

Contrail Service Orchestration Release Notes

Release 5.2.0
July 14, 2020
Revision 6

These Release Notes accompany Release 5.2.0 of Juniper Networks® Contrail Service Orchestration (CSO). These Release Notes describe new and changed features, limitations, and known and resolved issues in the software.

Contents

Introduction | 3

Software Support | 3

- Software Downloads | 3
- Software Installation Requirements for NFX Series Network Services Platform | 11

New and Changed Features in Contrail Service Orchestration Release 5.2.0 | 12

- SD-WAN | 13
- Miscellaneous | 13

VNFs Supported | 13

Licensing | 14

Accessing the CSO GUIs | 14

Known Behavior | 15

- Device Management | 15
- Dynamic VPN (DVPN) | 16
- Policy Deployment | 16
- SD-WAN | 17
- SD-LAN | 18
- Security Management | 19
- Site and Tenant Workflow | 19
- Topology | 20
- User Interface | 20
- General | 21

Known Issues | 23

SD-WAN | 23

Hybrid WAN | 25

SD-LAN | 25

Security Management | 27

Site and Tenant Workflow | 27

General | 28

Resolved Issues | 35

Documentation Feedback | 37

Requesting Technical Support | 37

Self-Help Online Tools and Resources | 38

Creating a Service Request with JTAC | 38

Revision History | 38

Introduction

You can use CSO Release 5.2.0 as a cloud-based service.

CSO Release 5.2.0 supports the following types of accounts:

- OpCo accounts (for multitenant, managed service providers)—OpCo (operating company) administrators can add tenants to and enable services such as SD-WAN, LAN, and next-generation firewall for the OpCo network. They can also manage profiles and policies for traffic, SLA policies, breakout policies, and firewall management.
- Tenant account (for enterprise customers that want to use CSO for managing their sites)—Tenant administrators can add sites to and enable services such as SD-WAN, LAN, and next-generation firewall for their networks. They can also configure SLA policies, firewall policies, and breakout policies, and also apply the policies to the sites.

The following are the highlights of the features available in CSO Release 5.2.0:

- **SD-WAN features**
 - Support for asymmetric digital subscriber line (ADSL) access type on SRX300 line of Services Gateways
- **Miscellaneous**
 - Support for vSRX 3.0 as CPE, enterprise hub, and OAM hub devices

Software Support

IN THIS SECTION

- [Software Downloads | 3](#)
- [Software Installation Requirements for NFX Series Network Services Platform | 11](#)

Software Downloads

[Table 1 on page 4](#) displays the supported versions and download links for software components associated with CSO Release 5.2.0.

NOTE:

- Before you onboard devices, ensure that the device is running the software version that is recommended in this release notes.
- CSO Release 5.2.0 extends Beta support for Junos OS Release 19.3R2-S2.

Table 1: Software Components Associated with CSO Release 5.2.0

Product	Supported Version	Download Link
Juniper Identity Management Service (JIMS)	1.1.5R1	Pre-bundled with CSO.
EX Series switches	Junos OS Release 18.4R2 Junos OS Release 18.4R3	Junos OS Release 18.4R2 • EX2300: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/93890.html?pf=EX2300 • EX3400: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/93890.html?pf=EX2300 • EX4300: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/93859.html?pf=EX4300 • EX4600: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/93861.html?pf=EX4600 • EX4650: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/93900.html?pf=EX4650 Junos OS Release 18.4R3 • EX2300: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/101422.html?pf=EX2300 • EX3400: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/101422.html?pf=EX3400 • EX4300: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/101391.html?pf=EX4300 • EX4600: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/101393.html?pf=EX4600 • EX4650: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/101432.html?pf=EX4650

Table 1: Software Components Associated with CSO Release 5.2.0 (continued)

Product	Supported Version	Download Link
NFX150 CPE device	Junos OS Release 18.2X85-D12 Junos OS Release 19.3R2-S2	<ul style="list-style-type: none"> • Junos OS 18.2X85-D12 <ul style="list-style-type: none"> • Install media: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/94797.html • Install package: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/94794.html • Junos OS 19.3R2-S2 <ul style="list-style-type: none"> • Install media: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107022.html?pf=NFX150 • Install package: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/106846.html?pf=NFX150
NFX250 CPE device	Junos OS Release 15.1X53-D497 Junos OS Release 18.4R3	<ul style="list-style-type: none"> • Junos OS Release 15.1X53-D497 <ul style="list-style-type: none"> • Install media: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92335.html • Install package: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92333.html • Junos OS Release 18.4R3 <ul style="list-style-type: none"> • Install media: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/101464.html?pf=NFX250 • Install package: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/101399.html?pf=NFX250
SRX Series CPE devices	Junos OS Release 15.1X49-D172 Junos OS Release 19.3R2-S2	SRX300, SRX320, SRX340, SRX345, and SRX550 High Memory Services Gateway (SRX550M) (as spoke devices): <ul style="list-style-type: none"> • Junos OS 15.1X49-D172: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92321.html • Junos OS 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/106871.html?pf=SRX300

Table 1: Software Components Associated with CSO Release 5.2.0 (continued)

Product	Supported Version	Download Link
SRX Series Next-Generation Firewall devices	Junos OS Release 18.4R1	SRX300, SRX320, SRX340, SRX345, and SRX550:
	Junos OS Release 19.3R2-S2	<ul style="list-style-type: none"> Junos OS Release 18.4R1: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/85904.html?pf=SRX300 Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/106871.html?pf=SRX300
SRX Series Provider Hub device	Junos OS Release 15.1X49-D172	<p>SRX1500</p> <ul style="list-style-type: none"> Junos OS Release 15.1X49-D172: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92323.html Junos OS Release 15.1X49-D172 (USB) : https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92325.html Junos OS Release 15.1X49-D172 (PXE): : https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92326.html <p>SRX4100, SRX4200:</p> <ul style="list-style-type: none"> Junos OS Release 15.1X49-D172: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92322.html Junos OS Release 15.1X49-D172 (USB): https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92324.html Junos OS Release 15.1X49-D172 (PXE): https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92327.html

Table 1: Software Components Associated with CSO Release 5.2.0 (continued)

Product	Supported Version	Download Link
SRX Series Enterprise Hub devices	Junos OS Release 15.1X49-D172	<ul style="list-style-type: none"> SRX4100, SRX4200: <ul style="list-style-type: none"> Junos OS Release 15.1X49-D172: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92322.html Junos OS Release 15.1X49-D172 (USB): https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92324.html Junos OS Release 15.1X49-D172 (PXE): https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92327.html Junos OS Release 19.3R2-S2 (install package): https://webdownload.juniper.net/swdl/dl/secure/site/1/record/106872.html?pf=SRX4100 Junos OS Release 19.3R2-S2 (install media): https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107006.html?pf=SRX4100 SRX1500: <ul style="list-style-type: none"> Junos OS Release 19.3R2-S2 (Install package): https://webdownload.juniper.net/swdl/dl/secure/site/1/record/106870.html?pf=SRX1500 Junos OS Release 19.3R2-S2 (Install media): https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107005.html?pf=SRX1500
	Junos OS Release 19.3R2-S2	

