

Junos Space Network Management Platform Release 18.2R1 Release Notes

Release 18.2R1
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Junos Space Network Management Platform Release Notes

These release notes accompany Junos Space Network Management Platform Release 18.2R1.



NOTE: The terms Junos Space Network Management Platform and Junos Space Platform are used interchangeably in this document.

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Installation Instructions

Junos Space Network Management Platform Release 18.2R1 can be installed on a Junos Space Appliance or a Junos Space Virtual Appliance.



CAUTION: During the Junos Space Network Management Platform installation process, do not modify the filename of the software image that you download from the Juniper Networks support site. If you modify the filename, the installation fails.

- For installation instructions for a JA2500 Junos Space Appliance, see the [Installation and Configuration](#) section of the [JA2500 Junos Space Appliance Hardware Guide](#).
- For installation instructions for a Junos Space Virtual Appliance, see the [Deploying the Junos Space Virtual Appliance](#) section of the [Junos Space Virtual Appliance Installation and Configuration Guide](#).

See [“Supported Hardware” on page 7](#) for more information about the hardware supported.

Upgrade Instructions

This section provides information about upgrading the Junos Space Network Management Platform installations running versions earlier than Release 18.2R1.

- [Supported Upgrade Path](#)
- [Instructions for Validating the Junos Space Network Management Platform OVA Image](#)
- [Upgrade Notes](#)

Supported Upgrade Path

You can upgrade Junos Space Network Management Platform installations running Release 17.2R1 and 18.1R1 to Junos Space Network Management Platform Release 18.2R1.

Junos Space Platform upgrade from Release 17.2 or Release 18.1 to 18.2 follows the standard upgrade procedure. For information about the upgrade procedure from Junos Space Platform Release 17.2 or 18.1 to Junos Space Platform Release 18.2, see [Upgrading Junos Space Network Management Platform Overview](#) and [Upgrading Junos Space Network Management Platform](#).



NOTE: Some Junos Space applications may not support a direct upgrade of Junos Space Platform from Release 16.1R1, Release 16.1R2, or Release 16.1R3 to Release 17.2R1; upgrading to Junos Space Platform Release 17.1R1 may be required before upgrading to Release 17.2R1 for some upgrade scenarios. Therefore, review the release notes for all installed Junos Space applications prior to upgrading Junos Space Platform.

Before you upgrade Junos Space Platform to Release 18.2, ensure that the time on all Junos Space nodes is synchronized. For information about synchronizing time on Junos Space nodes, see [Synchronizing Time Across Junos Space Nodes](#).

If the Junos Space Platform installation is running a version earlier than Release 16.1, you must first upgrade the installation to Release 16.1R3, then upgrade from Release 16.1R3 to Release 17.2R1, and then upgrade to Release 18.2R1. To upgrade from Junos Space Platform Release 15.2R2 to Junos Space Platform Release 16.1R3, you must follow the procedure outlined in [Upgrading to Junos Space Network Management Platform Release 16.1R1](#).



CAUTION: During the Junos Space Network Management Platform upgrade process, do not modify the filename of the software image that you download from the Juniper Networks support site. If you modify the filename, the upgrade fails.

Instructions for Validating the Junos Space Network Management Platform OVA Image

From Junos Space Network Management Platform Release 14.1R1 onward, the Junos Space Platform open virtual appliance (OVA) image is securely signed.



NOTE:

- Validating the OVA image is optional; you can install or upgrade Junos Space Network Management Platform without validating the OVA image.
- Before you validate the OVA image, ensure that the PC on which you are performing the validation has the following utilities available: tar, openssl, and ovftool (VMWare Open Virtualization Format [OVF] Tool). You can download VMWare OVF Tool from the following location:
<https://my.vmware.com/web/vmware/details?productId=353&downloadGroup=OVFTOOL351>.

To validate the Junos Space Network Management Platform OVA image:

1. Download the Junos Space Platform OVA image and the Juniper Networks Root CA certificate chain file (**JuniperRootRSACA.pem**) from the Junos Space Network Management Platform - Download Software page at <https://www.juniper.net/support/downloads/space.html>.



NOTE: You need to download the Juniper Networks Root CA certificate chain file only once; you can use the same file to validate OVA images for future releases of Junos Space Network Management Platform.

2. (Optional) If you downloaded the OVA image and the Root CA certificate chain file to a PC running Windows, copy the two files to a temporary directory on a PC running Linux or Unix. You can also copy the OVA image and the Root CA certificate chain file to a temporary directory (**/var/tmp** or **/tmp**) on a Junos Space node.



NOTE: Ensure that the OVA image file and the Juniper Networks Root CA certificate chain file are not modified during the validation procedure. You can do this by providing write access to these files only to the user performing the validation procedure. This is especially important if you use a generally accessible temporary directory, such as **/tmp** or **/var/tmp**, because such directories can be accessed by several users.

3. Navigate to the directory containing the OVA image.
4. Unpack the OVA image by executing the following command:

tar xf ova-filename

where *ova-filename* is the filename of the downloaded OVA image.

5. Verify that the unpacked OVA image contains a certificate chain file (**junos-space-certchain.pem**) and a signature file (**.cert** extension).
6. Validate the signature in the unpacked OVF file (extension **.ovf**) by executing the following command:

ovftool ovf-filename

where *ovf-filename* is the filename of the unpacked OVF file.

7. Validate the signing certificate with the Juniper Networks Root CA certificate chain file by executing the following command:

openssl verify -CAfile JuniperRootRSACA.pem -untrusted Certificate-Chain-File Signature-file

where **JuniperRootRSACA.pem** is the Juniper Networks Root CA certificate chain file, **Certificate-Chain-File** is the filename of the unpacked certificate chain file (extension **.pem**), and **Signature-file** is the filename of the unpacked signature file (extension **.cert**).

If the validation is successful, a message indicating that the validation is successful is displayed.

