

Release Notes: Policy Enforcer Release 22.2R1

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Introduction

Junos Space[®] Security Director Policy Enforcer orchestrates threat remediation workflows based on the Juniper Networks Advanced Threat Prevention (ATP Cloud) solution, command-and-control (C&C) server, and GeoIP identification feeds, in addition to other trusted custom feeds from customers. Policy Enforcer enforces security policies on Juniper Networks virtual and physical SRX Series firewalls, EX Series and QFX Series switches, MX Series routers, third-party switch and wireless networks, private cloud and SDN solutions such as Contrail[®] and VMware NSX, as well as on public cloud deployments. On the MX Series router, only DDoS policy is pushed by Policy Enforcer/Security Director. The allowlist, blocklist, and continuity check (CC) policies must be manually configured. Policy Enforcer integrates with Juniper Advanced Threat Prevention Appliance (JATP) to provide a continuous, multistage detection and analysis of Web, e-mail, and lateral spread traffic moving through the network.

Policy Enforcer integrates with the VMware NSX solution to deliver an advanced next-generation firewall feature set that uses vSRX for VMware microsegmentation deployments. Policy Enforcer enables pervasive security across the entire network using switches, routers, and security devices for on-premise scenarios.

NOTE: For details on Security Director Insights as the integrated Policy Enforcer, see [Configure Security Director Insights as Integrated Policy Enforcer](#).

Release Notes for Policy Enforcer

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New and Changed Features

There are no new features and enhancements for Policy Enforcer Release 22.2R1.

For new features and enhancements in Security Director, see [Junos Space Security Director Release Notes](#).

Product Compatibility

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This section describes the supported hardware and software versions for Policy Enforcer. For Security Director requirements, see [Junos Space Security Director Release Notes](#).

Supported Security Director Software Versions

Policy Enforcer is supported only on specific Security Director software versions as shown in [Table 1 on page 3](#).

Table 1: Supported Security Director Software Versions

Policy Enforcer Software Version	Compatible with Security Director Software Version	Junos OS Release (Juniper ATP Cloud Supported Devices)
22.2R1	22.2R1	Junos OS Release 15.1X49-D120 or Junos OS Release 17.3R1 and later

NOTE: The times zones set for Security Director and Policy Enforcer must be the same.

Supported Devices

Table 2 on page 4 lists the SRX Series devices that support Juniper ATP Cloud and the threat feeds these devices support.

NOTE: Table 2 on page 4 lists the general Junos OS release support for each platform. However, each Policy Enforcer software version has specific requirements that take precedence. See Table 1 on page 3 for more information.

Table 2: Supported SRX Series Devices with Juniper ATP Cloud and Feed Types

Platform	Model	Junos OS Release	Supported Threat Feeds
vSRX	2 vCPUs, 4GB RAM	Junos 15.1X49-D60 and later	C&C, antimalware, infected hosts, GeoIP
SRX Series	SRX300, SRX320	Junos 15.1X49-D90 and later	C&C, GeoIP
SRX Series	SRX340, SRX345, SRX550M	Junos 15.1X49-D60 and later	C&C, antimalware, infected hosts, GeoIP
SRX Series	SRX1500	Junos 15.1X49-D60 and later	C&C, antimalware, infected hosts, GeoIP
SRX Series	SRX5400, SRX5600, SRX5800	Junos 15.1X49-D62 and later	C&C, antimalware, infected hosts, GeoIP
SRX Series	SRX4100, SRX4200	Junos 15.1X49-D65 and later	C&C, antimalware, infected hosts, GeoIP
SRX Series	SRX4600	Junos 18.1R1 and later	C&C, antimalware, infected hosts, GeoIP
SRX Series	SRX3400, SRX3600	Junos 12.1X46-D25 and later	C&C, GeoIP
SRX Series	SRX1400	Junos 12.1X46-D25 and later	C&C, GeoIP

Table 2: Supported SRX Series Devices with Juniper ATP Cloud and Feed Types (continued)

Platform	Model	Junos OS Release	Supported Threat Feeds
SRX Series	SRX550	Junos 12.1X46-D25 and later	C&C, GeolP
SRX Series	SRX650	Junos 12.1X46-D25 and later	C&C, GeolP

Table 3 on page 5 describes the hardware and software components that are compatible with JATP.