Table 1: Software Components Associated with CSO Release 5.2.0 (continued)

Product	Supported Version	Download Link
vSRX for SD-WAN devices	<p>Junos OS Release 15.1X49-D172</p> <p>Junos OS Release 19.3R2-S2</p>	<p>For hub devices (enterprise hub and provider hub) and spoke devices:</p> <ul style="list-style-type: none"> vSRX (compressed tar file (TGZ) for upgrade): <ul style="list-style-type: none"> Junos OS Release 15.1X49-D172: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92328.html Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107197.html?pf=vSRX vSRX (KVM appliance): <ul style="list-style-type: none"> Junos OS Release 15.1X49-D172: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92331.html Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107225.html?pf=vSRX vSRX (Hyper-V image): <ul style="list-style-type: none"> Junos OS Release 15.1X49-D172: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92332.html Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107224.html?pf=vSRX vSRX (VMware appliance with SCSI virtual disk (.ova)): <ul style="list-style-type: none"> Junos OS Release 15.1X49-D172: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92330.html Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107227.html?pf=vSRX vSRX (VMware appliance with IDE virtual disk (.ova)): <ul style="list-style-type: none"> Junos OS Release 15.1X49-D172: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/92329.html Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107226.html?pf=vSRX

Table 1: Software Components Associated with CSO Release 5.2.0 (continued)

Product	Supported Version	Download Link
vSRX for next-generation firewall devices	Junos OS Release 18.4R1 Junos OS Release 19.3R2-S2	<ul style="list-style-type: none"> • vSRX (compressed tar file (TGZ) for upgrade): <ul style="list-style-type: none"> • Junos OS Release 18.4R1: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/86039.html?pf=vSRX • Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107197.html?pf=vSRX • vSRX (KVM appliance): <ul style="list-style-type: none"> • Junos OS Release 18.4R1: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/86042.html?pf=vSRX • Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107225.html?pf=vSRX • vSRX (Hyper-V image): <ul style="list-style-type: none"> • Junos OS Release 18.4R1: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/86041.html?pf=vSRX • Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107224.html?pf=vSRX • vSRX (VMware appliance with SCSI virtual disk (.ova)): <ul style="list-style-type: none"> • Junos OS Release 18.4R1: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/86044.html?pf=vSRX • Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107227.html?pf=vSRX • vSRX (VMware appliance with IDE virtual disk (.ova)): <ul style="list-style-type: none"> • Junos OS Release 18.4R1: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/86043.html?pf=vSRX • Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107226.html?pf=vSRX

Table 1: Software Components Associated with CSO Release 5.2.0 (continued)

Product	Supported Version	Download Link
vSRX 3.0 for CPE, enterprise hub, and provider hub	Junos OS Release 19.3R2-S2	<ul style="list-style-type: none"> vSRX (compressed TAR file (.tgz) for upgrade): <ul style="list-style-type: none"> Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107198.html?pf=vSRX3.0 vSRX (KVM appliance): <ul style="list-style-type: none"> Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107229.html?pf=vSRX3.0 vSRX (Hyper-V image): <ul style="list-style-type: none"> Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/107231.html?pf=vSRX3.0 vSRX (VMware appliance with SCSI virtual disk (.ova)): <ul style="list-style-type: none"> Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/104013.html?pf=vSRX3.0 vSRX (VMware appliance with IDE virtual disk (.ova)): <ul style="list-style-type: none"> Junos OS Release 19.3R2-S2: https://webdownload.juniper.net/swdl/dl/secure/site/1/record/104011.html?pf=vSRX3.0

We recommend that you use Junos OS Release 15.1X49-D172 in your production environment instead of Junos OS Release 19.3R2-S2 because of the following known limitations in Junos OS Release 19.3R2-S2:

NOTE:

- The issue related to ZTP not progressing in an SRX3xx dual CPE cluster, if secure OAM tunnel from the master node is down is resolved in Junos OS Release 19.3R2-S2.
- We recommend you to use Junos OS Release 19.3R2-S2.2 for an SRX3xx dual CPE cluster.

- Connection fails when traffic is sent through an NFX250 device on which vSRX is installed. [PR 1483425]
- Sometimes, vSRX when running on an NFX250 device does not show the ge- interfaces after you upgrade the image from Junos OS Release 15.1X49-D172.1 to Junos OS Release 19.3R2-S1. [PR 1482360]
- In an SRX1500 dual-CPE cluster, you cannot add a license to the backup node by using the **request system license add** command. [PR 1485128]
- GRE interface in an NFX150 device may appear as down, even though it is actually up. [PR 1456184]

- Zero-touch provisioning (ZTP) of a device running Junos OS Release 19.3R2-S1 may fail due to failure in installing the default-trusted certificate authority (CA). [PR 1472607]
- Full mesh dynamic VPN tunnel formed through a device running Junos OS 19.3R2-S1 may not come up. [PR 1482984]
- LAN traffic may be interrupted while configuring a full mesh DVPN tunnel on a device running Junos OS Release 19.3R2-S1. [PR 1484083]
- During ZTP of an SRX1500 dual CPE cluster, the devices in the cluster reboot automatically. [PR 1484257]

Software Installation Requirements for NFX Series Network Services Platform

When you set up a distributed deployment with an NFX150 or an NFX250 device, you must use Administration Portal or the CSO API to:

1. Upload the software image to CSO.

NOTE: Only an SP administrator can upload the software image to CSO. If you are an OpCo administrator or a tenant administrator and if you need to upload the required software image, contact Juniper Networks Technical Assistance Center (JTAC).

2. Specify this image as the boot image when you configure activation data.

For more information on NFX series documentation, see

https://www.juniper.net/documentation/product/en_US/nfx150 and
https://www.juniper.net/documentation/product/en_US/nfx250 .

New and Changed Features in Contrail Service Orchestration Release 5.2.0

IN THIS SECTION

- [SD-WAN | 13](#)
- [Miscellaneous | 13](#)

This section describes the new features or enhancements to existing features in Contrail Service Orchestration (CSO) Release 5.2.0.

You can view and read the features that are available in CSO Release 5.1.1 and CSO Release 5.1.0 through the following links:

- [CSO 5.1.1 Release Notes](#)
- [CSO 5.1.0 Release Notes](#)

SD-WAN

- **Support for ADSL access type on SRX300 line of devices**—From CSO Release 5.2.0 onward, you can configure ADSL as the access type on SRX320, SRX340, and SRX345 services gateways. You configure the ADSL access type while adding an on-premise spoke site in an SD-WAN deployment.

