

Juniper NETWORKS ATP Cloud Cloud-Based Threat Detection Software User Guide

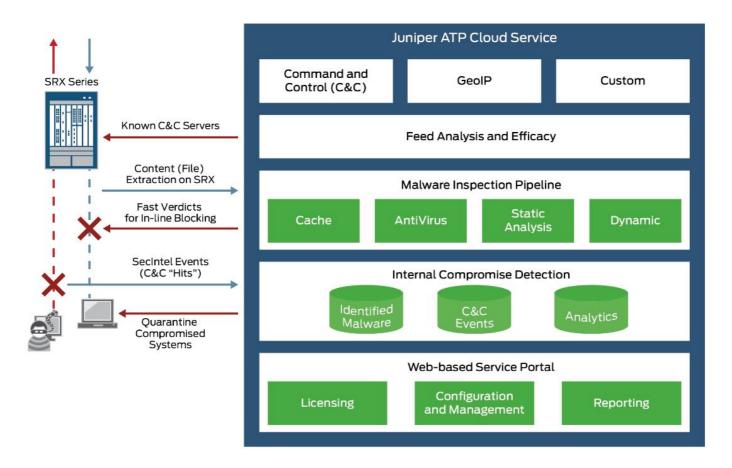
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Juniper NETWORKS ATP Cloud Cloud-Based Threat Detection Software



Advanced Threat Prevention Cloud

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Step 1: Begin

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In this guide, we provide a simple, three-step path, to quickly get you up and running with Juniper Networks® Advanced Threat Prevention Cloud (Juniper ATP Cloud). We've simplified and shortened the configuration procedures

and included how-to videos that show you how to obtain your ATP license, how to configure SRX Series Firewalls for Juniper ATP Cloud, and how to use the Juniper ATP Cloud Web Portal to enroll your SRX Series Firewalls and configure basic security policies.

Meet Juniper ATP Cloud

Juniper ATP Cloud is cloud-based threat detection software that protects all hosts in your network against evolving security threats. Juniper ATP Cloud uses a combination of static and dynamic analysis and machine learning to quickly identify unknown threats, either downloaded from the Web or sent through email. It delivers a file verdict and risk score to the SRX Series firewall which blocks the threat at the network level. In addition, Juniper ATP

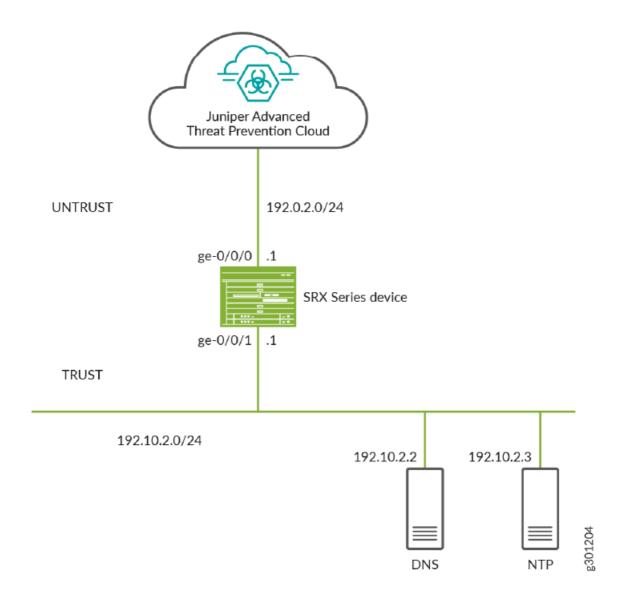
Cloud delivers security intelligence (SecIntel) feeds consisting of malicious domains, URLs, and IP addresses gathered from file analysis, Juniper Threat Labs research, and highly reputable third-party threat feeds. These feeds are collected and distributed to SRX Series firewalls to automatically block command-and-control (C&C) communications.

Want to see how Juniper ATP Cloud works? Watch now:

Video: Juniper Network's Advanced Threat Prevention Cloud

Juniper ATP Cloud Topology

Here's an example of how you can deploy Juniper ATP Cloud to protect a host in your network against security threats.



