

Case Study

Capital Area Intermediate Unit

PROFILE:

COUNTRY: USA
INDUSTRY: Education
SIZE: 85,000 Students

KEY REQUIREMENTS:

- An in-line filtering solution that students would not be able to bypass
- The ability to filter SSL encrypted Web traffic beyond the top-level domain, providing more flexible control for administrators
- Detailed reporting of each student's Internet use

MAIN BENEFITS:

- Effective filtering of both HTTP and HTTPS Web traffic at a very granular level, with flexible policy settings for multiple user groups
- Precise filtering and reporting of students' Web use on school-issued devices—even when they are off campus
- Highly responsive customer service and technical support

ContentKeeper Provides Next-Generation Internet Security for 24 Pennsylvania School Districts — Including Off-Campus Filtering with Detailed Reporting

OBJECTIVE

The Capital Area Intermediate Unit (CAIU), which provides technology and related services for 24 school districts in central Pennsylvania, was using an outdated Web filtering system that could not filter Secure Sockets Layer (SSL) encrypted Web traffic effectively. CAIU officials wanted a Web filtering and security system that could inspect SSL encrypted Web page requests beyond their top-level domains, enabling more granular control over students' website access.

SOLUTION

CAIU found what it was looking for — and more — in ContentKeeper, a next-generation Web filtering and Web security system. The solution gives K-12 leaders very precise insight into, and control over, their students' use of Web 2.0 tools and social media sites in the classroom, many of which now use SSL encryption. What's more, ContentKeeper enables district leaders to apply very granular Web filtering policies even when students take their devices home, complete with detailed reporting about students' off-campus Internet use.

Background

As one of 29 Intermediate Units in Pennsylvania, CAIU offers a variety of services to the school districts it serves, including Internet access and Web content filtering. "We help them with these services, so they can focus on the needs of students and teachers in the classroom," said David Martin, director of technology services for CAIU.

School districts can choose to use these services or find their own solutions — and this freedom of choice is a key driver in encouraging CAIU to provide the best technology it can. "We try to find them a good solution for a good price that can have a big impact on all their schools," Martin said. "Our goal is to make them successful."

The Web filtering solution that CAIU was using before "met our needs for a while," he said, "but as the Internet evolved—and especially as so many websites are encrypted with SSL now — we needed something that was a little more robust. Google, for example, uses SSL searches — and we needed to be able to filter those."

Students were getting around CAIU's prior Web filter, Martin added, because it did not provide in-line filtering—and so that was another important requirement. "Every filtering system we looked at had to meet that need," he said.

Why Choose ContentKeeper?

Martin began an evaluation process to find a new solution, looking at how well various products filtered Internet requests but also the level of detail they included in their reporting.

"I narrowed it down to about five solutions," he said. "We invited them here to demonstrate their products and talk about the various features, and from that we chose ContentKeeper." The districts served by CAIU had input in the process as well. "Some solutions were strong in one area but not another. We thought ContentKeeper was the best all-around solution for meeting our needs."



“ContentKeeper is not just remaining stagnant with what they are doing. They are moving things forward and staying ahead of the [web filtering] curve.”

David Martin
Director of Technology Services

ContentKeeper’s advancement in SSL filtering was a key differentiator. The product’s proprietary technology decodes, inspects, filters, and logs the full URL string for HTTPS Web traffic at multi-gigabit speeds — resulting in unprecedented visibility and control of sub-domains and specific pages within Google, Facebook, Twitter, YouTube, and other SSL encrypted websites, with no noticeable network latency.

Administrators can base their Internet use policies on specific user groups, so students at different grade levels can be given access to different types of materials. This granularity applies to Web 2.0 and social media tools as well, letting administrators restrict access to certain types of content while allowing access to others — even within the same website domain.

Powerful Off-Campus Filtering and Reporting

Another cutting-edge feature that CAIU appreciates is the ability to filter students’ off-campus Internet use without a proxy setting, which enhances reporting. District officials can see not just the MAC address, but also the user name associated with each online session in their web usage reports—even when students are outside of school.

This is ideal for districts with one-to-one programs that let students bring their mobile devices home, Martin said. “Students follow the same set of rules at home or at school, and we get a report that shows what they did in both places,” he explained.

ContentKeeper’s proprietary bridge filtering technology allows administrators to enforce Internet use settings remotely on each device. School districts can provision each device through email, a bar code, or a Web link. Settings are tamper-proof so students cannot remove the embedded filtering controls.

Precise Control — with No Network Delays

Because each of CAIU’s school districts has its own filtering rules and its own unique set of circumstances, “we decided to implement a separate appliance for each district,” Martin said. Most are located at the CAIU offices, but a few districts have chosen to host their own appliance.

“Either way,” Martin said, “when someone requests an Internet site, it goes through the ContentKeeper box and out to the Internet and back, so it’s an in-line search. We were a little worried about delays with the in-line filtering — but with ContentKeeper’s Layer 2 Ethernet bridge technology we haven’t experienced that at all.”

CAIU serves a mix of small and large districts. “We have districts that range from 800 or 900 students to ones with 12,000 or 13,000 students,” Martin said. “ContentKeeper works with all of these different-sized districts without a problem. We haven’t seen any issues with throughput.”

The company’s service and support have been exceptional as well, he said, noting: “They’ve been listening to our needs and have been willing to work with us. They weren’t just looking to make a sale and then walk away.”

RESULT

ContentKeeper has given CAIU’s member school districts a better Web filtering experience, with more accurate visibility into students’ Web use and finer control of their online activity — even when they request websites with SSL encryption. Furthermore, these benefits apply even when students bring their devices off campus, setting up districts for future success as they roll out mobile computing initiatives.

“ContentKeeper is not just remaining stagnant with what they are doing,” Martin concluded. “They’re moving things forward and staying ahead of the curve.”