Beth Tikvah Congregation Connects Students with cnPilot

> "Students today need to be connected in the classroom, and Cambium Networks' equipment made this a reality for our congregation. The planning and installation of this network was effortless."
>
> MAX THALHAMMER, STUDENT, BETH TIKVAH CONGREGATION

cnMatrix EX2010-P simplifies network operation with zero-touch switch deployment.

The four cnPilot e410 enterprise APs dramatically sped up the performance of the network.
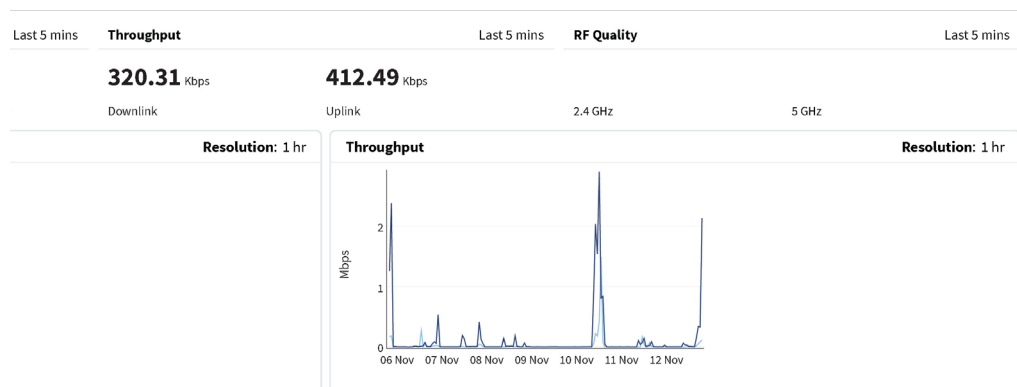
The Challenge

WI-FI CONNECTIVITY IS AN ESSENTIAL PART OF TODAY'S LEARNING EXPERIENCE. In classrooms, the demand for capacity surges when students use a network simultaneously. To meet this need, schools must implement Wi-Fi networks that enable students to learn, teachers to distribute class materials and guests to connect temporarily.

The Beth Tikvah Congregation, which hosts a not-for-profit religious school in Hoffman Estates, Illinois, was using outdated and slow Wi-Fi equipment that was hard to manage remotely. Their students and congregation members were often unable to connect to the network, and when they did, the speeds were inadequate. The congregation, made up of more than 250 families, needed several guest and staff client connections with differently prioritized speeds. As is the case with most small schools, there was a very limited technology budget. As a result, the Beth Tikvah Congregation did the best they could with what they had.

The Solution

AFTER BEING HIGHLY RECOMMENDED to use Cambium Networks' Wi-Fi solutions, the congregation installed four cnPilot™ e410 enterprise Access Points (AP) and one cnMatrix™ EX2010-P PoE Switch. The cnPilot e410 APs utilize Multi-User MIMO (MU-MIMO) beamforming, dramatically speeding up the network. cnMatrix EX2010-P simplifies network deployment and operation with its zero-touch switch deployment.

To support network administration, the Beth Tikvah Congregation uses the free cnMaestro™ cloud-based management system for a full view of the network. A combination of these three solutions gives network operators a high-quality, unified network.

Field site preparation allowed the team at the Beth Tikvah Congregation to vastly improve their network speeds.

BEST PRACTICES

"Field site preparation is necessary to create a strong network. Map an area for throughput or signal strength before installation, redo the field tests to show the improvements after installation and verify that cable installations are connected correctly."

Carsten Gruettner, Sr. Mechanical Engineer, Cambium Networks

The Results

THE NETWORK'S PRESENCE AND IMPROVED SPEEDS have been noted by several staff members throughout the community. Separate VLANs and SSIDs group their users by necessity for network access and speed. Staff, educators, students and guests alike have benefited from the upgrade to Cambium Networks' solutions.
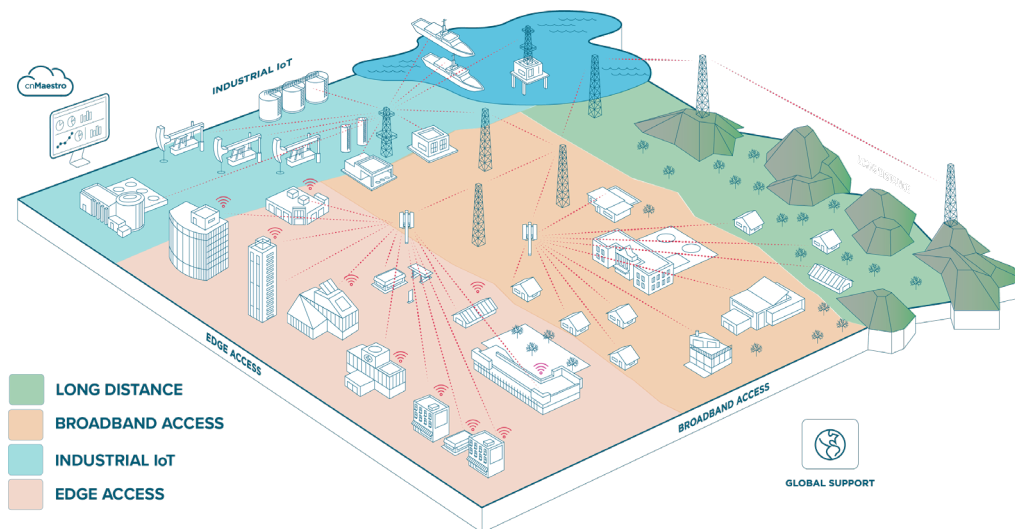
Specific results include:

10-150 network connections per day

320 Kbps downlink throughput

412 Kbps uplink throughput

LONG DISTANCE
BROADBAND ACCESS
INDUSTRIAL IoT
EDGE ACCESS

Cambium Networks' Wireless Fabric of technology solutions enables network operators to tailor connectivity solutions to meet exact requirements and grow as needs evolve.

Next Steps

THE BETH TIKVAH CONGREGATION'S CLASSROOMS have cinderblock walls, and the class sessions are taught through tables. Because of this, they may need to further improve connectivity. One enhancement they are considering is the addition of cnPilot e430 Wall Plates; the e430 Wall Plates offer multiple Gigabit Ethernet ports to drive indoor Wi-Fi and wired port network access managed via portals.