

# JUNOS SPACE SDK

## Product Overview

Application development has generally meant long, expensive development cycles, limited cross-application development leverage, and a network engineering-centric approach. This has forced developers to focus on costs, cycle times, and foundational code rather than innovative applications.

Juniper Networks Junos Space SDK is an open, network-centric application development toolkit explicitly designed to enable developers to use the information embedded in the network to create unique, differentiated applications quickly, easily, and economically, providing endless possibilities for network intelligence, such as:

- Real-time policy management
- Energy usage and tracking
- Custom workflows
- Network insight for business intelligence
- Correlation of user subscribed services
- Policy and QoS management

## Product Description

Juniper Networks® Junos® Space SDK is the industry's most complete developer toolkit specifically designed for an easy creation of network-aware applications. Space SDK enables developers to fully leverage network intelligence and services from the Junos Space network application platform to develop differentiated applications. Building sophisticated workflow engines, core business logic, streamlined interfaces for operational tools or a new fully integrated Junos Space application is all possible with the Junos Space SDK.

Space SDK enables developers to leverage the Junos Space network application platform to abstract the capability and connections to your Juniper Networks routers, switches, and firewalls. It encompasses a rich set of tools including RESTful APIs, the Eclipse Integrated developer environment, device simulators, reference applications, support tools and documentation.

## Architecture and Key Components

Junos Space SDK leverages well-known technologies and constructs to create an extremely flexible software development environment.

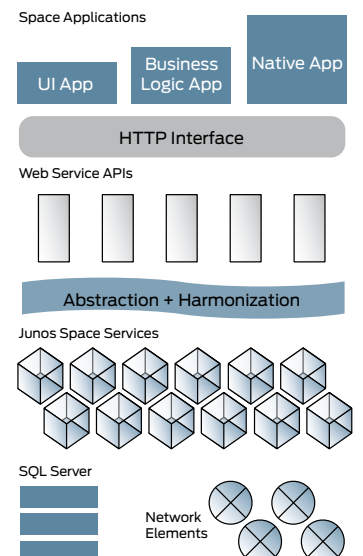
**Applications**— Language independent web services are used to create or enhance applications with insight from Junos Space.

**Web Services APIs**—This abstraction layer presents harmonized access to the underlying capabilities of Junos Space through HTTP interfaces.

**Info Service**—A dedicated service for use in discovering available APIs provided by the platform and hosted applications.

**Infrastructure Services**—Access the platform's fundamental capabilities for use in creating applications that leverage network services.

**Network and Device Services**—These services provide a model for interacting with devices that abstracts away the specifics of the device connection and communication protocols.



**Database Access**—Applications have abstracted access to the underlying Junos Space database.

## Building an Application

The Junos Space SDK offers developers flexible options for creating applications. These include:

**Data Applications** – Build applications that use and combine data, insight or functionality from the Space platform, its Apps or external sources to create new services. It's a fast and easy way to integrate open APIs and data sources to produce enriched results that were not necessarily the original reason for producing the raw source data.

**Workflows** – Create new application logics to add capabilities to Space, while at the same time expressing through APIs for use in

other Space-hosted or external applications. It's a great way to collect insight, process and make available to others.

**Rich Applications** – Design and implement fully native Space applications, that add capabilities to the platform, create new APIs for use by others and can integrate open APIs and data sources to further enrich their capabilities and experience. It's a robust way to own the experience, gather insight and take action.

**Integration** – Access insight and take actions from external applications and services, Space web services allow you to access the capabilities of the platform through HTTP to further enrich the capabilities and experience of your stand-alone or externally hosted applications. It's a language independent method to access Space and to make your applications and services network aware.

## Features and Benefits

FEATURES	BENEFITS
Junos Space plug-in for wizard-based Eclipse IDE	<ul style="list-style-type: none"><li>Simplified application development of Junos Space applications</li><li>Rapid creation of the primary Junos Space application types</li><li>Increased efficiency with custom features including grouping views, auto completion, syntax check, and wizards</li></ul>
Ext designer, Custom UI designer	<ul style="list-style-type: none"><li>Rapid user interface prototyping</li><li>Easy, fast collaboration with development team members</li><li>Quick, easy integration of data stores into your interface from any data source (JSON, XML, or custom)</li><li>Building rich Internet applications with industry standard JavaScript library</li><li>Ease of design and configuration with drag-and-drop designer components</li></ul>
RESTful Web services	<ul style="list-style-type: none"><li>Reusable across popular platforms</li><li>Easily consumable services using basic XML rather than SOAP</li><li>Support for all typical CRUD (create, update, and delete) operations through HTTP methods</li></ul>
Simulators, virtual machine included with the developer environment	<ul style="list-style-type: none"><li>Fast, easy application performance and scale optimization by simulating Juniper runtime environment</li><li>Reduced test/staging costs with a fully functional instance of the Junos Space network application for test/deployment of Junos Space SDK-based applications</li><li>Ability to test applications against virtual Junos OS with the device and element simulators</li></ul>

## Juniper Networks Service and Support

Juniper Networks is the leader in performance-enabling services and support, which are designed to accelerate, extend, and optimize the high-performance network. Our services allow you to bring revenue-generating capabilities online faster so you can realize bigger productivity gains and faster rollouts of new business models and ventures. At the same time, 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/products-services](http://www.juniper.net/products-services).

## Program Information

For more information on the Junos Space SDK platform, please visit [www.juniper.net/junos-space-sdk](http://www.juniper.net/junos-space-sdk).

## About Juniper Networks

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking. The company serves customers and partners worldwide. Additional information can be found at [www.juniper.net](http://www.juniper.net).

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