A sample of the validation procedure is as follows:

```
-bash-4.1$ ls
JuniperRootRSACA.pem space-16.1R1.3.ovf
-bash-4.1$ mkdir tmp
-bash-4.1$ cd tmp
-bash-4.1$ tar xf ../space-16.1R1.3.ovf
-bash-4.1$ ls
junos-space-certchain.pem space-16.1R1.3.cert
space-16.1R1.3-disk1.vmdk.gz space-16.1R1.3.mf
space-16.1R1.3.ovf
-bash-4.1$ ovftool space-16.1R1.3.ovf
OVF version: 1.0
VirtualApp: false
Name: viso-space-16.1R1.3

Download Size: 1.76 GB

Deployment Sizes:
Flat disks: 250.00 GB
Sparse disks: 4.68 GB

Networks:
Name: VM Network
Description: The VM Network network

Virtual Machines:
```

```

Name:                viso-space-16.1R1.3
Operating System:    rhe15_64guest
Virtual Hardware:
  Families:          vmx-04
  Number of CPUs:    4
  Cores per socket:  1
  Memory:            8.00 GB

Disks:
  Index:             0
  Instance ID:       7
  Capacity:          250.00 GB
  Disk Types:        SCSI-lsillogic

NICs:
  Adapter Type:      E1000
  Connection:        VM Network

  Adapter Type:      E1000
  Connection:        VM Network

  Adapter Type:      E1000
  Connection:        VM Network

  Adapter Type:      E1000
  Connection:        VM Network

-bash-4.1$ openssl verify -CAfile JuniperRootRSACA.pem -untrusted
junos-space-certchain.pem space-16.1R1.3.cert
space-16.1R1.3.cert: OK
-bash-4.1$

```

8. (Optional) If the validation is not successful, perform the following tasks:
 - a. Determine whether the contents of the OVA image are modified. If the contents are modified, download the OVA image from the Junos Space Network Management Platform - Download Software page.
 - b. Determine whether the Juniper Networks Root CA certificate chain file is corrupted or modified. If it is corrupted or modified, download the Root CA certificate chain file from the Junos Space Network Management Platform - Download Software page.
 - c. Retry the preceding validation steps by using one or both of the new files.

Upgrade Notes

- During the upgrade process, do not manually reboot the nodes if the Junos Space user interface does not come up for an extended period of time. Contact the Juniper Networks Support team for help in resolving this issue.
- Before the upgrade, ensure that the latest backups are available in a location other than the Junos Space server. For more information about backups, see [Backing Up the Junos Space Network Management Platform Database](#).
- After you upgrade Junos Space Platform to Release 18.2R1, all previously installed applications are disabled until the applications are upgraded to a version compatible

with Junos Space Platform 18.2R1. You must upgrade the applications to releases that are compatible with Junos Space Platform Release 18.2R1, by using the Junos Space Platform UI. For information about application versions compatible with Junos Space Platform 18.2R1, see [“Supported Junos Space Applications and Adapters” on page 7](#).

Application Compatibility



WARNING: Before you upgrade to Junos Space Network Management Platform Release 18.2R1, ensure that compatible versions of Junos Space applications are available for upgrade by referring to the [Junos Space Application Compatibility](#) knowledge base article. If you upgrade to Junos Space Platform Release 18.2R1 and the compatible version of a Junos Space application is not available, the current version of the Junos Space application is deactivated and cannot be used until Juniper Networks releases a compatible version of the Junos Space application.

Supported Junos Space Applications and Adapters

This release of Junos Space Network Management Platform supports the following adapter:

- Worldwide (ww) Junos OS Adapter

This release of Junos Space Network Management Platform supports the following applications:

- Network Director Release 3.3R1
- Connectivity Services Director Release 3.0R1
- Security Director Release 18.2R1
- Service Now Release 17.2R1

For the latest information, see the [Junos Space Application Compatibility](#) knowledge base article.

Supported Hardware

Junos Space Network Management Platform Release 18.2R1 can be installed on the following hardware:

- JA2500 Junos Space Appliance
- VMware ESXi server 5.5, 6.0, or 6.5
- Kernel-based virtual machine (KVM) (Release 1.5.3-141.el7_4.4 or later)

For detailed information about hardware requirements, see the *Hardware Documentation* section of the [Junos Space and Applications](#) page.



NOTE: For information about whether a Junos Space application can be installed on a particular Junos Space Appliance (JA2500) or Junos Space Virtual Appliance, see the release notes of the specific Junos Space application release.

Supported Devices

Junos Space Network Management Platform Release 18.2R1 supports the following additional Juniper Networks devices and components running Junos OS:

- EX9253
- SRX5600
- QFX10002-60C
- vSRX 3.0

For a list of supported devices up to and including Junos Space Platform Release 18.2R1, see [Juniper Networks Devices Supported by Junos Space Network Management Platform](#).



NOTE: When Junos Space Platform discovers EX Series switches running Layer 2 next generation software, the device family for these devices is displayed (on the Device Management page) as junos and not as junos-ex. This behavior is currently observed on EX4300 and EX9200 switches running Layer 2 next-generation software.

Junos OS Compatibility

In Junos Space Network Management Platform Release 18.2R1, no new Junos OS releases are supported. For information about Junos OS compatibility for releases up to and including Junos Space Platform Release 18.2R1, see [Junos OS Releases Supported in Junos Space Network Management Platform](#).

New and Changed Features

This section describes the new features and the enhancements to existing features in Junos Space Network Management Platform Release 18.2R1.

- **Ability to install and upgrade Junos Space applications from Junos Space Store**—From Junos Space Network Management Platform Release 18.2R1 onward, you can install and upgrade Junos Space applications from Junos Space Store. Junos Space Store is a repository that lists the latest and supported versions of Junos Space applications. In addition to installation and upgrade, you can also configure the components of an application from Junos space Store. For more information, see [Junos Space Store Overview](#).
- **Enhanced support for Select by Filter option**—From Release 18.2R1 onward, Junos Space Platform enables you to select multiple devices when you use the Select by Filter option from the following pages of the Images and Scripts workspace:
 - Stage Scripts
 - Remove Scripts
 - Execute Scripts

You can select a filter to display devices matching the filter definition. For example, you can select the filter vSRX_Devices to list the vSRX devices in Junos Space Platform that match the criteria defined by the filter vSRX_Devices. For more information, see [Staging Scripts on Devices](#).

