



CASE STUDY

Education Services Agency Improves Protection for 20 School Districts With FortiGate NGFW and FortiAnalyzer



Grand Rapids, Michigan-based Kent Intermediate School District (Kent ISD) is a local education service agency. It supports 20 school districts—comprised of more than 280 schools and 106,000 students—with a wide range of services, including information technology (IT). As part of its IT responsibilities, the agency acts as the internet service provider (ISP) for all its districts.

Like many K-12 organizations, Kent ISD districts have been expanding their online educational programs to facilitate student learning across dozens of schools. Their major online platform, MySchool@Kent, brings instruction and coursework online so that students can access their lessons and assignments from anywhere. The IT team at Kent ISD collaborates with the districts to develop customized software solutions. It also develops and maintains the database systems and manages network security.

When Security Lags Behind Online Learning

K-12 schools are primary targets of cyberattacks, and years ago, Kent ISD recognized the need for robust cybersecurity technology. The agency’s IT team had invested in various solutions, including advanced firewall protection, to protect their networks from security breaches.

But cyber threats evolve rapidly, and a recent evaluation of the agency’s firewalls revealed that they were no longer sufficient to address their current network security requirements. In addition, the challenges of navigating the previous firewall’s complex and unreliable user interface was also an ongoing concern.

“We were not happy with the direction our previous vendor was heading with their firewall features,” says Chris Lillis, senior security engineer on the Kent ISD IT team. “Updates were slow, and we had frequent bugs and other issues. As our contract with them came to a close, we decided it was time to look around.”

The Search for a Next-generation Firewall

From the outset, the IT team knew they would need a high-performance firewall. Kent ISD had recently deployed a new fiber backbone in many of its school districts to accommodate the increased traffic associated with its expanding online programs. Any latency on the firewall would create a chokepoint at the network edge, eliminating much of the benefit of the new high-speed links. As an ISP, Kent ISD also needed a firewall that would be able to inspect secure sockets layer (SSL)-encrypted internet traffic without significantly degrading throughput.

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Details

Customer: Kent Intermediate School District

Industry: Education

Location: Grand Rapids, Michigan

Partner: Vector Tech Group

Business Impact

- Robust network security and high-performance connectivity while preserving budget
- Greater visibility and mitigation of network security events
- Simplified and streamlined interface, which can be managed by even a small technology team

At the same time, cost was an important decision factor for Kent ISD, because the IT budget was limited, and the agency's federal (E-rate) funding did not cover firewalls to the same extent as other communications solutions. This meant they had to fund most of the firewall project from their own budget.

Kent ISD has a very small IT staff, so Lillis reached out to Vector Tech Group to help with the firewall selection and implementation. "We had been working with Vector for quite a while," Lillis recalls, "first with wireless, then with switches." Explains Lillis, "I enjoy working with them, because they are very responsive to our needs."

Sophisticated NGFW Capabilities at the Right Price

Vector recommended FortiGate next-generation firewalls (NGFWs), based on their experience with the NGFWs in previous client projects and their acquaintance with other vendor solutions. Another contributing factor was Fortinet's reputation in the area. According to Jon Novakowski, chief visionary officer of Vector Tech Group, "Fortinet does very well in Michigan K-12 districts."

During the competitive evaluation process, Lillis and his team liked the performance they saw in the FortiGate NGFW—including a much more user-friendly interface than they had previously. But they especially appreciated the NGFW's value. "One of the reasons we won Kent's business with Fortinet was that its price-performance was much better than everything else they looked at," Novakowski notes.

The firewall replacement project included two FortiGate enterprise-level NGFWs with intrusion prevention system (IPS), SSL inspection, and advanced threat protection from FortiGuard. Kent ISD also deployed the FortiAnalyzer analytics and automation solution (part of the Fortinet Fabric Management Center). FortiAnalyzer gives the IT team far more visibility into security events than they had before.

Notably, it is not just external cyberattacks the agency had to worry about. With the previous vendor's solution, some mischievous students had been able to take down the entire Kent ISD network by launching distributed denial-of-service (DDoS) attacks on the firewall. Now, the Kent ISD team can easily track down the source of the delinquent behavior from the FortiAnalyzer Security Fabric console. And with the DDoS protection and the ability to configure IP pools in the FortiGate firewalls, they can prevent it from recurring.

The Value of a Trusted Partner

As a Fortinet partner, Vector offered additional value to Kent ISD. Novakowski and his colleagues have completed Fortinet Network Security Expert (NSE) training, and their ongoing relationship with Fortinet helped Kent ISD feel comfortable that they had knowledgeable experts they could call on during the decision-making and implementation process.

Vector brought this expertise to bear in what turned out to be a rather intricate deployment at the agency. "We had a pretty complex environment with our former firewalls," Lillis remembers. "There were some challenges during implementation, such as migrating our existing firewall policies, but Vector helped us work through them."

After the deployment, Vector held in-depth training sessions with the Kent ISD's IT team. On a day-to-day basis, Kent's IT team manages the firewalls themselves, but Vector is always available to support them if they need help.

A More Secure Learning Environment

Today, FortiGate serves as the core of Kent ISD's security architecture. "FortiGate is the primary security device Kent has deployed for the edge of their network," Novakowski says. "It is protecting the agency's network as well as those of the districts, and a lot of students are benefiting from it."

Lillis looks forward to collaborating with Vector to gradually expand Fortinet's solutions into more of their school districts. "FortiGate is my firewall of choice," he says. "The ease of use and management made it very easy to decide to continue to move forward with Fortinet and Vector."

Solutions

- FortiGate
- FortiAnalyzer

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