

JUNOSPHERE RELEASE NOTES

Release 1.1

17 June 2011

These release notes cover Release 1.1 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 1.1:

- These *Junosphere Release Notes*
- The *Junosphere User Guide*, which provides detailed information about features available in Release 1.1.

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

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

Junosphere Release Highlights

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

New Junosphere Features

The following are the new user-visible features of Junosphere Release 1.1:

- Join a started topology page.
The Join a Started Topology function allows a user to share a topology with other users in a specified group. The users in the group can connect to the shared topology and use the Active Topology and Connector Data screens of the sharing user, as well as the virtual machines of the topology.
This function is especially useful in an educational setting, when an instructor wants to share a topology with a group of students.
- An Announcements page showing messages when you first enter the user interface.
- A Status box showing errors, progress, and status.
- Ability to describe file sets on the Files Detail page.
- Online help support for loading virtual machine image files.

Supported Browsers

Junosphere supports the same browsers as Secure Access 7.1R1, the technology behind the Junosphere Access Portal Page. You can find related information in the latest Supported Platforms guide listed on http://www.juniper.net/techpubs/en_US/sa7.1/information-products/pathway-pages/sa-series/index71.html.

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.

Network Topology Release Highlights

Images

Junosphere provides a range of virtual machine image files, depending on the permissions. Supported virtual image files for this release are listed in Table 1 on page 5. See the virtual machine image descriptions in the online help for information about installing the images.

Table 1: Virtual Machine Images

Disk Name	Description	Supported by Juniper Technical Assistance Center
VJX1000_10_3R2_1	Junos OS release for VJX1000	Yes
VJX1000_10_3R2_1_SM	Junos OS release for a VJX1000 small-footprint image	Yes
VJX1000_LATEST	Latest qualified VJX1000 image	Yes
VJX1000_LATEST_SM	Latest qualified VJX1000 small-footprint image	Yes
VJX1000_10_3R1_0_EXP	Unqualified VJX1000 experimental image	No
VJX1000_10_3R1_0_EXP_SM	Unqualified VJX1000 experimental small-footprint image	No
SPACE_11_1R1_8	Junos Space release	Yes
SPACE_11_1R1_8_SM	Junos Space release for small-footprint image	Yes
SPACE_LATEST	Latest qualified Junos Space image	Yes
SPACE_LATEST_SM	Latest qualified Junos Space small-footprint image	Yes
CENTOS_5_3	CentOS 32-bit image	No
CENTOS64_5_3	CentOS 64-bit image	No

VJX1000 Image

The VJX1000 image supports the following software features in Junos OS Release 10.3:

- 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

VJX1000 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.

VJX1000 CLI Support

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

VJX1000 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 at:

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

VJX1000 Interfaces

The current VJX release supports up to 16 interfaces.

VJX1000 Host Names and IP Addresses

While you are able to use your existing host names and IP addresses in the Junosphere topology models, and while Junosphere is architected based on secure VPN paradigms, we recommend for additional security that you use alternative names and addresses in your topology files.

CentOS Image

This release 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 Space Image

This release adds support for four Junos Space versions:

- SPACE_11_1R1_8
- SPACE_11_1R1_8_SM
- SPACE_LATEST
- SPACE_LATEST_SM

In order to use Junos Space in your network topology, refer to the online help file.

Topology File Set Size Constraints

A topology file set must be less than 10 MB while each file must be less than 1 MB.

Topology Constraints

There can be a maximum of 40 interfaces that are directly connected to each other using a bridge in a network topology.

Junosphere Connector Memory Requirements

The Junosphere Connector software requires 512M of free RAM on your local workstation.

Features Not Fully Qualified

The Junosphere Release 1.1 documentation set describes a feature that is present but has not yet been fully qualified by Juniper Networks. This feature will be fully tested and supported in a future release:

- Packet forwarding in flow mode

Fixed Problems and Limitations

This section lists the following problems or limitations in the last Release Notes that are now fixed:

- Starting topology now shows progress on the Library page. (PR/585977)
- Where appropriate, some user interface screens now refer to bridge instead of connector.

- The user interface now supports the Internet Explorer, Chrome, and Safari browsers. (PR/591880 and 591881)
- The Save As feature now saves as a new name. (PR/594180)
- The help link now works.
- The virtual router now changes interface speed. (PR/582781)
- OSPFv3 over PPPoE now works.
- Configuring OSPFv3 between two virtual routers over PPPoE now works. (PR/596322)

Known Problems and Limitations

This section identifies known problems and limitations in this release.

User Interface

- Scrolling in the Messages box snaps back to the top on each screen refresh.
The window should preserve the relative location of the scrollbar on a refresh. (PR/660363)
- The user interface cannot display the Active Topology page for a large topology. (PR/660358)
- Start/stop access to the “Public” library.
Your account might not have start/stop access to the “Public” library. If it does not, in order to use a Public topology, download that topology and then upload it to your own library.
- User interface save issues.
When you start a topology, the software assigns 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 might 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)
- 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 do not work. (PR/594227)

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 pass-through 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 might impact Junosphere users when configuring virtual routers:

- The autonegotiation status always shows the status as Incomplete. (PR/582791)
- Web browser access to virtual routers via the Juniper Web Device Manager does not work.

When using a Web browser to access virtual routers, the following problems are observed:

1. The 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)

- The virtual router image does not contain the lt-0/0/0 interface. (PR/596969)
- VRRP does not respond 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. You can find information relating to it in the Secure Access Release Notes. Click the 7.1R1 version on the following page:

http://www.juniper.net/techpubs/en_US/sa7.1/information-products/pathway-pages/sa-series/index71.html.

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>.
- 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>.

Revision History

15 April 2011—Revision 1, Junosphere Release 1.0

15 May 2011—Revision 2, Junosphere Release 1.0

10 June 2011—Revision 3 Junosphere Release 1.1

17 June 2011—Revision 4 Junosphere Release 1.1

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