Fortinet Unified Communications Improves Connectivity for K-12 Students and Teachers

For Farmington Municipal Schools, it is the best-connected of times and the worst-connected. The K-12 school district in northern New Mexico has 18 schools that serve more than 10,000 students. "All our schools are within Farmington, New Mexico, city limits," explains Robert Emerson, the district's CTO. "Our options for internet connectivity have expanded dramatically over the past few years, and we now have great internet, with fiber running between all our schools."

At the same time, students are expected to complete homework on school-issued devices, and a significant number live in the very rural outskirts of Farmington. "Our district extends north to the Colorado border and south about 60 miles, into the Navajo reservation," Emerson adds. "Once you get outside the city limits, options for internet connectivity drop off quickly. It is sparsely populated, but we have kids living throughout that range."

Emerson and his colleagues have been working since 2008 to bring technology solutions to all the district's students. Fortinet has played a key role in this process, providing Farmington Municipal Schools with wireless access points for more than a decade.

Unified Communications Solution That Checks All the Boxes

The success of that relationship made Fortinet a top contender when the district began shopping for a new Voice-over-IP (VoIP) system. "We had one of the first deployments in New Mexico of a different VoIP solution in 1998," Emerson says. "We did not have any complaints about the reliability of that system, but support was extremely expensive—to the point where we would just let phones die and replace them rather than paying the annual support charge for every phone across our district."

When those phones reached end of life and were no longer supported by the vendor, Emerson began shopping for a replacement. "We had to replace not only the software, but also all the handsets," he says. "We knew we wanted to find a different system, partly because of price and partly because the old VoIP system was so cumbersome to manage." He says that patches on the legacy system were straightforward, "but anytime we had to do something a little more complex, it was extremely difficult."

"We are very picky about which vendors we work with, and we place a high value on relationships. We count on Fortinet to provide good solutions, good support, and good advice."

– *Robert Emerson, CTO, Farmington Municipal Schools*

Details

Customer: Farmington Municipal Schools

Industry: Education

Location: Farmington, New Mexico

Business Impact

- Less VoIP administrative burden for busy district CTO

- 95% reduction in time to complete onboarding tasks for new VoIP users

- 90+% cost savings compared with legacy VoIP solution

In fact, despite all his other responsibilities as the district's CTO, Emerson was the sole manager of VoIP. "It was not worth trying to train someone else to manage it," he adds. "It was not intuitive, and there were so many fields and buttons that, even after training, there were screens where I had no idea what was required and what I was supposed to enter." When shopping for a replacement system, "we wanted something that was simpler and less expensive."

When they were introduced to the FortiVoice VoIP communications system, "it was love at first sight," Emerson says. "The price was right. The phones are simple to run, and it is really easy to manage. We have had great support from Fortinet on our access points all these years. Once we saw FortiVoice, we asked ourselves, 'Do we really need to look any further?'"

Extending VoIP Beyond the School Buildings

Rollout began in February 2020. Farmington Municipal Schools intended to install the Unified Communications platform, including FortiVoice IP communications and more than 500 FortiFone handsets, across district headquarters and the 18 schools. The core solution was running within a week. Every teacher, administrator, and staff member had an extension in the system that forwarded to Google Voice for voicemail. However, the arrival of COVID-19 slowed distribution of the FortiFone handsets.

One challenge the pandemic posed right away was that teachers working remotely needed to be able to call parents and students, but they did not want their home phone numbers showing up on caller ID. "I started getting a lot of requests from teachers who needed an alternative means of making phone calls," Emerson says. "That is when I discovered the FortiFone Softclient."

The Softclient provides telephony features with single business identity through any mobile or desktop device, which meant teachers would be able to make calls from their computers—anywhere they could establish a virtual private network (VPN) connection—and it would look to the call recipient like they were dialing from their district extension, from within their school building.

"Deploying 1,000 users with FortiFone Softclient took us a few minutes on the back end," Emerson says. Teachers still needed to install the software on the devices they planned to use for calls, but "that was a hugely important project, and it took almost no time to get up and running."

Now, teachers who "got scattered" by the pandemic can make calls from wherever they are. Emerson says calls from Mississippi, Mexico, Canada, and Thailand have all looked local to the person on the other end. "The teachers did not have to buy any additional equipment, and this was a great morale boost during a trying time."

Business Impact (contd.)

- Preservation of teacher privacy when making work calls from personal devices
- Rapid rollout of new solutions: 1,000 FortiFone Softclients set up in a few minutes
- Ability to meet student connectivity needs whether at home or in private daycare facilities

Solutions

- FortiVoice
- FortiFone
- FortiAP
- FortiExtender

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Easy To Use and Manage

The Fortinet Unified Communications system has boosted Emerson's morale as well. He reports that it is as easy to manage as he expected. "The phones automatically update themselves, minimizing manual intervention," he says. "In addition, I no longer have to handle every change to the phone system. The FortiVoice interface is intuitive and simple, so my administrative assistant now handles things like adding extensions for new employees and configuring FortiFone handsets. That was a very complicated process in our legacy VoIP system. Now, she just pulls a phone, gets the MAC address, sets it up, and sends it off to the right building. Someone in the school takes it out, plugs it in, and it works."

In addition to freeing up Emerson's time for more value-added CTO responsibilities, the FortiVoice system enables faster changes. For example, setting up a new user in the system and creating an extension takes about one-fifth as much time. And the cost of Fortinet Unified Communications is less than a tenth what the district was paying for the legacy VoIP solution. "Now we have 550 physical phones and 1,000 Softclients, and the whole system is running like a well-oiled machine," he adds. "It does not bump at all."

Fortinet Enables Farmington Municipal Schools To Better Serve Students

A final step in extending district communications arose when several large local daycare providers requested support for remote learning. This was because, during the pandemic, they served elementary students throughout the school day. The students needed high-performance internet access in order to participate in their online classes. Emerson decided to provide each daycare with a FortiExtender secure Long-Term Evolution (LTE) wireless wide-area network (WAN) extender.

"As a public school district, we could not pay for internet access for these private daycares that were charging kids to use their facilities," Emerson explains. "However, the FortiExtender devices belong to the district. The FortiExtender devices make connectivity easy for our students, on the laptops or tablets we provide, and they do not permit internet access to anyone else. This enables students to do their schoolwork from the daycare facility."

For Emerson, the daycare connectivity solution demonstrates the strong relationship his district has with Fortinet. "We are very picky about which vendors we work with, and we place a high value on relationships," Emerson says. "Our elementary principals were asking me to find a solution for the local daycares, and I was scratching my head. I talked it through with my Fortinet sales rep, and he recommended the FortiExtender solution. This is one more example of why we count on Fortinet to provide good solutions, good support, and good advice."

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