Get Your Juniper ATP Cloud License

First things, first. You'll need to get your Juniper ATP Cloud license before you can start configuring Juniper ATP Cloud on your firewall device. Juniper ATP Cloud has three service levels: free, basic, and premium. The free license provides limited functionality and is included with the base software. Contact your local sales office or Juniper Networks partner to place an order for a Juniper ATP Cloud premium or basic license. Once the order is complete, an activation code is sent to you by email. You'll use this code in conjunction with your SRX Series Firewall serial number to generate a premium or basic license entitlement. (Use the show chassis hardware CLI command to find the serial number of the SRX Series Firewall).

To obtain the license:

- 1. Go to https://license.juniper.net and log in with your Juniper Networks Customer Support Center (CSC) credentials.
- 2. Select J Series Service Routers and SRX Series Devices or vSRX from the Generate Licenses list.
- 3. Using your authorization code and SRX Series serial number, follow the instructions to generate your license kev.
 - If you are using Juniper ATP Cloud with SRX Series Firewalls, then you don't need to enter the license key because it is automatically transferred to the cloud server. It can take up to 24 hours for your license to be activated.
 - If you are using Juniper ATP Cloud with vSRX Virtual Firewall, the license is not automatically transferred. You'll need to install the license. For more details, see License Management and vSRX Deployments. After the license is generated and applied to a specific vSRX Virtual Firewall device, use the show system license CLI command to view the software serial number of the device.

Get Your SRX Series Firewall Ready to Work with Juniper ATP Cloud

After you've obtained a Juniper ATP Cloud license, you'll need to configure your SRX Series Firewall to communicate with the Juniper ATP Cloud Web Portal. Then you can configure policies on the SRX Series Firewall that use Juniper ATP Cloud cloud-based threat feeds.

NOTE: This guide assumes that you are already familiar with Junos OS CLI commands and syntax, and have experience with administering SRX Series Firewalls.

Before you begin, make sure you have an SSH connection to an Internet-connected SRX Series Firewall. These SRX Series Firewalls support Juniper ATP Cloud:

- · SRX300 line of devices
- SRX550M
- SRX1500
- SRX4000 line of devices
- SRX5000 line of devices
- vSRX Virtual Firewall

NOTE: For SRX340, SRX345, and SRX550M, as part of initial device configuration, you must run set security forwarding-process enhanced-services-mode and reboot the device.

Let's get started and configure interfaces and security zones.

1. Set root authentication.

user@host# set system root-authentication plain-text-password New password:

Retype new password:

NOTE: The password is not displayed on the screen.

- 2. Set the system hostname. user@host# set system host-name user@host.example.com
- 3. Set up interfaces. user@host# set interfaces ge-0/0/0 unit 0 family inet address 192.0.2.1/24 user@host# set interfaces ge-0/0/1 unit 0 family inet address 192.10.2.1/24
- 4. Configure security zones.

The SRX Series Firewall is a zone-based firewall. You'll need to assign each interface to a zone to pass traffic through it. To configure security zones, enter the following commands:

NOTE: For the untrust or internal security zone, enable only the services required by the infrastructure for each specific service.

user@host# set security zones security-zone untrust interfaces ge-0/0/0.0

user@host# set security zones security-zone trust interfaces ge-0/0/1.0

user@host# set security zones security-zone trust host-inbound-traffic system-services all

user@host# set security zones security-zone trust host-inbound-traffic protocols all

5. 5. Configure DNS.

user@host# set system name-server 192.10.2.2

6. Configure NTP.

user@host# set system processes ntp

user@host# set system ntp boot-server 192.10.2.3 user@host# set system ntp server 192.10.2.3 user@host# commit

Up and Running

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Create a Web Portal Login Account for Juniper ATP Cloud

Now that you've got the SRX Series Firewall ready to work with Juniper ATP Cloud, let's log in to the Juniper ATP Cloud Web Portal and enroll your SRX Series Firewall. You'll need to create a Juniper ATP Cloud Web Portal login account, and then enroll your SRX Series Firewall in Juniper ATP Cloud Web Portal. Have the following information handy before you start enrollment:

- Your single sign-on or Juniper Networks Customer Support Center (CSC) credentials.
- A security realm name. For example, Juniper-Mktg-Sunnyvale. Realm names can contain only alphanumeric characters and the dash ("—") symbol.
- Your company name.
- Your contact information.
- An email address and password. This will be your login information to access the Juniper ATP Cloud management interface.

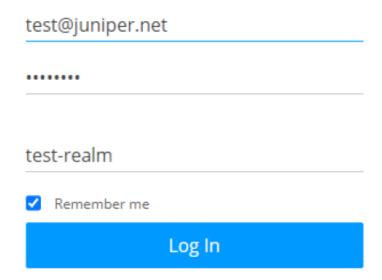
Let's get going!

