

# Juniper Extension Toolkit Release Notes, Release 18.4R1

Release 18.4  
December 2018  
Revision 1

These release notes accompany the Juniper Extension Toolkit (JET). They describe the new and changed features, limitations, and known and resolved problems.

Applications developed using the Juniper Extension Toolkit (JET) are supported on the following platforms: ACX Series, PTX Series, QFX Series, MX80, MX104, MX240, MX480, MX960, MX2010, MX2020, vMX, vSRX, and SRX Series.

JET provides a common API framework that exposes API functionality made available by the internal Junos OS daemons. Each internal daemon exposes its own APIs. All of the APIs are accessible using the gRPC framework for remote procedure calls (RPCs).

JET supports the following:

- Multiple languages for applications that run off-box
- Python for applications that run on a device running Junos OS
- Applications written in C to run on devices that do not use the JET APIs
- An event notification method that enables the applications to respond to selected system events

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## New and Changed Features

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This section describes the new features and enhancements to existing features in Juniper Extension Toolkit 18.4R1.

- [API](#)
- [Enhancements to the purge-timeout Statement](#)

### API

- **BGP service APIs**—Starting in Junos OS Release 18.4R1, BGP service APIs support the flow-specification address family. The flow specification defines the required protocol extensions to address the most common applications of IPv4 unicast and VPN unicast filtering. The same mechanism can be reused and new match criteria added to address similar filtering for other BGP address families (for example, IPv6 unicast).

For more information about BGP service APIs, see [BGP Route Service API](#).

- **Management service APIs**—Starting in Junos OS Release 18.4R1, management service APIs support the following new interface definition languages (IDLs):
  - `jnx_management_service.proto`
  - `jnx_registration_service.proto`
  - `jnx_authentication_service.proto`

For more information, see [Management Service API](#).

- **Base Types APIs**—Starting in Junos OS Release 18.4R1, base types APIs support the following new interface definition languages (IDLs):
  - `jnx_common_base_types.proto`
  - `jnx_common_addr_types.proto`

For more information, see [Base Types API](#).

### Enhancements to the purge-timeout Statement

Starting in Junos OS Release 18.4R1, the following enhancements to the **purge-timeout** configuration statement are supported:

- New configuration value **never**—When this option is configured, purge timeout is infinitet (that is, client added routes never time out) for the BGP route service.
- Modified maximum value for **timeout seconds**—Increase in the maximum purge-timeout value from 1000 seconds to 604,800 seconds.

For more information, see [purge-timeout \(routing-options programmable-rpd\)](#).

## Changes in Behavior and Syntax

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This section lists the changes in behavior of Junos Extension Toolkit features and changes in the syntax of Junos OS statements and commands from Junos OS Release 18.4R1.

- [API](#)

### API

**Updates to RIB service APIs for flexible tunnel gateway**—From Junos OS Releases 18.2X75-D21 or earlier, RIB service APIs support flexible tunnel gateways. The RIB service APIs are updated to ensure forward compatibility in releases after Junos OS Release 18.4R1. The Protobuf IDL field number for **flexible\_tunnel\_profile** in RouteGateway is changed from the original value. The new value is not compatible from Junos OS Release 18.2X75-D21 and earlier. When updating Junos OS from 18.2X75-D21 and earlier releases, you must rebuild the applications that use the RIB service APIs with the new IDLs.

## Known Issues

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This section contains the known behavior, system maximums, and limitations in software in the Juniper Extension Toolkit.

- [Known Issues in 18.4R1 on page 4](#)
- [Known Issues in 16.2R1 on page 4](#)

### Known Issues in 18.4R1

None.

### Known Issues in 16.2R1

#### Certificates for JET

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Junos OS does not support ECDSA or DSA SSL certificates for JET. For secure communications with the JET service process (jsd), use RSA certificates. PR 1120453

## Third-Party Components

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This product includes third-party components. To obtain a complete list of third-party components, see [Overview for Routing Devices](#).

For a list of open-source attributes for this Junos OS release, see [Open Source: Source Files and Attributions](#).

## Finding More Information

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

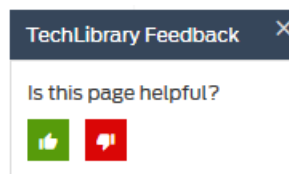
Juniper Networks Feature Explorer is a Web-based application that helps you to explore and compare Junos OS feature information to find the correct software release and hardware platform for your network. Find Feature Explorer at <https://pathfinder.juniper.net/feature-explorer/>.

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 <https://www.juniper.net/documentation/content-applications/content-explorer/>.

## Documentation Feedback

We encourage you to provide feedback, comments, and suggestions so that we can improve the documentation. You can provide feedback by using either of the following methods:

- Online feedback system—Click TechLibrary Feedback, on the lower right of any page on the [Juniper Networks TechLibrary](#) site, and do one of the following:



- Click the thumbs-up icon if the information on the page was helpful to you.
- Click the thumbs-down icon if the information on the page was not helpful to you or if you have suggestions for improvement, and use the pop-up form to provide feedback.
- E-mail—Send your comments to [techpubs-comments@juniper.net](mailto:techpubs-comments@juniper.net). Include the document or topic name, URL or page number, and software version (if applicable).

## 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 <https://www.juniper.net/us/en/local/pdf/resource-guides/7100059-en.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: <https://www.juniper.net/customers/support/>
- Search for known bugs: <https://prsearch.juniper.net/>
- Find product documentation: <https://www.juniper.net/documentation/>
- Find solutions and answer questions using our Knowledge Base: <https://kb.juniper.net/>
- Download the latest versions of software and review release notes: <https://www.juniper.net/customers/csc/software/>
- Search technical bulletins for relevant hardware and software notifications: <https://kb.juniper.net/InfoCenter/>
- Join and participate in the Juniper Networks Community Forum: <https://www.juniper.net/company/communities/>
- Create a service request online: <https://myjuniper.juniper.net>

To verify service entitlement by product serial number, use our Serial Number Entitlement (SNE) Tool: <https://entitlementsearch.juniper.net/entitlementsearch/>

## Creating a Service Request with JTAC

You can create a service request with JTAC on the Web or by telephone.

- Visit <https://myjuniper.juniper.net>.
- 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, see <https://support.juniper.net/support/requesting-support/>.

## Revision History

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December 2018—Release 18.4R1 of the Jet Release Notes. Added features to existing APIs and new values for purge-timeout.

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