

Simplifying Network Troubleshooting for Zebra Devices

Juniper's Marvis Virtual Network Assistant and Zebra Wireless Insights



The Challenge: Network and Device Performance in the Age of IoT

Delivering Wi-Fi networking to drive today's enterprise workflows and connect a growing number of mobile and IoT devices is a big challenge. Data delivery delays, packet loss in voice communications, and other issues can easily disrupt workflows, lead to inconsistent or lost real-time metrics, and ruin user experiences. To prevent and quickly troubleshoot these issues and get the full benefits of digital transformation, faster wireless, and automation in your enterprise, you need full visibility into your networks and devices as well as tools to help deliver reliable network performance and optimal user experiences.

The Joint Solution: Marvis VNA and Zebra Wireless Insights

Juniper Networks, a leader in AI-driven networking, and Zebra Technologies, an innovator in mobile computing, data capture, and real-time locating solutions, have partnered to close the gap between superior wireless network performance and seamless user experience.

Leveraging Juniper's Marvis Virtual Network Assistant (VNA), driven by Mist AI, and Zebra's Wireless Insights, we've created a joint solution that helps you deliver and manage outstanding network performance and optimal user experiences so you can enable improved business performance and digital productivity.

The Marvis client (which is part of Marvis) along with the Zebra wireless insights provides visibility into networking, connectivity and application issues (eg. voice) inline with when the device is in use. This uniquely provides the device's Wi-Fi experience (as seen by the device) without running any additional synthetic tests.

How It Works

- Juniper's Mist AI engine works together with Zebra Wireless Insights to automatically collect data from both your network and your users' Zebra devices.
- The AI continuously monitors and analyzes your network and device data to proactively detect problems before they occur; it corrects issues in real time or notifies network managers of issues, their causes, and recommended actions. Juniper Mist's AI engine continuously learns and adapts.
- Insights from Marvis and Zebra are then presented on the Mist dashboard as a single pane for customers to review network and device issues in one place.
- To view events, all you need is a valid Wireless Insights license and the Marvis Android Client (v23 or later).

Benefits for Your Business

- Reduce user-generated trouble tickets by up to 90% with Mist AI-driven support. *
- Streamline your operations and optimize user experiences across wireless access, wired access, and SD-WAN domains.
- Get real-time answers about your network and Zebra devices in a few clicks or taps.
- Automate root cause identification for issues across IT domains (WLAN, LAN, WAN, and security) with Mist AI's Self-Driving Network™.
- Automatically fix or implement recommended actions with Mist AI's driver-assist mode with high efficacy for connected systems outside the Juniper domain.
- Deliver unparalleled and unprecedented network quality and user experiences with real-time insights and simplified troubleshooting at the client, device, and site levels.

* Based on a real-world case study at one of the world's leading cloud-computing platforms.



Teaming Up for IT Teams

Juniper Networks and Zebra Technologies have teamed up to bring the first device level insights as reported by the device to enterprise networking and Zebra mobile device management.

Marvis Virtual Network Assistant Features

Marvis Client

Get network visibility from the inside out, from your Zebra Android device's perspective. In addition to rich visibility into each device's Wi-Fi experience, you can now understand how the device sees the Wi-Fi environment.

Anomaly Detection

Marvis adds anomaly detection so you can proactively identify service-impacting events and determine the root cause for rapid remediation and resolution.

Accurate Root Cause Analysis

Marvis uses Bayesian Inference to identify causes with the highest probability of association to the problems occurring on the network. This approach delivers more accurate root cause analysis to speed up problem identification and resolution.

Understand Scope with Correlated Data

Marvis correlates information across a large knowledge base, including WLAN, LAN, WAN, and security domains, to determine the scope and magnitude of a problem. This helps you prioritize issues, allocate resources efficiently, and reduce pressure on support teams.

Self-Driving Actions Framework

Marvis Actions, a function of the Self-Driving Network™, leverages Mist AI to identify the root cause of issues across IT domains (WLAN, LAN, WAN, and security). It automatically fixes or recommends actions (driver-assist mode) with high efficacy for connected systems outside of the Juniper domain.

Natural Language Processing

Marvis uses Natural Language Processing (NLP), Natural Language Understanding (NLU), and Natural Language Generation (NLG) to deliver a conversational interface that communicates with your IT team, recommends prescriptive actions, and provides integrated help desk functions.

Zebra Wireless Insights

Juniper's Mist AI already captures events and performance data from your access points, but with Zebra Wireless Insights, you also get data directly from the end user's device, using Zebra's exclusive manufacturer-enabled events and insights.

Connection Events

Mist APs provide visibility into 150+ user pre-connection and post-connection states, but with Zebra Wireless Insights, you can now decipher what is happening and why, whenever a device tries to connect, roam, and/or disconnect.

Roaming Events

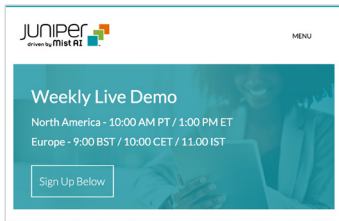
Marvis tracks the roaming activity of every device with a 'RoamingOf' query, but with Zebra Wireless Insights, you can now see what triggered the roam and why, such as poor coverage areas.

Voice Events

For any voice call made with a Zebra device, you can view not only when the call started and stopped but also the performance of the call, including key voice metrics such as packet loss, latency, jitter, VoIP link quality, and Wi-Fi link quality. Additionally, a metric-driven reason and description provide insights into the voice call experience from the device's perspective.



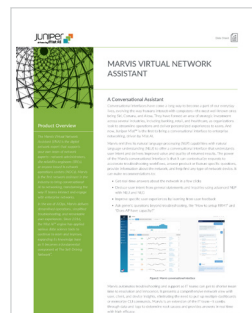
Learn More about the Marvis Virtual Network Assistant



Join Us for a Wireless Wednesday Demo

Connect with us to reserve your place for a live demo as part of our Wireless Wednesdays, where we provide a complete overview of Marvis and answer all of your questions.

[BOOK YOUR DEMO](#)



Download the Data Sheet

Get the quick overview of the Marvis NVA for sharing and review.

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Read the White Paper

Learn more about bringing AI to enterprise networking with Juniper and Marvis AI.

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