1. Open a Web browser and connect to the Juniper ATP Cloud Web Portal at https://sky.junipersecurity.net. Select your geographical region— North America, Canada, European Union, or Asia Pacific and click Go. You can also connect to the ATP Cloud Web Portal using the customer portal URL for your location as shown below.

| Location | Customer Portal URL |
|----------------|--|
| United States | https://amer.sky.junipersecurity.net |
| European Union | https://euapac.sky.junipersecurity.net |
| APAC | https://apac.sky.junipersecurity.net |
| Canada | https://canada.sky.junipersecurity.net |

1. The login page opens.





Create a Security Realm Forgot Password Forgot Realm Supported JUNOS Software and Documentation

- 2. Click Create a Security Realm.
- 3. Click Continue.
- 4. To create the security realm, follow the wizard on the screen to enter the following information:
 - Your single sign-on or Juniper Networks Customer Support Center (CSC) credentials
 - · A security realm name
 - · Your company name
 - Your contact information
 - The login credentials for logging into ATP Cloud
- 5. Click OK.

You are automatically logged in and returned to the Juniper ATP Cloud Web Portal. The next time you visit the Juniper ATP Cloud Web Portal, you can log in using the credentials and security realm you just created.

Now that you've created an account, let's enroll your SRX Series Firewall in Juniper ATP Cloud. In this guide, we show you how to enroll your device using the Juniper ATP Cloud Web Portal hosted by Juniper. However, you can also enroll your device using the Junos OS CLI, the J-Web Portal, or the Junos Space Security Director Web Portal. Choose the configuration tool that's right for you:

- Juniper ATP Cloud Web Portal—The ATP Cloud Web Portal is hosted by Juniper Networks in the cloud. You
 don't need to download or install Juniper ATP Cloud on your local system.
- CLI commands—Starting in Junos OS Release 19.3R1, you can enroll a device to the Juniper ATP Cloud using the Junos OS CLI on your SRX Series Firewall. See Enrolling an SRX Series Device without the Juniper ATP Cloud Web Portal.
- J-Web Portal—The J-Web Portal comes preinstalled on the SRX Series Firewall and can also be used to enroll
 an SRX Series Firewall to Juniper ATP Cloud. For details, watch this video:
 - Video: ATP Cloud Web Protection Using J-Web
- Security Director Policy Enforcer—If you are a licensed Junos Space Security Director Policy Enforcer user, you can use Security Director Policy Enforcer to set up and use Juniper ATP Cloud. For more information about using Security Director with Juniper ATP Cloud, see How to Enroll Your SRX Series Devices in Juniper Advanced Threat Prevention (ATP) Cloud Using Policy Enforcer.

When you enroll an SRX Series Firewall, you establish a secure connection between the Juniper ATP Cloud server. Enrollment also:

- Downloads and installs certificate authority (CA) licenses onto your SRX Series Firewall
- · Creates local certificates
- · Enrolls local certificates with the cloud server

NOTE: Juniper ATP Cloud requires that both your Routing Engine (control plane) and Packet Forwarding Engine (data plane) are connected to the Internet. You don't need to open any ports on the SRX Series Firewall to communicate with the cloud server. However, if you have a device in between, such as a firewall, then that device must have ports 80, 8080, and 443 open.

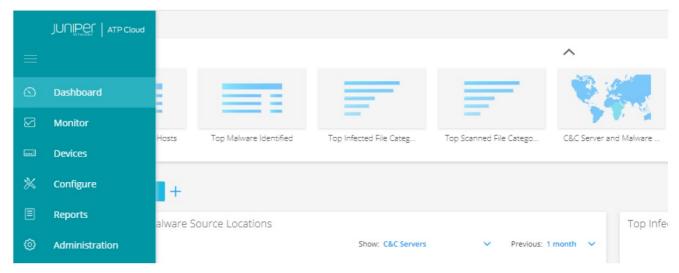
Also, the SRX Series Firewall must be configured with DNS servers in order to resolve the cloud URL.

Enroll Your SRX Series Device in Juniper ATP Cloud Web Portal

Here's how to enroll your SRX Series Firewall in Juniper ATP Cloud Web Portal:

1. Log in to the Juniper ATP Cloud Web Portal.

The Dashboard page displays.



