

JUNIPER SKY ENTERPRISE

Product Overview

Network complexity is growing exponentially. Traffic levels continue to rise thanks to the proliferation of mobile and Internet of Things (IoT) devices being connected to enterprise networks. As a result, management operational costs are also on the rise, placing a tremendous burden on a company's bottom line.

Abstracting, simplifying, and hiding this complexity is the first step towards realizing Juniper's bold vision of autonomous networking: the Self-Driving Network™.

Juniper Sky™ Enterprise cloud management service provides centralized visibility into and control over the entire enterprise network through a simple, secure Web portal for managing security and switching devices.

Product Description

Juniper Sky Enterprise is a subscription-based cloud management service designed to abstract, simplify, and hide network complexity from branch and campus customers. Distributed enterprises have traditionally run management software on their own IT infrastructure, a process that required long planning cycles, careful pre-staging of devices, onsite IT staff at branch locations during deployment, and ongoing management, all of which contributed to prohibitively high installation and maintenance costs. With Juniper Sky Enterprise, customers no longer need to purchase, install, and maintain servers and management software in their own environment, allowing enterprises to scale capacity up or down based on existing business demands. Juniper Sky Enterprise, which is updated regularly with the latest secure software and features, enables the network to be managed centrally with minimal input from IT, allowing staff to focus on core business activities, and ultimately realize significant CapEx and OpEx savings.

Juniper Sky Enterprise greatly simplifies network operations by automating time-consuming tasks such as pre-staging or applying configurations. New managed devices are automatically and securely onboarded and constantly monitored to ensure the network is operating at the highest possible performance levels.

Juniper Sky Enterprise can co-exist and operate in parallel with other management systems. Experienced IT staff can also customize Juniper Sky Enterprise to configure advanced Juniper Networks® Junos® operating system features.

Juniper Sky Enterprise provides access to Juniper's secure cloud management portal for Juniper Networks SRX Series Services Gateways and EX Series Ethernet Switches and includes 24/7 global support.

