

Contrail Release 3.1.1 Release Notes

Release 3.1.1
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Introduction

Juniper Networks Contrail is an open, standards-based software solution that delivers network virtualization and service automation for federated cloud networks. It provides self-service provisioning, improves network troubleshooting and diagnostics, and enables service chaining for dynamic application environments across enterprise virtual private cloud (VPC), managed Infrastructure as a Service (IaaS), and Networks Functions Virtualization (NFV) use cases.

These release notes accompany Release 3.1.1 of Juniper Networks Contrail. They describe new features, limitations, and known problems.

These release notes are displayed on the Juniper Networks Contrail Documentation Web page at http://www.juniper.net/techpubs/en_US/contrail3.1/information-products/topic-collections/release-notes/index.html.

New and Changed Features

The feature listed in this section is new as of Contrail Release 3.1.1.

Support for OpenStack Mitaka

Contrail Release 3.1.1 is supported on OpenStack Mitaka on CentOS 7.2 operating system.

Supported Platforms

Contrail Release 3.1 is supported on the OpenStack Kilo and Liberty releases, on the following operating system versions:

- Ubuntu 14.04.4
- CentOS 7.2
- Red Hat Enterprise Linux (RHEL) 7.2 (RHOSP8)
- VMware vCenter 5.5, 6.0

Contrail Release 3.1 is also supported on OpenStack Mitaka on Ubuntu 14.04.4 and CentOS 7.2.

Following is the supported Linux kernel version for each distribution supported on Contrail Release 3.1.

- CentOS 7.2—kernel version 3.10.0-327.10.1
- Ubuntu 14.04.4—kernel version 3.13.0-85-generic
- Red Hat 7.2—kernel version 3.10.0-327.10.1
- vCenter—Ubuntu 14.04.4 kernel version 3.13.0-85-generic

Known Behavior

This section lists known limitations with this release. Bug numbers are listed and can be researched in [Launchpad.net](https://launchpad.net) at <https://goo.gl/5OkS7i>.

- 1423813: Contrail vDNS: DNS DDOS exposure
- 1540729: vRouter DPDK does not come up in a Service Manager provisioned cluster.
- 1546965: Internal server error occurs while creating IPv6 VIP for LBaaS.
- 1620928: Contrail 3.1.1 includes a new QEMU version 2.3 for OpenStack Kilo. When upgrading to 3.1.1 from earlier releases using fab commands, the QEMU version is not upgraded. However, a fresh installation of Contrail 3.1.1 will install the newer QEMU version.
- 1623695: User should create network-ipam in their own tenant configuration instead of using the default network-ipam for which the user doesn't have permissions.
- 1624148: Service instance automatically created by system on behalf of a user is not visible in the UI.

Resolved Issues

You can research limitations that are resolved with this release in Launchpad at:

<https://launchpad.net/juniperopenstack/+milestone/r3.1.1.0>.

Deprecated Items

The following features are scheduled to be changed in the next major release of Contrail. This information is provided to help your future planning.

- In a forthcoming release (4.x), the Contrail controller will be distributed as a Docker container. The controller host must have Docker installed.
- In a forthcoming release (4.x), Contrail Discovery Services will be removed. Any Discovery APIs will cease to work.

Additional Steps for CentOS 7.2 Installation

The default kernel version in CentOS 7.2 is 3.10.0-327. The recommended kernel version is 3.10.0-327.10.1. During installation of Contrail on CentOS 7.2, use the following command to change the kernel version to 3.10.0-327.10.1, before using the **install_contrail** command:

```
cd /opt/contrail/utlils; fab upgrade_kernel_all
```

Upgrading Contrail Software

Use the following procedure to upgrade an installation of Contrail software from one release to a more recent release. This procedure is valid for upgrading Contrail Release 2.21 and later to Contrail Release 3.1.



NOTE: If you are installing Contrail for the first time, refer to the full documentation and installation instructions in *Installing the Operating System and Contrail Packages*.

Instructions are given for both CentOS and Ubuntu versions. The only Ubuntu version supported for upgrading is Ubuntu 14.04.2.

To upgrade Contrail software from Contrail Releases 2.21 and later to Release 3.1:

1. Download the **contrail-install-packages-x.x.x.x-xxnoarch.rpm | deb** file from <http://www.juniper.net/support/downloads/?p=contrail#sw> and copy it to the **/tmp** directory on the config node, as follows:

CentOS : `scp <id@server>:/path/to/contrail-install-packages-x.x.x.x-xxnoarch.rpm /tmp`

Ubuntu : `scp <id@server>:/path/to/contrail-install-packages-x.x.x.x-xx~<openstack_version>_all.deb /tmp`



NOTE: The variables **x.x.x.x-xx** and so on represent the release and build numbers that are present in the name of the installation packages that you download.

