

JUNOSPHERE RELEASE NOTES

Release 1.0

13 May 2011

These release notes cover Release 1.0 of the Junosphere virtual network. If the information in these release notes differs from the information found in the published documentation set, follow these release notes.

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Release Overview

If the information in your current release notes differs from the information found in the other documentation sources, follow the *Junosphere Release Notes*.

Before You Begin

Before you use your new software, read these *Release Notes* in their entirety, especially the section *Known Problems and Limitations*. You need the following documentation to fully understand all the features available in Release 1.0:

- These 1.0 *Junosphere Release Notes*
- The 1.0 *Junosphere User Guide*, which provides detailed information about features available in Release 1.0.

The entire documentation set, including the release notes, is available in PDF format on the Juniper Networks Web site:

<http://www.juniper.net/techpubs/>

Release Highlights

Junosphere provides a virtual network environment in which you can configure network devices in the same manner as on a physical network.

Supported Software Features

Junosphere's virtual routers support these software features in Release 10.3 of the Junos OS for J Series routers:

- IPv4
- IPv6
- OSPF
- BGP
- IS-IS
- MPLS
- L3VPN
- L2VPN
- VPLS
- MPLS-TE
- RSVP
- Multicast
- L2Circuit (PWE3)
- BGP-Labeled Unicast
- XML
- ISISv6
- OSPFv3
- Ethernet CCC

- The Layer 2 services and CoC support is the same as for J Series routers.
- Only forwarding in packet mode has been qualified.

Network Management

All relevant platform manageability components of Release 10.3 of Junos OS for J Series routers are supported (such as, CLI, SNMP, traps, and logs). The only difference compared to current physical routers is that the virtual routers have virtual interface adapters.

Supported Junos OS CLI

For supported features on the network devices, you can use the CLI features of Junos OS Release 10.3.

Supported Junos OS Documentation

For help on supported features on the network devices, you can use the Junos OS Release 10.3 documentation. The documentation can be found here:

<http://www.juniper.net/techpubs/software/junos-jseries/junos-jseries10.3/index.html>

Interfaces

The current release supports up to 16 interfaces.

Up to 40 virtual machines can have interfaces to the same bridge.

Images

Junosphere provides a range of virtual machine image files, depending on the permissions. To include the virtual image, use the definitions listed in Table 1 on page 5.

Table 1: Virtual Machine Images

DISK NAME	DESCRIPTION	SUPPORTED BY JUNIPER TECHNICAL ASSISTANCE CENTER
VJX1000_10_3R1_0	VJX1000	Yes
VJX1000_10_3R1_0_SM	VJX1000 - Small footprint image	Yes
VJX1000_LATEST	VJX1000 - Latest qualified VJX1000 image	Yes
VJX1000_LATEST_SM	VJX1000 - Latest qualified VJX1000 small-footprint image	Yes
VJX1000_10_3R1_0_EXP	VJX1000 - Unqualified experimental images	No
VJX1000_10_3R1_0_EXP_SM	VJX1000 - Unqualified experimental small footprint image	No
SPACE_11_1R1_8	Space	Yes
SPACE_11_1R1_8_SM	Space - Small footprint image	Yes

SPACE_LATEST	Space - Latest qualified Space image	Yes
SPACE_LATEST_SM	Space - Latest qualified VJX1000 small-footprint image	Yes
CENTOS64_5_4	Centos	No
CENTOS64_5_4_SM	Centos - Small footprint image	No

Centos Support

Junosphere supports two Centos Linux versions:

- CENTOS_5_3 for 32 bits
- CENTOS64_5_4 for 64 bits.

Each version is preconfigured with user root and password Clouds. A vnc server is enabled on both virtual servers (vnc: *management_Ethernet_address*:1).

Junos Pulse Support

Junosphere supports the Junos Pulse mobile application. Pulse provides the tunnel to the cloud. You will also need an application providing SSH or telnet such as VNC.

Features Not Fully Qualified

The Junosphere 1.0 documentation set describes some features that are present but have not yet been fully qualified by Juniper Networks. These features will be fully tested and supported in a future release.

The following features are present but not fully qualified in this release:

- Junosphere Connector
- Packet forwarding in flow mode

Known Problems and Limitations

This section identifies known problems and limitations in this release.

User Interface

- Start/stop access to the “Public” library.

You currently do not have start/stop access to the “Public” library. To use a Public topology, download that topology and then upload it into your own library.

- User interface save issues.

