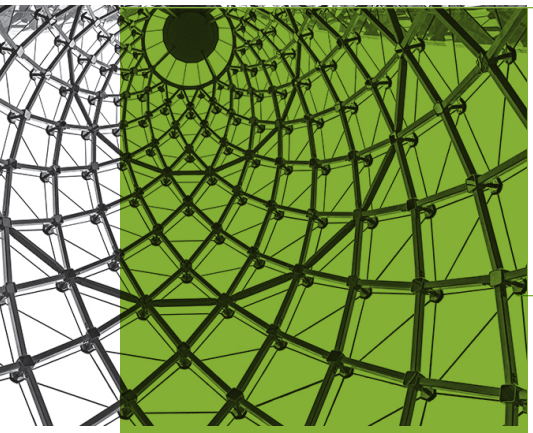


JUNIPER MIST™ WI-FI ASSURANCE

Product Overview

The Juniper Mist Cloud Architecture is moving IT operations closer to the intelligent Self-Driving Network™ in the era of the AI-Driven Enterprise.

Juniper's machine learning, the engine of our Wi-Fi Assurance service, replaces manual troubleshooting tasks with automated wireless operations. Minimize costs while maximizing Wi-Fi performance and reliability.

The Juniper Mist platform is built on a modern microservices cloud architecture, which enables elastic scalability to meet your changing wired and wireless network market requirements. Our platform delivers operational simplicity, 100% API-based programmability, and customer engagement through location-based services.

Wi-Fi Assurance replaces manual troubleshooting tasks with automated wireless operations. This subscription service makes Wi-Fi predictable, reliable, and measurable with unique visibility into user service levels. For example, you can set up and track service-level thresholds for key wireless criteria.

Anomaly detection automates triggers to capture packets for event correlation and builds network intelligence with Radio Resource Management (RRM) at the client level. These functions deliver unprecedented visibility into each user's wireless network experience, allowing you to reliably extend Wi-Fi quality to the end user.

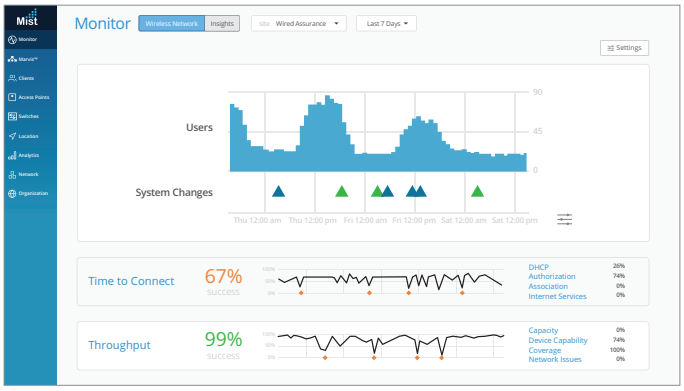
The Juniper Mist cloud services are 100% programmable with all functions (provisioning, monitoring, alerts) available through open APIs, which enable you to integrate with your IT applications to automate your network and line-of-business operations.

Key Benefits of Wi-Fi Assurance

Maximize Wi-Fi User Experience	Minimize IT Support Costs
Proactively optimize performance	Dynamic packet capture for troubleshooting
Prioritize applications, resources, and users	Proactive root cause identification
Gain simple and secure access to resources	Network automation with APIs

Set, Monitor, and Enforce Service Levels

Set up and track service-level thresholds for key wireless pre- and post-connection metrics, such as time to connect, capacity, coverage, and throughput. At any given time, you can see how your network is performing against service level expectations (SLEs) with deep visibility, including location context into impacted users, applications, and devices.

