untangle

K-12 SCHOOLS

WHY LEGACY WEB FILTERS DON'T WORK FOR SCHOOLS

WHITEPAPER

Keeping students safe online with BYOD and school-issued devices is more difficult than originally thought.

CURRENT K-12 IT MARKET

Most schools today have a legacy web filter solution in place, and have had poor experiences with the basic block/allow functionality. While teachers and administrators are concerned about blocking inappropriate content, it is critical to ensure that students can also seamlessly access the online content and tools they need to learn. Because of their basic functionality, legacy web filters have gotten in the way of schools leveraging the Internet to enhance learning, increase student engagement and facilitate collaboration.

In order to achieve these goals, schools need a solution that goes beyond just basic block/allow functionality. They need a solution that optimizes access to learning content and tools that students, teachers, and administrators use every day. Untangle meets these requirements by combining web filtering with bandwidth management. This enables administrators to have full control of network traffic to guarantee safe and reliable access to online resources for educational use.

INDUSTRY NEEDS

Historically, the main focus of IT at many educational institutions has been compliance with the Children's Internet Protection Act (CIPA). According to the Federal Communications Commission, CIPA was enacted in 2000 as an effort by Congress to control young users access to profane and potentially detrimental online content. Schools that are compliant with CIPA standards, which include utilizing web filters to block obscene, pornographic or damaging online material, are eligible for federal discounts. These financial benefits come through the E-rate program and can be put toward Internet access or network connections in educational institutions or libraries. When these establishments shape their network accordingly, they are not only protecting their students from inappropriate content, but they can also receive funds to help with their connectivity budget.

On top of blocking access to damaging content, the K-12 educational sector is also focusing heavily on the ability to seamlessly provide students access to online educational content, tools and applications. In the current climate of the industry, where many schools are providing individual devices like tablets and laptops for student use for the first time, this focus is becoming increasingly important.

The Times Record recently reported on this trend, stating that in many schools, administrators and educators are working together to transition classes and students from paperbacks to laptops and tablets. Paris School District superintendent Wayne Fawcett said today's environment is that of a digital technology age.

"I personally like books ... but it's a limited number of words that you can put into a book," Fawcett said. "But if you have online resources, the information is often unlimited."

Digital textbooks are opening new opportunities for students to learn, and other applications are also opening new ways for educators to communicate with their students. Such resources like online educational portals are being used as a repository of knowledge and for online testing purposes. In some schools, students complete standardized testing and assessments online at both the district and state level. This shows the importance of a reliable and secure test environment for students, and optimized access to make grading, organizing and archiving easier for teachers and administrators.

The move to the digital landscape certainly has its benefits, but this undoubtedly fuels the increase of web traffic within these localized school networks. With various applications vying for available bandwidth, school officials need control over the content traversing their network so they can prioritize important tasks and ensure they have uninterrupted access to network resources whenever needed.

PAIN POINTS AND HOW TO SOLVE THEM

Historically, one of the biggest areas for concern with administrators and educators was keeping students safe online from potentially harmful content. Most thought they solved this problem with approximately 94 percent of K-12 institutions utilizing web filtering software, according to the American Association of School Librarians. However, finding a web filter that meets the needs for educators continues to be an issue within the sector as administrators struggle with their legacy system's limited block/allow functionality. These types of systems simply do not provide the level of flexibility needed for different policies for students, teachers, and other members of the administration.

At the same time, these outdated legacy systems are becoming easier to bypass as tech-savvy students ironically have access to the resources to do so. Electronista reported that this recently occurred at a school in Los Angeles. When students deleted a profile configuration file on school-provided iPads, all filtering restrictions were removed from the devices. Students were thus able to access previously unapproved and inappropriate material.

More technologically sophisticated students even use anonymous proxies to bypass these legacy web filters and use the school network completely uninhibited.

On top of these problems, schools have also reported experiencing issues with their filters when applying software updates. According to All Things Digital, once the upgrade to iOS 7 was downloaded and installed on school network-supported devices, supervision profiles installed on tablets were disabled, providing access to any and all online content.

Even more issues arise when schools provide tablets and other mobile devices for student use. This significantly increases the number of endpoints accessing the network. The increase in devices creates bandwidth constraints and internet performance issues as the system struggles to support multiple devices accessing recreational, bandwidth-intensive applications simultaneously. One school in New York City ran into this problem recently, according to Gotham Schools. The institution's network wasn't designed to handle the demands from the increased number of endpoints accessing non-educational related content.

CONCLUSION

Untangle provides solutions that address the needs and pain points for K-12 that legacy web filters are unable to. It's a flexible solution that let's network administrators create different policies for students, teachers, classrooms, grade levels, and sites. It stops students from bypassing the filtering that protects students and allows schools to be CIPA compliant to receive federal funding.

However, enforcing filtering rules is just one part of the problem. A big pain point not getting addressed by legacy web filters is optimizing Internet access to critical educational and administrative tools online. Untangle is the only vendor that gives administrators granular control over all the content on their network, ensuring optimized access to critical online tools, testing and assessments, and content for educational use whenever needed. With Untangle, administrators can guarantee students have safe, reliable access to what they need on the Internet. This enables schools to shift focus from how they manage a legacy web filter, to how they leverage the Internet to enhance learning, increase student engagement and facilitate collaboration.

RESOURCES

https://www.fcc.gov/guides/childrens-internet-protection-act

http://www.eschoolnews.com/2013/04/26/new-10-of-the-best-apple-and-android-apps-for-education-in-2013/

http://www.cbsnews.com/news/public-schools-in-fresno-calif-to-provide-tablet-computers-to-students/

http://ww2.kqed.org/mindshift/2011/10/10/youtube-launches-new-education-site-with-school-access/

https://www.khanacademy.org/

http://www.ala.org/aasl/research/slc/2012/filtering

http://www.macnn.com/articles/13/09/25/students.found.simple.way.to.bypass.internet.filters.installed.on.the.ipads/

http://articles.latimes.com/2013/nov/12/local/la-me-1113-lausd-20131113#axzz2kY7wwOP1

http://allthingsd.com/20131003/schools-complain-ios-7-upgrade-stripped-filters-from-students-ipads/

http://appleinsider.com/articles/13/10/03/schools-report-apples-ios-7-breaks-ipad-supervision-profiles

http://ny.chalkbeat.org/2011/03/09/in-some-nyc-schools-more-laptops-but-too-little-bandwidth/