JUNIPER NETWORKS CERTIFICATION PROGRAM FRAMEWORK

Routing and Switching
- JNCIE-SP
- JNCIE-ENT

Data Center
- JNCIE-DC

Security
- JNCIE-SEC

Cloud
- JNCIE-Cloud*

Automation and DevOps
- JNCIP-DevOps*

Design

Expert
- JNCIE-SP
- JNCIE-ENT
- JNCIE-DC
- JNCIE-SEC
- JNCIE-Cloud*
- JNCIP-DevOps*

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

Specialist
- JNCIS-SP
- JNCIS-ENT
- JNCIS-SEC
- JNCIS-cloud
- JNCIS-DevOps

Associate
- JNCIA-Junos
- JNCIA-Junos
- JNCIA-SEC
- JNCIA-Cloud
- JNCIA-DevOps

Service Provider Routing and Switching
- JNCIE-SP

Enterprise Routing and Switching
- JNCIE-ENT

Data Center
- JNCIE-DC

Junos Security
- JNCIE-SEC

Cloud
- JNCIE-Cloud*

Automation and DevOps
- JNCIP-DevOps*

Data Center, Service Provider, Security Design
- JNCDP-DC
- JNCDP-SP
- JNCDP-SEC

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Information as of July 2019. *In planning. Refer to www.juniper.net/certification for the most current information.

Juniper Public
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)

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
  - Advanced Data Center Switching (ADCX)

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

In Development
- JNCIA–Junos
  - Introduction to the Junos Operating System (IJOS)
  - Networking Fundamentals

Notes: Information current as of July 2019. 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 Title</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junos Node Slicing for MX Series Devices Workshop (NSW)</td>
<td>1 day</td>
</tr>
<tr>
<td>Junos Segment Routing (JSR)</td>
<td>1 day</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>Network Automation in the WAN (NAWAN)**</td>
<td>4 days</td>
</tr>
</tbody>
</table>

### Related Service Provider Courses

<table>
<thead>
<tr>
<th>Course Title</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>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></td>
</tr>
<tr>
<td>Creating and Maintaining Optical Transport and MEF Services using the BTI7000 Series</td>
<td>3 days</td>
</tr>
<tr>
<td>Creating and Maintaining Optical Transport Services using the BTI7800 Series</td>
<td>2 days</td>
</tr>
<tr>
<td>Circuit to Packet (CTP)</td>
<td>TBD</td>
</tr>
</tbody>
</table>

**Notes:** Information current as of July 2019. 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)

Networking Fundamentals

3 days or On-Demand

5 hours

Juniper Networks Certified Specialist Enterprise Routing and Switching (JNCIS-ENT)

JN0-348 Enterprise Routing and Switching, Specialist (JNCIS-ENT)

2 days or On-Demand

Juniper Networks Certified Intermediate Routing (JIR)

Junos Enterprise Switching (JEX)

Junos Intermediate Routing (JIR)

4 days or On-Demand

2 days or On-Demand

Juniper Networks Certified Professional Enterprise Routing and Switching (JNCIP-ENT)

JN0-647 Enterprise Routing and Switching, Professional (JNCIP-ENT)

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

Juniper Networks Certified Expert Enterprise Routing and Switching (JNCIE-ENT)

JPR-943 Enterprise Routing and Switching, Expert (JNCIE-ENT)

JNCIE–ENT Self-Study Bundle 48 Hours

JN0-102 Junos, Associate (JNCIA-Junos)

JPR-943 Enterprise Routing and Switching, Expert (JNCIE-ENT)

JNCIE–ENT Self-Study Bundle 48 Hours

JN0-102 Junos, Associate (JNCIA-Junos)

Cert Prep: Migrating from the Cisco CCNA to the JNCIA-Junos 5 hours

Additional Training

Cert Prep: Migrating from the Cisco CCNA to the JNCIA-Junos 5 hours

Automation and DevOps Learning Path

Notes: Information current as of July 2019. 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 Certified Expert Data Center (JNCIE-DC)
- **JPR-980 Data Center, Expert (JNCIE-DO)**
- **JNCIE-DC Self-Study Bundle** 48 hours

### Juniper Networks Certified Professional Data Center (JNCIP-DC)
- **JN0-681 Data Center, Professional (JNCIP-DC)**
- **Advanced Data Center Switching (ADCX)** 5 days

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**Notes:** Information current as of July 2019. 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)
- JPR-933 Security, Expert (JNCIE-SEC)

### Juniper Networks Certified Professional Security (JNCIP-SEC)
- JN0-634 Security, Professional (JNCIP-SEC)

### Juniper Networks Certified Specialist Security (JNCIS-SEC)
- JN0-333 Security Specialist (JNCIS-SEC)

### Juniper Networks Certified Associate Security (JNCIA-SEC)
- JN0-230 Security Associate (JNCIA-SEC)

### Additional Training
- Cert Prep: Migrating from the Cisco CCNA to the JNCIA-Junos
  - Duration: 5 hours
- Juniper Networks Design—Security (JND-SEC)
  - Duration: 5 days
- Junos Space—Security Director (JS-SD)
  - Duration: 2 days
- Implementing Juniper Networks Secure Analytics (IJSA)
  - Duration: 3 days
- Configuring Steel-Belted Radius Carrier (CSBR)
  - Duration: 2 days

