Release Notes: Junos® OS Release 15.1X49-D35 for the SRX Series

Release 15.1X49-D35
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Introduction

Junos OS runs on the following Juniper Networks® hardware: ACX Series, EX Series, M Series, MX Series, PTX Series, QFabric, QFX Series, SRX Series, and T Series.

These release notes accompany Junos OS Release 15.1X49-D35 for the SRX Series. They describe new and changed features, known behavior, and known and resolved problems in the hardware and software.

You can also find these release notes on the Juniper Networks Junos OS Documentation webpage, located at https://www.juniper.net/techpubs/software/junos/.

New and Changed Features

This section describes the new features and enhancements to existing features in Junos OS Release 15.1X49-D35 for the SRX Series devices.

• Release 15.1X49-D35 Hardware Features on page 4
• Release 15.1X49-D35 Software Features on page 5

Release 15.1X49-D35 Hardware Features

SRX300 Series Services Gateways

• The SRX300 Series Services Gateways consolidate security, routing, switching, and WAN interfaces to provide cost-effective and secure connectivity across distributed enterprises. With an improved user and application experience, the services gateways simplify network complexity.

The SRX300 Series Services Gateways comprises the following four models:

• **SRX300 Services Gateway**—The SRX300 Services Gateway has a capacity of 1 gigabit per second (Gbps) and is suited for small retail offices. With a desktop form-factor chassis, this services gateway has six 1 G Ethernet ports, two 1 G SFP ports, 4 GB of DRAM memory, and 8 GB of flash memory.

  [See SRX300 Services Gateway Description.]

• **SRX320 Services Gateway**—The SRX320 Services Gateway has a capacity of 1 Gbps and is suited for small distributed enterprises. With a desktop form-factor chassis, this services gateway has six 1 G Ethernet ports, two 1 G SFP ports, two Mini-Physical Interface Module (Mini-PIM) slots, 4 GB of DRAM memory, and 8 GB of flash memory.

  The SRX320 Services Gateway is available with or without Power over Ethernet (PoE) capability. In the PoE model, the six Ethernet ports are PoE capable.

  [See SRX320 Services Gateway Description.]

• **SRX340 Services Gateway**—The SRX340 Services Gateway has a capacity of 3 Gbps and is suited for midsize distributed enterprises. This services gateway is 1 rack unit (U) tall and has eight 1 G Ethernet ports, eight 1 G SFP ports, one management port, 4 GB of DRAM memory, 8 GB of flash memory, and four Mini-PIM slots.

  [See SRX340 Services Gateway Description.]

• **SRX345 Services Gateway**—The SRX345 Services Gateway has a capacity of 5 Gbps and is suited for midsize distributed enterprises. This services gateway is 1 U tall and has eight 1 G Ethernet ports, eight 1 G SFP ports, one management port, 4 GB of DRAM memory, 8 GB of flash memory, and four Mini-PIM slots.
Release 15.1X49-D35 Software Features

J-Web

- **Support for J-Web for SRX300, SRX320, SRX340, SRX345, and SRX550M**—Starting with Junos OS Release 15.1X49-D30, J-Web is supported on SRX300, SRX320, SRX340, SRX345, and SRX550M devices.

- **J-Web GUI improvements for SRX300, SRX320, SRX340, SRX345, and SRX550M**—The following usability improvements are incorporated:
  - **Home page:**
    - Title bar displays the Juniper logo, hostname, username, and Help icon.
    - Taskbar now has six tabs (Dashboard, Configure, Monitor, Maintain, Troubleshoot, and Commit).
  - **Dashboard tab**—A **Show Rear View** button is added on the right side of Chassis View for easy switching between front and rear views.
  - **Configure and Monitor tab**—Overall layouts have been enhanced.
  - The Configure>Security>UTM>Anti-Virus has the Sophos Engine Type option only.
  - The Configure>Security>UTM>Web Filtering page no longer includes the Surf Control Integrated option.
  - All occurrences of Bridge Domain and Bridge Options are now replaced with VLAN.
  - The following changes are made to the Configuring Network Interfaces Page:
    - Bridge is replaced with Ethernet Switching.
    - Port mode is replaced with Interface mode.

Platform and Infrastructure

- **Support for SRX300, SRX320, SRX340, and SRX345 devices**—Starting with Junos OS Release 15.1X49-D35, the SRX Series family of next-generation security platforms includes the SRX300, SRX320, SRX340, and SRX345 Services Gateways. The new devices replace the SRX100, SRX110, SRX210, SRX220, and SRX240 Services Gateways. The devices support upgraded CPU, enhanced DRAM memory, flash memory, and a switch chip. By consolidating advanced technologies and networking services, these new devices provide better performance.