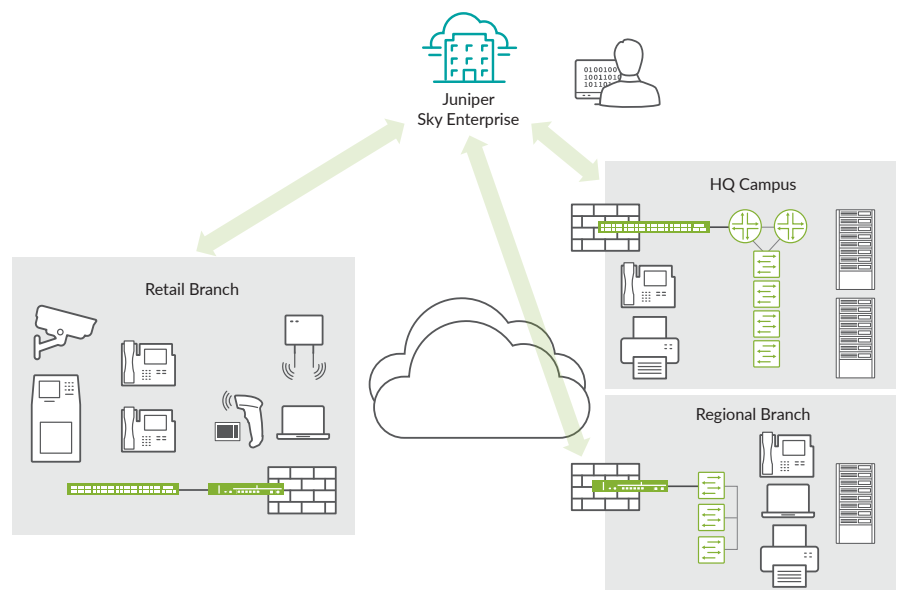


Figure 1: Juniper Sky Enterprise deployment

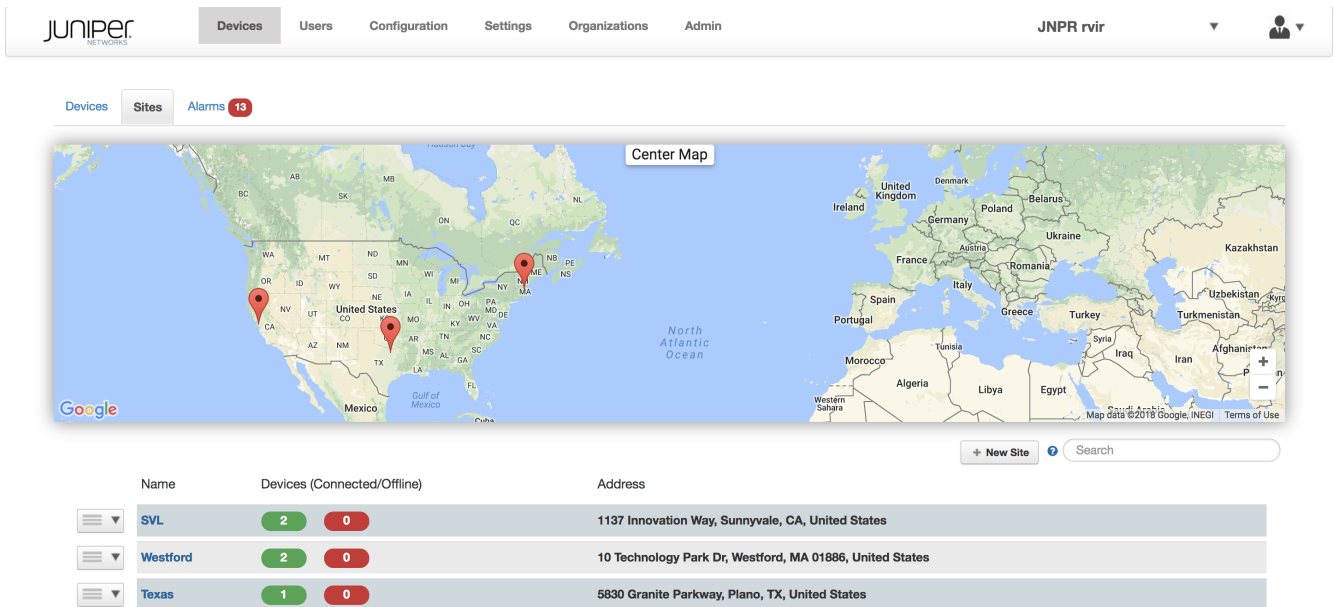


Figure 2: Juniper Sky Enterprise cloud management service portal

Features and Benefits

Juniper Sky Enterprise offers a number of valuable benefits, including:

- Simple, centralized management reduces reliance on skilled resources.
- Network moves, additions, changes, and deletions are dramatically simplified and accelerated.
- Remote administration and ZTP eliminates the need for expensive truck rolls.
- Centralized knowledge base includes all network devices.
- Operational costs are reduced and customer service is improved.
- High-performance Juniper devices are easily deployed without the complexity of management.
- Quick setup requires no Junos OS skills.
- Global networks can be managed from anywhere using just a browser.
- CLI access and use is fully supported.

Architecture and Key Components

Juniper Sky Enterprise Cloud Architecture

Running in an elastic, multitenant, secure, and reliable cloud infrastructure, Juniper Sky Enterprise leverages geographically dispersed SSAE16 SOC-1/2/3-compliant data centers to deliver best-in-class reliability. The highest levels of physical and infrastructure security ensure that data is kept private—no user traffic passes through the Juniper Sky Enterprise system.

Simplified Setup and Installation

Juniper Sky Enterprise offers Zero-Touch Provisioning (ZTP) for supported Juniper devices, removing the need for costly truck rolls. Branch deployments can be onboarded quickly and easily using phone-home servers and ZTP templates. Customers can also replace devices under warranty using the same process, detailed below and shown in Figure 3.

- 1) A new device is delivered directly to the site.
- 2) The device is powered on and phones home to Juniper Sky Enterprise.
- 3) The device can be validated by the network administrator for higher security.
- 4) The production configuration is applied to device and the device is deployed.

