC
- JNCIS-SP
- JNCIS-SEC

Security
- JNCIS-SEC

Cloud
- JNCIS-Cloud

Automation and DevOps
- JNCIS-Cloud

Mist AI
- JNCIS-Cloud

Data Center
- JNCIS-Cloud

Juniper Public

Information as of September 2021. Refer to www.juniper.net/certification for the most current information.

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### Juniper Networks

#### Junos-Based Curriculum

<table>
<thead>
<tr>
<th>Service Provider Routing &amp; Switching</th>
<th>Enterprise Routing &amp; Switching</th>
<th>Data Center</th>
<th>Junos Security</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>JNCIE–SP</strong></td>
<td><strong>JNCIE–ENT</strong></td>
<td><strong>JNCIE–DC</strong></td>
<td><strong>JNCIE–SEC</strong></td>
</tr>
<tr>
<td><strong>JNCIE–SP Self-Study Bundle</strong></td>
<td><strong>JNCIE–ENT Self-Study Bundle</strong></td>
<td><strong>JNCIE–DC Self-Study Bundle</strong></td>
<td><strong>JNCIE–SEC Self-Study Bundle</strong></td>
</tr>
<tr>
<td><strong>JNCIP–SP</strong></td>
<td><strong>JNCIP–ENT</strong></td>
<td><strong>JNCIP–DC</strong></td>
<td><strong>JNCIP–SEC</strong></td>
</tr>
<tr>
<td>Advanced Junos Service Provider Routing (AJSPR)</td>
<td>Advanced Junos Enterprise Switching (AJEX)</td>
<td>Data Center Fabric with EVPN and VXLAN (ADCX)</td>
<td>Advanced Juniper Security (AJSEC)</td>
</tr>
<tr>
<td>Junos Layer 3 VPNs (JL3V)</td>
<td>Advanced Junos Enterprise Routing (AJER)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junos Layer 2 VPNs (JL2V)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>JNCIS–SP</strong></td>
<td><strong>JNCIS–ENT</strong></td>
<td><strong>JNCIS–SEC</strong></td>
<td><strong>JNCIS–SEC</strong></td>
</tr>
<tr>
<td>Junos MPLS Fundamentals (JMF)</td>
<td>Junos Enterprise Switching (JEX)</td>
<td>Juniper Security (JSEC)</td>
<td></td>
</tr>
<tr>
<td>Junos Service Provider Switching (JSPX)</td>
<td>Junos Intermediate Routing (JIR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junos Intermediate Routing (JIR)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>JNCIA–Junos</strong></td>
<td><strong>JNCIA–ENT</strong></td>
<td><strong>JNCIA–SEC</strong></td>
<td><strong>JNCIA–SEC</strong></td>
</tr>
<tr>
<td>Introduction to the Junos Operating System (IJOS)</td>
<td></td>
<td>Introduction to Juniper Security (JSEC)</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** Information current as of September 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
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)

Notes: Information current as of September 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 emerging technologies and related training

### 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>Contraill Networking for Service Providers (CNSP)</td>
<td>5 days</td>
</tr>
<tr>
<td>MPLS and Segment Routing Automation Using NorthStar (MSRN)*</td>
<td>4 days</td>
</tr>
<tr>
<td>Introduction to Paragon Active Assurance (IPAA)</td>
<td>1 hour</td>
</tr>
<tr>
<td>Paragon Active Assurance for Automated WAN (PAAW)</td>
<td>2 days</td>
</tr>
<tr>
<td>Juniper Session Smart SD-WAN (JSSS)</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>Automation and DevOps Learning Path</td>
<td></td>
</tr>
<tr>
<td>Junos Class of Service (JCOS)</td>
<td>2 days</td>
</tr>
<tr>
<td>Junos IP version 6 (J-IPv6)</td>
<td>2 days</td>
</tr>
<tr>
<td>Introduction to Junos OS Evolved (IJE)</td>
<td>1 day</td>
</tr>
<tr>
<td>Circuit to Packet (CTP)</td>
<td>3-day On-Demand</td>
</tr>
<tr>
<td>Cert Prep: Migrating from the Cisco CCNA to the JNCIA-Junos</td>
<td>7 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 or On-Demand</td>
</tr>
</tbody>
</table>

### Notes:
- * Formerly known as Network Automation in the WAN (NA-WAN). Information current as of September 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.

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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

- **Juniper Networks Certified Specialist, Enterprise Routing and Switching (JNCIS-ENT)**
  - Advanced Junos Enterprise Routing (AJER) - 5 days or On-Demand
  - Junos Intermediate Routing (JIR) - 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
  - Junos Enterprise Switching (JEX) - 2 days or On-Demand

- **Juniper Networks Certified Expert, Enterprise Routing and Switching (JNCIE-ENT)**
  - JNCIE-ENT Self-Study Bundle - 120 Hours
  - Optional: Continue to Juniper Networks Certified Professional, Data Center (JNCIP-DC)

- **Cert Prep: Migrating from the Cisco CCNA to the JNCIA-Junos** - 5 hours
- **Junos Troubleshooting in the NOC (JTNOC)** - 4 days or On-Demand
- **Junos IP version 6 (J-IPv6)** - 2 days
- **Juniper Switching for Cisco Engineers (JSCE)** - 3 hours
- **Juniper Session Smart SD-WAN (JSSS)** - 4 days
- **Cert Prep: Migrating from the Cisco CCNA to the JNCIA-Junos** - 5 hours
- **Juniper Switching for Cisco Engineers (JSCE)** - 3 hours
- **Junos IP version 6 (J-IPv6)** - 2 days

**Related Training**
- Juniper's Mist AI Networks (MIST) - 4 days
- Juniper Network’s Enterprise Switching with Mist AI (EX-MIST) - 2 hours
- Juniper Session Smart SD-WAN (JSSS) - 4 days
- Getting Started with Networking - 5 hours
- Cert Prep: Migrating from the Cisco CCNA to the JNCIA-Junos - 5 hours
- Juniper Session Smart SD-WAN (JSSS) - 4 days
- Junos IP version 6 (J-IPv6) - 2 days

**Notes:** Information current as of September 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.

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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

Juniper Networks Certified Specialist Enterprise Routing and Switching (JNCIS-ENT) or equivalent knowledge.