### Notes:
Information current as of July 2019. 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.
Notes: *NAEC is in planning however the current version of the course, Network Automation in the Data Center (NA-DC) is available. Attendance in the Advanced Data Center Switching (ADCX) course is recommended prior to the NAEC course. **Attendance in the Junos MPLS Fundamentals (JMF) course is strongly recommend prior to the NAWAN course. Information current as of July 2019. 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)**
- **Juniper Networks Certified Professional Cloud (JNCIP–Cloud)**
- **Juniper Networks Certified Specialist Cloud (JNCIS–Cloud)**
- **Juniper Networks Certified Associate Cloud (JNCIA–Cloud)**
- **Juniper Cloud Fundamentals (JCF)**
- **Network Automation in the Enterprise Cloud (NAEC)**
- **Network Automation in the Service Provider Cloud (NASPC)**
- **Network Automation Using Contrail Cloud (NACC)**
- **Juniper Cloud Networking with AWS and Azure (JNCAA)**
- **AppFormix Cloud Services (AFCS)**
- **CSO/SD-Enterprise**

### Certification
- **JN0-411 Cloud, Specialist (JNCIS-Cloud)**
- **JN0-210 Cloud, Associate (JNCIA-Cloud)**
- **JN0-210 Cloud, Associate (JNCIA-Cloud)**
- **Juniper Cloud Fundamentals (JCF)**

### Exam
- **JN0-411 Cloud, Specialist (JNCIS-Cloud)**
- **JN0-210 Cloud, Associate (JNCIA-Cloud)**

### Course
- **Network Automation in the Enterprise Cloud (NAEC)**: 3 days
- **Network Automation in the Service Provider Cloud (NASPC)**: 3 days
- **Network Automation Using Contrail Cloud (NACC)**: 5 days
- **AppFormix Cloud Services (AFCS)**: 1 day
- **CSO/SD-Enterprise**: 3 days
- **Juniper Cloud Networking with AWS and Azure (JNCAA)**: 3 days

### Additional Training
- **Juniper Cloud Networking with AWS and Azure (JNCAA)**

### Notes:
- **NAEC** in planning however the current version of the course, **Network Automation in the Data Center (NA-DC)** is available. Attendance in the Advanced Data Center Switching (ADCX) course is recommended prior to the NAEC course. The AFCS course will be a component of the NAEC 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 recommend prior to the NAWAN course. Information current as of July 2019. 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—
AUTOMATION AND DEVOPS

Advanced Junos Platform Automation and DevOps (AJAUT) 3 days

Junos Platform Automation and DevOps (JAUT) 5 days

Introduction to Junos Platform Automation and DevOps (IJAUT) 3 days or On-Demand

Juniper Networks Certified Professional Automation and DevOps (JNCIP-DevOps)*

Juniper Networks Certified Specialist Automation and DevOps (JNCIS-DevOps)
JN0-420 Automation and DevOps, Specialist (JNCIS-DevOps)

Juniper Networks Certified Associate Automation and DevOps (JNCIA-DevOps)
JN0-220 Automation and DevOps, Associate (JNCIA-DevOps)

Additional Automation Training

Cloud Learning Path
- Junos SDK Overview 2 hours
- Junos as a Scripting Language 4 hours
- Junos Space Essentials (JSE) 2 days
- Junos Space Security Director (JS-SD) 2 days
- Junos Space Network Director (JS-ND) 1 day
- Juniper Learning Bytes Varies

Notes: *In planning. Information current as of July 2019. Course and exam information (length, availability, content, etc.) is subject to change; refer to www.juniper.net/training for the most current information.

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Notes: * Previously known as Juniper Networks Design—WAN (JND-WAN). **Previously known as the JNCDS-WAN. Information current as of July 2019. 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>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junos Troubleshooting in the NOC (JTNOC)</td>
<td>4 days</td>
</tr>
<tr>
<td>Introduction to the Junos Operating System (IJOS)</td>
<td>3 days or On-Demand</td>
</tr>
<tr>
<td>Networking Fundamentals</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.

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**Notes:** Information current as of July 2019. Course and exam information (length, availability, content, etc.) is subject to change; refer to www.juniper.net/training for the most current information.

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JUNIPER NETWORKS CURRICULUM—JUNOS SPACE

Junos Space—Network Director (JS-ND) 1 day

Junos Space—Security Director (JS-SD) 2 days

Junos Space Essentials (JSE) 3 Days

Related Courses

JA1500 Junos Space Appliance Installation and Initial Configuration 4 hours

Notes: Information current as of July 2019. 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: training@juniper.net
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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.

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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.

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Access to all Juniper courses, for one low price, for a full year. Available for individuals, teams, and enterprises.