

# AI-NATIVE ENTERPRISE ROUTING SOLUTION BRIEF

Easily Adopt Juniper's Proven, Versatile, And Sustainable WAN Routing Solutions And Empower Your Network Operations With The First Juniper AI WAN Copilot.

*A paradox exists for enterprises: While IT's strategic importance is growing, budgets are shrinking, challenging companies to do more with less. As a result, IT organizations are seeking solutions that allow them to move from a reactive position to a proactive one. This change—from network-centric to user-centric and from manual to automated—mitigates downtime, optimizes resources, and reduces the need for human intervention.*

The [Juniper AI-Native Networking Platform](#) is the culmination of nine years of AI learning. Juniper's platform delivers end-to-end assurance across various domains, including wired and wireless access, WAN, [security](#), data center, and routing, with a focus on providing flawless user experiences.

Unlike other solutions, Juniper's platform integrates real, proven AI into its architecture, ensuring networks are optimized and adaptable from the outset. By prioritizing experience-first questions and leveraging the right technical ingredients, including industry-leading [AIOps](#) capabilities, Juniper ensures networks are equipped to deliver exceptional performance and address issues proactively.

[Juniper's AI-Native Networking Platform](#) is built on a strong foundation of the right data, actionable responses, and secure infrastructure. It offers unparalleled agility, automation, and assurance, marking a significant leap forward in networking technology.

## Challenges in WAN

In today's fast-paced digital landscape, enterprises face a multitude of challenges as they strive to stay ahead of the curve in an increasingly competitive environment. And organizations that see their [WAN](#) as a critical element of their success are looking to modernize it. They need their WAN to become more agile. Ideally, a WAN has the agility to allow workload repatriation from public to private cloud, ensure datacenters support AI workloads, and guarantee the best application performance to their line of business. Additionally, enterprises rely on their WAN's performance to offer flexibility for employees and partners to work from any location.

A need exists for technology that discovers network problems prior to impacting end users. Network managers want to automate repetitive tasks to free up skilled workers to focus on business critical applications.

### Complex network operations: How to do more with less

Traditional networking practices often fail to detect and resolve network issues in a timely manner, leading to operational inefficiencies and user dissatisfaction. Network problems frequently go undetected by IT teams, highlighting the urgent need for proactive monitoring and management solutions to optimize network performance and ensure seamless user experiences.

### Growing need for sustainability: How to streamline processes

Enterprises are under mounting pressure to embrace [sustainability](#) and environmental stewardship, demanding climate-friendly technologies and practices across their operations. Enhancing power efficiency in the WAN emerges as a critical priority, driven by the

imperative to meet Environmental, Social, and Governance (ESG) targets and minimize environmental impact.

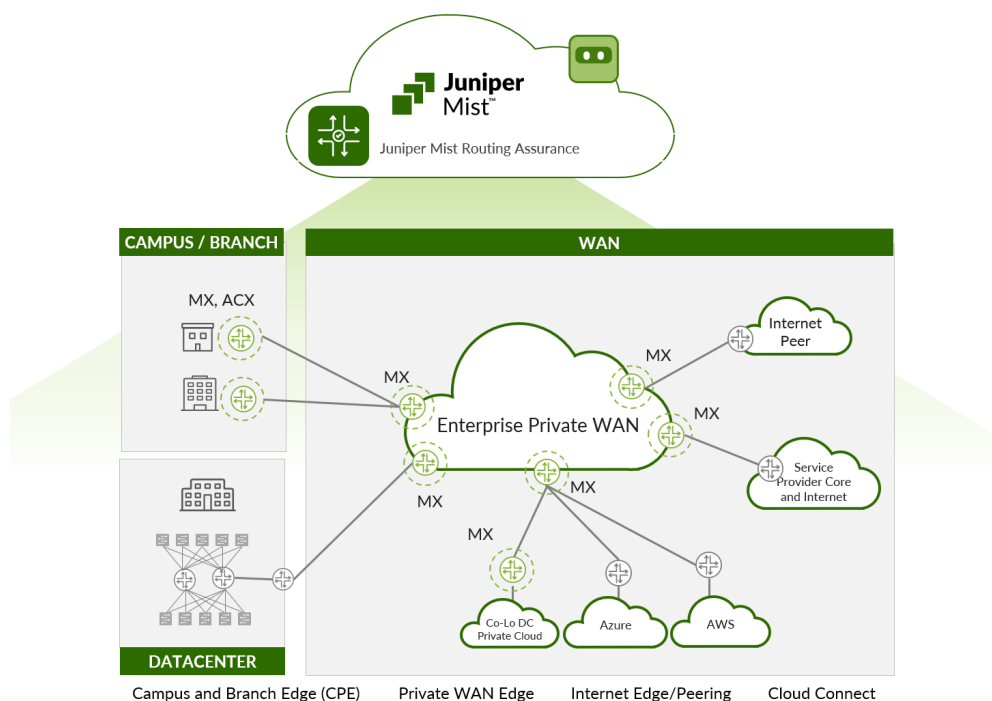
### Shift to cloud: How to invest for the future

With the proliferation of SaaS applications and the increased use of cloud computing, companies are increasingly adopting multicloud strategies, leveraging a combination of public and private clouds. By 2028, it is projected that hybrid cloud environments will become

the norm, necessitating seamless integration and management across diverse cloud platforms.

### The Solution

Juniper's **Mist Routing Assurance** addresses these challenges and unlocks the full potential of digital transformation with an AI-Native, modernized WAN infrastructure.