CSO supports 1-port ADSL2+ Annex A and Annex B Mini-Physical Interface Modules (SRX-MP-1ADSL2-A and SRX-MP-1ADSL2-B).

Miscellaneous

- **Support for vSRX 3.0 as CPE, enterprise hub, and provider hub (with OAM capability) devices**—From CSO Release 5.2.0 onward, you can configure a vSRX 3.0 instance as a standalone CPE device, an enterprise hub, or a provider hub with OAM capability.

VNFs Supported

CSO supports the VNFs listed in [Table 2 on page 13](#).

Table 2: VNFs Supported by Contrail Service Orchestration

VNF Name	Version	Network Functions Supported	Deployment Model Support
Juniper Networks vSRX	For Hybrid WAN and SD-WAN deployments: vSRX KVM Appliance 15.1X49-D172	<ul style="list-style-type: none"> • Network Address Translation (NAT) • Demonstration version of Deep Packet Inspection (DPI) • Firewall • Unified threat management (UTM) 	Hybrid WAN and SD-WAN deployments supports NAT, firewall, and UTM.
Ubuntu	16.04		Hybrid WAN and SD-WAN (all LAN-side functions) deployments—NFX250 and NFX150 platforms.

Table 2: VNFs Supported by Contrail Service Orchestration (*continued*)

VNF Name	Version	Network Functions Supported	Deployment Model Support
Fortinet	5.6.3		Hybrid WAN and SD-WAN (all LAN-side functions) deployments—NFX250 and NFX150 platforms.

Licensing

For the cloud-hosted CSO solution, you need to purchase licenses to manage devices in CSO. As part of the activation process, you must provide the information required for creating your CSO account. After the account is activated, you receive an e-mail with the URL information and access credentials for logging in to the CSO portal.

For the on-premises CSO solution, you must have licenses to download and use Juniper Networks CSO. When you order licenses, you receive the information that you need to download and use CSO. If you did not order the licenses, contact your account team or Juniper Networks Customer Care for assistance.

Accessing the CSO GUIs

NOTE: We recommend that you use Google Chrome Version 60 or later to access the CSO GUIs.

For more information, see *Contrail Services Orchestration (CSO) GUIs* topic in the *CSO Deployment Guide*.

Known Behavior

IN THIS SECTION

- [Device Management | 15](#)
- [Dynamic VPN \(DVPN\) | 16](#)
- [Policy Deployment | 16](#)
- [SD-WAN | 17](#)
- [SD-LAN | 18](#)
- [Security Management | 19](#)
- [Site and Tenant Workflow | 19](#)
- [Topology | 20](#)
- [User Interface | 20](#)
- [General | 21](#)

This section lists known behavior, system maximums, and limitations in hardware and software in Juniper Networks CSO Release 5.2.0.

Device Management

- CSO does not support cluster-level Return Material Authorization (RMA) for SRX dual CPE devices. Only cluster node-level RMA is supported.
- The SRX4100 and SRX4200 devices support all existing SD-WAN features, except the following:
 - Phone-home client (PHC)—The devices must be manually activated by copying the stage-1 configuration from the CSO portal, pasting it to the console of the SRX4100 and SRX4200 devices, and then committing the stage-1 configuration.
 - LTE and xDSL interfaces.
- In a dual SRX Series cluster, the devices must be manually activated by copying the stage-1 configuration from the CSO portal, pasting it to the console of the SRX Series device, and then committing the configuration.
- LTE Mini-PIM is not supported for dual CPE devices.

- You cannot remotely access a cloud spoke device and edit the configuration.
- You can install and use only an external LTE Vodafone K5160 dongle to the NFX250 device.

Dynamic VPN (DVPN)

- Creation and deletion of DVPN tunnels based on the DVPN create and delete thresholds are governed by the **MAX_DVPN_TUNNELS** and **MIN_TUNNELS_TO_START_DVPN_DEACTIVATE** parameters, respectively. However, **MAX_DVPN_TUNNELS** and **MIN_TUNNELS_TO_START_DVPN_DEACTIVATE** are not honored when DVPNs are created or deleted from the CSO UI. This might cause the total active DVPN tunnels count on the **Site > WAN** tab to show a greater value than the **MAX_DVPN_TUNNELS** value configured for that site.
- DVPN create and delete thresholds are based on the **APPTRACK_SESSION_CLOSE** messages. When **APPTRACK_SESSION_CLOSE** messages reach the specified threshold, an alarm is generated for creating or deleting a DVPN tunnel. However, the alarms are not cleared until the **APPTRACK_SESSION_CLOSE** message count goes below the threshold (for create alarms) or above the threshold (for delete alarms) to trigger a fresh cycle. This causes the create and delete alarms to remain active and prevent further alarms and to, thus, slow down the creation or deletion of tunnels.
- Passive probes created by an SD-WAN policy time out because of inactivity in 60 seconds. This causes CSO to close the corresponding sessions and trigger **APPTRACK_SESSION_CLOSE** messages. The **APPTRACK_SESSION_CLOSE** messages are tracked and added to the number of sessions closed. The sessions closed count is used to calculate the DVPN delete threshold.
- DVPN is not supported for cloud spoke sites.

Policy Deployment

- An SD-WAN policy deployment is successful even if there is no matching WAN link meeting the SLA. This is expected behavior and it ensures that when a WAN link matching the SLA becomes available, traffic is routed through that link.
- The policy intents defined for a firewall or an SD-WAN policy must not have conflicts with other policy intents in that policy because such conflicts lead to inconsistent behavior. For example:
 - You cannot define an SD-WAN policy with one policy intent for application X and SLA profile S-1 and another policy intent for application X and SLA profile S-2.
 - You cannot define two firewall policy intents with the same source and destination endpoints but one with action Allow and another with action Deny.

- You must not start the Custom Application Signature name or Custom Application Signature Group name with the keyword Junos. This keyword is reserved for only predefined applications.