- **Enhancement on reactivating devices from RMA**—From Junos Space Network Management Platform Release 18.2R1 onward, you can reactivate multiple replacement devices at the same time. The maximum number of devices that can be reactivated simultaneously is 100. For more information, see [Putting a Device in RMA State and Reactivating Its Replacement](#).
- **Support for uploading Space key in during device discovery**—From Junos Space Platform Release 18.2R1 onward, you can upload Space Key for authentication to devices by using the device discovery workflow. You can upload Space key while creating a device discovery profile. For more information, see [Creating a Device Discovery Profile](#).
- **Connection profile made optional**—From Junos Space Network Management Platform Release 18.2R1 onward, you can create and activate modeled devices without associating them to a connection profile.
- **Support for additional operations on Logical System (LSYS) devices**—From Release 18.2R1 onward, Junos Space Platform enables you to perform the following operations on Logical System (LSYS) devices:
 - Use Looking Glass
 - SSH to devices
 - Launch Web UI
 - View software inventory

- View active configuration
- Back up configuration files
- Apply CLI Configlets
- **Enhancements for VM host image**—From Junos Space Platform Release 18.2R1 onward, you can deploy VM host images on devices. You can also enable force host upgrade for ACX Series, QFX Series, and EX Series devices from Junos Space Platform. For more information, see [Deploying Device Images](#).
- **Support for VMware VMotion**—From Release 18.2R1 onward, Junos Space Network Management Platform supports VMware VMotion for moving Junos Space Virtual Appliances from one VMware ESX server to another VMware ESX server.

Changes in Default Behavior

- From Release 17.2R1 onward, Junos Space Platform does not sort configurations while comparing templates. In releases earlier than 17.2R1, Junos Space Platform sorts configurations while comparing templates, and this causes Junos Space Platform to trigger incorrect deviation reports because of a change in the order of configuration statements caused by the sorting.
- From Release 17.2R1 onward, Junos Space Platform does not support the click action in the Top 10 Active Users in 24 Hours chart. In releases earlier than 17.2R1, you can click within the chart to view details of the selected item on the corresponding page.
- From Junos Space Platform Release 17.1R1 onward, the VLAN field in reports supports both integer and string values. In releases earlier than 17.1R1, the VLAN field in reports supports only integer values, whereas the **VLAN** field for logical interfaces accepts both integer and string values. This mismatch causes issues in displaying VLAN information for logical interfaces in reports.

From Release 17.1R1 onward, the VLAN option in the Add Filter Criteria section of the Create Report Definition page and the filter support for the VLAN column on the View Logical Interface page are removed.

- From Junos Space Platform Release 16.1R2 onward, the upgrade-related logs at `/var/jmp_upgrade` are added to the troubleshooting logs.
- From Release 17.1R1 onward, Junos Space Platform boot menu accepts text inputs, such as `reinstall`, when you install the Junos Space Platform software from USB drives. In versions earlier than Release 17.1R1, the boot menu supports only numerical values. From Release 17.1R1 onward, when you do a `reinstall`, the software restarts and a local reboot occurs by default. Previously, you had to connect to the console and manually trigger a reboot.
- From Junos Space Platform Release 16.1R1 onward, the minimum hard disk requirement for deploying a virtual appliance on a VMware ESX or ESXi server is increased from 133 GB to 250 GB.
- From Junos Space Platform Release 16.1R2 onward, validation messages are provided for tasks where CSV files are used for device selection, and all devices that are listed in the CSV file are not selected when the task is performed. Validation messages are

provided when devices are selected using CSV files from the following pages and dialog boxes:

- Deploy Device Image dialog box
- Deploy Satellite Device Image dialog box
- Stage Image on Device page
- Stage Image on Satellite Device page
- Remove Image from Staged Device dialog box
- Undeploy JAM Package from Device dialog box
- Verifying checksum of image on device(s) dialog box
- Stage Scripts on Device(s) page
- Enable Scripts on Device(s) page
- Disable Scripts on Device(s) page
- Execute Script on Device(s) page
- Remove Scripts from Device(s) dialog box
- Verify Checksum of Scripts on Device(s) dialog box

From Release 17.1R1 onward, validation messages are provided for the following pages and dialog boxes, too:

- Run Operation page
- Stage Script Bundle on Devices dialog box
- Enable Script Bundle on Devices page
- Disable Script Bundle on Devices page
- Execute Script Bundle on Devices dialog box
- From Junos Space Platform Release 15.2R2 onward, Internet Explorer version 8.0 is no longer supported. Although you can access Junos Space Platform by using Internet Explorer versions 9.0 and 10.0, we recommend that you upgrade to Internet Explorer version 11.0 because it is the only version now supported by Microsoft. For more information, see <https://www.microsoft.com/en-in/WindowsForBusiness/End-of-IE-support>.
- From Junos Space Platform Release 15.1R1 onward, the **accept-type** for the ASYNC API ("`/api/space/device-management/discover-devices?queue-url=https://{Server.ip}/api/hornet-q/queues/jms.queue.{Queue}`") is changed to "`application/vnd.net.juniper.space.job-management.task+xml;version=1`".
- From Junos Space Platform Release 15.1R1 onward, the Add SNMP configuration to device field on the Modify Application Settings page (Administration > Applications >

Network Management Platform > Modify Application Setting) is renamed Add SNMP configuration to device for fault monitoring.

- From Junos Space Platform Release 15.1R1 onward, auto-resynchronization jobs are not displayed on the Job Management page. These jobs run in the background and cannot be canceled from the Junos Space UI. You can view the status of auto-resynchronization jobs from the Managed Status column on the Device Management page or from the Device Count by Synchronization State widget on the Devices page. You can collect more information about these jobs from the **server.log** and **autoresync.log** files in the `/var/log/jboss/servers/server1/` directory.