Table 3: Supported Hardware and Software Versions Compatible with JATP

Platform	Hardware	Software Versions
vSRX		Junos 19.1R1.6 and above
SRX Series	SRX320, SRX300	Junos 19.1R1 and above
SRX Series	SRX4100, SRX4200, SRX4600	Junos 15.1X49-D65 and above for SRX4100 and SRX4200 Junos 18.1R1 and above for SRX4600
SRX Series	SRX340, SRX345, SRX550m	Junos 15.1X49-D60 and above
SRX Series	SRX5800, SRX5600, SRX5400	Junos 15.1X49-D50 and above
SRX Series	SRX1500	Junos 15.1X49-D33 and above

NOTE: The SMTP e-mail attachment scan feature is supported only on the SRX1500, SRX4100, SRX4200, SRX5400, SRX5600, and SRX5800 devices running Junos OS Release 15.1X49-D80 and later. vSRX does not support the SMTP e-mail attachment scan feature.

In Policy Enforcer Release 18.3R1, Policy Enforcer supports SRX Series devices running Junos OS Release 17.3R1 and later.

Table 4 on page 5 lists the supported EX Series and QFX Series switches.

Table 4: Supported EX Series Ethernet Switches and QFX Series Switches

Platform	Model	Junos OS Release
EX Series	EX4200, EX2200, EX3200, EX3300, EX4300	Junos 15.1R6 and later

Table 4: Supported EX Series Ethernet Switches and QFX Series Switches (continued)

Platform	Model	Junos OS Release
EX Series	EX9200	Junos 15.1R6 and later
EX Series	EX3400, EX2300	Junos 15.1R6 and later Junos 15.1X53-D57 and later
QFX Series	QFX5100, QFX5200 vQFX	Junos 15.1R6 and later Junos 15.1X53-D60.4

Table 5 on page 6 lists the supported MX Series routers that support the DDoS and C&C feed types.

Table 5: Supported MX Routers and Feed Types

Platform	Model	Junos OS Release	Supported Feed Types
MX Series	MX240, MX480, MX960	Junos 14.2R1 and later	DDoS
	MX240, MX480, MX960	Junos 18.4R1 and later	C&C <i>(Mark MX Series router as perimeter device in secure fabric).</i> The C&C feed is global and is overridden if the C&C custom feed is set on Policy Enforcer.
	vMX	Junos 16.2R2.8	-

Table 6 on page 6 shows the supported SDN and cloud platforms.

Table 6: Supported SDN and Cloud Platforms

Component	Specification
VMware NSX for vSphere	6.3.1 and later NOTE: For sites that are running vSphere 6.5, vSphere 6.5a is the minimum supported version with NSX for vSphere 6.3.0.
VMware NSX Manager	6.3.1 and later

Third-Party Wired and Wireless Access Network

Table 7 on page 7 lists the third-party support and required server.

Table 7: Third-Party Wired and Wireless Access Network

Switch/Server	Notes
Third-party switch	Any switch model that adheres to RADIUS IETF attributes and supports RADIUS Change of Authorization from ClearPass is supported by Policy Enforcer for threat remediation.
ClearPass RADIUS server	Must be running software version 6.6.0.
Cisco ISE	Must be running software version 2.1 or 2.2.
Forescout CounterACT	Must be running software version 7.0.0. NOTE: To obtain an evaluation copy of CounterACT for use with Policy Enforcer.
Pulse Secure	Must be running software version 9.0R3.

If you use Juniper Networks EX4300 Ethernet switch to integrate with the third-party switches, the EX4300 must be running Junos OS Release 15.1R6 or later.

