

Release Notes: Puppet for Junos OS

Release 2.0

Release 2.0
22 June 2017

These release notes accompany Release 2.0 of Puppet for Junos OS. They describe new and changed features, limitations, and known and resolved problems in the software.

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Puppet for Junos OS Release 2.0

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Supported Devices and Junos OS Releases

Puppet for Junos OS Release 2.0 should only be used with the devices running the Junos OS release and **jpuppet** package specified in [Table 1 on page 3](#).



NOTE: QFX Series switches running Junos OS with enhanced automation and OCX1100 switches do not require the **jpuppet** package, because the Puppet agent is integrated into the software.

Table 1: Puppet for Junos OS Release 2.0 Supported Devices

Device	Junos OS Release	jpuppet Package	Compatible Versions of netdev_stdlib_junos
EX4300 (standalone and Virtual Chassis)	14.1X53-D10 or a later 14.1X53 release	jpuppet-powerpc-3.6.1_2.n.tgz	1.0.2 2.0.2
MX5 MX10 MX40 MX80 MX104	14.2R2 or a later 14.2 release 15.1R1 or a later 15.1 release	jpuppet-powerpc-3.6.1_2.n.tgz	2.0.2
MX240 MX480 MX960	14.2R2 or a later 14.2 release	jpuppet-i386-3.6.1_2.n.tgz	2.0.2
OCX1100	14.1X53-D20 or a later 14.1X53 release	–	1.0.2 2.0.2
QFX5100 (standalone)	14.1X53-D10 with enhanced automation or a later 14.1X53 release with enhanced automation	–	1.0.2 2.0.2

Table 1: Puppet for Junos OS Release 2.0 Supported Devices (*continued*)

Device	Junos OS Release	jpuppet Package	Compatible Versions of netdev_stdlib_junos
QFX10002 QFX10008	15.1X53-D30 or a later 15.1X53-D3x release	jpuppet-i386-3.6.1_2.n.tgz	2.0.2
	15.1X53-D30 with enhanced automation or a later 15.1X53 release with enhanced automation	—	2.0.2
	15.1X53-D60 or a later 15.1X53 release	jpuppet-x86-32-3.6.1_2.n.tgz	2.0.2
QFX10016	15.1X53-D60 or a later 15.1X53 release	jpuppet-x86-32-3.6.1_2.n.tgz	2.0.2
	15.1X53-D60 with enhanced automation or a later 15.1X53 release with enhanced automation	—	2.0.2



NOTE: Additional devices are supported in other Puppet for Junos OS releases. For the complete list of supported devices and releases, see [Puppet for Junos OS Supported Platforms](#).

New Features

Release 2.0 of Puppet for Junos OS introduces the following new features:

- Support for the following switches:
 - EX4300 switches
 - OCX1100 switches
 - QFX10000 line of switches
- Support for the following versions of Puppet software:
 - Puppet agent version 3.6.1
 - Facter library version 2.0.1
- A new installation package for the Puppet agent that is independent of Junos OS releases.

In Release 1.0 of Puppet for Junos OS, the **jpuppet** packages are specific to a particular platform and major Junos OS release. In Release 2.0 of Puppet for Junos OS, **jpuppet** packages are no longer restricted to a particular platform. Instead two versions of the **jpuppet** package exist: one for devices based on the PowerPC microprocessor

architecture; the other for devices based on the i386 microprocessor architecture. See [Table 1 on page 3](#) for which package to use for your device.

- **netdev_stdlib_junos** version 2.0.2, which provides the following:
 - Support for managing MX Series routers and the QFX10000 line of switches running Release 2.0 of Puppet for Junos OS.
 - **apply-group** defined resource type, which enables you to manage resources in the Junos OS configuration that do not have type specifications in the **netdev_stdlib** module. An **apply_group** resource references a custom Embedded Ruby (ERB) template that generates the Junos OS configuration data for a specific resource using node-specific inputs that are declared in the manifest.

[See [Puppet for Junos OS apply_group Defined Resource Type](#).]

Installation Notes

- **Puppet netdev modules**—There are two Puppet modules. The **netdevops/netdev_stdlib** module includes the Puppet Type definitions for the netdev resources, and the **juniper/netdev_stdlib_junos** module includes the Junos OS-specific code that implements each of the types. Installing the **netdev_stdlib_junos** module automatically installs both modules.

The Puppet master can use either **netdev_stdlib_junos** version 1.0.2 or version 2.0.2 to manage EX4300, OCX1100, or QFX5100 switches that have Release 2.0 of the Puppet for Junos OS package installed. The Puppet master must use **netdev_stdlib_junos** version 2.0.2 or later to manage the QFX10000 line of switches and MX Series routers that have Release 2.0 of the Puppet for Junos OS package installed.

- **NETCONF Ruby gem dependencies**—The NETCONF Ruby gem has dependencies on the libxslt and libxml2 software libraries and the Nokogiri and NET-SSH Ruby gems. The server must have the libxslt and libxml2 software libraries installed prior to installing the NETCONF Ruby gem. The Nokogiri and NET-SSH Ruby gems are installed automatically when you install the NETCONF gem.
- QFX Series switches running Junos OS with enhanced automation and OCX1100 switches have the Puppet agent integrated into the software. You do not need to install the Puppet agent on these switches, but you must configure the Junos OS user account for Puppet and start the Puppet agent process in order to use Puppet for Junos OS on these devices.

Known Limitations

This section lists known limitations with this release.

- **Puppet agent addressable memory**—The Puppet agent execution environment by default uses 64 MB of addressable memory. You can expand the usable memory to higher values depending on the device running Junos OS.

[See [Configuring the Puppet for Junos OS Addressable Memory](#).]

- **Memory limitations on EX4300 Switches**—If a manifest file contains a configuration for a large number of VLANs (for example, over 460 VLANs), the Puppet agent might

display errors when it applies the configuration on an EX4300 switch. To avoid this issue when configuring a large number of VLANs, divide the VLAN configuration across multiple manifest files and apply each manifest file in a separate agent run.

[See [Troubleshooting Agent Errors on an EX4300 Switch.](#)]

Documentation and Release Notes

To obtain the most current version of all Juniper Networks® technical documentation, see the product documentation page on the Juniper Networks website at <http://www.juniper.net/techpubs/>.

If the information in the latest release notes differs from the information in the documentation, follow the product Release Notes.

Juniper Networks Books publishes books by Juniper Networks engineers and subject matter experts. These books go beyond the technical documentation to explore the nuances of network architecture, deployment, and administration. The current list can be viewed at <http://www.juniper.net/books>.

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 rating system—On any page of the Juniper Networks TechLibrary site at <http://www.juniper.net/techpubs/index.html>, simply click the stars to rate the content, and use the pop-up form to provide us with information about your experience. Alternately, you can use the online feedback form at <http://www.juniper.net/techpubs/feedback/>.
- E-mail—Send your comments to 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 <http://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: <http://www.juniper.net/customers/support/>
- Search for known bugs: <https://prsearch.juniper.net/>
- Find product documentation: <http://www.juniper.net/documentation/>
- 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: <http://kb.juniper.net/InfoCenter/>
- 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: <https://entitlementsearch.juniper.net/entitlementsearch/>

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, see <http://www.juniper.net/support/requesting-support.html>.

Revision History

22 June 2017—Revision 3, adding support for the QFX10000 line of switches; new package naming convention

2 May 2016—Revision 2, adding support for MX Series routers; adding support for **netdev_stdlib_junos** module version 2.0.2

5 June 2015—Revision 1, Release 2.0 of Puppet for Junos OS

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