

Connected Classrooms with First Class WiFi



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EMANUELE LOI,
SYSTEM ENGINEER,
SICE TELECOM



Challenge

STUDENTS NEED TO HAVE INTERNET CONNECTIVITY TO RESEARCH INFORMATION AND DO THEIR WORK. Teachers increasingly use the Internet for assignments, grading, and communicating with parents to ensure that students are getting the most out of their time in class and on projects.

All is well when the WiFi is working, but any system downtime can stop all learning for hundreds of students at a time. As is the case in any industry, connectivity downtime immediately stops progress and must be minimized.

While connecting an individual classroom with WiFi is straightforward, connecting and managing all of the classrooms in multiple schools in a district is a challenge for a network operator. A school district in Rome, Italy, needed a WiFi solution that would cover all of the classrooms in the district and a network operator who could manage the entire network and optimize system availability. They found SICE Telecom.

“Schools are rapidly moving from having one single computer room connected to the Internet,” says Emanuele Loi, System Engineer at SICE Telecom, a leading communications solutions provider in Italy. “Now each classroom is equipped with interactive white boards and multimedia projectors, and each student is using WiFi devices.”

The school district needed to connect 129 classrooms in multiple schools and have centralized management to minimize down time.

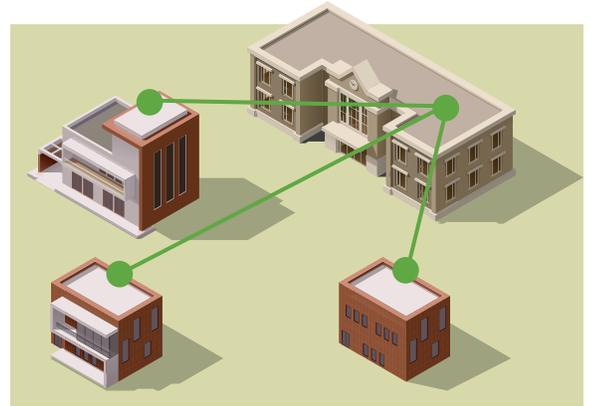


Solution

CONNECTING ALL OF THE STUDENTS IN THE DISTRICT REQUIRES MUCH MORE THAN INSTALLING WIFI in classrooms. The school district needed a solution that ensured that all teachers would have reliable connectivity every day. “Our mission is to grant connectivity to all students and teachers via a wireless network and develop a new infrastructure with the best solution,” says Loi. “We needed a new kind of infrastructure that would let us immediately check system status across the entire network from our offices.”

cnPILOT™ E400 INDOOR WIFI SOLUTION	
WiFi Standard	802.11ac 2x2 MIMO
Frequency	Dual Band 2.4 and 5 GHz
Concurrent Clients	256
SSIDs	16

cnMAESTRO™ NETWORK MANAGEMENT SYSTEM	
WiFi Standard	802.11ac 2x2 MIMO
Frequency	Dual Band 2.4 and 5 GHz



Results

THE INSTALLATION OF THE CNPILOT E400 MODULES WAS STRAIGHTFORWARD and completed rapidly. Verification and ping tests confirmed signal strength in each classroom. Says Loi, “We surely improved the local area speed of the networks involved and, most important, their performance such as security, stability, and signal strength. The teachers can share their jobs in their local cloud without decreasing the network’s performance.”

Not only was the WiFi improved, but the system was now centrally managed. “The school district needed WiFi connectivity and immediate technical support to ensure uptime. cnPilot E400 and cnMaestro management gave us reliable connectivity and centralized real-time management,” says Loi. “Choosing cnMaestro gave us more control for our networks, and we can monitor performance and provide immediate assistance.”

Next Steps

SICE AND THE SCHOOL DISTRICT ARE PLEASED with the system performance and their “virtual man on the scene” support solution. Going forward, they are planning to build out connectivity to support additional schools.



About SICE Telecom

www.sicetelecom.it

Founded in 1980, SICE is a world leader in the construction of telecommunications solutions for government, industrial, municipal and defense markets.

Why SICE Telecom Chose Cambium Networks

- Centralized management with cnMaestro enables district-wide system management from a central location.
- WiFi performance provides the capacity and signal strength to support e-learning throughout the district.
- System reliability minimizes downtime and maximizes learning.