- 2. Click Devices to open the Enrolled Devices page.
- 3. Click Enroll to open the Enroll page.
- 4. Based on the Junos OS version that you are running, copy the CLI command from the page and run the command on the SRX Series Firewall to enroll it.

NOTE: You must run the op url command from operational mode. Once generated, the op url command is valid for 7 days. If you generate a new op url command within that time period, the old command is no longer valid. (Only the most recently generated op url command is valid.)

- 5. Log in to your SRX Series Firewall. The SRX Series CLI opens on your screen.
- 6. Run the op url command that you previously copied from the pop-up window. Simply paste the command into the CLI and press Enter.

The SRX Series Firewall will make a connection to the ATP Cloud server and begin downloading and running the op scripts. The status of the enrollment appears on screen.

7. (Optional) Run the following command to view additional information: request services advanced-anti-malware diagnostics customer-portal detail

Example

request services advanced-anti-malware diagnostics amer.sky.junipersecurity.net detail

You can use the show services advanced-anti-malware status CLI command on your SRX Series Firewall to verify that a connection has been made to the cloud server from the SRX Series Firewall. After it's enrolled, the SRX Series Firewall communicates with the cloud through multiple, persistent connections established over a secure channel (TLS 1.2). The SRX Series Firewall is authenticated using SSL client certificates.

Enroll Your SRX Series Device in J-Web Portal

You can also enroll an SRX Series Firewall to Juniper ATP Cloud using J-Web. This is the Web interface that comes up on the SRX Series Firewall.

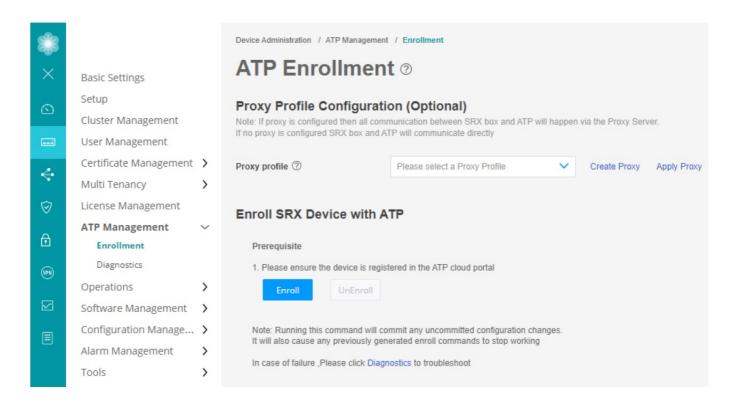
Before enrolling a device:

- Decide which region the realm you create will cover because you must select a region when you configure a realm.
- Ensure the device is registered in the Juniper ATP Cloud Web Portal.
- In CLI mode, configure set security forwarding-process enhanced-services-mode on your SRX300, SRX320, SRX340, SRX345, and SRX550M devices to open ports and get the device ready to communicate with Juniper ATP Cloud.

Here's how to enroll your SRX Series Firewall using J-Web Portal.

1. Log in to J-Web. For more information, see Start J-Web.

- 2. (Optional) Configure a proxy profile.
 - a. In the J-Web UI, navigate to Device Administration > ATP Management > Enrollment. The ATP Enrollment page opens.



- b. Use either of the following methods to configure the proxy profile:
- Click Create Proxy to create a proxy profile.

The Create Proxy Profile page appears.

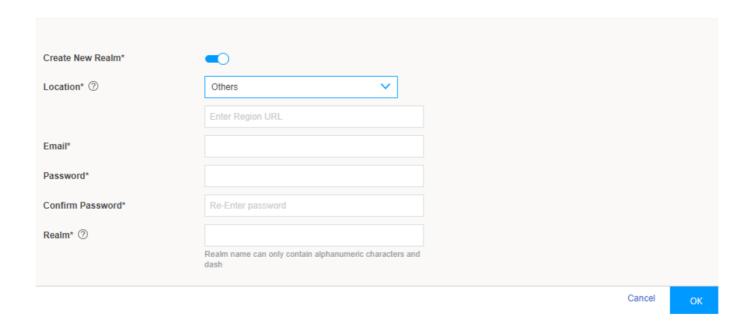
Complete the configuration:

- Profile Name—Enter a name for the proxy profile.
- Connection Type—Select the connection type server (from the list) that the proxy profile uses:
- Server IP—Enter the IP address of the proxy server.
- Host Name—Enter the name of the proxy server.
- Port Number—Select a port number for the proxy profile. Range is 0 through 65,535.