Known Behavior



CAUTION: To avoid a BEAST TLS 1.0 attack, whenever you log in to Junos Space through a browser tab or window, make sure that the tab or window was not previously used to access a non-HTTPS website. The best practice is to close your browser and relaunch it before logging in to Junos Space.

- Starting from Junos Space Network Management Platform Release 18.1R1 onwards, to view and edit firewall policies, users must have permissions or roles corresponding to all the attributes present under the Firewall Policies and Shared Objects predefined roles. Go to **Network Management Platform > Role Based Access Control > Roles** to view and assign the relevant roles.
- Tag names can be alphanumeric strings. The tag name can also contain underscores, hyphens, and spaces. However, a tag name must not:
 - Exceed 255 characters
 - Start with a space
 - Contain special characters such as commas, double quotation marks, or parentheses.



NOTE: "Untagged" is a reserved term and, therefore, you cannot create a tag with this name.

- The right-click menu is not available on the Import Licenses (Administration > Licenses > Import License) page. You can use either the browser menu options or the keyboard shortcuts to copy and paste onto the page.
- Device-initiated connections to Junos Space can have different IP addresses from those listed in Junos Space. For example, if you use a loopback address to discover a device, you can source the SSH session of the device from its interface address (Junos OS default behavior is to select the default address) instead. This can lead to firewall conflicts.
- When a remote user with the FMPM Manager role uses the API to access Junos Space Platform, the user details are not updated in the `/opt/opennms/users.xml` file.
- You might observe the following limitations on the Topology page:

- The tooltip on the node displays the status as Active/Managed even when the node is down.
- For an SRX Series cluster, topology links are displayed only for the primary member of the cluster and not for the secondary member.
- When unified in-service software upgrade (ISSU) is performed from the Manage Operations workflow, the Routing Engines are not rebooted. The Routing Engines must be manually rebooted for the image to be loaded.
- For LSYS (logical, nonroot) devices, when there are pending out-of-band changes on the root device, the Resolve out-of-band changes menu option is disabled for those child LSYS devices, even though Device Managed Status displays Device Changed. This is by design.
- RMA is not supported on devices running Junos OS, and devices that are not running Junos OS.
- Script Manager supports only Junos OS Release 10.x and later.
- A stage device script or image supports only devices running Junos OS Release 10.x and later.
- For unified ISSU support for both device-initiated and Junos Space-initiated dual Routing Engine connections, we strongly recommend that you configure the virtual IP (VIP) on the dual Routing Engine device. Dual Routing Engine devices without VIP configuration are not fully supported on Junos Space.
- In a single node or multiple nodes, changes to the user (for example, password, roles, and disable or enable user) take effect only at the next login.
- Looking Glass functionality is not supported on logical systems.
- For devices running Junos OS Release 12.1 or later, the following parameters do not display any data in the Network Monitoring workspace because the corresponding MIB objects have been deprecated:
 - jnxJsSPUMonitoringFlowSessIPv4
 - jnxJsSPUMonitoringFlowSessIPv6
 - jnxJsSPUMonitoringCPSessIPv4
 - jnxJsSPUMonitoringCPSessIPv6
 - jnxJsNodeSessCreationPerSecIPv4
 - jnxJsNodeSessCreationPerSecIPv6
 - jnxJsNodeCurrentTotalSessIPv4
 - jnxJsNodeCurrentTotalSessIPv6
- For SNMPv3 traps, if more than one trap setting is configured in the `/opt/opennms/etc/trapd-configuration.xml` file, then the **security-name** attribute for the **snmpv3-user** element must be unique for each configuration entry. If a unique **security-name** attribute is not provided, then SNMP traps are not received by Network Monitoring.

The following is a sample snippet of the `/opt/opennms/etc/trapd-configuration.xml` file with two configuration entries:

```
<?xml version="1.0"?>
<trapd-configuration snmp-trap-port="162" new-suspect-on-trap="false">
  <snmpv3-user security-name="Space-SNMP-1" auth-passphrase="abcD123!"
auth-protocol="MD5"/>
  <snmpv3-user security-name="Space-SNMP-2" auth-passphrase="abcD123!"
auth-protocol="MD5"
  privacy-passphrase="zyxW321!" privacy-protocol="DES"/>
</trapd-configuration>
```

- On the Network Monitoring > Node List > *Node* page, the `ifIndex` parameter is not displayed for IPv6 interfaces if the version of Junos OS running on the device is Release 13.1 or earlier. This is because IPv6 MIBs are supported only on Junos OS Release 13.2 and later.
- When you modify the IP address of a Fault Monitoring and Performance Monitoring (FMPM) node using the Junos Space CLI, the FMPM node is displayed on the Fabric page but cannot be monitored by Junos Space Platform because of a mismatch in the certificate.

Workaround: After modifying the IP address of the FMPM node using the Junos Space CLI, generate a new certificate on the Junos Space VIP node and copy the certificate to the FMPM node by executing the following scripts on the Junos Space VIP node:

- `curl -k https://127.0.0.1:8002/cgi-bin/createCertSignReq.pl? ip='fmpm-node-ip'\&user='admin'\&password='password'`
- `curl -k https://127.0.0.1:8002/cgi-bin/authenticateCertification.pl? ip='fmpm-node-ip'\&user='admin'\&password='password'\&mvCertToDestn='Y'`

where `fmpm-node-ip` is the IP address of the FMPM node and `password` is the administrator's password.

- When you execute a script and click the View Results link on the Script Management Job Status page, the details of the script execution results are displayed up to a maximum of 16,777,215 characters; the rest of the results are truncated.

This might affect users who execute the `show configuration` command on devices with large configurations or if the output of a Junos OS operational command (executed on a device) is large.
- When you configure a Junos Space fabric with dedicated database nodes, the Junos Space Platform database is moved from the Junos Space nodes to the database nodes. You cannot move the database back to the Junos Space nodes.
- For a purging policy triggered by a `cron` job:
 - If the Junos Space fabric is configured with MySQL on one or two dedicated database nodes, the database backup files and log files (mainly in the `/var/log/` directory with the filenames `*log.*`, `messages.*`, or `SystemStatusLog.*`) are not purged from the dedicated database nodes.