- **SRX300, SRX320, SRX340, and SRX345 devices**—Starting with Junos OS Release 15.1X49-D35, the following components are supported:
• USB3.0—Juniper Networks, SanDisk, and Kingston 4-GB, 8-GB, 16-GB, and 32-GB USB keys are supported. These USB 3.0-compliant devices are used for storage of system software, runtime system snapshots, system log files and core files.

• PoE—The new Power over Ethernet (PoE) chip with IEEE 802.3af and IEEE802.3at standards is supported. There are six PoE interfaces, ranging from ge-0/0/0 to ge-0/0/5, with maximum power of 30 W for each interface.

• Dual SPI boot flash—Dual Serial Peripheral Interface (SPI) boot compact flash is supported.

• MPIM—The 1xE1/1xSerial/1xVDSL Mini-Physical Interface Modules (MPIM) card is supported.

• Mini-USB console—Supports the mini-USB console port. The RJ-45 console port is automatically set to read-only mode when the mini-USB console port is connected.

• TPM—The Trusted Platform Module (TPM) chip, which is used for security boot and encryption identification, is supported.

• Dedicated MGT interface—A 1-GB dedicated management interface (MGT) fxp0 is supported on SRX340 and SRX345 devices.

**System Management**

• **Support for new MIBs on SRX300, SRX320, SRX340, and SRX345 devices**—Starting with Junos OS Release 15.1X49-D35, five new MIB modules are introduced for the new chassis.
Changes in Behavior and Syntax

This section lists the changes in behavior of Junos OS features and changes in the syntax of Junos OS statements and commands from Junos OS Release 15.1X49-D35.

AppSecure

- On SRX300, SRX320, SRX340, and SRX345 devices, AppSecure is part of Juniper Networks Secure Edge software or IPS subscription license. A separate license key is not required on your device to download and install the AppID signature database updates, or to use other AppSecure features such as AppFW, AppQoS, and AppTrack.

General Routing

- The SRX300, SRX320, SRX340, and SRX345 devices do not support nonstop active routing (NSR) and graceful Routing Engine switchover (GRES).

Software Installation and Upgrade

- On SRX300, SRX320, SRX340 and SRX345 devices, you can install Junos OS through management port or in-band management interfaces. On SRX340 and SRX345 devices, you can use only the management port to install JUNOS OS from the boot loader using a Trivial File Transfer Protocol (TFTP) server.
- The SRX300, SRX320, SRX340, and SRX345 devices do not support unified in-service software upgrade (ISSU), topology-independent ISSU, or nonstop software upgrade (NSSU).
Known Behavior

This section contains the known behaviors, system maximums, and limitations in hardware and software in Junos OS Release 15.1X49-D35.

Platform and infrastructure

- The SRX300, SRX320, SRX340, and SRX345 devices only support 1xT1E1, 1xVDSL2, and 1xserialmPIM cards.

- In Junos OS Release 15.1X49-D35, the following software features are not supported on SRX300, SRX320, SRX340, and SRX345 devices:
  - Ethernet switching
  - Layer 2 transparent mode
  - Secure wire with Layer 2 mode
  - MACsec support
  - Policy-based VPN
  - VPN monitoring
  - Dynamic VPN
  - Group VPN version 1

Switching

- On SRX340 and SRX345 devices, half-duplex mode is not supported.

VPN

- On SRX Series devices, if an IPsec VPN tunnel is established using IKEv2, a small number of packet drops might be observed during CHILD_SA rekey as a result of “bad SPI” being logged.

  This occurs only when the SRX Series device is the responder for this rekey and the peer is a non-Juniper Networks device, and the latency between the peers is low and the packet rate is high.

  To avoid this issue, ensure that the SRX Series device always initiates the rekeys by setting its IPsec lifetime to a lower value than that of the peer.

Related Documentation

- New and Changed Features on page 4
- Changes in Behavior and Syntax on page 7
- Known Issues on page 9
- Resolved Issues on page 10
- Documentation Updates on page 11
- Migration, Upgrade, and Downgrade Instructions on page 11
Known Issues

This section lists the known issues in hardware and software in Junos OS Release 15.1X49-D35.

For the most complete and latest information about known Junos OS defects, use the Juniper Networks online Junos Problem Report Search application.