Enroll your device to Juniper ATP Cloud.

a. Click Enroll to open the ATP Enrollment page.

NOTE: If there are any existing configuration changes, a message appears for you to commit the changes and then to proceed with the enrollment process.



Complete the configuration:

- Create New Realm—By default, this option is disabled if you have a Juniper ATP Cloud account with an
 associated license. Enable this option to add a new realm if you do not have a Juniper ATP Cloud account with
 an associated license.
- Location—By default, the region is set as Others. Enter the region URL.
- Email—Enter your e-mail address.
- Password—Enter a unique string at least eight characters long. Include both uppercase and lowercase letters, at least one number, and at least one special character; no spaces are allowed, and you cannot use the same sequence of characters that are in your e-mail address.
- Confirm Password—Reenter the password.
- Realm—Enter a name for the security realm. This should be a name that is meaningful to your organization. A
 realm name can contain only alphanumeric characters and the dash symbol. Once created, this name cannot
 be changed.

Click OK.

The status of the SRX Series Firewall enrollment process is displayed.

Configure Security Polices on the SRX Series Firewall to Use Cloud Feeds

Security policies, such as anti-malware and security-intelligence policies, use Juniper ATP Cloud threat feeds to inspect files and quarantine hosts that have downloaded malware. Let's create a security policy, aamw-policy, for an SRX Series Firewall.

- 1. Configure the anti-malware policy.
 - user@host# set services advanced-anti-malware policy aamw-policy verdict-threshold 7
 - user@host# set services advanced-anti-malware policy aamw-policy http inspection-profile default
 - user@host# set services advanced-anti-malware policy aamw-policy http action permit
 - user@host# set services advanced-anti-malware policy aamw-policy http notification log
 - user@host# set services advanced-anti-malware policy aamw-policy smtp inspection-profile default
 - user@host# set services advanced-anti-malware policy aamw-policy smtp notification log
 - user@host# set services advanced-anti-malware policy aamw-policy imap inspection-profile default

- user@host# set services advanced-anti-malware policy aamw-policy imap notification log
- user@host# set services advanced-anti-malware policy aamw-policy fallback-options notification log
- user@host# set services advanced-anti-malware policy aamw-policy default-notification log
- · user@host# commit
- 2. (Optional) Configure the anti-malware source interface.

The source interface is used to send files to the cloud. If you configure the source-interface but not the source-address, the SRX Series Firewall uses the IP address from the specified interface for connections. If you are using a routing instance, you must configure the source interface for the anti-malware connection. If you are using a nondefault routing instance, you don't have to complete this step on the SRX Series Firewall. user@host# set services advanced-anti-malware connection source-interface ge-0/0/2 NOTE: For Junos OS Release 18.3R1 and later, we recommend that you use a management routing instance

NOTE: For Junos OS Release 18.3R1 and later, we recommend that you use a management routing instance for fxp0 (dedicated management interface to the routing-engine of the device) and the default routing instance for traffic.

- 3. Configure the security-intelligence policy.
 - user@host# set services security-intelligence profile secintel profile category CC
 - user@host# set services security-intelligence profile secintel_profile rule secintel_rule match threat-level [7 8 9 10]
 - user@host# set services security-intelligence profile secintel_profile rule secintel_rule then action block
 drop
 - user@host# set services security-intelligence profile secintel_profile rule secintel_rule then log user@host# set services security-intelligence profile secintel_profile default-rule then action permit
 - user@host# set services security-intelligence profile secintel profile default-rule then log
 - user@host# set services security-intelligence profile ih_profile category Infected-Hosts
 - user@host# set services security-intelligence profile ih profile rule ih rule match threat-level [10]
 - user@host# set services security-intelligence profile ih profile rule ih rule then action block drop
 - user@host# set services security-intelligence profile ih_profile rule ih_rule then log
 - user@host# set services security-intelligence policy secintel policy Infected-Hosts ih profile
 - user@host# set services security-intelligence policy secintel_policy CC secintel_profile
 - · user@host# commit
- 4. NOTE: If you wish to inspect HTTPs traffic, you must optionally enable SSL-Proxy in your security policies. To configure SSL-Proxy, refer to Step 4 and Step 5.
 - Configuring these features will impact the performance of the traffic traversing the applied security policies. (Optional) Generate public/private key pairs and self-signed certificates, and install CA certificates.
- 5. (Optional) Configure the SSL forward proxy profile (SSL forward proxy is required for HTTPS traffic in the data plane). user@host# set services ssl proxy profile ssl-inspect-profile-dut root-ca ssl-inspect-ca user@host# set services ssl proxy profile ssl-inspect-profile-dut actions log all user@host# set services ssl proxy profile ssl-inspect-profile-dut actions ignore-server-auth-failure user@host# set services ssl proxy profile ssl-inspect-profile-dut trusted-ca all user@host# commit
- 6. Configure the security firewall policy. user@host# set security policies from-zone trust to-zone untrust policy 1 match source-address any user@host# set security policies from-zone trust to-zone untrust policy 1 match destination-address any user@host# set security policies from-zone trust to-zone untrust policy 1 match application any