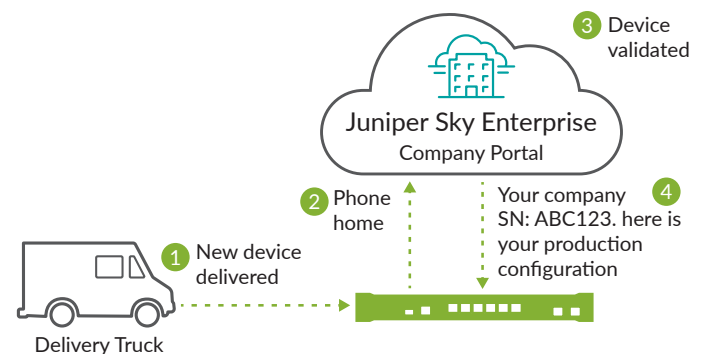


Figure 3: Zero-Touch Provisioning (ZTP) process with Juniper Sky Enterprise

Total AppSecure Data: 0.7 TB (top 10: 0.5 TB, others: 194 GB)

Application Name	Sessions	Bytes	Category	Risk (1= low, 5= high)
OFFICE365-CREATE-CONVERSATION	595427	159 GB	Web	4
SSL	1120819	79 GB	Infrastructure	1
LCP	688	79 GB	Infrastructure	2
GOOGLE	105584	46 GB	Web	3
HTTP	1364767	43 GB	Web	5
PPTP	220572	38 GB	Web	4
FACEBOOK-VIDEO-STREAM	22175	24 GB	Web	2
FACEBOOK-ACCESS	102023	20 GB	Web	5
OUTLOOK	53833	16 GB	Web	3
SPOTIFY	17578	16 GB	Multimedia	2

Top Applications

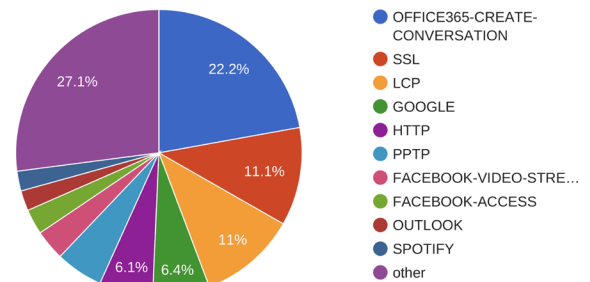


Figure 4: Juniper Sky Enterprise Application and Network Risk report

Juniper Sky Enterprise supports the following production configuration features and functionality:

- ZTP templates
- Single button “actions” for common remediation tasks such as Set Rescue Configuration
- Bulk updates for configuring multiple devices at once
- Commit compare and rollback
- Automated commit confirm
- Configuration change, audit, and backup

Cyber Threat Visibility and Protection

Juniper Sky Enterprise includes detailed reporting capabilities for advanced SRX Series Services Gateways functions like AppSecure , unified threat management (UTM)¹, and Juniper Sky Advanced Threat Prevention¹. To help users get the most value

from these advanced features, Juniper Sky Enterprise provides detailed insights into the threats and risks that SRX Series devices have detected and mitigated.

Juniper Sky Enterprise’s Application and Network Risk (ANR) Reports are presented in a clear, colorful, and simple format using charts and tables. These make it easy for administrators to understand the business risks present in their network; and, they demonstrate the value that the SRX Series gateway delivers to critical business infrastructure.

Security Policy Rule Configuration

Users can view all configured security policies and zones through a clean interface. Network Address Translation (NAT) source and destination policy rule sets can be made in one simple action.