SD-WAN

- If WAN link endpoints are not of similar type but overlay tunnels are created based on matching mesh tags, the static policy for site-to-site or central Internet breakout traffic gives preference to the remote link type.
- Advanced SLA configurations, such as CoS rate limiting, are not supported during local breakout if no specific application is selected; that is, if Application is set to ANY. Choose specific applications if you want to enable advanced SLA configurations, such as CoS rate limiting.
- If two or more SD-WAN policy rules are configured for the same application with different levels of granularity, such as all, sites, and departments, then CSO applies the CoS rate limiter in the same order in which you have created the intents.
- On the WAN tab of the *Site-Name* page, the link metrics graph displays aggregated data. Therefore, in cases where the aggregation interval overlaps between source and destination link data, the link metrics graph displays incorrect data.
- On the SD-WAN Events page, when you hover the mouse over the **Reason** field of link switch events, sometimes **Above Target** is displayed instead of the absolute SLA metric value for very large values (for example, for an SLA metric value that is 100 times the target value).
- When an SD-WAN policy is deployed and a high rate of traffic flows through the CPE device, this might lead to network congestion and introduce delays or cause traffic loss. However, even though an SLA violation is reported, the traffic does not switch to a different link.
- In device redundancy mode, when you reboot a node, the device fails to generate a few system logs. Because a few system logs are not generated, the link switch event in CSO displays the same interface as the source interface and the destination interface.
- Sometimes duplicate link switch events are displayed on the Link Switch Events page.
- If any spoke site in a tenant doesn't use the Internet breakout WAN link of the provider hub to provision the overlay tunnel, then the site-to-Internet traffic is dropped.
- You cannot use an NFX150 dual CPE device for deploying SD-WAN services.
- Active-active mode is not supported with cloud breakout for GRE tunnels.
- ADSL and VDSL links may not work when the NFX250 image is upgraded to Junos OS Release 18.4R3.3.

SD-LAN

- In a tenant that has network segmentation enabled across multiple departments, overlapping LAN segments are not supported.
- This CSO release is qualified and recommended for ZTP with PHC on EX2300, EX3400, and EX4300 switches running Junos OS Release 18.4R2 and later. CSO does not recommend ZTP with PHC on Junos OS Release 18.3R1 for EX2300, EX3400, and EX4300 switches.

EX2300-MP, EX4300-MP, EX4600, and EX4650 switches do not support PHC. For these devices, you must manually copy the stage-1 configuration from the CSO GUI and paste it on the device console to commit the stage-1 configuration when you create a LAN site or activate an EX Series switch.

[Table 3 on page 18](#) shows the EX Series switches and the Junos OS release in which CSO supports PHC.

Table 3: EX Series Switches and Junos OS Releases and CSO Releases That Support PHC

EX Series Switches That Support PHC	Junos OS Support Version	CSO Qualified Junos OS Support Version
EX2300/EX3400	18.2R1	18.4R2 and later
EX4300	18.3R1	18.4R2 and later
EX2300-MP	19.1R1	Manually copy stage-1 configuration
EX4300-MP	19.1R1	Manually copy stage-1 configuration
EX4600	19.1R1	Manually copy stage-1 configuration
EX4650	Not Supported	Manually copy stage-1 configuration

- Do not zeroize EX2300 and EX3400 devices as doing so might result in unexpected behavior.
- When a Virtual Chassis member goes down, the chassis view shows the last known status of the Virtual Chassis member ports until the member is up again.

Security Management

- SSL proxy is supported on SRX300 and SRX320 devices running Junos OS Release 18.4R3 or later. However, the performance of SSL proxy may not be as expected.

Site and Tenant Workflow

- When tenants are created, ensure that the tenant name is unique across the CSO instance; that is, the same tenant name should not be there in any of the OpCo networks on the CSO instance.
- In the Add Site workflow, use IP addresses instead of hostnames for the NTP server configuration. If you are using hostnames instead of IP addresses, ensure that the hostname is DNS-resolvable; if the hostname is not DNS-resolvable, ZTP for the device fails.
- CSO uses RSA-key-based authentication when establishing an SSH connection to a managed CPE device. The authentication process requires that the device has a configured root password, and you can use Administration Portal to specify the root password in the device template.

To specify a root password for the device:

1. Log in to Administration Portal.
 2. Select **Resources > Device Templates**.
 3. Select the device template and click **Edit**.
 4. Specify the plain text root password in the **ENC_ROOT_PASSWORD** field.
 5. Click **Save**.
- When you try to deploy a LAN segment on an SRX Series spoke device, the CSO GUI allows you to select more than one port for a LAN segment. However, for SRX Series devices, only one port for a LAN segment can be deployed; multiple ports in a LAN segment can be deployed only on NFX Series devices.
 - On a site with an NFX Series device, if you deploy a LAN segment without the VLAN ID specified, CSO uses an internal VLAN ID meant for internal operations and this VLAN ID is displayed in the LAN section of the Site Detail View page. There is no impact on the functionality.
 - Do not create departments that have names starting with **default**, **default-reverse**, **mpls**, **internet**, or **default-hub** because CSO uses the following departments for internal use:
 - *Default-vpn_name*
 - *Default-reverse-vpn_name*

- *mpls-vpn_name*
- *internet-vpn_name*
- *Default-hub-vpn_name*

Topology

- DHCP configuration on WAN links on a SD-WAN hub is not supported.

User Interface

- When you use Mozilla Firefox to access the CSO GUIs, a few pages do not work as expected. We recommend that you use Google Chrome version 60 or later to access the CSO GUIs.
- When you copy and paste a stage-1 configuration from Chrome version 71.0.3578.98, insert a new line, as shown in the following example, in the private key text:

```
-----BEGIN RSA PRIVATE KEY-----
Proc-Type: 4,ENCRYPTED
DEK-Info: DES-EDE3-CBC,1F6A1336016A8239

                                ADD A NEW LINE HERE
2C638z/Lgr/g4Kw7r9lys9XWnUGbGnPpT1cc5jGq1Qbb8Nu286QsVGfrUy7Qh9sU
FJkIQI9bOMNadLL7wklsnwBCVAoAYjX+haizSaZzDphT6XBzph35BN9M0Zmb+Kpn
fH5i5FZx8FJixbnonCmaVrWFGwcuI+i jUKp/h9NfE5c2W5m2VBdmRjBf jWo9 jch
HV5gkkoG0Gdx7Kv60HKOMDl2YkjL4zfAzBS8J8BMmk5x6sY+GqNQOdgs7m4oXYCH
1loOYS6n9l0WDZcxXYWWeINlu6zOSIlZYVIIdwaE0OMDvoA82tzTHFmMy2kA48FHJ
```

If you do not insert the new line, the private key fails.

General

- If you choose to purge the audit log with the **Archive and Store in Local Location** option selected, you need to contact Juniper Networks for accessing the locally archived audit logs. We recommend that you use the **Archive and Store in Remote Location** option for easy access to archived logs. When you run an audit log purge with the **Archive and Store in a Remote Location** option selected, ensure that the remote server where you want to archive the purged audit logs is reachable from CSO.
- A LAN segment deploy job is handled in two parts in the following sequence:

1. LAN segment-related policies are deployed.
2. Firewall policies are deployed.

However, the deploy job status is updated as soon as the first part is completed. Because of this, a deploy job for a LAN segment is shown as a success even though the associated firewall policy deployment is still in progress.

