Wadsworth City Schools

Mist
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Mist Wi-Fi Enables an Exemplary 1:1 Learning Experience at Wadsworth, Ohio Schools

Families and young professionals come to Wadsworth, a 10-square-mile suburb of Akron, Ohio, for a strong community and excellent schools. Wadsworth City Schools, responsible for educating 4,850 students, reimagined its wireless network so students could better engage and learn. Wadsworth City Schools transformed its network experience with the Mist WLAN Platform from Mist, a Juniper Company.

Technology in the classroom engages at all levels, from preschoolers to high school seniors. When students are engaged, they retain more knowledge and participate actively. Students can learn in their individual ways and at their own pace. And technology fosters collaboration, a lifelong skill.

Wadsworth City Schools has been a leader in educational technology, and the district wanted to roll out a complete 1:1 computing program for all of its students for the 2019-2020 academic year.

The superintendent, teachers, administrators, parents, and students were excited to forge ahead, but the existing school Wi-Fi was an insurmountable obstacle that held back the full 1:1 plan.

AN UNPREDICTABLE WI-FI EXPERIENCE
"I would routinely get calls from the teachers that their students couldn't log onto their Chromebooks," says Phil Luthman, director of technology at Wadsworth City Schools. "I would get on to the network, and my network tools would say the network is up. Many times, I would drop what I was doing and drive out to that campus only to find the problem would be gone. It was really frustrating."

SUMMARY

ABOUT WADSWORTH (OH) CITY SCHOOLS
Education

11 sites

4,850 students and 278 teachers

CHALLENGES
Enable 1:1 computing for all students

Overcoming persistent wireless performance problems

SOLUTIONS DEPLOYED
Mist AP41 and AP61 Access Points

KEY BENEFITS
- Enabled full 1:1 computing for 4,850 students
- Accelerated adoption of online textbooks
- Identify and troubleshoot quickly with clear network visibility and insight to help eliminate Wi-Fi helpdesk trouble tickets and frustrations
- High-capacity Wi-Fi assessment-ready network now allows for shortened student assessment windows

Adding hundreds of iPads and Chromebooks to the network would only further the frustration for everyone.

"I wanted a wireless solution that would deliver a better experience and simplify problem resolution for my lean IT team," he says.

Luthman oversees IT for the entire school district as well as for the Wadsworth Community Center, located right next to the high school. The community center includes a healthcare facility, a senior center, the YMCA, and local television station.

"Four people in the technology department support the technology needs for all 11 buildings in our school district," says Luthman. "I need answers quickly, and I don't have time to dig around or research an issue for a few days."

USER EXPERIENCE SCORES A 4.0

When the doors opened for the 2019-2020 school year, there wasn't a single complaint about the Wi-Fi.

Wadsworth City Schools, with the help of its IT partner, Technology Engineering Group, had deployed the Mist platform over the summer of 2019.

"We have more than a 1:1 ratio today and connect more than 40,000 unique devices per month," says Luthman. The Mist Wi-Fi supports 5,200 district-owned Chromebooks and 1,100 iPads, as well as thousands of middle and high school students who use their own mobile devices.

Traditional wireless solutions are based on architectures that date more than 15 years old, and they're simply not designed to handle today's unyielding user expectations and the criticality of business operations that take place anywhere, anytime.

But the Mist platform is different. With a modern microservices cloud architecture, Mist delivers unprecedented network scale and agility. An AI engine is the foundation for new levels of insight and automation. Access points combine Wi-Fi, Bluetooth Low Energy (BLE), and IoT for unparalleled wireless experiences.

Marvis, the Mist AI-driven virtual network assistant, simplifies everyday troubleshooting and network performance analysis. Marvis analyzes massive amounts of data to draw subtle inferences. Now when issues arise, the IT team can ask Marvis questions in plain English and get intuitive answers on par with a wireless expert.

"Experientially, Mist is very different," says Luthman. "My experience with Mist is that their support team are all capable engineers ready to help me diagnose and fix problems right away."

AI-DRIVEN NETWORKING IS JUST SMARTER

Wadsworth City Schools rank in the top two percent for academic excellence in Ohio, yet the district also has the lowest per-student expenditure in the state.

The district uses its instructional and technology resources wisely to maximize student outcomes. Students have textbooks that are a far cry from the hardbound tomes of the 20th century classroom, and instead are online, interactive, and are accessible across students' different reading levels.

"Our new Mist wireless LAN has sped the adoption of online textbooks in our schools," says Luthman. "Teachers and students were hesitant to use online textbooks in previous years because the load times were so slow on congested and overrun wireless. Now the textbooks launch quickly."

Students can have immersive experiences from their seats. Before, the students' virtual reality kits just wouldn't work over the previous Wi-Fi. "Now when students learn about holidays in other cultures, they can experience them through virtual reality," says Luthman. "They can travel to the moon when they're studying space. When you give students learning opportunities with dynamic technology, we find that student engagement often goes up."

"Wireless needs to be like the lights, always on and always perfect. That's how our Mist Wi-Fi is."
— Phil Luthman, Director of Technology, Wadsworth City Schools.

Mist Wi-Fi has helped Wadsworth City Schools conduct state assessment tests more quickly and reclaim instructional time. In the past, poor visibility into Chromebooks on the network was particularly problematic during assessment tests. The district needs to ensure that the Chromebooks contained the supported operating system version that was compliant with the testing software well in advance of students sitting down for the state-mandated assessment. "We had minimal metrics," says Luthman. "Finding and updating the Chromebooks was an intensive, manual effort, and any missed updates translated directly into testing delays and a loss of instructional time."

ON THE PATH TO AI-DRIVEN IT OPERATIONS

Mist's AI engine, Marvis, which recently introduced wired switching insights, has also enabled the district to diagnose issues with the wired network that connects and powers their Wi-Fi.

"The Marvis Actions dashboard has even diagnosed issues for us with our LAN where a VLAN tag configuration was missing from one of our core switches." said Luthman. "We are excited about how AI is transforming our IT operations and student experiences."

"Mist gave us visibility into one little bit of data, and that enabled us to do 1:1 testing. Mist is a game-changer."

— Phil Luthman, Director of Technology, Wadsworth City Schools

Mist has completely changed the network experience. "Mist enables me to test compliance ahead of time," says Luthman. "Mist can show me all of the live clients on our network, with detailed information," he says. Now, non-compliant Chromebooks can be quickly identified and set aside for updating so as to not interfere with state assessment testing.

"Mist gave us visibility into the student network experience, and that enabled us to deploy our 1:1 program successfully for the 2019-2020 school year," says Luthman. "Mist is a game-changer."

Great Wi-Fi helps parent engagement, too. During orientations and back-to-school nights, parents can fill out school forms from their phones, even if there are hundreds of parents on the school Wi-Fi in the same room.

"Wireless needs to be like the lights, always on and always perfect," says Luthman. That's how our Mist Wi-Fi is."

FOR MORE INFORMATION

To find out more about Juniper Networks and Mist, please visit www.juniper.net and www.mist.com.