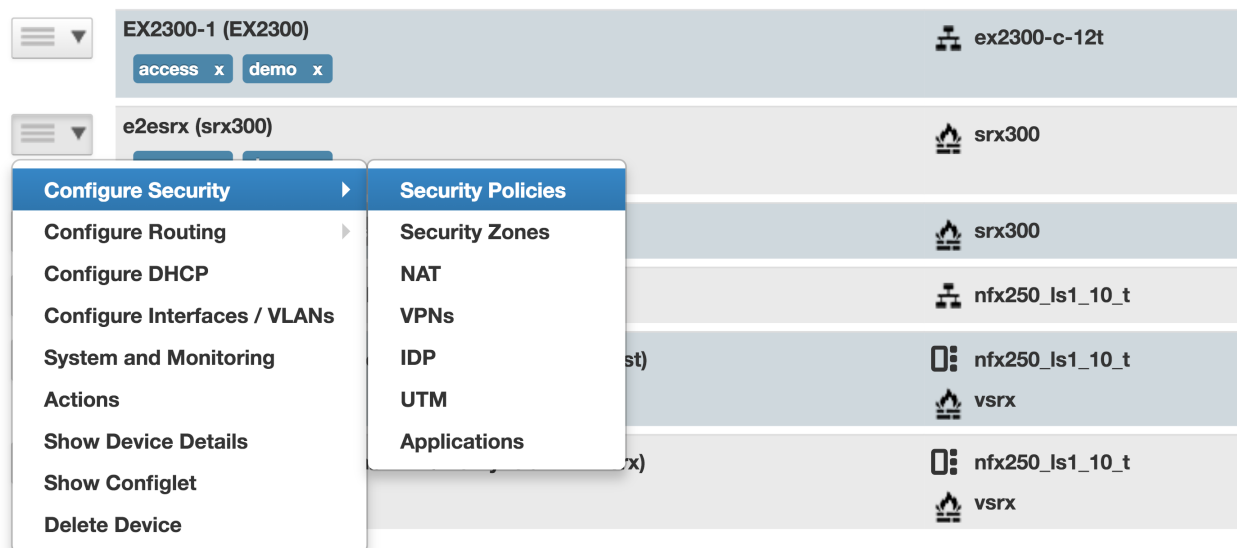


Figure 5: Security policy configuration screens

¹ Separate license required

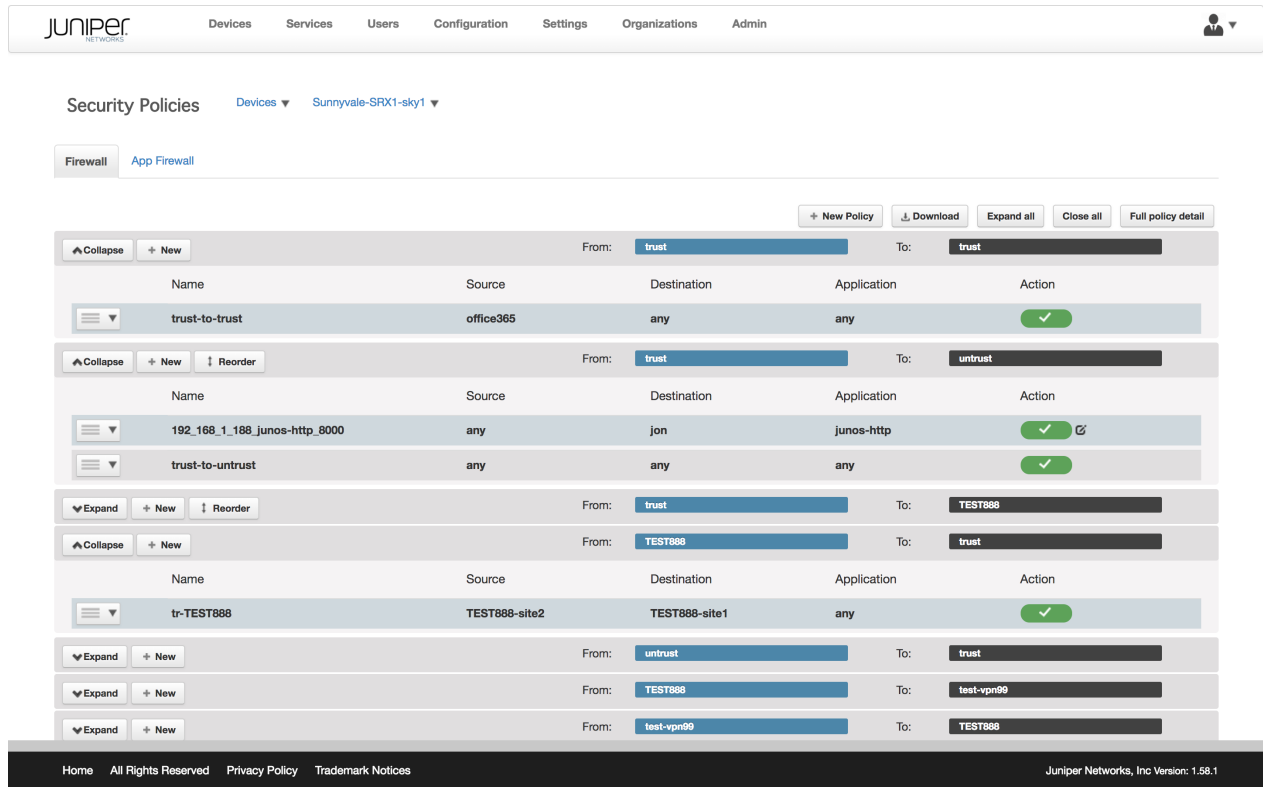


Figure 5: Security policy configuration screens

Juniper Sky Enterprise supports the following security configuration features and functionality:

- Security policies, zones, NAT, intrusion detection and protection (IDP), and UTM
- Ability to create and monitor IPsec VPNs and route traffic using advanced policy-based routing (APBR) to optimized business performance
- User administration, two-factor authentication, role-based access control (RBAC)
- Audit change log
- Dynamic Host Configuration Protocol (DHCP) and static routes
- Secure Policy template

Switch Infrastructure Management

Juniper Sky Enterprise provides a simple interface for configuring and managing switches, VLANs, and routes, as well as for monitoring switch resources and capacity. Juniper Sky Enterprise also provides full access to Power over Ethernet (PoE) switch settings, including enabling and disabling PoE on individual ports, configuring PoE priority, and monitoring PoE-connected devices. Juniper Sky Enterprise also recognizes and displays EX Series switches deployed in a Virtual Chassis configuration, which allows interconnected platforms to operate as a single, logical device.

