

JUNIPER AND KENTIK DELIVER AI-POWERED NETWORK OBSERVABILITY

An integrated and modern, cloud-based approach to network deployment and monitoring

Challenge

Deploying, automating, and managing your network at scale is a complicated challenge potentially involving dozens or hundreds of components and applications. Both tedious and error-prone, the process can introduce security and performance risks to an organization.

Solution

Juniper and Kentik provide an integrated and modern cloud-based approach to network deployment and monitoring. The combined solution eliminates the pain, toil, and propensity for errors by simplifying and automating network planning and administration through a simple SaaS-based approach.

Benefits

- *Eliminates the typical burden and complexity of network deployment and management*
- *Replicates and automates common tasks across the entire network infrastructure*
- *Reduces errors*
- *Deploys an advanced network monitoring solution using a modern SaaS-based approach*
- *Eliminates the need for costly advanced training through easy-to-use interfaces*

The Challenge

Network professionals are under intense pressure to build and manage high-performing networks for their organizations. Critical applications demand more from the network than ever before. Different network deployment models such as cloud or WAN services, and different Software as a Service (SaaS) providers pose their own set of challenges. Those concerns, combined with new and ongoing security threats and performance problems, give network managers a lot to juggle. There's an incredible need to make network deployment and ongoing management easier.

The Juniper Networks and Kentik Solution

Using modern cloud-based technologies and advanced user-facing interfaces, Juniper and Kentik take a modern approach to network deployment and administration. Their joint solution combines AI- and ML-based insights with ops techniques to ease and simplify network management.

The Kentik Network Observability Cloud is a SaaS-based platform that gathers telemetry data from all networks (corporate, cloud, and Internet) and combines that data with context around applications, locations, users, and more to provide insights about the entire environment. Kentik provides observability for networks across data centers, private and public clouds, WAN and SD-WAN edges, CDNs, ISPs, and service provider networks.

Kentik connects easily with Juniper infrastructure and existing network solutions. Kentik not only takes in data from Juniper solutions but also offers technology integrations into infrastructure components like distributed denial of service (DDoS) services, WAN and SD-WAN edge devices, firewalls, Web gateways, VPNs, test access point solutions, and response systems/IT service management solutions such as Opsgenie, ServiceNow, PagerDuty, Slack, and more.

Features and Benefits

Together, Juniper and Kentik help organizations:

- Benefit from the ease of SaaS and also the power of big data—turning flow, performance, BGP, SNMP, and geolocation data into powerful, real-time insights for network traffic analysis, network performance monitoring, network planning, and DDoS protection.

- Manage digital experiences by monitoring user experience across SaaS apps, WANs, and clouds at the same time as the campus network. Auto-configure performance tests based on actual traffic, allowing operation teams to better plan network capacity and optimize flows.
- Troubleshoot networks by auto-detecting problems and anomalies as they begin, and proactively troubleshoot issues before they affect performance.
- Optimize cloud connectivity by providing a view of all data center and cloud networks from a single place, with dashboards and network topology maps with full context. Ops teams can understand traffic flows to, from, and in clouds so they can improve performance, security, user experience, and cost.

Solution Components

EX Series Ethernet Switches

Juniper Networks® EX Series Ethernet Switches deliver enterprise-grade performance to meet both business requirements and technical needs. They offer a robust feature set, including multigigabit rates (1/2.5/5/10GbE), Power over Ethernet (PoE up to 90 W), Media Access Control Security (MACsec), and cloud-readiness (from Day 0 to Day 2+), to name just a few.

The latest addition to the EX Series family of switches is the Juniper Networks EX4400 Ethernet Switch. This AI-powered switching platform is optimized for cloud, with advanced security for high-performance campus deployments. The feature-rich EX Series switches complement Juniper’s Wi-Fi portfolio, providing a unified wired and wireless solution that delivers simple and secure connectivity at scale, driven by Mist AI™.

The Kentik Network Observability Platform

The Kentik solution gathers network telemetry data in a high-performance SaaS platform and presents that data so that users get a complete picture of network conditions, including:

- Built-in workflows for comprehensive network traffic analysis and understanding
- Tools for network troubleshooting allowing users to identify and zoom in on problem spots
- Custom queries and deep analysis of the raw traffic telemetry data through Data Explorer
- Workflows for security analysis and attack prevention
- Synthetic traffic generation and measurement to proactively monitor performance conditions

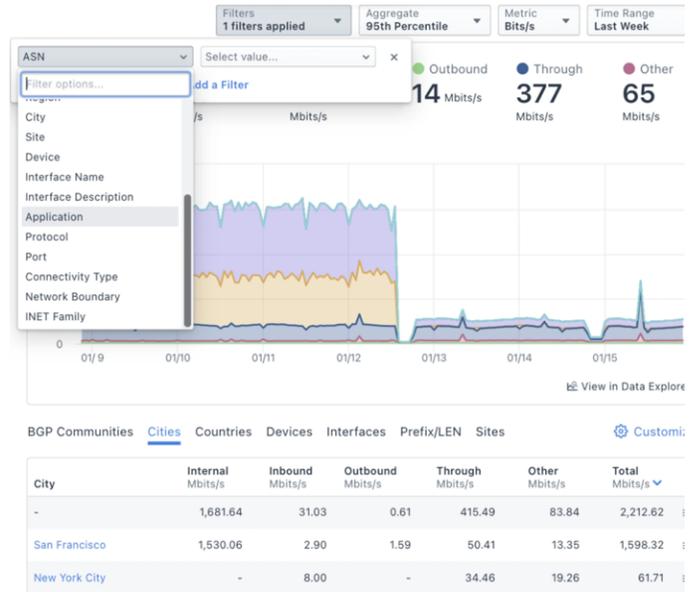


Figure 1: The Kentik SaaS-based Network Observability Cloud makes it easy to analyze traffic, receive custom insights and alerts, take protective security measures, and proactively monitor network performance.