Data Center Automation using Juniper Apstra (APSTRA) 2 days

Related Training

Automation and DevOps Learning Path

<table>
<thead>
<tr>
<th>Course</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Juniper Apstra Fabric Conductor (formerly AOS1)</td>
<td>3.5 hours</td>
</tr>
<tr>
<td>Implementing Juniper Apstra Fabric Conductor (formerly AOS2)</td>
<td>5 hours</td>
</tr>
<tr>
<td>Understanding Intent-Based Networks (formerly AOS3)</td>
<td>1.5 hours</td>
</tr>
<tr>
<td>Juniper Networks Design—Data Center (JND-DC)</td>
<td>5 days</td>
</tr>
<tr>
<td>Introduction to Junos OS Evolved (JE)</td>
<td>1 day</td>
</tr>
</tbody>
</table>

Notes: * Formerly known as Advanced Data Center Switching (ADCX). Information current as of September 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

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
---

**Related Training**

- **Juniper Cloud Networking Security with AWS and Azure (JCNAAP)**
  - 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 (IJS-SEL)**
  - 3 days
- **Getting Started with Security**
  - TBD hours

**Notes:** Information current as of September 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
- JNCIP-Cloud
  - Enterprise Automation and Orchestration Using Contrail (EAC)
- JNCIS–Cloud
  - Cloud Automation Using Contrail (CAC)
- JNCIA–Cloud
  - Juniper Cloud Fundamentals (JCF)

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

**Design**
- JNCIS–DC
  - Juniper Networks Design—Data Center (JND-DC)
- JNCIS–SP
  - Juniper Networks Design—Service Provider (JND-SP)
- JNCIS–SEC
  - Juniper Networks Design—Security (JND-SEC)
- JNCISA
  - Juniper Networks Design Fundamentals (JNDF)

**Notes:** See individual learning paths for full prerequisite course recommendations. Information current as of September 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

Related Training

- Juniper Cloud Networking Security with AWS and Azure (JCNAA) 4 days
- Getting Started with Cloud 4 hours
- Introduction to Junos OS Evolved (UE) 1 day

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

Juniper Networks Certified Specialist, Cloud (JNCIS-Cloud) 5 days
- Cloud Automation Using Contrail (CAC)
- Red Hat, OpenShift, Kubernetes, Docker in Cloud Deployments (ROKD) 4 days

Juniper Networks Certified Professional, Cloud (JNCIP-Cloud) 3 days
- MPLS and Segment Routing Automation Using NorthStar (MSRN)** 4 days
- SD-WAN with Contrail Service Orchestration (SD-CSO)
- Enterprise Automation and Orchestration Using Contrail (EAC)* 2 days

Juniper Networks Certified Expert, Cloud (JNCIE-Cloud) 5 days
- Deploying Juniper Contrail Cloud for Telcos (JCCT) 5 days
- Cloud, Expert (JNCIE-Cloud)
- JNCIE-Cloud Self-Study Bundle

Certification
Examination
Course

Notes:
*Attendance in the Data Center Fabric with EVPN and VXLAN (ADCX) course is recommended prior to the EAC course. †Attendance of the Introduction to the Junos Operating System (IJOS) 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 September 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

Related 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: Information current as of September 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

Mist AI

Juniper's Mist AIOps (AIOPS)  TBD Days
---

Juniper's Mist AI Wired Networks (JMAW)  TBD Days
---

Juniper Networks Certified Specialist, Mist AI (JNCIS-MistAI)
- Mist, Specialist (JNCIS-MistAI)
- Juniper’s Mist AI Wi-Fi Networks (MIST)  4 Days
---

Juniper Session Smart SD-WAN (JSSS)  4 days
---

Juniper Networks Certified Associate, Mist AI (JNCIA-MistAI)
- Mist, Associate (JNCIA-MistAI)
- Mist Masters: Self-Paced Online Training  6 Hours
- Getting Started with Wi-Fi  2 Hours
---

Related Training
- Juniper Switching for Cisco Engineers (JSCE)  3 hours
- Juniper Network’s Enterprise Switching with Mist AI (EX-MIST)  2 hours

Notes: Information current as of September 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

Design

Data Center Design Track

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

Service Provider Design Track

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

Security Design Track

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

Juniper Networks Certified Design Associate, (JNCDA)
Design, Associate (JNCA)
Juniper Networks Design Fundamentals (JNDF)
3 days or On-Demand

Notes: Information current as of September 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
Support

<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.

**Notes:** Information current as of September 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
Junos Space

Notes: Information current as of September 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
Getting started

- Getting Started with Networking: 5 hours
- Getting Started with Cloud: 4 hours
- Getting Started with Wi-Fi: 2 hours
- Getting Started with Security: TBD hours
- Getting Started with 5G: TBD hours
- Getting Started with Telco Cloud: TBD hours

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

Notes: Information current as of September 2021. Course and exam information (length, availability, content, etc.) is subject to change; refer to www.juniper.net/training for the most current information.
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 can be customized based on the client’s exact needs.

On-Demand Courses: [www.juniper.net/ondemand](http://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](http://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](http://www.juniper.net/allaccess)
Access to all Juniper courses, for one low price, for a full year. Available for individuals, teams, and enterprises.