Here's how:

#### Cloud-delivered microservices:

Built from the Juniper Mist microservices cloud architecture, Juniper's Mist Routing Assurance optimizes user experiences from client to cloud. It offers unparalleled visibility into WAN performance while streamlining and simplifying operations. It allows enterprises to easily deploy Juniper's proven MX and ACX routing platforms, delivering unmatched versatility in the WAN and reducing their carbon footprint. Leveraging the industry's only microservices cloud across the full stack, it facilitates rapid feature rollouts with zero downtime and incorporates a digital experience twin to preemptively tackle issues. Its open API-based structure enhances efficiency, fosters superior engagements, and bolsters secure connections.

A modern elastic cloud furnishes the requisite computational power for AI/ML and scalable networks. Moreover, a 100% API ecosystem extends end-to-end assurance beyond the network to applications

and services. Supported by robust MX hardware, renowned for its performance and reliability, it plays a pivotal role in enabling sustainability initiatives. As your network grows and demands increase, you can rest assured with the Juniper Mist cloud's elasticity and agility that you are set up for success.

#### AIOps for routing:

Juniper's Mist Routing Assurance harnesses the power of AIOps to revolutionize WAN operation, offering proactive insights through an intuitive conversational interface fueled by AI. This eliminates the need for complex commands, allowing IT teams to effortlessly troubleshoot using natural language, ultimately reducing mean time to repair/innocence (MTTR/MTTI) and automating Root Cause Analysis for faster and more accurate issue resolution. With the industry-proven Marvis AI virtual network assistant (over 80% efficacy), Juniper AIOps delivers data-driven insights and proactive

recommendations, ensuring the best possible secured experiences and lowest costs from client to cloud.

Integrated as a core element and key differentiator of Juniper's AI-Native Networking Platform, Juniper AIOps ingests data from various sources, including wireless access points, Ethernet [switches](#), Session Smart™ [Routers](#), [firewalls](#), and now routers. Through sophisticated data science algorithms and Marvis, Juniper AIOps significantly reduces network incidents, help desk tickets, and onsite visits without human intervention. This results in a more predictable, reliable, and measurable network infrastructure. You can reduce staff time spent on networking trouble tickets by up to 90%, achieve 9x faster deployments, and save up to 85% on networking-related OpEx.

## Benefits

Juniper Mist cloud and AIOps help make Juniper's AI-Native Networking Platform the industry's only solution that extends from campus and branch, routing infrastructure, [data center](#), and [SD-WAN](#), assuring the best experiences, end to end. Your enterprise will benefit from:

- Reduced complexity
- Simplified and streamlined operations
- End-to-end visibility

## Sustainability in Juniper WAN Edge and Internet Edge/ Peering Routing

Juniper's [Mist](#) Routing Assurance not only optimizes network performance, it also champions sustainability efforts. Juniper Routers offer up to 77% lower power consumption and 64% more space efficiency than competition. Users benefit from reduced energy consumption and lower operational costs. Furthermore, Juniper WAN Routers boast a prolonged lifespan of up to 12 years, which minimizes electronic waste. Investing in Juniper's routing solutions contributes to a greener future by conserving energy and reducing environmental impact through extended product lifecycles.

## Superior user experiences in Day 2 operations

**Mist AI for WAN:** By extending Mist AI to the WAN through Juniper Routing platforms, enterprises gain unparalleled visibility and control over their network infrastructure. Mist AI provides proactive insights. This lets IT teams anticipate and address issues before they impact users, thereby enhancing operational efficiency and user satisfaction.

**Marvis:** Integrated in the Juniper Routing platforms, [Marvis](#) Virtual Network Assistance empowers users with proactive recommendations and simplified troubleshooting. Marvis lays the groundwork for automation capabilities, streamlines network operations, and enhances efficiency.

**Service Level Expectations (SLEs):** Gain operational visibility into the WAN experience with SLEs tailored for Juniper routing platforms. Enforce throughput, congestion, and router health with performance metrics. SLEs enable simplified troubleshooting and proactive anomaly detection, ensuring optimal network performance and user experiences.

**AI-Driven MX and ACX Platforms Insights:** Obtain detailed device-level metrics and insights for Juniper MX and ACX platforms, including MX 304, MX 204, and ACX7024. Port-level metrics, such as bytes transferred, traffic utilization, and power draw provide granular visibility into platform performance and log and correlate network events, facilitating effective management and troubleshooting. By harnessing AI-driven insights, organizations can optimize performance and ensure seamless connectivity for end users.

## Juniper Universal Routing Platforms

### MX

A robust portfolio of [software-defined networking \(SDN\)](#)-enabled routing platforms, the MX Series provides industry-leading system capacity, density, [security](#), and performance with unparalleled longevity. MX Series routers are the key to [digital transformation](#) for [service providers](#), [cloud operators](#), and [enterprises](#) in the cloud era.

### ACX

The high-performance ACX7000 Family Routers are designed for experience-first networking and serve the enterprise in access, aggregation, and data center use cases. They are sustainable, compact, built for scale and flexibility, and energy efficient. Future-proof your enterprise business growth with the ACX7000 Family Routers.

The modernization of WAN infrastructure is imperative for enterprises to thrive in an era defined by digital transformation, sustainability, and automation.

## About Juniper Networks

Juniper Networks believes that connectivity is not the same as experiencing a great connection. Juniper's AI-Native Networking Platform is built from the ground up to leverage AI to deliver the best and most secure user experiences from the edge to the data center and cloud. Additional information can be found at Juniper Networks ([www.juniper.net](http://www.juniper.net)) or connect with Juniper on [X](#) (Twitter), [LinkedIn](#), and [Facebook](#).

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