

Huntington Independent School District (ISD)

Small rural school district adopts Wi-Fi 6 and unified wired and wireless network



HUNTINGTON ISD

CHALLENGES

- Unreliable Wi-Fi limited the use of online applications
- The switches were limited to 1 GB
- Maintaining separate networks was time intensive
- Small IT staff
- Poor vendor support

SOLUTION

- 160 RUCKUS® indoor APs
- 40 RUCKUS ICX switches
- RUCKUS SmartZone network controllers

BENEFITS

- Went from 1 Gbps to 2 Gbps with an easy upgrade path
- Supports more online learning and better safety, security and emergency communications
- Simplified, single-pane-of-glass management across APs and switches
- The APs are Wi-Fi 6 certified and IoT equipped, future-proofing the network for years to come



Lessons of the past lead IT to prioritize top-notch support and forward-looking technology

The residents of Huntington, Texas, take pride in their school district. Rightly so. The Huntington Independent School District (ISD) serves more than 1,600 high school, middle school, intermediate school and elementary school students on five campuses. No matter the students' needs, teachers and administrators are always there to support them. They expect the district-wide wireless network to do the same.

One day, when all 400 middle-school students logged onto Edgenuity courseware, the Wi-Fi crashed district-wide. Jeff Baird, technical director for Huntington ISD, called the vendor to fix problems, but the response was as slow as the network. Replacing APs or patching software didn't improve the situation, either. The problems continued, and costs kept mounting.

When Baird presented a plan to the administration to replace the existing infrastructure, "everyone agreed that trying to shore up the existing infrastructure was just throwing good money after bad," he explained. So, they rebid the project and selected CommScope.

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Jeff Baird
Technical Director, Huntington ISD

Support and equipment that don't fail the users who depend on them

Baird had two main priorities in choosing a network partner: top-notch support and technology that would take the district far into the future. CommScope, with its RUCKUS portfolio, checked both boxes—and then some. For starters, CommScope enabled the school district IT to combine its wired and wireless networks with one infrastructure, one vendor.

With the RUCKUS SmartZone network controller, Baird and his team could also manage every access point and switch from a single pane of glass. Because the RUCKUS APs are Wi-Fi 6 certified, high-density performance went through the roof. Speed dramatically increased as well. The RUCKUS stackable multigigabit ICX switches enabled the school district to ramp up its internet speed to 2 Gbps.

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Baird's other must-have, top-notch support, came into play early on. In the project's first phase, the budget didn't allow for replacing all the existing switches at once. CommScope engineers worked with the IT staff to integrate the remaining legacy switches with the ICX stackable switches.

“Their people were tremendously responsive and helpful. I never got a runaround. I could escalate any problem and get a call back with a resolution,” Baird explained.

The new network is also significantly easier to manage and update. For example, when a new ICX switch is added to a stack, it automatically inherits the stack's existing configurations. Baird contrasts this with the old network.

“The legacy switches required a lot of manual configuration. The ICX switches simplify everything from initial setup to everyday management. Almost every configuration can be

changed from the central dashboard without touching the switch,” he says.

Changing out the old APs with the new ones was just as easy. Patented technologies like BeamFlex+™ adaptive antenna and ChannelFly enabled the consolidation of some APs while supporting the multigigabit Wi-Fi 6 capabilities and ICX switches. The technologies use machine learning to create the strongest connections and highest throughput, compared to competitive products. CommScope engineers worked with Baird's team, using the AP's dual-band design to eliminate any co-channel interference.

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“We can configure each AP for 2.4 GHz or 5 GHz and do it on the fly from the SmartZone console. We can check the status of the Wi-Fi in every school with a glance at the dashboard. But, in terms of everyday operations, we pretty much ignore the Wi-Fi. It just works,” says Baird.

The new network also gives IT more options for strengthening safety, security and emergency communications. IT can now easily set up SSIDs on the Wi-Fi to open secure parts of the network for users or events. “We'll be looking at options for improving emergency communications and surveillance, as well as locking down the schools using more IoT-connected devices like door locks,” says Baird.



New opportunities for improving online testing, security and safety

With the network now delivering rock-solid Wi-Fi performance, district-wide online testing is back on the table, and that promises to save teachers a substantial amount of time. Baird is already looking down the road and soon plans to add RUCKUS Cloudpath Enrollment System, which coordinates with the network to manage the onboarding of students and device authentication. He is also considering RUCKUS Analytics, a cloud-based network monitoring service for RUCKUS networks.

“We already get more information about network utilization than we ever had in the past,” says Baird, “but RUCKUS Analytics should give us more ways to look at usage and optimize performance.”

When schools closed during the COVID-19 pandemic, the Huntington ISD was quick to bring distance learning online. Middle and high school students were able to interact with



their teachers via the Google Classroom learning platform. Even pre-kindergarten and elementary school students were online—engaging with teachers and parents via the Google Play Seesaw app. Much of the credit goes to the faster, more reliable and agile CommScope network.

“Without question, the new network has given us the foundation for digital learning, wherever the future takes us,” says Baird.

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CS-114567-EN (05/20)