- If the Junos Space fabric is configured with one or two FMPM nodes, the log files (mainly in the `/var/log/` directory with the filenames `*.log.*`, `messages.*`, or `SystemStatusLog.*`) are not purged from the FMPM nodes.
- If Network Monitoring receives two traps within the same second—that is, one for a trigger alarm and another for a clear alarm—then the triggered alarm is not cleared because the clear alarm is not processed by Network Monitoring.
- If you use Internet Explorer versions 8.0 or 9.0 to access the Junos Space Platform GUI, you cannot import multiple scripts or CLI Configlets at the same time.

Workaround: Use Internet Explorer Version 10.0 or later, or use a different supported browser (Mozilla Firefox or Google Chrome) to import multiple scripts or CLI Configlets at the same time.

- If you access the Junos Space Platform UI in two tabs of the same browser with two different domains selected and access the same page in both tabs, the information displayed on the page is based on the latest domain selected. To view pages that are accessible only in the Global domain, ensure that you are in the Global domain in the most recent tab in which you are accessing the UI.
- If you select the Add SNMP configuration to device check box on the Administration > Applications > Modify Network Management Platform Settings page and discover a device whose trap target is updated, clicking Resync Node from the Network Monitoring workspace does not reset the trap target for the device.
- If you clear the Add SNMP configuration to device check box on the Administration > Applications > Modify Network Management Platform Settings page, the trap target is not set for the device during device discovery and resynchronizing node operations.
- If you want to perform a global search by using partial keywords, append "*" to the search keywords.
- To perform a partial keyword search on tags on the Tags page (Administration > Tags) or the Apply Tags dialog box (right-click a device on the Device Management page and select Tag It), append * to the search keyword.
- Internet Explorer slows down because some scripts can take an excessive amount of time to run. The browser prompts you to decide whether to continue running the slow script. see <http://support.microsoft.com/kb/175500> for instructions on how to fix this issue.
- When you switch from Space as system of record mode to Network as system of record mode, devices with the Managed Status Device Changed or Space & Device Changed are automatically synchronized after 900 seconds. To reduce this time period, modify the Polling time period secs setting for Network Management Platform (Administration > Applications > Modify Application Settings) to a lower value such as 150 seconds.
- In Space as System of Record (SSoR) mode on Junos Space, when a new authentication key is generated, devices discovered and managed using RSA keys whose management status is Device Changed move to the Key Conflict Authentication status. To resolve the conflict on the devices and bring them back to a key-based state, upload the RSA keys manually (Devices > Upload Keys to Devices).

- The EnterpriseDefault (uei.opennms.org/generic/trap/EnterpriseDefault) event appears on the Events page in the Network Monitoring workspace only if there is no associated event definition for a received event. To create the required event definition, compile the MIB corresponding to the object ID (OID). You can find the OID by reviewing the details of the EnterpriseDefault event.

For more information about compiling SNMP MIBs, see [Compiling SNMP MIBs](#).

- When a physical hard drive is removed from a Junos Space hardware appliance (JA2500) or a logical hard drive is degraded, the corresponding SNMP traps (`jnxSpaceHardDiskPhysicalDriveRemoved` and `jnxSpaceHardDiskLogicalDeviceDegraded` respectively) are generated and displayed as events in the Network Monitoring workspace. Later, when the physical hard drive is reinserted, the corresponding events (`jnxSpaceHardDiskPhysicalDriveAdded` and `jnxSpaceHardDiskLogicalDeviceRebuilding`) are generated and displayed in the Network Monitoring workspace; however, the alarms previously raised for the removal of the physical hard drive are not cleared automatically. You can clear these alarms manually, if required. The alarms for the reinsertion of the physical hard drive are automatically cleared after a few minutes because they are of the Normal type.
- If the administrator password for a Fault Monitoring and Performance Monitoring (FMPM) node is modified using the Junos Space CLI, the disaster recovery with the FMPM node fails and new users added in Junos Space (after the password is modified) are not synchronized to the FMPM node. This is because the modified administrator password is not automatically updated in the Junos Space MySQL database.

To ensure that the synchronization to the FMPM node takes place, you must run the `/var/www/cgi-bin/changeSpecialNodepassword.pl` script so that the modified FMPM node password is updated in the Junos Space MySQL database. The syntax for the script is as follows: `/var/www/cgi-bin/changeSpecialNodePassword.pl fmpm-node-ip fmpm-node-password`, where *fmpm-node-ip* is the IP address of the FMPM node, and *fmpm-node-password* is the modified password for the FMPM node.

- For non-SRX Series devices, device-initiated connections to Junos Space Platform that use IPv6 addresses are supported only on Junos OS Release 15.1R1 or later; this is because IPv6 addresses are supported in the outbound-SSH configuration only from Junos OS Release 15.1 onward for non-SRX Series devices.

For SRX Series devices, device-initiated connections to Junos Space Platform that use IPv6 addresses are supported from Junos OS Release 12.1x47-D15 onward.

- If you clear the **Add SNMP configuration to device** check box (on the Modify Network Management Platform Settings page under Administration > Applications > Network Management Platform > Modify Application Settings) and discover devices, and subsequently select the Add SNMP configuration to device check box and resynchronize nodes (Network Monitoring > Node List > Resync Nodes), the SNMPv2 trap target is updated on the devices.
- If you discover devices with the SNMP probing enabled, the correct version of the SNMP trap target is updated on the devices for the following cases:

- When you modify the virtual IP (VIP) address or the device management interface IP address
- When a separate interface for device management is configured and there is a failover of the VIP node
- When you add or delete a Fault Monitoring and Performance Monitoring (FMPM) node
- When you discover devices when the Network Monitoring service is stopped and subsequently start the Network Monitoring service and resynchronize nodes (Network Monitoring > Node List > Resync Nodes)

In all other cases, the default SNMP trap target (SNMPv2) is updated on the devices. If needed, you can use the predefined SNMPv3 Configlets (CLI Configlets > CLI Configlets) to update the trap settings on the device.

