Port Huron Schools

Al-Native Networking accelerates digital learning

Realize proven AIOps and unified management

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Industry

Education

Region

Americas

Overview

Michigan school district solves big Wi-Fi problems

Reliable Wi-Fi is essential to learning, and the 7,200 students and 450 teachers at Port Huron Public Schools in St. Clair County, Michigan, can count on Juniper's Al-Native Networking Platform to assure their digital learning experiences. With Juniper wired and wireless networking at its 16 schools, the district put an end to persistent Wi-Fi performance and reliability problems and eliminated ongoing network management challenges, ensuring connectivity and uninterrupted learning.

Challenge

"The wireless was problematic, with blind spots and congestion issues," recalled James Marsack, Senior Network Engineer at the St. Clair County Regional Education Service Agency (RESA), which provides IT services to the county's public school districts. "Troubleshooting was generally difficult because of the transient nature of wireless problems and the clusters of students with Chromebooks who move around."

The previous wireless LAN vendor couldn't find the problem. The support ticket stayed open for eight months while the district IT team tried everything to resolve it.

"We couldn't see what was going on, but we had hours and hours of downtime and a degraded student experience," said John Klutzke, Client Services Manager at St. Clair County RESA.



Transformation

The RESA IT team tested alternative vendors for Port Huron's schools and Juniper's AI-Native Networking Platform went straight to the top of the class.

"We plugged in the Juniper wireless access points and the Wi-Fi just worked," said Klutzke. "We could see the RF interference, blind spots, and slow connections right away. We could even see where people with devices were in the classrooms and hallways."

Juniper's AI-Native Networking Platform delivers advanced AI for IT Operations (AIOps) to support exceptional digital experiences for students, faculty, and IT staff at Port Huron Schools. Every connection for every device, user, and application is more reliable, measurable, and secure. With a full stack Juniper solution, the IT team can manage wireless and wired access at the school sites under a shared Mist AI engine and microservices cloud infrastructure.





Outcomes

Rapid deployment

3

Months to fully upgrade 16 campuses

Assured experiences

0

Network-related trouble tickets since deploying Juniper one year ago Simplify network operations

80%

Time saved managing switches

Solution and implementation

Juniper AP43 Wireless Access Point

Juniper EX4100 Switch

<u>Juniper Marvis</u> Virtual Network Assistant Juniper EX4600 Switch

Juniper Mist Wireless (Wi-Fi) Assurance

Juniper EX4400 Switch

<u>Juniper Mist</u> Wired Assurance



Juniper Al-Native wired and wireless networking

The rollout was quick work. The IT team upgraded 16 schools to Juniper's Al-Native Networking Platform in three months. "Juniper is really easy to provision," said Marsack.

Juniper Wi-Fi 6 wireless access points deliver high-performance connectivity for Chromebooks, laptops, and other wireless devices at Port Huron's schools. Juniper Mist Wireless (Wi-Fi) Assurance proactively optimizes the Wi-Fi experience and automates common operational tasks. The central IT team has near-real-time visibility into user service levels at the schools.

The schools use Juniper EX switches for secure, high-performance access and core networking. Juniper Mist Wired Assurance is used to onboard, configure, and manage the switches.





Key takeaways and outcomes



Uninterrupted connectivity for nonstop learning

"Despite our efforts to get our legacy Wi-Fi to function, our reputation in IT was being diminished," said Marsack. "It's hard to bear user complaint calls when there is a fundamental problem with no resolution. You feel helpless."

With the Juniper Al-Native Networking Platform, the IT team doesn't feel helpless anymore.

Keep students engaged in learning

Fast, reliable access to digital content and cloud apps allows students to stay focused on learning and pursue academic excellence.

AlOps proactive management

AlOps has transformed the IT operations experience. "Juniper finds a problem ahead of time and solves it," said Klutzke. "With Juniper, our IT team spends 80% less time managing switches." Juniper's AlOps tools identified bad cables and loops caused by VoIP phones that were accidentally plugged in twice.

A customer-first partnership

After a frustrating experience with the previous vendor, Marsack and Klutzke appreciate that Juniper puts the customer first. "Working with Juniper support has been good," says Klutzke. "We've only had one support ticket, which was to connect our older VoIP phones, and Juniper recommended a PoE power profile for the switches that fixed it."

More information

Learn more about Juniper's Al-Native Networking Platform

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

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

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