2. Install the **contrail-install-packages**, using the correct command for your operating system:

CentOS: `yum localinstall /tmp/contrail-install-packages-x.x.x.x-xx.noarch.rpm`

Ubuntu: `dpkg -i /tmp/contrail-install-packages_x.x.x.x-xx~_all.deb`

3. Set up the local repository by running the **setup.sh**:

`cd /opt/contrail/contrail_packages; ./setup.sh`

4. Ensure that the **testbed.py** file that was used to set up the cluster with Contrail is intact in the **/opt/contrail/utils/fabfile/testbeds/** directory.

See *Setting Up the Testbed Definitions File*.

5. In release packages prior to Contrail Release 3.0, the packaged Cassandra version is 1.2.11. In the 3.0 release, the packaged Cassandra version is 2.1.9. Upgrading Cassandra from 1.2.11 to 2.1.9 directly is not supported by Cassandra. For more information, refer to [DataStax Upgrade Guide, Cassandra 2.1.x restrictions](#).

The **fab upgrade_contrail** command sequence enables upgrading Cassandra from 1.2.11 to 2.1.9 by performing necessary intermediate upgrades. Consequently, during the Contrail upgrade procedure (**fab upgrade_contrail**), the Cassandra SSTables are upgraded, which takes a long time if the Cassandra data is huge (usually because the Contrail Analytics keyspace is huge).

There is an option to minimize upgrade down time by dropping the Contrail Analytics keyspace before the upgrade, by issuing the following fab command:

fab drop_analytics_keyspace

6. Upgrade the software, using the correct set of commands to match your operating system and vRouter, as described in the following:

Change directory to the **utils** folder:

**cd /opt/contrail/utils; **

Select the correct upgrade procedure from the following to match your operating system and vRouter. In the following, *<from>* refers to the currently installed release number, such as 2.21.2, 2.22.2, 3.0.2.0, and so on:

CentOS Upgrade Procedure:

fab upgrade_contrail:<from>,/tmp/contrail-install-packages-x.x.x.x-xxnoarch.rpm;

Ubuntu 14.04 Upgrade, Two Procedures:

There are two different upgrade procedures for the upgrade to Contrail Release 3.1, depending on which vRouter (**3.13.0-X-generic** or **contrail-vrouter-dkms**) is installed in your current setup.

In Contrail Release 3.0.2.0 and later, the recommended kernel version for an Ubuntu 14.04-based system is 3.13.0-85-. Both procedures can use the command **fab upgrade_kernel_all** to upgrade the kernel.

**Ubuntu 14.04 Upgrade Procedure For a System With
contrail-vrouter-3.13.0-X-generic:**

Use the following upgrade procedure for Contrail systems based on Ubuntu 14.04 without the **contrail-vrouter-3.13.0-85-generic** installed. The command sequence upgrades the kernel version and also reboots the compute nodes when finished.

```
fab
install_pkg_all:/tmp/contrail-install-packages-x.x.x.x-xx~<openstack_version>_all.deb;

fab migrate_compute_kernel;

fab
upgrade_contrail:<from>,/tmp/contrail-install-packages-x.x.x.x-xx~<openstack_version>_all.deb;

fab upgrade_kernel_all;

fab restart_openstack_compute;
```

Ubuntu 14.04 Upgrade Procedure For System with contrail-vrouter-dkms:

Use the following upgrade procedure for Contrail systems based on Ubuntu 14.04 with **contrail-vrouter-dkms** installed. The command sequence upgrades the kernel version and also reboots the compute nodes when finished.

```
fab upgrade_contrail:
<from>,/tmp/contrail-install-packages-x.x.x.x-xx~<openstack_version>_all.deb;
```

All nodes in the cluster can be upgraded to kernel version 3.13.0-85 by using the following **fab** command:

```
fab upgrade_kernel_all
```

7. (For Contrail Storage option, only.)

Contrail Storage has its own packages.

To upgrade Contrail Storage, download the file:

```
contrail-storage-packages_x.x.x.x-xx*.deb
```

from <http://www.juniper.net/support/downloads/?p=contrail#sw>

and copy it to the **/tmp** directory on the config node, as follows:

```
Ubuntu: scp <id@server>:/path/to/contrail-storage-packages_x.x.x.x-xx*.deb /tmp
```

Use the following statement to upgrade the software:

```
cd /opt/contrail/utils; \
```

```
Ubuntu: fab
```

```
upgrade_storage:<from>,/tmp/contrail-storage-packages_x.x.x.x-xx~<openstack_version>_all.deb;
```

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

Revision History

November 2016—Revision 2, Contrail 3.1.1

August 2016—Revision 1, Contrail 3.1.0

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