Juniper Networks Contrail, Microsoft Azure, and AWS Specifications

Table 8 on page 7 shows the required components for Juniper Networks Contrail.

Table 8: Juniper Networks Contrail Components

Model	Software Version	Supported Policy Enforcer Mode
Juniper Networks Contrail	5.0	Microsegmentation and threat remediation with vSRX
vSRX	Junos OS 15.1X49-D120 and later	Microsegmentation and threat remediation with vSRX

Table 9 on page 8 shows the required Policy Enforcer components for AWS.

Table 9: AWS Support Components

Model	Software Version	Supported Policy Enforcer Mode
vSRX	Junos OS 15.1X49-D100.6 and later	vSRX policy based on workload discovery
	Junos OS 19.2R1 and later	AWS with JATP

To get started with Microsoft Azure, see [Getting Started with Microsoft Azure](#).

[Table 10 on page 8](#) shows the required Policy Enforcer components for Microsoft Azure.

Table 10: Microsoft Azure Support Components

Model	Software Version	Supported Policy Enforcer Mode
vSRX	Junos OS 15.1X49-D110.4 and later	vSRX policy based on workload discovery

Virtual Machine

Policy Enforcer is delivered as an open virtual appliance (OVA) or a kernel-based virtual machine (KVM) package to be deployed inside your VMware ESX or Quick Emulator (QEMU)/KVM network with the following configuration:

- 2 CPUs
- 8-GB RAM (16 GB recommended)

You must increase the RAM to 16 GB if you configure more than 256 custom dynamic addresses, allowlist, or blocklist.

- 120-GB disk space

Table 11: Supported Virtual Machine Versions

Virtual Machine	Version
VMware	VMware ESX server version 4.0 or later or a VMware ESXi server version 4.0 or later
QEMU/KVM	CentOS Release 7.9 or later

Supported Browser Versions

Security Director and Policy Enforcer are best viewed on the following browsers.

Table 12: Supported Browser Versions

Browser	Version
Google Chrome	75.x
Internet Explorer	11 on Windows 7
Firefox	67.0 and later

Upgrade Support

You can upgrade to Policy Enforcer Release 22.2R1 from Policy Enforcer Release 21.3R1.

For complete upgrade instructions, see [Upgrading Your Policy Enforcer Software](#).

For more information about the Security Director upgrade path, see [Upgrading Security Director](#).

Migrate Policy Enforcer CentOS 6.8 Virtual Machine (VM) to CentOS 7.9 VM

Before you begin the migration process, you must:

1. Download the 22.2R1 Red Hat Package Manager (rpm) file from the [download site](#) and upgrade Policy Enforcer from Release 21.3R1 to Release 22.2R1. See [Upgrade Your Policy Enforcer Software](#).
2. Release the existing IP address of the Policy Enforcer CentOS 6.8 VM and then use that IP address for installing the Policy Enforcer CentOS 7.9 VM.

To release the existing IP address of the Policy Enforcer CentOS 6.8 VM:

- a. Download the **pe_migration_backup_script.sh** script from the [download site](#) to the Policy Enforcer CentOS 6.8 node.
- b. Execute the following script in the Policy Enforcer CentOS 6.8 VM CLI:

```
sh ./pe_migration_backup_script.sh
```

The script performs the following tasks:

- Releases the Policy Enforcer CentOS 6.8 VM IP address.

NOTE: You must use the released IP address to install the Policy Enforcer CentOS 7.9 VM.

- Takes a backup of the Policy Enforcer database and settings and places the file in `/opt/policy-enforcer/feeder/<peDB-XXXX>.tar`
- c. Enter the new IP address for the Policy Enforcer CentOS 6.8 VM.

NOTE: We recommend that you use the new IP address from the same subnet as the released IP address.

The released IP address of the Policy Enforcer CentOS 6.8 VM is no longer reachable.