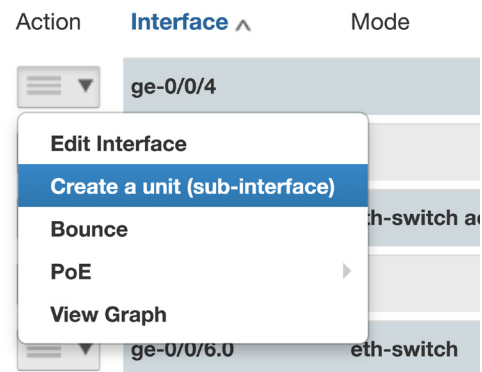


Figure 6: Configuring interfaces

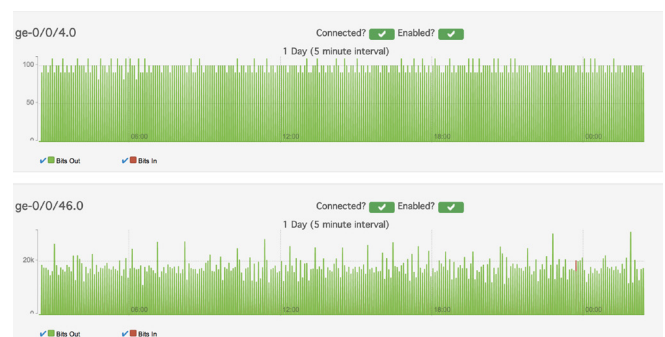


Figure 7: Interface resource utilization graph

Configure PoE

Interface

ge-0/0/1

Enabled

Enable

Priority

high

Maximum Power (W)

18

Cancel

Update PoE

PoE Details

Interface Name Detail

ge-0/0/1

Interface Enabled Detail

Enabled

Interface Status Detail

ON

Interface Power Limit Detail

30.0W

Interface Priority Detail

High

Interface Power Detail

4.8W

Interface Class Detail

4

Interface Mode Detail

802.3at

Close

Figure 8: PoE interface settings and information

Juniper Sky Enterprise supports the following switch infrastructure configuration management features and functionality:

- Ability to view, search, and edit all interfaces, including Ethernet switch, Link Layer Discovery Protocol (LLDP) neighbor, and Address Resolution Protocol (ARP) tables

- Ability to create and edit VLANs and ranges, as well as aggregate Ethernet interfaces (link aggregation group), bounce interfaces, and more
- PoE configuration

Software Image Management and Device Upgrade

Juniper Sky Enterprise enables the centralized distribution and deployment of Junos OS software, allowing hundreds of devices to be upgraded simultaneously with minimal effort. A detailed upgrade report is provided when complete.