- In Junos Space Platform Release 16.1R1, Network Monitoring supports only a single set of SNMPv3 trap parameters.
- In Junos Space Platform Release 16.1R1, you cannot modify the trap settings for the SNMPv3 manager on the Network Monitoring GUI. You can modify the trap settings manually in the `/opt/opennms/etc/trapd-configuration.xml` file. After modifying the trap settings manually, restart the Network Monitoring service.
- With default SNMPv3 trap settings, the discovery of devices running worldwide Junos OS (wwJunos OS devices) fails as the default SNMPv3 trap settings cannot be updated to wwJunos OS devices because wwJunos OS devices do not support privacy settings.
- The setting to manage objects from all assigned domains can be enabled globally for all users by selecting the **Enable users to manage objects from all allowed domains in aggregated view** check box in the Domains section of the Modify Application Settings page (Administration > Applications > Network Management Platform > Modify Application Settings). Alternatively, you can enable the setting to manage objects from all assigned domains at the user level by selecting the **Manage objects from all assigned domains** check box on the Object Visibility tab of the Change User Settings dialog box, which appears when you click the User Settings (gear) icon on the Junos Space banner.
- The Juniper Networks Device Management Interface (DMI) schema repository (<https://xml.juniper.net/>) does not currently support IPv6. If you are running Junos Space on an IPv6 network, you can do one of the following:
 - Configure Junos Space to use both IPv4 and IPv6 addresses and download the DMI schema by using the Junos Space Platform Web GUI.
 - Download the DMI schema by using an IPv4 client and update or install the DMI schema by using the Junos Space Web GUI.
- If you are planning on expanding the disk space for nodes in a Junos Space fabric (cluster) comprising of virtual appliances, you must first expand the disk space on the VIP node and ensure that the VIP node has come up (the status of the JBoss and MySQL services must be “Up”) before initiating the disk expansion on the other nodes in the fabric. If you fail to do this, it might cause fabric instability and you might be unable to access to the Junos Space GUI.

- In a Junos Space fabric with two or more nodes configured with both IPv4 and IPv6 addresses (dual stack), the communications between all nodes in the fabric must be enabled for both IPv4 and IPv6 addresses.
- The Network Monitoring Topology feature is not supported on Internet Explorer.
- If the network connectivity at the active disaster recovery site is down and the active site cannot connect to sufficient arbiter devices after resuming network connectivity, both sites become standby disaster recovery sites. Execute the **jmp-dr manualFailover -a** command at the VIP node of the active disaster recovery site to convert the original site to the active site and start the disaster recovery process.
- When you are discovering devices running the worldwide Junos OS (ww Junos OS devices), ensure that you wait at least 10 minutes after the Add Adapter job for the device worldwide Junos adapter has completed successfully *before* triggering the device discovery.
- A new pattern (**requested 'commit synchronize' operation**) is added to the syslog pattern in Junos Space Release 16.1R2. During the syslog registration after a device is discovered or connects back to Junos Space following a Junos Space upgrade from Release 15.2 or 16.1R1 to 16.1R2, the (**requested 'commit synchronize' operation**) pattern is added to the syslog patterns on the device. When you issue the **commit synchronize** command, Junos Space automatically resynchronizes only those devices that have the (**requested 'commit synchronize' operation**) pattern added to the syslog patterns.
- If you are using Internet Explorer to access the Junos Space Network Platform UI and need to copy the job ID value from the Job ID field of the Job Management page, you must click outside the job ID text to start the selection.
- After you upgrade Junos Space Platform from Release 16.1R1 to 17.1R1, the Last Reboot Reason field on the Administration > Fabric > View Node Detail > Reboot Detail page shows the value as **Reboot from Shell/Other** instead of Space reboot after Software Upgrade.
- If the device IP could not be verified, the Add Unmanaged Devices action fails.

Known Issues

The following issues are still outstanding in the Junos Space Network Management Platform Release 18.2R1.

For the most complete and latest information about known defects Junos Space Network Management Platform defects, use the Juniper Networks online Junos Problem Report Search application.

- You cannot select NAT and ww Junos OS devices as arbiter devices to detect failure at a site during disaster recovery in Junos Space Platform. [PR 1362305]
- Junos Space Platform supports only VM host image upgrade for PTX Series devices. It is not possible to upgrade PTX Series devices using normal device images. [PR 1353888]

- Upload of an Elliptic Curve Digital Signature Algorithm (ECDSA) self-signed certificate to Junos Space Platform fails. This problem occurs because Junos Space Platform is unable to parse the private key of the certificate. [PR 1345038]
- When you upgrade an SRX Series cluster device that has the upgrade dual-root partition and ISSU/ICU options enabled, the primary partition snapshot for one of the nodes is not copied to an alternate root partition. However, the image upgrade and deployment jobs are successful on both the nodes (node0 and node1).

Workaround: Log in to the VIP node of the SRX Series cluster and execute the **request system snapshot slice alternate** command. This command takes a snapshot from the primary partition and copies it to an alternate partition on both nodes. [PR 1228763]

- Security Director does not work after the failover of Junos Space Platform nodes. This problem occurs because the Security Director image fails to synchronize during node addition if a report filename contains single quotation marks. [PR 1327233]
- Junos Space Platform supports only Junos Space-initiated discovery of QFX Series devices. [PR 1325596]
- Junos Space Platform Release 17.2R1 does not support Service Now Release 17.1 or earlier versions. [PR 1321123]
- Although the EX4200 devices do not support unified ISSU, the ISSU option is enabled for those devices from the Junos Space Platform user interface. [PR 1310184]
- After upgrading the standby site in a disaster recovery setup through the CLI, database restoration fails.

Workaround: Remove the upgrade temporary file, `/var/jmp_upgrade/slav/log/upgradeMetaData.txt`, before you restore the database in the upgraded site. You can use the following command to remove the file:

```
rm -rf /var/jmp_upgrade/slav/log/upgradeMetaData.txt [PR 1288130]
```

- When a DMI Schema installation is in progress, modifications to the configuration of devices that use the DMI Schema that is being installed fail.