Flow-Based and Packet-Based Processing

- On SRX300 devices, a percentage drop in connections per second (CPS) is observed for single-user firewall policies with Active Directory. PR1153072

Interfaces and Routing

- On SRX340 and SRX345 devices, interfaces do not support 10 million speed. PR1137653
- On all branch SRX Series devices, on addition or deletion of VLANs, the DHCP address will not be acquired by the client and will fail from JDHCP server. As a workaround, restart dhcp-services on the client. PR1139495

Intrusion Detection and Prevention (IDP)

- On SRX300, SRX320, SRX320-POE, SRX340, SRX345, and SRX550M devices, when you run the show security flow session summary command, the maximum IDP session capacity displayed is incorrect. PR1157973

J-Web

- On all branch SRX Series devices, when any interface is configured under interface family inet dhcp-client through CLI, J-Web cannot configure the interface to any other inet family. From J-Web, you cannot configure dhcp-client family under inet. J-Web supports only to configure or delete interface inet family dhcp/ipv4/ipv6. As a workaround, delete the logical interface which is configured for dhcp-client under inet family, then add logical interface with any other required inet family (IPv4, IPv6, DHCP, and ethernet-switching). PR1153369
- On all branch SRX Series devices, while configuring chassis cluster through chassis cluster wizard, the wizard gets timed out when the process Connecting to primary unit and verifying Chassis Cluster happens after secondary unit reboot. So, the optional untrust interface configuration and chassis cluster configuration complete window does not get displayed after this step. As a workaround, even if the wizard is getting timed out, the fab port configuration gets pushed to the device in the background. During the time out wait for two to five minutes and close the wizard. Then navigate to Configure->Chassis Cluster-> Cluster Configuration, chassis cluster Settings tab to view the updated fab port configuration. PR1155272
- On all branch SRX Series devices, when we launch dhcp client page (configure > Services > DHCP > DHCP client), J-Web shows commit pending by default.
As a workaround, click on commit button, select compare which will show as no changes. Click on 'OK' button to proceed further. PR1155493

Layer 2 Features

- On SRX300, SRX320, and SRX320-POE devices, Layer 2 transparent mode is not supported. PR1158826

Security

- On SRX300, SRX320, SRX320-POE, SRX340, and SRX345 devices, security intelligence is not supported. PR1152317

Switching

- On SRX300, SRX320, SRX320-POE, SRX340, and SRX345 devices, the SFP-T port only support speed 1000m because the SFP-T link goes down when the configuration speed is 100m. As a workaround, use the default speed configuration on the SFP-T ports. PR1155912

Resolved Issues

This section lists the issues fixed in the Junos OS main release and the maintenance releases.

For the most complete and latest information about known Junos OS defects, use the Juniper Networks online Junos Problem Report Search application.

Resolved Issues: Release 15.1X49-D35

J-Web

- On SRX550M devices, starting from Junos OS Release 15.1X49-D35, you can configure the J-Web setup wizard. PR1149481
This section lists the errata and changes in the software documentation.

**Unified Threat Management (UTM)**

- Starting from Junos OS Release 15.1X49-D10, Kaspersky Antivirus, Express Antivirus, and Surf Control integrated features are not supported on all SRX Series devices and vSRX instances. These features are not supported from Junos OS release 15.1x49-D10 onwards. However, the *UTM Feature Guide for Security Devices* retains the content about the unsupported features.

**Layer 2 Bridging and Transparent Mode for Security Devices**

- Although Ethernet switching is not supported in Junos OS Release 15.1X49-D10, the *Layer 2 Bridging and Transparent Mode for Security Devices* guide retains content about Ethernet switching.

- Starting in Junos OS Release 15.1X49-D10, the term *bridge-domain* is changed to *VLAN*. However, the documents still use the term *bridge-domain* in topics.

**Related Documentation**

- New and Changed Features on page 4
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**Migration, Upgrade, and Downgrade Instructions**

This section contains the procedure to upgrade Junos OS, and the upgrade and downgrade policies for Junos OS. Upgrading or downgrading Junos OS can take several hours, depending on the size and configuration of the network.

- Upgrade for Layer 2 Configuration on page 12
- Upgrade and Downgrade Scripts for Address Book Configuration on page 12
Upgrade for Layer 2 Configuration

Starting with Junos OS Release 15.1X49-D10 and later, enhanced Layer 2 CLI configurations are supported. If your device was configured earlier for Layer 2 transparent mode, then you must convert the legacy configurations to enhanced Layer 2 CLI configurations.

For details on how to migrate from Junos OS Release 12.3X48-D10 and earlier releases to Junos OS Release 15.1X49-D10 and later releases, refer to the Knowledge Base article at http://kb.juniper.net.

