

Eugene School District 4J

AI-native networking enables uninterrupted learning for 15,000 students

Make every connection count in education

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Industry

Education

Region

Americas

Make every teacher, student, and device connection count

The boundless curiosity of students. A kaleidoscope of digital learning resources. Autonomous floor polishing robots, smart kilns, and automated building controls among 37,000 connected devices. A lean IT team that supports more than 15,000 students and 2,400 staff.

"It's the perfect cocktail of chaos, curiosity, and technology," said Ben Shapiro, Senior Network Engineer at Eugene School District 4J.

Serving students in and around Eugene, Oregon, the district relies on Mist™ Juniper's AI-native networking platform, to enable measurable, reliable, and secure connections for laptops, IoT sensors, and other wireless and wired devices to support learning and administration, roll out networks faster, and operate its IT infrastructure efficiently.

Overview

"Mist and Marvis AI Assistant provide proactive insights, automated troubleshooting, and an enhanced user experience. Juniper's **forward-thinking approach to networking** made it the clear choice."

Ben Shapiro
Senior Network Engineer,
Eugene School District 4J

Challenge

"We face constant pressure to keep up with the growth of mobile and IoT devices, bandwidth demands, and need for robust cybersecurity, all within a constrained budget," said Shapiro. "Advances like AI-driven networking and automation present exciting opportunities to improve efficiency, reduce downtime, and provide a better user experience for students and staff."

But managing hundreds of network devices using the CLI was time-intensive and error-prone. The district's legacy controller-based wireless LAN couldn't deliver the outcomes that IT wanted for its end users. Network monitoring was limited, and the IT team lacked the visibility and insights needed to proactively manage the network.

"We recognized the need for a network solution that offered automation, granular telemetry, and flexibility, allowing us to focus on improving end user outcomes, rather than spending excessive time on repetitive tasks," said Shapiro.





Transformation

Mist stood out in Eugene School District 4J's competitive evaluation of wireless LAN solutions. "Mist and Marvis AI Assistant provide proactive insights, automated troubleshooting, and an enhanced user experience," said Shapiro. "Juniper's forward-thinking approach to networking made it the clear choice."

The Mist platform is built from the ground up to leverage AI for IT operations (AIOps). It brings together all parts of the network with a common cloud and an AI assistant to provide the best possible experiences for end users and IT operators alike.

Outcomes

Rapid time-to-value

1

Day to deploy Juniper Wi-Fi at a new high school vs one week with the previous vendor

Visualize the user experience

Minutes

To identify and remediate issues

Automation frees up IT staff

3x

Productivity using Juniper AIOps tools

Solution and implementation

[Juniper Wireless Access Points](#)

[Juniper EX4400 Switch](#)

[Juniper EX4650 Switch](#)

[Juniper QFX Switch](#)

[Juniper MX Router](#)

[SRX4600 Firewall](#)

[Juniper Wi-Fi Assurance](#)

[Juniper Wired Assurance](#)

[Juniper Marvis AI Assistant](#)

[Juniper Marvis Minis](#)

"Marvis AI Assistant's ability to **leverage predictive analysis and performance** optimization is unmatched."

Ben Shapiro
Senior Network Engineer,
Eugene School District 4J

Mist delivers uninterrupted connectivity for nonstop learning

As Eugene School District 4J rolls out Juniper Mist wired and wireless networking across its schools, IT is realizing its vision of an automated, secure network that scales effortlessly and stays ahead of the growing demands of modern learning.

"Mist and Marvis AI Assistant enable us to proactively address issues, optimize performance, and reduce manual intervention across our network," said Shapiro. "The time saved and improved user experience have been game changing, and Marvis® AI is central to our vision of creating a proactive, self-healing network."

The large rollout is vastly simplified with Juniper. "I was able to crash-deploy a whole Mist architecture for an entire school in less than a day to meet a business need," said Shapiro. "The main constraint of deploying a network is no longer configuring devices and making sure the connectivity works. Physically unboxing and racking is now the constraint."

Key takeaways and outcomes

"My buddy **Marvis** is great for holding other vendors accountable."

Ben Shapiro
Senior Network Engineer,
Eugene School District 4J

A shift from chasing problems to strategic planning

"AI has been nothing short of revolutionary for our network operations," said Shapiro. "Before adopting Mist, managing the network felt like looking for a needle in the haystack, except the haystack kept getting bigger and we never had time to actually find the needle."

Instant insights and actionable data

"Now, instead of manually sifting through logs and relying on reactive troubleshooting, Marvis AI Assistant gives us instant insights and actionable data," said Shapiro.

"Marvis AI Assistant identifies issues we didn't even know existed and resolves them before they impact users. It has transformed how we operate, enabling us to focus on strategic improvements instead of constantly firefighting."

"My buddy Marvis is great for holding other vendors accountable too," said Shapiro.

"When the vendor for our new paging system claimed multicast wasn't working, I told them, 'Marvis says multicast is fine—maybe you should check your setup.' Marvis is trained on billions of data points and knows exactly what's going on."

Free up IT resources for strategic projects

"We estimate that Mist and Marvis AI Assistant resulted in a threefold reduction in FTEs for network operations," said Shapiro. "I don't have to worry about the network anymore, which frees up my time to focus on strategic technology planning."

The flexibility to redeploy network assets drives ROI

"A key value of Juniper is the flexibility to redeploy assets across the different parts of our network," said Shapiro. "This adaptability has allowed us to maximize our return on investment and ensures that our infrastructure evolves alongside our needs."

More information

Mist: Purpose-built with AI and for AI

To learn more about Juniper campus and branch solutions, visit: <https://www.juniper.net/us/en/campus-and-branch.html>

To learn more about Juniper AI for IT operations (AIOps), visit: <https://www.juniper.net/us/en/solutions/artificial-intelligence-for-it-operations-aiops.html>

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