Summary—Cloud-Based AI-Powered Network Deployment and Monitoring

Kentik and Juniper give network professionals the information and visibility they need to understand network performance, health, and security, so they can make their business-critical services shine.

The Kentik Network Observability platform provides unified visibility for the entire network infrastructure, including cloud, data center, and Internet. The fully managed SaaS service frees IT teams from onerous deployment and upgrade cycles. The Kentik SaaS platform collects data using a variety of methods such as direct, via proxy agents, or via private network interconnects to network devices. Network telemetry data is correlated, stored, and aggregated at presentation time via the Kentik web-based portal, REST API, or raw data stream. All data presentation and outputs provide a single-pane-of-glass view into the network infrastructure and data.

Juniper EX4400 Ethernet Switch is a cloud-ready AI-powered access switching platform with advanced security for high-performance campus deployments. Easy to onboard, configure, and manage, the EX4400 switch uses Mist AI to simplify operations and improve visibility into the performance of connected devices.

Together, Kentik and Juniper provide an integrated, cloud-based approach that modernizes network deployment and monitoring.

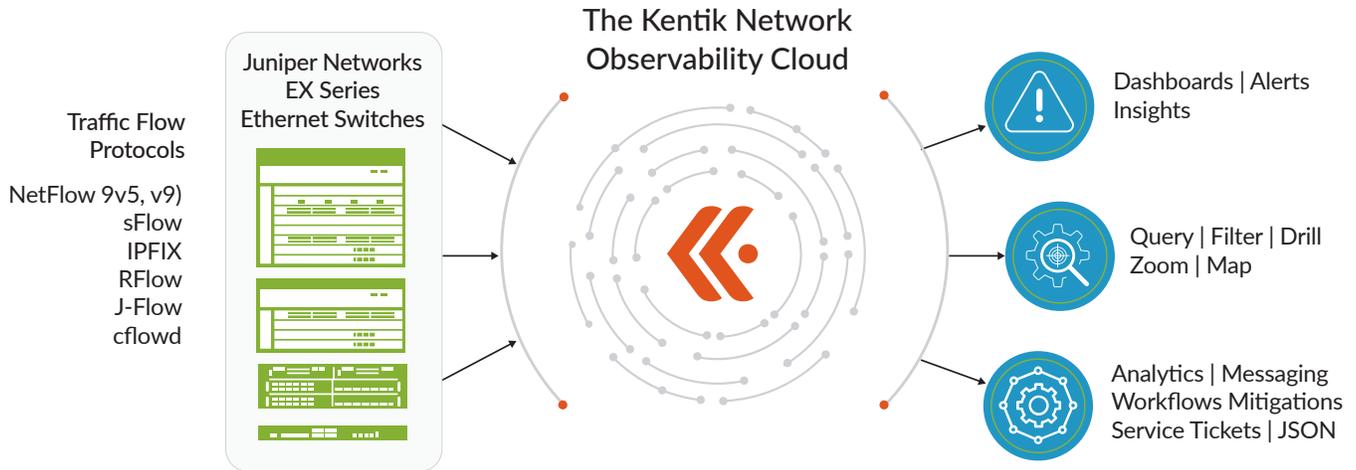


Figure 2: The Kentik SaaS-based platform collects, correlates, stores, and analyzes telemetry data from the entire network, and it offers a single-pane-of-glass portal for viewing network flow, performance, metrics, and security.

Next Steps

To learn more about the joint Juniper-Kentik solution, please contact your Kentik or Juniper representative, or visit www.kentik.com and www.juniper.net/us/en/products/switches/ex-series.html/.

About Juniper Networks

At Juniper Networks, we are dedicated to dramatically simplifying network operations and driving superior experiences for end users. Our solutions deliver industry-leading insight, automation, security and AI to drive real business results. We believe that powering connections will bring us closer together while empowering us all to solve the world's greatest challenges of well-being, sustainability and equality.

About Kentik

Kentik is the network observability company. Our platform is a must-have for the network front line, whether digital business, corporate IT, or service provider. Network professionals turn to the Kentik Network Observability Cloud to plan, run, and fix any network, relying on our infinite granularity, AI-driven insights, and insanely fast search. Kentik makes sense of network, cloud, host, and container flow, Internet routing, performance tests, and network metrics. We show networking pros what they need to know about their network performance, health, and security to make their business-critical services shine. Networks power the world's most valuable companies, and those companies trust Kentik for network observability. Market leaders like IBM, Box, and Zoom rely on Kentik for network observability. Visit us at kentik.com and follow us at [@kentikinc](https://twitter.com/kentikinc).

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