Keep Going

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What's Next?

Now that you have basic security intelligence and anti-malware policies in place, you'll want to explore what else you can do with Juniper ATP Cloud.

| If you want to | Then |
|--|---|
| Specify trusted and untrusted sources for your network | See Create Allowlists and Blocklists |
| Configure how you'd like ATP Cloud to handle email | See Email Management Overview |
| Define which files to send to the cloud for inspection | See Create File Inspection Profiles |
| Configure advanced Juniper ATP Cloud features | See the Juniper Advanced Threat Prevention Administration Guide |

General Information

| If you want to | Then |
|--|--|
| View the Juniper ATP Cloud System Administration G uide | See Juniper ATP Cloud Administration Guide |
| See all documentation available for Juniper ATP Cloud | Visit the Juniper Advanced Threat Prevention (ATP) Cloud Experience First page in the Juniper TechLibr ary |
| See all documentation available for Policy Enforcer | Visit the Policy Enforcer Documentation page in the Juniper TechLibrary. |
| See, automate, and protect your network with Juniper Security | Visit the <u>Security Design Center</u> |
| Stay up-to-date on new and changed features and known and resolved issues | See the Juniper Advanced Threat Prevention Cloud Release Notes |
| Troubleshoot some typical problems you may encount er with Juniper ATP Cloud | See the Juniper Advanced Threat Prevention Cloud Troubleshooting Guide |

Learn with Videos

Our video library continues to grow! We've created many, many videos that demonstrate how to do everything from install your hardware to configure advanced Junos OS network features. Here are some great video and training

resources that will help you expand your knowledge of Junos OS.

| If you want to | Then |
|---|---|
| View an ATP Cloud Demonstration that shows you ho w to setup and configure ATP Cloud | Watch the ATP Cloud Demonstration video |
| Learn how to use the Policy Enforcer Wizard | Watch the Using the Policy Enforcer Wizard video |
| Get short and concise tips and instructions that provid e quick answers, clarity, and insight into specific featur es and functions of Juniper technologies | See <u>Learning with Videos</u> on Juniper Networks main YouTube page |

| If you want to | Then |
|--|---|
| View a list of the many free technical trainings we offer at Juniper | Visit the <u>Getting Started</u> page on the Juniper Learning Portal |

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Documents / Resources



<u>Juniper NETWORKS ATP Cloud Cloud-Based Threat Detection Software</u> [pdf] User Guide ATP Cloud Cloud-Based Threat Detection Software, ATP Cloud, Cloud-Based Threat Detection Software, Threat Detection Software, Detection Software

References

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- J Get Started with Free Juniper Training
- Olicense.juniper.net
- **M** ATP Cloud Customer Support Portal
- J SSL Proxy | Junos OS | Juniper Networks
- J Start J-Web TechLibrary Juniper Networks
- Juniper Licensing User Guide | Licensing | Juniper Networks
- <u>Introduction of the Troubleshooting Guide | ATP Cloud | Juniper Networks | Introduction of the Introduc</u>
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- Juniper Advanced Threat Prevention Cloud (ATP Cloud) Documentation | Juniper Networks
- **Policy Enforcer Documentation | Juniper Networks**
- **J** Security Design Center | Juniper Networks
- Juniper Advanced Threat Prevention Cloud Administration Guide | ATP Cloud | Juniper Networks
- <u>JEmails Overview | ATP Cloud | Juniper Networks</u>
- UCreating Allowlists and Blocklists | ATP Cloud | Juniper Networks
- UCreating File Inspection Profiles | ATP Cloud | Juniper Networks

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