When you start a topology, the software will assign IP addresses to the EXTERNAL interface as specified by the topology.vmm file. If the user then performs a “Save” to save configuration changes made to the virtual router devices, these addresses will be stored in the configuration file for each router. If the topology is then stopped and restarted, those same addresses will still be in the configuration file and may conflict with new addresses assigned by the software. As a workaround, either download the topology file set and purge

the addresses from the files, or log in to each router (via the console) and remove the extra configuration from each router. (PR/588040)

- The Save option in the user interface is not always successful. (PR/598741)
- Starting topology does not show progress.

Be patient when starting a topology as there is no sign of progress. Once complete, the Active or Started state will display on the Library page. (PR/585977)

- Some user interface screens should refer to bridge instead of connector.

On some screens the connector label refers to the bridge to which the connector is attached. On the Connector Data page, the first column should be called Bridge Name instead of Connector Name. On the Connector View page, the Connector column should be labeled bridge.

- The user interface does not support all browsers.

For this release, the user interface supports Firefox. It does not support the Internet Explorer, Chrome, or Safari browser. Issues are mainly seen on the administrator's pages. (PR/591880 and 591881)

- Save As feature doesn't save as a new name.

While the feature allows you to save files to a different library, it will not allow a name change. (PR/594180)

- Poweron Reset and Rebuild should show status under the Status heading.

The Poweron Reset (powering the virtual device on and off) and Rebuild (restoring the original disk image) buttons on the Topology page are not working. (PR/594227)

- The "Help" link currently is empty.

See the user documentation at <http://www.juniper.net/techpubs/> for help.

Junosphere Connector

- The Connector statistics are not updated.

When starting a Junosphere Connector session, the statistics on the Connector Data page are not updated for the Virtual Distributed Ethernet switch. (PR/596015)

- To configure 802.1q VLAN tagging passthrough when using Junosphere Connector with VMWare ESXi server, you must set the VLAN ID of the port group of the vSwitch to 4095. This will put the port into VGT mode which allows VLAN tags to be preserved across the vSwitch.
- Junosphere Connector works on:
 - Linux:
 - › Centos release 5.5 (Final)
 - › Fedora release 14 (Laughlin)
 - Windows 7 - VLAN tags might not be preserved across the Junosphere Connector when using it on Windows 7. (PR/604669)

Virtual Routers

The following lists virtual router problems and limitations that may impact Junosphere users when configuring virtual routers.

- Virtual router fails to change interface speed. (PR/582781)

- Auto-negotiation status always shows status as Incomplete. (PR/582791)
- Web browser access to virtual routers via the Juniper Web Device Manager is not working.
When using a web browser to access virtual routers, the following problems are observed:
 1. Authentication button keeps spinning with message 'loading data'.
 2. Clicking on the Power Over Ethernet, Virtual chassis, and Switch buttons causes the browser to hang. The workaround is to refresh the URL. (PR/591918)
- OSPFv3 over PPPoE is broken.
Configuring OSPFv3 between two virtual routers over PPPoE does not work, although it works over VLANs.(PR/596322)
- The virtual router image does not contain the lt-0/0/0 interface. (PR/596969)
- VRRP is not responding on the virtual router.

In the following configuration:

```
vm "srxC-2" {
  hostname "srxC-2" ;
  VJX1000_LATEST
  interface "em4" { bridge "private16"; };
.
vm "srxD-1" {
  hostname "srxD-1" ;
  VJX1000_LATEST
  interface "em4" { bridge "private16"; };
.
vm "srxD-2" {
  hostname "srxD-2" ;
  VJX1000_LATEST
  interface "em4" { bridge "private16"; };
.
.
```

With srxD-1 and srxD-2 running, VRRP appears to work fine. Uplink destinations are also not shown. SRXC-2 has a default route pointing to the VIP address of the VRRP group. It appears that ARP is resolved for the VIP address, but connectivity does not work for any destination from srxC-2. (PR/600769)

- Segment fault on validate operation.
A segment fault results when while running NETCONF conformance tests and a validate operation is performed on '/var/tmp/netconf.conf'. (PR/600780)

Secure Access

Secure Access is the technology behind the Junosphere Access Portal Page. Information relating to it can be found in the Secure Access Release Notes:

<http://www.juniper.net/techpubs/software/ive/releasesnotes/j-sa-sslvpn-7.1R1-releasenotes.pdf>

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, or fill out the documentation feedback form at <https://www.juniper.net/cgi-bin/docbugreport/>. If you are using e-mail, be sure to include the following information with your comments:

- Document or topic name
- URL or page number
- Software release 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 JNASC support contract, or are covered under warranty, and need postsales 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/resourceguides/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/>
- 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: <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*](http://www.juniper.net/support/requesting-support.html).

Revision History

15 April 2011—Revision 1, Junosphere Release 1.0

15 May 2011—Revision 2, Junosphere Release 1.0

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