

Case Study

School District of Lee County (FL)

PROFILE:

COUNTRY: USA

INDUSTRY: Education

SIZE: 85,000 Students

KEY REQUIREMENTS:

- A scalable, next-generation web filtering system with the ability to decrypt and filter Secure Socket Layer (SSL) traffic at very high speeds
- The ability to filter certain features or content within social media websites while allowing access to other content — and the ability for IT staff to easily block or unblock sites as necessary
- Fast, reliable customer service

MAIN BENEFITS:

- Very granular web filtering and policy control
- Future-proof flexibility to accommodate new devices and technologies
- An agile and highly responsive software partner with top-notch technical support



ContentKeeper Meets Lee County's Need for a Fast, Reliable, Highly Scalable Web Filter

OBJECTIVE

Florida's Lee County schools were using an Internet filter that couldn't scale to meet their needs. The software slowed down network speeds, and decrypting and inspecting Secure Socket Layer (SSL) web traffic brought the network to a halt. Lee County needed a reliable and scalable solution that would allow the district to filter and report on SSL-encrypted traffic, giving teachers and administrators much more fine-tuned control over students' web use.

SOLUTION

After talking with their peers in other districts, Lee County officials chose ContentKeeper to replace their old web filter. With ContentKeeper, the district now has a fast, reliable, and highly scalable solution that has proven to be extremely effective—keeping students safe and making web use much more productive.

Background

With 85,000 students in grades K-12, The School District of Lee County is the ninth largest school system in Florida and the 33rd largest in the United States.

"We are a 75% digital district," says Dwayne Alton, Executive Director of Infrastructure Services. "The majority of the instructional materials we purchase today are digital, not print." All students in grades 6-12 are given Chromebooks, and elementary students share devices that stay in school. The district uses learning tools that allow teachers to assign different content to students to meet their individual needs.

To support such a large number of students working online at once, Lee County has a robust network infrastructure. All schools are connected through the central office via a fiber optic network, with 15 Gbps of bandwidth going out to the Internet. But the district's old filtering solution could not effectively handle this load.

"We couldn't keep up with the volume of traffic," Alton explains. "The filter would slow down. And when we tried to add SSL decryption on top of that, the system would completely crash."

Without the ability to decrypt and inspect SSL web traffic, Lee County administrators could only see the top-level domain of SSL-encrypted websites, instead of the individual pages that students were accessing. They also couldn't tell which websites their students were searching for in Google or other search engines. And they had to either block the entire domain or give students full access to social media and other Web 2.0 tools.

District leaders knew they needed a web filtering solution that would easily scale for their needs, allowing them to decrypt and inspect SSL traffic without crippling their network.

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—Dwayne Alton
Executive Director of Infrastructure
Services

Why Choose ContentKeeper?

In talking with other IT leaders from around the state, Alton and his colleagues heard nothing but great things about ContentKeeper.

“We have peers from similar-sized districts nearby who told us what products they were using and whether these scaled well,” Alton says. “ContentKeeper was the only solution that consistently received positive feedback from other districts when it came to scalability and SSL decryption. In fact, this was the Achilles heel of other products. They could only scale so far, and once they hit a certain threshold, they would melt down.”

What’s more, Alton discovered that ContentKeeper could easily scale without needing a lot of hardware.

“ContentKeeper’s software was designed to be more efficient,” he observes. “The company did a much better job of engineering its solution than its competitors. With some of the other companies, it seems like they tried adding SSL decryption to their existing architecture, and it just wasn’t designed to handle that.”

Superior Performance

Eager to try ContentKeeper for themselves, Alton and his team began a district-wide pilot.

“We started out in passive mode, not blocking websites but watching what ContentKeeper would have blocked and reported on while our other filter was still in place,” Alton says. “This gave us some idea of ContentKeeper’s speed and its reporting and blocking capabilities.”

It also showed Lee County what material was getting through its old web filter, which was quite revealing.

“Students were finding proxy sites, and they were using these to get to other restricted websites,” Alton explains. “ContentKeeper was much better at finding and blocking these proxies. Instead of trying to filter them by their URL, it was looking at the actual behavior of these sites. Proxy sites were a problem we had been trying to solve for some time, and ContentKeeper gave us a much better handle on it than our old software.”

Fully satisfied by this pilot experience, Lee County rolled out ContentKeeper in stages, switching from passive to active mode at a handful of schools at a time. Not only was ContentKeeper able to handle the district’s web traffic with no problems, but the software’s SSL decryption worked flawlessly.

RESULT

With ContentKeeper, The School District of Lee County has found a web filter that can handle SSL decryption at a large scale without hindering network performance. As a result, district leaders now have much more fine-tuned control over the content that students can access—and they also have more insight into students’ online activity.

“Our teachers now feel confident that they can assign legitimate content within YouTube, while restricting students’ access to inappropriate material,” Alton says. “SSL decryption has always been a challenge for us, and ContentKeeper does a much better job at this than the other solutions we have tried.”