- On an NFX Series device:
 - To activate a virtualized network function (VNF), perform the following steps:
 1. Add the VNF to the device.
 2. Initiate the activation workflow and ensure that the job is 100% completed.
 - To retry the activation of a VNF that failed, perform the following steps:
 1. Deactivate the VNF.
 2. Remove the VNF.
 3. Add the VNF to the device.
 4. Initiate the activation workflow and ensure that the job is 100% completed.
- Class-of-service (CoS) configuration on Layer 2 interfaces (*ge-0/0/port number*) is not supported on NFX150 CPE devices.
- Enterprise hub is not supported for cloud spoke sites.
- [Table 4 on page 22](#) lists the reserved IP address pool range used by CSO and, therefore, should not be used for production:

Table 4: Reserved IP Address Pool

IP Address Range	Reserved for	To Be Avoided in	Comments
172.31.31.0/24	Internal use by CSO, and LT interfaces of NFX250, NFX150, and SRX Series devices	LAN subnets and WAN	CSO uses some IP addresses (172.31.31.16, 172.31.31.18, 172.31.31.20) in this subnet; using this subnet may interfere with traffic path.
172.31.32.0/24	Internal use by CSO	LAN subnets	CSO uses some IP addresses in this subnet; using this subnet may interfere with traffic path.
192.168.2.0/24	NFX150 phone-home client and NFX250	WAN LAN when used as a tenant public pool and advertised to underlay as part of multi access shared bearer (MASB).	Routes in this subnet are active in the inet.0 routing table.
192.0.2.0/24	NFX250 (for OAM)	WAN LAN when used as a tenant public pool and advertised to underlay as part of MASB.	Configured on fxp0 interface; routes present in inet.0 routing table
100.124.0.0/14	Loopback range in NFX250, NFX150, and SRX Series devices	WAN LAN when used as a tenant public pool and advertised to underlay as part of Multi access Shared Bearer (MASB).	Used in on-premises installation; routes present in inet.0 routing table

NOTE: The IP address 192.168.0.1 is used for internal operations. However, you can use the 192.168.0.1 IP address in your LAN and WAN subnetworks without affecting traffic.

Known Issues

IN THIS SECTION

- [SD-WAN | 23](#)
- [Hybrid WAN | 25](#)
- [SD-LAN | 25](#)
- [Security Management | 27](#)
- [Site and Tenant Workflow | 27](#)
- [General | 28](#)

This section lists known issues in Juniper Networks CSO Release 5.2.0.

SD-WAN

- On an enterprise hub, when there are no non-data center departments, the SD-WAN policy deploy job may return the following message and fail:

No update of SD-WAN policy configuration on device due to missing required information.

Workaround: There is no functional impact; the deploy job completes successfully when a non-data center department with a LAN segment is deployed on an enterprise hub.

Bug Tracking Number: CXU-31365

- While provisioning a dual CPE SRX Series cluster as an enterprise hub with the multi-access shared bearer (MASB) configuration, the stage-1 configuration fails to commit because untagged logical interfaces are not supported on the device interface when MASB is configured.

Workaround: There is no known workaround.

Bug Tracking Number: CXU-42201

- Traffic is not load balanced in the active/active mode with cloud breakout for IPsec tunnels.

Workaround: There is no known workaround.

Bug Tracking Number: CXU-43136

- Jobs to update NAT are not getting triggered. Therefore, the NAT port assigned to a dynamic VPN (DVPN) IPsec configuration is incorrect.

Workaround: Delete and create the DVPN tunnels manually by using the CSO GUI.

Bug Tracking Number: CXU-46183

- While creating an IPsec tunnel between an Internet link behind NAT in a spoke and an MPLS link in an enterprise hub, a wrong NAT interface is configured on the IPsec tunnel. Therefore, the tunnel fails to be created.

Workaround: You must trigger a NAT update job immediately to assign the correct NAT IP-to-static tunnel.

Bug Tracking Number: CXU-46185

- When configuring a DVPN tunnel between two devices, if one device is not functional while the other is functional, the job to configure the DVPN tunnel should not configure the DVPN tunnel on the device that is functional.

Workaround: There is no known workaround. If the DVPN configuration tunnel is configured on the functional device, delete the configuration manually.

Bug Tracking Number: CXU-46188

- The infotip for the ADSL_ENCAP parameter in the SRX as SDWAN CPE device profile incorrectly suggests to enter the encapsulation for connecting to the ADSL service provider through PPPoE. The ADSL_ENCAP parameter does not apply to PPPoE, but to PPPoA.

Workaround: There is no known workaround.

Bug Tracking Number: CXU-46189

Hybrid WAN

- Fortinet service chaining is failing on NFX250.

Workaround: There is no known workaround.

Bug Tracking Number: CXU-42188

SD-LAN

- The phone-home process might not be triggered if you zeroize an EX Series switch and commit the configuration manually on the switch.

Workaround: To trigger the phone-home process, run the **delete chassis auto-image-upgrade** command and commit the delete operation.

Bug Tracking Number: CXU-39129

- The deployment of a port profile fails if the values you have configured for the firewall filter are not supported on the device running Junos OS.

Workaround:

- Edit the firewall filter.
- Update the values according to the supported configuration specified for a firewall filter, in this [link](#).
- Redeploy the port profile.

Bug Tracking Number: CXU-39629

- CSO is unable to configure access ports on the EX4600 and EX4650 devices after you zeroize the device because a default VLAN is configured on all the ports after zeroizing.

Workaround: Load the factory-default configuration if you zeroize the EX4600 and EX4650 devices or delete the default VLAN configuration from all the ports of the members by using commands such as **# wildcard range delete interfaces xe-0/0/[0-23]**.

Bug Tracking Number: CXU-42865

- When adding a switch to an already provisioned site, the site state is set to Provisioned in CSO. Therefore, a link to copy the stage-1 configuration for manually activating the EX Series device does not appear. You must set the state of a site to Provisioned only when all the devices in the site are provisioned.

Workaround: Delete the device from CSO and add the device again after rectifying the reason for provision failure.

Bug Tracking Number: CXU-40647

- The chassis view for an EX2300 Virtual Chassis appears blank when the device resources are used up and the request for getting a response from the device times out.

Workaround: There is no known workaround.

Bug Tracking Number: CXU-42866

- ZTP of an EX Series switch fails if you add the switch behind an enterprise hub.

Workaround: For onboarding an EX Series switch behind an enterprise hub, manually configure the stage-1 configuration on the switch.

Bug Tracking Number: CXU-38994

- You cannot edit a standalone SD-LAN site although the Edit Site button is enabled.

Workaround: There is no known workaround.