To migrate the Policy Enforcer CentOS 6.8 VM to CentOS 7.9 VM:

1. Install the Policy Enforcer Release 22.2R1 VM with CentOS 7.9 using the Open Virtual Appliance (OVA) file from the [download site](#). See [Install Policy Enforcer](#).

NOTE: While installing Policy Enforcer, provide the IP address that was released from the CentOS 6.8 Policy Enforcer VM.

2. Log in to Security Director and navigate to **Administration > Policy Enforcer > Settings**.

Reconfigure the Settings page with the existing IP address (released from the Policy Enforcer CentOS 6.8 VM) and the password of the new Policy Enforcer VM. See [Policy Enforcer Settings](#).

3. Navigate to **Administration > Policy Enforcer > Backup and restore**, select the `<peDB-XXXX>.tar` file, and click **Restore**. See [Policy Enforcer Backup and Restore](#).

Restore the file remotely by clicking on the Remote Restore option. You must remotely restore `/opt/policy-enforcer/feeder/<peDB-XXXX>.tar` file from the Policy Enforcer CentOS 6.8 VM.

4. Migrate the feeds from the Policy Enforcer CentOS 6.8 VM:

- a. Log in to the Policy Enforcer CentOS 7.9 VM CLI.
- b. Download the **migrateFeeds.py** script from the download site and execute the script using the **python2.7 migrateFeeds.py** command.

When prompted, provide the following inputs:

- i. Enter the new IP address of the Policy Enforcer CentOS 6.8 VM.
- ii. Enter the root password of the Policy Enforcer CentOS 6.8 VM.

- iii. Provide the number of days for which you want to copy the feeds and press Enter.

NOTE: You can copy the feeds for a maximum of 365 days.

NOTE: It may take 30 minutes to 1 hour to migrate the feeds to Policy Enforcer CentOS 7.9 VM depending upon the size of feeds and the number of days for which you want to migrate the feeds.

Migrate NSX Manager Data

If you are using the NSX Manager, then after you migrate to Policy Enforcer CentOS 7.9 VM, you must migrate the NSX manager data.

NOTE: You must perform the before you begin steps mentioned in [“Migrate Policy Enforcer CentOS 6.8 Virtual Machine \(VM\) to CentOS 7.9 VM”](#) on page 9, Step 1, Step 2, and Step 3 before proceeding with NSX Manager data migration.

1. Run the **nsx_backup.sh** script on the Policy Enforcer CentOS 6.8 VM node. Enter the backup file path.
This script creates a **.tgz** file with the NSX database and the certificate files.
2. Copy the **.tgz** file to the Policy Enforcer CentOS 7.9 VM node.
3. Run the **nsx_restore.sh** script in the Policy Enforcer CentOS 7.9 VM CLI. Enter the **.tgz** backup file path.
4. Copy the required vSRX OVA files from **/uploads/images/publish/** in the Policy Enforcer CentOS 6.8 VM node to **/uploads/images/publish/** in the Policy Enforcer CentOS 7.9 VM CLI using secure copy protocol (scp).

Known Behavior

This section lists the known behavior in Policy Enforcer Release 22.2R1.