Upgrade and Downgrade Scripts for Address Book Configuration

Beginning with Junos OS Release 12.1, you can configure address books under the [security] hierarchy and attach security zones to them (zone-attached configuration). In Junos OS Release 11.1 and earlier, address books were defined under the [security zones] hierarchy (zone-defined configuration).

You can either define all address books under the [security] hierarchy in a zone-attached configuration format or under the [security zones] hierarchy in a zone-defined configuration format; the CLI displays an error and fails to commit the configuration if you configure both configuration formats on one system.

Juniper Networks provides Junos operation scripts that allow you to work in either of the address book configuration formats (see Figure 1 on page 13).

- About Upgrade and Downgrade Scripts on page 12
- Running Upgrade and Downgrade Scripts on page 13
- Upgrade and Downgrade Support Policy for Junos OS Releases and Extended End-Of-Life Releases on page 14

About Upgrade and Downgrade Scripts

After downloading Junos OS Release 12.1, you have the following options for configuring the address book feature:

- **Use the default address book configuration**—You can configure address books using the zone-defined configuration format, which is available by default. For information on how to configure zone-defined address books, see the Junos OS Release 11.1 documentation.

- **Use the upgrade script**—You can run the upgrade script available on the Juniper Networks support site to configure address books using the new zone-attached configuration format. When upgrading, the system uses the zone names to create address books. For example, addresses in the trust zone are created in an address book named `trust-address-book` and are attached to the trust zone. IP prefixes used in NAT rules remain unaffected.

After upgrading to the zone-attached address book configuration:

- You cannot configure address books using the zone-defined address book configuration format; the CLI displays an error and fails to commit.
You cannot configure address books using the J-Web interface.

For information on how to configure zone-attached address books, see the Junos OS Release 12.1 documentation.

- **Use the downgrade script**—After upgrading to the zone-attached configuration, if you want to revert to the zone-defined configuration, use the downgrade script available on the Juniper Networks support site. For information on how to configure zone-defined address books, see the Junos OS Release 11.1 documentation.

**NOTE:** Before running the downgrade script, make sure to revert any configuration that uses addresses from the global address book.

**Figure 1: Upgrade and Downgrade Scripts for Address Books**

Download Junos OS Release 11.2 or later.

Run the upgrade script.

- Global address book is available by default.
- Address book is defined under the security hierarchy.
- Zones need to be attached to address books.

Run the downgrade script.

Note: Make sure to revert any configuration that uses addresses from the global address book.

**Running Upgrade and Downgrade Scripts**

The following restrictions apply to the address book upgrade and downgrade scripts:

- The scripts cannot run unless the configuration on your system has been committed. Thus, if the zone-defined address book and zone-attached address book configurations are present on your system at the same time, the scripts will not run.
- The scripts cannot run when the global address book exists on your system.
If you upgrade your device to Junos OS Release 12.1 and configure logical systems, the master logical system retains any previously configured zone-defined address book configuration. The master administrator can run the address book upgrade script to convert the existing zone-defined configuration to the zone-attached configuration. The upgrade script converts all zone-defined configurations in the master logical system and user logical systems.

NOTE: You cannot run the downgrade script on logical systems.

For information about implementing and executing Junos operation scripts, see the Junos OS Configuration and Operations Automation Guide.

Upgrade and Downgrade Support Policy for Junos OS Releases and Extended End-Of-Life Releases

Support for upgrades and downgrades that span more than three Junos OS releases at a time is not provided, except for releases that are designated as Extended End-of-Life (EEOL) releases. EEOL releases provide direct upgrade and downgrade paths—you can upgrade directly from one EEOL release to the next EEOL release even though EEOL releases generally occur in increments beyond three releases.

You can upgrade or downgrade to the EEOL release that occurs directly before or after the currently installed EEOL release, or to two EEOL releases before or after. For example, Junos OS Releases 12.1X44, 12.1X46, and 12.3X48 are EEOL releases. You can upgrade from Junos OS Release 12.1X44 to Release 12.1X46 or even from Junos OS Release 12.1X44 to Release 12.3X48. However, you cannot upgrade directly from a non-EEOL release that is more than three releases ahead or behind.

To upgrade or downgrade from a non-EEOL release to a release more than three releases before or after, first upgrade to the next EEOL release and then upgrade or downgrade from that EEOL release to your target release.

For more information about EEOL releases and to review a list of EEOL releases, see http://www.juniper.net/support/eol/junos.html.

For additional information about how to upgrade and downgrade, see the Installation and Upgrade Guide for Security Devices.

Related Documentation

- New and Changed Features on page 4
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Product Compatibility

- Hardware Compatibility on page 15
- Transceiver Compatibility for SRX Series Devices on page 15

Hardware Compatibility

To obtain information about the components that are supported on the device, and special compatibility guidelines with the release, see the SRX Series Hardware Guide.