Bug Tracking Number: CXU-45918

- While configuring an SD-WAN site with an EX Series switch, the VLAN value that you enter for a LAN segment is not saved if you enable CPE ports in the LAN segment.

Workaround: Reenter the VLAN value after you add the CPE ports to the LAN segment.

Bug Tracking Number: CXU-45943

- The chassis view of an EX Series Virtual Chassis may not reflect the correct status of the Virtual Chassis ports (VCPs).

Workaround: There is no known workaround.

Bug Tracking Number: CXU-44880

- When you select all VLANs for deletion and if one or more of the selected VLANs is connected to a CPE port, the VLANs are not deleted. An error message appears and a job to delete the VLANs is created in CSO. The jobs appear to be successful and the status of the VLANs appear as Delete Pending.

Workaround: When VLANs are selected for deletion and if any of the VLANs is connected to a CPE port, remove the VLAN configuration from the CPE port and then delete the VLANs.

Bug Tracking Number: CXU-44966

- CSO may not detect an EX Series switch connected behind an SRX Series device running Junos OS Release 19.3R2-S1 or Release 19.3R2-S2. This is because the port connecting the EX Series switch and the CPE is blocked by RSTP running on the SRX Series device and hence no IP address is assigned by DHCP to the port.

Workaround: Disable RSTP on the SRX Series device or add the **set protocols rstp force-version stp** statement as part of the stage-2 configuration on the SRX Series device.

Bug Tracking Number: CXU-46760

Security Management

- If a provider hub is used by two tenants, one with public key infrastructure (PKI) authentication enabled and other with preshared key (PSK) authentication enabled, the commit configuration operation fails. This is because only one IKE gateway can point to one policy and if you define a policy with a certificate then the preshared key does not work.

Workaround: Ensure that the tenants sharing a provider hub use the same type of authentication (either PKI or PSK) as the provider hub device.

Bug Tracking Number: CXU-23107

- If UTM Web-filtering categories are installed manually (by using the **request system security UTM web-filtering category install** command from the CLI) on an NFX150 device, the intent-based firewall policy deployment from CSO fails.

Workaround: Uninstall the UTM Web-filtering category that you installed manually by executing the **request security utm web-filtering category uninstall** command on the NFX150 device and then deploy the firewall policy.

Bug Tracking Number: CXU-23927

- If SSL proxy is configured on a dual CPE device and if the traffic path is changed from one node to another node, the following issue occurs:
 - For cacheable applications, if there is no cache entry the first session might fail to establish.
 - For non-cacheable applications, the traffic flow is impacted.

Workaround: None.

Bug Tracking Number: CXU-25526

- When CSO is upgraded to release 5.2.0, there are 15 LAN ports in the SRX1500 dual CPE device template, when the actual number of LAN ports should be four.

Workaround: Clone the SRX1500 dual CPE device template and remove the extra 11 LAN ports from the template. Use the cloned device template to onboard an SRX1500 dual CPE device to CSO.

Bug Tracking Number: CXU-45889

Site and Tenant Workflow

- On a site with an NFX250 device and EX Series switch, the EX Series switch is not detected if there are no LAN segments.

Workaround: Onboard the site with at least one LAN segment.

Bug Tracking Number: CXU-38960

- Provisioning an SRX Series device as a next-generation firewall by using CSO is failing.

Workaround: Disable the AUTO_INSTALL_DEFAULT_TRUSTED_CERTS_TO_DEVICE option in device template during ZTP.

Bug Tracking Number: CXU-43362

General

- In next-generation firewall sites with LAN, the recall of EX2300 and EX3400 devices with the zeroize option does not work. This issue occurs because EX2300 and EX3400 do not support the zeroize option.

Workaround: Manually clean up the EX2300 and EX3400 devices.

Bug Tracking Number: CXU-35208

- You cannot filter the device ports for SRX Series devices while adding an on-premises spoke site or while adding a switch.

Workaround: There is no known workaround.

Bug Tracking Number: CXU-32826

- UTM Web filtering fails at times even though the Enhanced Web Filtering (EWF) server is up and online.

Workaround: From the device, configure the EWF Server with the IP address 116.50.57.140 as shown in the following example:

```
root@SRX-1# set security utm feature-profile web-filtering juniper-enhanced server host 116.50.57.140
```

Bug Tracking Number: CXU-32731

- If you click a specific application on the Resources > Sites Management > WAN tab > Top applications widget, the Link Performance widget does not display any data.

Workaround: You can view the data from the Monitoring > Application Visibility page or Monitoring > Traffic Logs page.

Bug Tracking Number: CXU-39167

- While adding a spoke site if you add and associate one or more departments with one or more LAN segments, sometimes the department's VRF tables might not be created at the enterprise hub. This causes the enterprise hub's 0/0 (default) route to be missing in the spoke site department's VRF tables.

Workaround: Delete and redeploy the LAN segments.

Bug Tracking Number: CXU-37770

- When DVPN tunnels (GRE_IPSEC tunnels) are established between a pair of SRX3XX devices that have Internet WAN links behind NAT, the GRE OAM status of the tunnels is displayed as DOWN and hence the tunnels are marked as DOWN and not usable for traffic.

Workaround : Disable the GRE OAM keepalive configuration to make the tunnel usable for traffic.

Bug Tracking Number: CXU-41281

- The health check in the CAN node fails while you run the **deploy.sh** script on the startup server during the HA deployment. This is because the Kafka process is inactive in one of the CAN nodes.

Workaround:

1. Log in to the CAN node.
2. Run the **docker restart analyticsdb analytics controller** command and wait for around 10 minutes.
3. Rerun the **components_health_check.sh** script on the startup server.
4. If the CAN node components are still unhealthy, repeat 2 and 3.

If all the components are healthy, then proceed with the installation.

Bug Tracking Number: CXU-41232

- Alarms are not getting generated if the date and time is not in sync with the NTP server.

Workaround: CSO and devices must be NTP-enabled. Make sure CSO and device time are in sync.

Bug Tracking Number: CXU-40815

- The firewall policy deployment fails if the system has more than 10,000 addresses.

Workaround: In the **elasticsearch.yml** file, update the **index.max_result_window** parameter to **20000**.

Bug Tracking Number: CXU-41678

- After Network Address Translation (NAT), only one DVPN tunnel is created between two spoke sites if the WAN interfaces (with link type as Internet) of one of the spoke site have the same public IP address.

Workaround: There is no known workaround.

Bug Tracking Number: CXU-41210

- On an SRX Series device, the deployment fails if you use the same IP address in both the Global FW policy and the Zone policy.

Workaround: There is no known workaround.

Bug Tracking Number: CXU-41259

- In case of an AppQoE event (packet drop or latency), the application may not switch to the best available path among the available links.