- An error may be displayed in the Status column on the vCenter Task pane when deploying vSRX in host based mode for east-west traffic. To overcome this resource pool error, you must enable DRS mode on the cluster in which you deploy vSRX device.
- When you open the vSRX console through vCenter, ignore the displayed warning.
- You can associate a tenant with only one VRF instance.
- A realm can have all the sites either with tenants or without tenants.
- Tenants and VRF-based feeds are supported only on MX Series devices.
- To take action on the feeds from Policy Enforcer, you must configure policies on the MX Series device through the CLI and not from Security Director.
- To upload certificates for Policy Enforcer, to be used in certificate-based authentication mode of Junos Space, Junos Space must be in password authentication mode to complete the Policy Enforcer settings workflow. The mode can be switched to certificate-based authentication after the Policy Enforcer settings are completed.
- Policy Enforcer supports only the default global domain in Junos Space Network Management.
- When you are creating a connector for third-party devices, it is mandatory to add at least one IP subnet to a connector. You cannot complete the configuration without adding a subnet.
- If you replace a device as part of RMA and if that device is already in secure fabric, you must remove the device from secure fabric and add it again. Otherwise, feeds are not downloaded to the replaced device.
- JATP zone creation or assignment cannot be done in the General Setup Wizard.
- Ensure that the time difference between the JATP and the SRX Series devices is less than 20 seconds to avoid the enrollment failure.
- When the vSRX device is disenrolled with JATP and enrolled again, you might see the device shown twice in the Feed Sources page in Security Director.
- When the feed source is JATP, you must change the Infected host state in the JATP portal. There are no Dashboard widgets to show the JATP related threats or Infected hosts in Security Director.
- During the JATP enrollment, it may state that Juniper ATP Cloud license is not present. You can ignore this warning.
- For SRX Series devices in a chassis cluster, both primary and secondary chassis cluster nodes need to be discovered in Security Director before adding them to secure fabric. If only one chassis cluster node is discovered and added to secure fabric, the feed download does not work after failover to secondary node.

Known Issues

This section lists the known issues in Policy Enforcer Release 22.2R1.

For the most complete and latest information about known Policy Enforcer defects, use the Juniper Networks online [Junos Problem Report Search](#) application.

- You may not be allowed to edit the ClearPass connector password on the Policy Enforcer Connector page.

Workaround: Delete the connector and add it again with the right credentials. [PR1464446]

- Sites associated with tenants (multitenant sites) are shown while creating policy enforcement group. This is applicable for guided setup also. UC-334
- You will be unable to add enforcement points to site after changing the mode when the certificate based authentication is enabled. UC-368

After changing the Policy Enforcer mode in Policy Enforcer settings page, go to **Junos Space® Network Management Platform > Users > pe_user** and manually upload the client certificate.

OR

Go to Junos Space Network Management Platform and change the mode to Password Authentication and perform Policy Enforcer settings again.

- When you download feeds to a device after the realm is deleted and added again in Policy Enforcer, an internal server error is identified.

Workaround:

On Junos OS CLI on the SRX Series device, execute the command **request services security-intelligence download**. [PR1586287]

Resolved Issues

This section list the issue fixed in Policy Enforcer Release 22.2R1.

For the most complete and latest information about resolved Policy Enforcer defects, use the Juniper Networks online [Junos Problem Report Search](#) application.

- After you upgrade Security Director Insights 21.1R1 to Security Director Insights 21.3R1, the Policy Enforcer mode changes from cloudfeeds to ATP Cloud/JATP. [PR1669675]

For resolved issues in Security Director, see [Junos Space Security Director Release Notes](#).

Finding More Information

For the latest, most complete information about known and resolved issues with Junos Space Network Management Platform and Junos Space Management Applications, see the Juniper Networks Problem Report Search application at: <http://prsearch.juniper.net>.

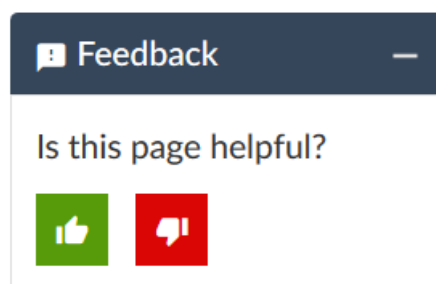
Juniper Networks Feature Explorer is a Web-based application that helps you to explore and compare Junos Space Network Management Platform and Junos Space Management Applications feature information to find the correct software release and hardware platform for your network. Find Feature Explorer at: <http://pathfinder.juniper.net/feature-explorer/>.

Juniper Networks Content Explorer is a Web-based application that helps you explore Juniper Networks technical documentation by product, task, and software release, and download documentation in PDF format. Find Content Explorer at: <http://www.juniper.net/techpubs/content-applications/content-explorer/>.

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

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