To determine the features supported on SRX Series devices in this release, use the Juniper Networks Feature Explorer, a Web-based application that helps you to explore and compare Junos OS feature information to find the right software release and hardware platform for your network. Find Feature Explorer at http://pathfinder.juniper.net/feature-explorer/.

Transceiver Compatibility for SRX Series Devices

We strongly recommend that only transceivers provided by Juniper Networks be used on SRX Series interface modules. Different transceiver types (long-range, short-range, copper, and others) can be used together on multiport SFP interface modules as long as they are provided by Juniper Networks. We cannot guarantee that the interface module will operate correctly if third-party transceivers are used.

Please contact Juniper Networks for the correct transceiver part number for your device.

Finding More Information

For the latest, most complete information about known and resolved issues with the Junos OS, see the Juniper Networks Problem Report Search application at http://prsearch.juniper.net.

Juniper Networks Feature Explorer is a Web-based application that helps you to explore and compare Junos OS feature information to find the correct software release and hardware platform for your network. Find Feature Explorer at http://pathfinder.juniper.net/feature-explorer/.

Juniper Networks Content Explorer is a Web-based application that helps you explore Juniper Networks technical documentation by product, task, and software release, and download documentation in PDF format. Find Content Explorer at http://www.juniper.net/techpubs/content-applications/content-explorer/.

Documentation Feedback

We encourage you to provide feedback, comments, and suggestions so that we can improve the documentation. You can send your comments to techpubs-comments@juniper.net, fill out the documentation feedback form at http://www.juniper.net/techpubs/feedback/. If you are using e-mail, be sure to include the following information with your comments:
Requesting Technical Support

Technical product support is available through the Juniper Networks Technical Assistance Center (JTAC). If you are a customer with an active J-Care or Partner Support Service support contract, or are covered under warranty, and need post-sales technical support, you can access our tools and resources online or open a case with JTAC.

- JTAC policies—For a complete understanding of our JTAC procedures and policies, review the JTAC User Guide located at http://www.juniper.net/customers/support/downloads/710059.pdf.
- Product warranties—For product warranty information, visit http://www.juniper.net/support/warranty/.
- JTAC Hours of Operation—The JTAC centers have resources available 24 hours a day, 7 days a week, 365 days a year.

Self-Help Online Tools and Resources

For quick and easy problem resolution, Juniper Networks has designed an online self-service portal called the Customer Support Center (CSC) that provides you with the following features:

- Find CSC offerings: http://www.juniper.net/customers/support/
- Search for known bugs: http://www2.juniper.net/kb/
- Find product documentation: http://www.juniper.net/techpubs/
- Find solutions and answer questions using our Knowledge Base: http://kb.juniper.net/
- Download the latest versions of software and review release notes: http://www.juniper.net/customers/csc/software/
- Search technical bulletins for relevant hardware and software notifications: https://www.juniper.net/alerts/
- Join and participate in the Juniper Networks Community Forum: http://www.juniper.net/company/communities/
- Open a case online in the CSC Case Management tool: http://www.juniper.net/cm/

To verify service entitlement by product serial number, use our Serial Number Entitlement (SNE) Tool located at https://tools.juniper.net/SerialNumberEntitlementSearch/.

Opening a Case with JTAC

You can open a case with JTAC on the Web or by telephone.

- Use the Case Management tool in the CSC at http://www.juniper.net/cm/.
• Call 1-888-314-JTAC (1-888-314-5822 toll-free in the USA, Canada, and Mexico).

For international or direct-dial options in countries without toll-free numbers, visit us at http://www.juniper.net/support/requesting-support.html.

If you are reporting a hardware or software problem, issue the following command from the CLI before contacting support:

```
user@host> request support information | save filename
```

To provide a core file to Juniper Networks for analysis, compress the file with the `gzip` utility, rename the file to include your company name, and copy it to `ftp.juniper.net/pub/incoming`. Then send the filename, along with software version information (the output of the `show version` command) and the configuration, to `support@juniper.net`. For documentation issues, fill out the bug report form located at http://www.juniper.net/techpubs/feedback/.
Revision History

15, November 2016—Revision 4— Junos OS 15.1X49-D35 – SRX Series.

27, July 2016—Revision 3— Junos OS 15.1X49-D35 – SRX Series.

07, April 2016—Revision 2— Junos OS 15.1X49-D35 – SRX Series.

25, February 2016—Revision 1— Junos OS 15.1X49-D35 – SRX Series.