Workaround: Avoid modifying the device configuration when a DMI schema associated with the device is being installed. [PR 1273620]

- OpenNMS stops updating the performance graphs. This problem occurs because Junos Space Platform that sends the SNMP requests over the interface **eth3** uses the **eth0** address as the source IP address. Because the **eth0** interface is not reachable from devices, the SNMP requests time out.

Workaround: Add the following code in `/usr/sbin/jmp-firewall`:

```
ETH3NET=$(ifconfig eth3 | grep 'inet addr:' | cut -d':' -f2 | cut -d' ' -f1 | head -1) iptables -t nat -A POSTROUTING -p udp -o eth3 --dport 161 -j SNAT --to $ETH3NET [PR 1269891]
```

- The Resolve Out of Band Changes function does not work as expected when there are a large number of out-of-band changes. [PR 1233845]
- In a disaster recovery setup, database or jboss nodes cannot be added through the Junos Space CLI. [PR 1234860]

- Junos Space Platform UI does not fit properly in the browser window when the screen resolution is set to a value higher than the recommended value of 1280 x 1024 pixels. This reduces the efficiency of navigation. [PR 1172112]
- When you upgrade SRX Series chassis cluster devices that have the dual root partition option and ISSU or ICU enabled, the image deployment job succeeds but not all partitions get upgraded. [PR 1228763]
- Changes made to device configuration through the schema-based configuration editor do not appear in the basic configuration wizard. [PR 1181560]
- Creation of a Quick Template using the Basic Setup fails if the Template Administrator who is creating the Quick Template does not have the Modify Configuration permission.
Workaround: Assign Modify Configuration role to the Template Administrator account. [PR 1294610]
- If a user imports a user certificate that contains an X509 parameter value that was used in a previously imported user certificate for another user, Junos Space Platform locks both the user accounts. [PR 1282190]
- If you abruptly terminate a browser session or a server while the modification of Application Settings is in progress, Junos Space Platform saves a copy of the running configuration as a draft configuration in the database. Even if you delete the draft configuration, Junos Space Platform creates a new draft configuration whenever you update the configuration. [PR 1281485]
- Junos Space Platform does not allow you to purge jobs that are in the Pending state. [PR 1279931]
- The SNMPv3 trap configuration settings in the `/opt/opennms/etc/trapd-configuration.xml` file and on the managed devices are not updated after you restore the database from the backup. [PR 1276974]
- If some nodes are unavailable when a DMI schema or hardware catalog is updated on Junos Space Platform, the DMI schema or hardware catalog on such nodes fails to synchronize after the nodes come back online. [PR 1273937]
- If you try to modify the configuration of a device when a DMI schema that the device uses is being installed, the modification of the device configuration fails. [PR 1273620]
- Updating the OpenNMS keystore with custom certificates causes SSL handshake failure, and thus communication failure, between Junos Space Platform and FMPM nodes. This communication failure causes the network monitoring service to stop. [PR 1273346]
- If you delete a default DMI schema before you add a node, after the addition of the node, on the DMI Schema page of the Junos Space Platform UI, the deleted schema is marked as Installed but the schema remains unusable, which is because the schema is not available in the file system of the master node. In case of a cluster failover, the schemas fail to synchronize among the nodes. [PR 1272125]
- The Import Script and Modify Script operations fail when the script content has the special character slanted double quotation marks (`"`), which causes lexical errors. [PR 1270670]

- Junos Space Platform supports only Junos Space-initiated discovery of QFX devices. [PR 1267622]
- DMI schemas that are listed as installed on the DMI Schemas page are missing from the file system. This problem occurs after you restore the database from the backup. [PR 1263258]
- Instantaneous creation of database reports fails if the time zone specified is in a format other than UTC or UTC offset. This occurs because of an OpenNMS limitation.

Workaround: To prevent this issue, specify the time zone in the UTC+/-offset format. [PR 1262239]

- In dual-stack implementations, IPv6 virtual IP binding does not work during master node failover or after a new setup.

Workaround: To resolve this issue, run the **service heartbeat restart** command on the master node. [PR 1262104]

- After the Junos Space Platform does a rescan and restarts the Network Monitoring service, the number of devices associated with a custom category (**Network Monitoring > Admin > Node Provisioning > Manage Surveillance Categories**) is reset to 0 (zero). [PR 1238995]

- When you execute local scripts, the scripts run only on the VIP node in the cluster. [PR 1238558]

- If you discover a device that is authenticated by using a custom key or a Junos Space key encrypted with the Digital Signature Algorithm (DSA) and try to execute a local script on the device, the script execution fails.

Workaround: Delete the device and rediscover the device using a Junos Space key encrypted using RSA or ECDSA and execute the local script. [PR 1231409]

- If you configured a Junos Space fabric containing one or two dedicated database nodes and one or two FMPM nodes without configuring NAT and try to configure NAT from the Junos Space CLI of the FMPM node, the job is triggered but the configuration is not updated in the FMPM node or on the devices. In addition, if you configure NAT from the Junos Space Platform UI, the NAT configuration is updated successfully. However, the option to disable NAT is not available in the CLI of the FMPM node and the NAT configuration is shown as **NULL** in the CLI of the FMPM node.

Workaround: For FMPM nodes, configure or disable NAT only from the Junos Space Platform UI. [PR 1227595]

- If some devices managed by the Junos Space fabric are down and you configure disaster recovery with NAT enabled, the disaster recovery configuration for the standby site is not pushed to the devices that are down. However, the job associated with the device updates completes successfully.

Workaround: Do one of the following:

- Ensure that all the devices are in the Up state before you add a new node.
- For the devices that are down, manually configure the **outbound-ssh** and **target-address** (SNMP trap target) configuration statements on the device.

[PR 1227196]

- Network monitoring e-mail notifications show incorrect syntax without service name and SNMP details.