Monitoring and Reporting

Juniper Sky Enterprise offers real-time visibility into key metrics for Juniper devices, highlighting performance trends and potential security issues on the network. Advanced SRX Series reporting for AppSecure, UTM, and Juniper Sky ATP provide granular insights into applications and threats.

Juniper Sky Enterprise supports the following monitoring and reporting features and functionality:

- PoE monitoring
- Live packet capture to perform deep-dive traffic flow inspections
- License tracking
- System alarms and SMTP device availability alerting
- Site location visualization
- Ethernet switch tables, LLDP neighbor tables, and ARP tables
- Device performance trends



Figure 9: Juniper Sky Enterprise system and security reports

- Visibility into Mist and Aerohive Wi-Fi access points
- Diagnostic tools including ping and traceroute
- Detailed asset reporting
- Real-time performance graphs
- Tags for categorizing and grouping devices

Specifications

Table 1: Supported Platforms

Juniper Supported Platforms	Junos Releases
EX Series Ethernet Switches	18.x, 17.x, 15.x, 14.x, 13.x, 12.x
SRX Series Services Gateways	18.x, 17.3, 15.1X49, 12.3X48, 12.1X47, 12.1X46, 12.1X45, 12.1X44
NFX Series Network Services Platforms	18.2, 15.1x

Table 2: Feature Availability

Features	Releases
Phone home	<ul style="list-style-type: none"> • SRX Series starting with release 15.1X49-D110 • EX2300, EX3400 Ethernet Switches • EX4300 Ethernet Switches starting with release 18.3 • EX4600 Ethernet Switches starting with release 18.2 • NFX150-C, NFX150 Network Services Platform with release 18.2X85-D10.2 • NFX250 Network Services Platform starting with release 15.1X53-D492

Juniper Networks Service and Support

Juniper Networks is the leader in performance-enabling services that are designed to accelerate, extend, and optimize your high-performance network. Our services allow you to maximize operational efficiency while reducing costs and minimizing risk, achieving a faster time to value for your network. Juniper Networks ensures operational excellence by optimizing the network to maintain required levels of performance, reliability, and availability. For more details, please visit www.juniper.net/us/en/products-services/network-management/sky-enterprise/

Ordering Information

Supported Devices ²	Features	Description
Small Site (Group A)		
- EX2300, EX3400 - SRX300, SRX320 - NFX150-C	24/7 Juniper Sky Enterprise support ANR reports	1 year subscription: SKY-ENT-GROUPA-1YR 3 year subscription: SKY-ENT-GROUPA-3YR
Medium Site (Group B)		
- All Group A devices - EX4300 - SRX340, SRX345, SRX550 - NFX150, NFX250	24/7 Juniper Sky Enterprise support ANR reports	1 year subscription: SKY-ENT-GROUPB-1YR 3 year subscription: SKY-ENT-GROUPB-3YR
Campus (Group C)		
- All Group B devices - EX4600, EX4650, EX9200, EX9251, EX9253 - SRX1500, SRX4x00, SRX5x00 - QFX5100	24/7 Juniper Sky Enterprise support ANR reports	1 year subscription: SKY-ENT-GROUPC-1YR 3 year subscription: SKY-ENT-GROUPC-3YR

²Licensing is per device. Other hardware platforms may be supported. Refer to support documentation.

About Juniper Networks

Juniper Networks brings simplicity to networking with products, solutions and services that connect the world. Through engineering innovation, we remove the constraints and complexities of networking in the cloud era to solve the toughest challenges our customers and partners face daily. At Juniper Networks, we believe that the network is a resource for sharing knowledge and human advancement that changes the world. We are committed to imagining groundbreaking ways to deliver automated, scalable and secure networks to move at the speed of business.

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Simplicity**



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