Workaround: Reboot the device.

Bug Tracking Number: CXU-41922

- While you are using a remote console for a tenant device, if you press the Up arrow or the Down arrow, then instead of the command history irrelevant text (that includes the device name and the tenant name) appears on the console.

Workaround: To clear the irrelevant text, press the down arrow key a few times and then press Enter.

Bug Tracking Number: CXU-41666

- While you are editing a tenant, if you modify **Tenant-owned Public IP Pool** under Advanced Settings (optional), then the changes that you made to the **Tenant-owned Public IP pool** field are not reflected after the completion of the edit tenant operation job.

Workaround: There is no known workaround.

Bug Tracking Number: CXU-41139

- The TAR file installation of a distributed deployment fails. This issue occurs if the version of the bare-metal server that you are using is later than the recommended version.

Workaround: You must install the **python-dev** script before running the **deploy-sh** script.

After you extract the CSO TAR file on the bare-metal server:

1. Navigate to the **/etc/apt** directory and execute the following commands:
 - **cp sources.list sources.list.cso**
 - **cp orig-sources.list sources.list**
2. Install the **python2.7-dev** script by running the following commands:
 - **apt-get update && apt-get install python2.7-dev**
 - **cp sources.list.cso sources.list**
3. Navigate to the **/root/Contrail_Service_Orchestration_5.1.0** folder and then run the **deploy.sh** script.

Bug Tracking Number: CXU-41845

- The Users page continues to display the name of the user that you deleted. This is because the Users page is not automatically refreshed.

Workaround: Manually refresh the page.

Bug Tracking Number: CXU-41793

- After ZTP of an NFX Series device, the status of some tunnels are displayed as down. This issue occurs if you are using the subnet IP address 192.168.2.0 on WAN links, which causes an internal IP address conflict.

Workaround: Avoid using the 192.168.2.0 subnet on WAN links.

Bug Tracking Number: CXU-41511

- In the CSO GUI, in the LAN tab of a next-generation firewall site with a LAN switch, when you click the arrow icon next to a LAN segment, the ports displayed in the Switch Ports field disappear.

Workaround: Hover over the **+number of ports** link in the Switch Ports column to view the list of ports on the LAN.

Bug Tracking Number: CXU-42608

- Installation of licenses on an SRX4200 dual CPE cluster by using CSO is failing.

Workaround: Install the licenses manually. To install the licenses manually:

1. Copy the license files for both the devices to the primary node of the cluster.
2. Install the license on the primary device.

```
root@node0>request system license add /var/tmp/<node0-license-file.txt>
```

3. Copy the license file of the backup node to the backup node.

```
root@node0>file copy /var/tmp/<node1-license-file.txt>
```

4. Log in to the backup node and install the license.

```
root@node1>request system license add /var/tmp/<node1-license-file.txt>
```

Bug Tracking Number: CXU-40522

- Image upgrade on an SRX4000 Series cluster fails as the ISSU upgrade command throws an error due to the real-time performance monitoring (RPM) configuration.

Workaround: To upgrade an SRX4000 device cluster:

1. Log in to CSO Customer Portal and apply the *srx-router* configuration template on the primary device in the cluster.
2. Deploy the configuration template on the primary device by enabling the **Admin** option for the device.
3. Copy the image to be upgraded to both the primary and the backup devices by using CSO or manually.
4. After the image is copied on both the primary and the backup devices, access the **Remote Console** option for the device from CSO.
5. Log in to the backup device from the primary device:

```
primary:node0}
user@node0> request routing-engine login node 1
```

6. On the backup device, issue the upgrade command **request system software add /var/tmp/image-name no-validate**.

```
{backup:node1}
user@node1> request system software add
/var/tmp/<junos-srxmr-x86-64-19.3R2-S1.2-signed.tgz no-validate
```

Host OS upgrade staged. Reboot the system to complete installation!

```
WARNING:      A REBOOT IS REQUIRED TO LOAD THIS SOFTWARE CORRECTLY. Use the
WARNING:      'request system reboot' command when software installation is
WARNING:      complete. To abort the installation, do not reboot your system,
WARNING:      instead use the 'request system software delete junos'
WARNING:      command as soon as this operation completes.
```

```
WARNING:      The DHCP configuration command used will be deprecated in future
                Junos releases.
```

```
WARNING:      Please see documentation for updated commands.
```

```
Saving package file in /var/sw/pkg/junos-srxmr-x86-64-19.3R2-S1.2-signed.tgz
...
```

7. After the image on the backup device is upgraded successfully, open another remote console on the primary device and upgrade the image on the primary device.

```
{primary:node0}
user@node0> request system software add
/var/tmp/junos-srxmr-x86-64-19.3R2-S1.2-signed.tgz no-validate
```

Host OS upgrade staged. Reboot the system to complete installation!

```
WARNING:      A REBOOT IS REQUIRED TO LOAD THIS SOFTWARE CORRECTLY. Use the
WARNING:      'request system reboot' command when software installation is
```



```

WARNING:      complete. To abort the installation, do not reboot your system,
WARNING:      instead use the 'request system software delete junos'
WARNING:      command as soon as this operation completes.

WARNING:      The DHCP configuration command used will be deprecated in future
Junos releases.
WARNING:      Please see documentation for updated commands.

Saving package file in /var/sw/pkg/junos-srxmr-x86-64-19.3R2-S1.2-signed.tgz
...

```

8. Reboot the backup device.

```

{backup:node1}
root@node1> request system reboot
Reboot the system ? [yes,no] (no)yes

```

9. Immediately open another remote console and reboot the primary device.

```

{primary:node0}
root@node0> request system reboot
Reboot the system ? [yes,no] (no)yes

```

10. After both the devices are up, redeploy the srx-router template on the primary device by disabling the **Admin** option.

The image is now upgraded on both the devices of the cluster.

Bug Tracking Number: CXU-39491

- Link metric widgets do not show data as expected when an analytics node is down.

Workaround: Bring up the analytics node to view the correct link metric widgets.

Bug Tracking Number: CXU-30813

- When you install the license on the backup node of an SRX Series dual CPE cluster, the installation fails.

Workaround: To install the license on the backup node of an SRX Series dual CPE cluster by using CSO:

1. Install the license on the primary node by using CSO.
2. Reboot the primary node to switch the backup node to function as the primary node.

3. After the backup node becomes the primary node, install the license for the backup node (currently working as the primary node) by using CSO.

Bug Tracking Number: CXU-43085

- If you delete a tenant that has e-mail notifications enabled, and then add the same tenant back to CSO, the send e-mail notification option for alarms is enabled by default and the tenant receives e-mail notifications for alarms.

