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Case Study
Wireless/Wi-Fi

Local School District calls on Powernet to implement reliable Wi-Fi network throughout nine district buildings.

As the 2017-18 school year approached, the Oak Hills Local School District (OHLSD) searched for a solution to replace their failing wireless network. Powernet stepped up to the challenge of creating a reliable Wi-Fi network that could support students and staff across nine district buildings.

A Network for Education

Before taking on the Oak Hills project, Powernet engineers knew this network wouldn't be used like any traditional business network. OHLSD is a Google for Education Partner; students at each grade level are assigned a Google Chromebook to utilize in their daily classroom activities such as working on assignments, taking assessments, completing research, accessing online textbooks, and to engage in STEM curriculum. Under the district's previous wireless provider, difficulties accessing and staying connected to the network caused a lot of uncertainty and additional stress on students and staff, especially during periods of state testing. OHLSD's wireless network would need to be powerful enough to support more than 6,000 concurrent users if it were to satisfy the expectations of an innovative, technology driven school district.

Understanding the importance of this network for their client, the engineering team set forth designing a solution that would meet the unique needs of the school district. The team determined that 270 Ruckus R610's would need to be placed throughout the nine district buildings. These network devices are ideal for indoor, medium density locations such as classrooms, easily supporting 30+ students per access point. Additionally, 25 Ruckus R710's would need to be installed, providing a strong connection in ultra-dense device environments. With a design laid out and ready for implementation, Powernet engineers went to work installing a solution that is capable of supporting thousands of students simultaneously throughout the school year.

Out With the Old, In With the New

The Powernet team began work on the project by removing the previous network provider's infrastructure and installed

OAK HILLS SCHOOL DISTRICT

Oak Hills Local School District

Industry: Education

Number of Students & Staff: approx. 8,900

Challenge
- Remove and replace a wireless network across 9 district locations
- Design a cost-effective solution to support various quantities of users

Solution
- Installation of R610 & R710 access points
- Implementation of VSZ & SCI technology to easily manage the large scale network.

Results
- Successful installation of Ruckus Wi-Fi technology across 9 locations
- Network capable of supporting 5,000+ concurrent users
- 100% network uptime

one of their own throughout all nine district buildings. In order to pull the network together engineers implemented a Virtual SmartZone (VSZ). This device allows network administrators to manage the network from a central location while enhancing security and increasing the ease at which updates are pushed to network devices. Smart Cell Insight (SCI) was also installed into the network in order to collect data and generate reports based on established policies. This information allows OHLSD to determine which areas and users within the network are using the most data in addition to tracking network assets.

Connecting Education

Implementation finished just before the start of the new school year. As the year progressed, the network continued to prove that it was capable of providing the reliable connectivity the district was looking for. School officials are confident that they made the right choice when choosing Powernet to provide their wireless network.

"Staff and students struggled to get online and stay connected to our previous Wi-Fi network," says Christian Long, Digital Innovation Administrator. **"Powernet worked seamlessly with our IT partner, VARtek, to create a network we feel very confident will meet and exceed the needs of our students and staff for years to come."**

The district continues to see 100% network uptime with speeds reaching well over 200 Mbps+, creating an optimal network environment that allows education to flourish.

Will Beinkemper, Assistant Principal at Rapid Run Middle School says, **"Our network this year has vastly improved the seamless connection between instruction and technology. Staff and students can now count on their learning to be connected to each other and the rest of the world."**

Powernet's reliable wireless network will allow OHLSD to continue facilitating innovative teaching methods while further integrating technology into the classroom.

About Powernet

Powernet enables businesses to connect with audiences in the office and across the world through wireless networking, Wi-Fi, voice, data, IT managed services, in addition to domestic and international carrier services. As a Woman-Owned business with more than 24 years of telecom experience and expert sales and support teams, we provide our partners and clients the unparalleled service and innovative technology they need to achieve their business goals.

"Staff and students can now count on their learning to be connected to each other and the rest of the world."

-Will Beinkemper, Assistant Principal, Rapid Run Middle School

Contact us for more information:

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