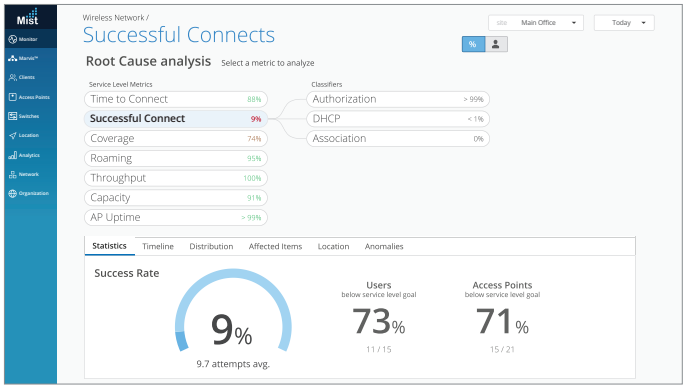


Comprehensive Network Performance and SLE Dashboard Analytics

In addition to proactively correlating events and providing remediation recommendations, the platform also provides a daily and weekly trend of the SLE metrics. These reports provide unprecedented visibility over the last week for longer-term trend analysis into anomalies seen at the AP, device, application, and OS levels. The current set of available SLEs are: Time to Connect, Successful Connects, Throughput, Roaming, Coverage, Capacity, AP Uptime, WAN.

Simple Root-Cause Analysis and Remediation

Juniper dynamically collects information from all endpoints and correlates it for quick wireless, wired, and device problem identification. More than 150 state changes are captured for each client device and access point every few seconds. Predictive recommendations and automated workflows let you quickly remediate problems or prevent them entirely. This root-cause analysis feature can be further enhanced by the Marvis Virtual Network Assistant service.

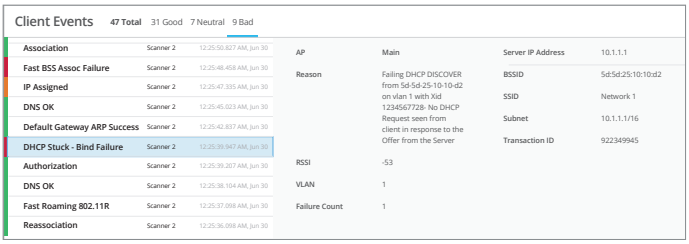


Automation for Deployment and Provisioning

The Juniper Mist platform is 100% programmable, using open APIs, for full automation and seamless integration with complementary products across LAN, WAN, security, engagement, and asset location domains.

Network Rewind and Dynamic Packet Capture

The Wi-Fi Assurance service automatically detects and starts capturing packets when an anomaly is detected. With this record, you are able to rewind back in time to see what was going on exactly when the event occurred. This eliminates hours or even days of guesswork or time spent trying to reproduce an issue.



Client Profiling

Juniper Mist profiles clients for device types, operating systems, applications, location, and user role. This enables WxLAN to autodetect printers, Apple TVs, and other IoT devices and to categorize them for security and audit reasons, without requiring any manual database management.

Risk Profiling Driven by Mist AI

WAN Assurance is a key component of the Risk Profiling solution, which brings network security to the distributed network edge. Risk Profiling provides visibility into infected wired or wireless clients that's observable within the Juniper Mist cloud and assigns a threat score determined by the Juniper ATP cloud. From within the Juniper Mist cloud you can geospacially locate infected devices and take one-touch mitigation actions like ban or deauthenticate.

AI-Driven Radio Resource Management

Unlike other solutions, Mist uses data science and cumulative SLE performance to learn and improve radio settings to assure performance, while also instantaneously adapting to intermittent outside interference. Our AI-driven Radio Resource Management proactively feeds coverage and capacity anomalies based on client experience (SLE metrics) into RF decisions so that RF planning continues to improve and adapt.

WxLAN Policy Creation and Enforcement

Juniper Mist delivers operational simplicity by allowing you to create policies for role, device type, and user-based access on the network with our inline policy engine, WxLAN. Global labels created for physical and logical resources (users, WLAN, AP, IP addresses, IP subnets, applications) enable policies to be enforced at the edge on our access points.