Workaround: Disable the option to send e-mail notifications before you delete the tenant to stop receiving e-mail notification for alarms. Also, disable the option to send e-mail notifications after you add the same tenant back to CSO.

Bug Tracking Number: CXU-45973

- ZTP fails on SRX345 and vSRX due to issues with loading default certificates.

Workaround: Retry ZTP after you disable default certificates in the device profile.

Bug Tracking Number: CXU-45904

- On devices running Junos OS Release 19.3R2-S2, the SLA reason field (Actual Delay, Expected Delay, Jitter, Loss) for a link switch event is missing in the WAN tab of the Site Management page.

Workaround: There is no known workaround.

Bug Tracking Number: CXU-43653

- The Install Signature page does not reflect the correct OS version for a spoke site after the image on the device is upgraded.

Workaround: There is no known workaround.

Bug Tracking Number: CXU-36373

- On the Site Management page of an OpCo Customer Portal, the operational status of a provider hub is displayed as N/A when the status is actually up.

Workaround: There is no known workaround.

Bug Tracking Number: CXU-45924

- When you clone a site template containing a next-generation firewall and a switch, you may not be able to edit some of the fields in the cloned template.

Workaround: Instead of cloning, create a new template with a next-generation firewall and a switch.

Bug Tracking Number: CXU-45919

- While you deploy the VRRP configuration template on an SRX Series or EX Series device, the template does not render as expected on the Devices page of the CSO GUI.

Workaround: Edit and save the VRRP configuration template without making any changes for the VRRP template to render correctly on the CSO GUI for SRX Series and EX Series devices.

Bug Tracking Number: CXU-46049

- The OSPF term in the loopback filter configured on a device running Junos OS Release 19.3R2-S2 is dropping OSPF packets. This prevents OSPF sessions to come up on the device.

Workaround: Disable the OSPF term in the loopback filter on the device to enable OSPF on the device.

Bug Tracking Number: CXU-46144

- In partial-mesh or full-mesh deployments, IP addresses in the 10.0.0.0/8 subnet are used for GRE and OAM secure (st0) interfaces and for internal communication by NFX250, NFX150, and SRX Series devices. So, if you use IP addresses within the 10.0.0.0/8 subnet for your LAN segment, there can be issues with communication.

Workaround: Avoid using IP addresses in the 10.0.0.0/8 subnet for your LAN segments.

Bug Tracking Number: CXU-46223

- When CSO is upgraded to Release 5.2.0 and if an enterprise hub site is in an earlier release (for example, 5.1.0 or 5.1.1), then adding a LAN segment to a spoke or an enterprise hub using a new department or deleting a LAN segment from the spoke or enterprise hub might fail.

Workaround: Upgrade the Enterprise hub site to Release 5.2.0 and then attempt to add or delete the LAN segment.

Bug Tracking Number: CXU-47394

Resolved Issues

The following issues are resolved in Juniper Networks CSO Release 5.2.0:

- If you create or delete a DVPN tunnel, you cannot reach the LAN interface on the SRX Series device.

Bug Tracking Number: CXU-35379

- The bootstrap job for a device remains in the In Progress state for a considerable time. This is because CSO fails to receive the bootstrap completion notification from the device.

Workaround: If the bootstrap job is in the In Progress state for more than 10 minutes, add the following configuration to the device:

set system phone-home server <https://redirect.juniper.net>

Bug Tracking Number: CXU-35450

- After the etcd pod is restarted, the pod does not return to the running state. Instead the pod is in the crashloopbackoff state.

Workaround: Contact JTAC for getting the etcd pod to the running state.

Bug Tracking Number: CXU-38345

- Alarms are not getting generated if the date and time are not in sync with the NTP server. Workaround: CSO and devices must be NTP-enabled. Make sure that the CSO time and the device time are in sync.

Bug Tracking Number: CXU-40815

- If you have installed CSO Release 5.1 on a single node and if there is a power failure, the UI is not accessible even if power resumes.

Bug Tracking Number: CXU-41460

- In an on-premises installation, when deploying a port profile fails on an EX4650 switch, CSO displays the management status of the site with the EX4650 switch as provisioned even though the ZTP job fails on the switch.

Workaround: Ensure that no port profile is deployed on an EX4650 switch during ZTP.

Bug Tracking Number: CXU-42181

- When you back up an SD-WAN report generated in CSO Release 4.1.1 and restore it in CSO Release 5.1.1, an error appears when you try to download the report, and the report is not downloaded.

Workaround: There is no known workaround.

Bug Tracking Number: CXU-42395

- When you perform ZTP on more than one enterprise hub at the same time, ZTP for one or the other enterprise hub may fail.

Workaround: Perform ZTP on enterprise hubs one after the other; that is, after the ZTP of the first enterprise hub completes successfully. You can also retry executing the failed ZTP job.

Bug Tracking Number: CXU-42985

- When onboarding a next-generation firewall and switch, the CSO GUI may temporarily show that provisioning the firewall has failed when a license is not present, although the ZTP task completes and the site is provisioned.

Workaround: Refresh the page to view the final status of onboarding the next-generation firewall.

Bug Tracking Number: CXU-43024

- When you configure a CPE behind NAT, DVPN tunnels stay between an Internet link that is behind NAT and an Internet link that is not behind NAT due to a wrong external interface in the IPsec configuration.

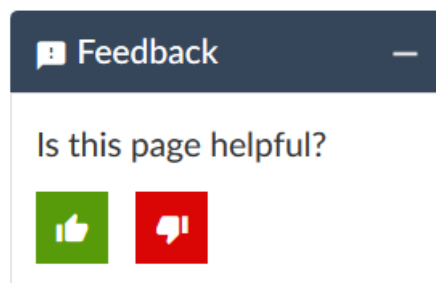
Workaround: There is no known workaround.

Bug Tracking Number: CXU-43217

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. 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

July 14, 2020—Revision 6, Added note recommending the use of 19.3R2 for SRX3xx dual CPE devices..

June 16, 2020—Revision 5, Incorporated editorial review comments.

May 27, 2020—Revision 4, Updated description for CXU-46223 in the known issues section.

April 28, 2020—Revision 3, Updated descriptions for issues related to reserved IP issues and added CXU-46760 as a known issue.

April 21, 2020—Revision 2, Added comments and other known issues.

April 9, 2020—Revision 1, CSO Release 5.2.0

Copyright © 2020 Juniper Networks, Inc. All rights reserved.

Juniper Networks, the Juniper Networks logo, Juniper, and Junos are registered trademarks of Juniper Networks, Inc. and/or its affiliates in the United States and other countries. All other trademarks may be property of their respective owners.

Juniper Networks assumes no responsibility for any inaccuracies in this document. Juniper Networks reserves the right to change, modify, transfer, or otherwise revise this publication without notice.