Workaround: To prevent this issue, use the following formats to capture special values in the Text message field when you create e-mail notifications for events:

```
ifAlias: %parm[ifAlias]%  
ifDescr: %parm[ifDescr]%  
ifName: %parm[ifName]%  
eventid: %eventid%  
severity: %severity%  
time: %time%  
notice: %noticeid%  
nodeLabel: %nodeLabel%  
interface: %interface%  
service: %service%  
interfaceresolve: %interfaceresolve%
```

[PR 1226885]

- Junos Space Platform fails to discover a device if the device is authenticated with a custom key generated using the openssl genpkey utility and one of the following is true:
 - The key is encrypted using one of the following passphrase ciphers: des, aes128, aes256, or aes192.
 - The key is encrypted using the ECDSA algorithm.

Workaround: Do one of the following:

- Use a custom key generated using the ssh-keygen utility.
- Use a custom key generated using the openssh genpkey utility, but use DSA or RSA as the encryption algorithm.

[PR 1214215]

- When you export operations from the Operations page (using the Export Operations workflow), the options specified for the operation in the Junos Space Platform UI are not exported to the XML file. [PR 1214022]
- In a Junos Space fabric with both eth0 and eth3 interfaces enabled and only IPv6 addresses configured, if you try to add an FMPM node (configured with both IPv4 and IPv6 addresses) using the IPv6 address, the node addition fails. [PR 1217708]
- If a device is discovered using a custom key, you cannot execute local scripts on the device. [PR 1213430]
- If you add X.509 parameters in the Modify Application Settings page (**Administration > Applications > Network Management Platform > Modify Application Settings > X509CertificateParameters**) and click the **Modify** button, Junos Space Platform parses the parameters from the certificate associated with users who do not have the parameters already processed. This means that users for whom the parameters were processed previously will not be processed again.

Workaround: Do one of the following:

- If you already added the X.509 Certificate Parameters and need to modify them later, execute the `/var/www/cgi-bin/parseUserCertificates` script on the Junos Space VIP node.
- If Junos Space Platform is not previously configured to authenticate using X.509 certificate parameters, then remove all the existing X.509 certificate parameters from the Modify Application Settings page and click the **Modify** button to remove all certificate parameters associated with users. Then, add the X.509 Certificate Parameters and click the **Modify** button, which triggers the parsing of the certificates associated with users.

[PR 1175587]

- In a fabric with IPv4 and IPv6 addresses configured, if you modify the IP address of the VIP node using the Junos Space GUI (**Administration > Fabric > Space Node Settings**), then, in some cases, the Junos Space GUI is not accessible.

Workaround:

1. Log in to the VIP node to access the Junos Space CLI and open a debug (command) prompt.
 2. Restart the heartbeat service by using the `service heartbeat start` command.
 3. Log out of the Junos Space VIP node. [PR 1178264]
- In some cases, the **Execute Operation** job displays a negative percentage completion rate. [PR 1083829]

Resolved Issues

This section lists the resolved issues in Junos Space Network Management Platform Release 18.2R1.

For the most complete and latest information about resolved defects, use the Juniper Networks online Junos Problem Report Search application.

- Custom-created surveillance categories are refreshed during network rescan and Network Monitoring service restart, which results in the number of nodes rolling back to zero. [PR-1238995]
- Multiple issues are resolved in Security Director Release 17.2R1 by updating third-party software included with Security Director and other applications. Refer to JSA10840 for more information. [PR 1290124]
- The script `/var/www/cgi-bin/parseUserCertificates` used to force the parameter import from certificates does not work. The script fails when X.509 certificate parameters are not configured on Junos Space Platform. [PR 1324713]

- Modifying the SNMP configuration for self-monitoring in Junos Space Platform deactivates the Node Management Agent (NMA) check on all nodes except for the VP node. [PR 1327249]
- Junos Space nodes keep dropping out of the cluster after configuring multiple sites and activating eth3 interface, resulting in failure of jobs. This issue is caused by the blocking of ports 55201 and 55249. [PR 1332852]
- Device discovery by using ww Junos OS adapter fails in the eth3 interface setup because the device is not reachable from Junos Space Platform through the eth0 interface. [PR 1333010]
- Removal of a certificate revocation list (CRL) does not get updated on all application servers. [PR 1347696]
- Fabric monitoring service does not get updated after reboot of a pure application node. [PR 1349687]
- When Junos Space Platform is upgraded from Release 17.1 to Release 17.2, an unnecessary **rpcbind** service runs, and the process is blocked from external access by the Linux firewall. [PR 1354202]
- If the result of an executed remote procedure call (RPC) exceeds 255 characters, then the RPC execution result is not stored in Junos Space Platform and the job associated with it fails. [PR 1358975]

Documentation Updates

This section lists the errata and changes in Junos Space Network Management Platform Release 18.2R1 documentation:

- From Junos Space Platform Release 15.2R1, the *Frequently Asked Questions* are migrated to [FAQ: Junos Space Network Management Platform](#) on the [Juniper Networks TechWiki](#) and are not available on the [TechLibrary](#).

The *Complete Software Guide* no longer contains the *Frequently Asked Questions*.

Junos Space Documentation and Release Notes

For a list of related Junos Space documentation, see <https://www.juniper.net/documentation/>.

If the information in the latest release notes differs from the information in the documentation, follow the *Junos Space Release Notes*.

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

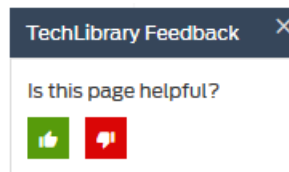
Juniper Networks supports a technical book program to publish books by Juniper Networks engineers and subject matter experts with book publishers around the world. These books go beyond the technical documentation to explore the nuances of network architecture, deployment, and administration using the Junos operating system (Junos

OS) and Juniper Networks devices. In addition, the Juniper Networks Technical Library, published in conjunction with O'Reilly Media, explores improving network security, reliability, and availability using Junos OS configuration techniques. All the books are for sale at technical bookstores and book outlets around the world. The current list can be viewed at <https://www.juniper.net/books>.

Documentation Feedback

We encourage you to provide feedback, comments, and suggestions so that we can improve the documentation. You can provide feedback by using either of the following methods:

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- 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>.
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- 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/>

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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

26 June 2018—Revision 1, Junos Space Network Management Platform Release 18.2R1

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