

# **ContentKeeper** for K-12 Education

Web Filtering, Mobile Device Control & Proactive Malware Protection

Schools face many difficult IT and Web security challenges; the complexities of maintaining CIPA compliance and a safe learning environment implementing BYOD and 1:1 initiatives - facilitating secure access to a rapidly growing set of online learning materials - these and many other demands are stretching IT resources and budgets beyond the breaking point. ContentKeeper provides comprehensive Web security solutions to address these challenges and secure the next-generation learning environment. We protect against harmful Web content and emerging security threats. ContentKeeper helps IT proactively protect school networks and mobile students anywhere, anytime.

# Web Security for Next-Gen Learning Environments

ContentKeeper provides a complete solution to address the myriad of threats and challenging IT requirements today, and helps you secure the next-generation learning environment:



# Safe Online Learning and CIPA Compliance

Web filtering and CIPA compliance remains the foremost Web security requirement for K-12 IT administrators. ContentKeeper ensures no harmful content is accessible to students with a comprehensive Website category database, dynamic Web content classification and application controls. ContentKeeper also provides extensive policy controls and flexible exceptions to prevent annoying over-blocking of legitimate learning material.

#### Enabling Mobile Devices / BYOD / 1:1 Initiatives

Laptops, tablets, iPads and Smartphones are creating both opportunities and challenges for schools. ContentKeeper makes it easier to deploy and manage a multitude of devices and ensure safe, secure, policy-compliant Web use. BYOD and 1:1 initiatives are fully supported. ContentKeeper provides simple, effective, and cost efficient solutions for seamlessly managing laptops and mobile devices, on and off campus.





# **Malware and Malicious Web Threats**

Over 90% of malware attacks today target browsers or Web applications making the Web the primary avenue for malware infections. Traditional signature-based anti-virus solutions have proven to be insufficient protection against today's dynamic, targeted malware and zero-day browser attacks. ContentKeeper combines advanced proactive analysis-based security and real-time signature-based malware detection to ensure robust protection against even new, previously unknown, Web-based threats.

#### Web 2.0 Applications

The evolution to Web 2.0 has reshaped Web use. Applications such as Facebook, Skype, iTunes, Torrents (P2P) and Steam (gaming) have totally changed the way we interact, learn, work and play on the Internet. Some Web applications have education value, but many represent major risks to security as well as student's safety and privacy. Cyber-bullying, privacy breaches and excessive time-wasting are unfortunate issues that schools are faced with everyday. ContentKeeper provides comprehensive controls to manage a wide range of Web 2.0 applications. With a policy-based framework, IT departments can have the power to restrict downloads and uploads, implement time and data-based quota restrictions, monitor and report on student activity.





# **Granular Social Media / Social Networking Controls**

Sites such as YouTube and Facebook have exploded in terms of usage and content. However, simple blocking of these Websites denies students and teachers access to a wealth of legitimate online learning resources and collaboration opportunities. ContentKeeper provides flexible controls to enable students and teachers to utilize the education value these applications have to offer while filtering out inappropriate content. This includes full support of application filters for Facebook and YouTube for Schools.

#### **Anonymous Proxies / Proxy Avoidance**

Anonymous proxies, like Ultrasurf, are one of the most common methods students use when attempting to circumvent Web filtering. Anonymous proxies are dynamic and can be privately setup by students making URL filtering inadequate protection against a moving target. ContentKeeper provides universal detection of proxy avoidance methods. This is achieved via a combination of SSL/HTTPS decoding, dynamic content classification and deep packet inspection, ensuring that ContentKeeper enforces your policies regardless of the measures some users may take to bypass them.



# Reporting



Data Security

Information security and data leakage prevention (DLP) are increasingly important concerns. FERPA compliance and Smarter Balanced assessments are placing greater demands on K-12 IT departments to enable secure and appropriate access to student records. ContentKeeper helps schools implement technology measures to control the distribution of sensitive files, restrict access permissions and monitor disclosure of student data in the cloud. ContentKeeper provides IT administrators with powerful tools such as policy-based file upload/download restrictions, keyword matching, document inspection, SSL decoding and security event reporting.

those who need it, and enhance policy/CIPA enforcement.





# **Bandwidth Control and Shaping (QOS)**

As new online education tools and initiatives become available the need to control bandwidth utilization and ensure resource availability will become more important for next-gen learning. Programs like Smarter Balanced assessments and reference materials will be competing for bandwidth with gaming, P2P file sharing and streaming video. ContentKeeper provides Quality of Service (QOS) assurance and bandwidth shaping to ensure dedicated availability of bandwidth for key education resources and applications.

Reporting and analysis of Web use is a critical element of Web security. ContentKeeper provides comprehensive reporting tools that enable IT staff and administrators to analyze Web use in detail and drilldown into individual user activity. Reporting can be delegated and provided to appropriate personnel for their particular areas of concern. Everything from bandwidth utilization to top URL categories to top users is provided in online and exportable formats. Report scheduling and automated distribution via email is available, enabling IT to put key information in front of

Key Features	Technical Description	Key Benefits
Web Filtering	URL category database. Heuristic, dynamic Web content classification. Collaborative global feedback network. Custom URL categories. 5min/1hr updates.	Prevent exposure of harmful content to students. CIPA compliance. Maintain safe learning environment. Acceptable Use Policy monitoring & enforcement.
Granular Application / Social Networking Controls	Policy-based access permissions. Time-of-Day & bandwidth allocation/ quotas. Search Engine filtering (Google SafeSearch). YouTube for Schools. Application sub-function controls (e.g. read-only, block YouTube comments or Facebook apps.).	Control Web 2.0 applications & their specific functions. Help protect against cyber-bullying. Safeguard student privacy & reduce excessive time-wasting or bandwidth consumption.
Anti-Virus / Malware Protection	Real-time malware detection. Advanced proactive threat analysis sandbox. Isolated threat identification. Active exploit, script detection. Signature-based anti-virus/spyware detection.	Robust protection against known & new zero-day threats. Confidence & peace of mind that users can browse the Web securely on any device in any location.
Keyword Detection / Search Controls	Define prohibited custom words & phrases for search engines. Detect & block profanity or threatening language in Facebook chat, blogs, Twitter comments. Detect keywords embedded in documents or files.	Block inappropriate Web searches. Reduce cyber-bullying. Take action against inappropriate behavior & harassment.
File Controls	Restrict files by type & size. Policy-based permissions.	Block access to inappropriate downloads. Preserve bandwidth. Help safeguard confidential documents.
Advanced Reporting	Web category & user activity reporting. Summary & drilldown detail reports. Exportable report formats (PDF, DOC, XLS, HTML). Scheduled reporting & automatic email distribution/publishing. Delegated access permissions for teachers & administrators.	Monitor policy compliance. Gain meaningful insight into Web use, security events & student activity – on & off campus. Enable key personnel to oversee their area of responsibility & empower teachers with valuable information to maintain safe learning & curb inappropriate behavior.
SSL / HTTPS Decoding / Certificate Validation	Full de-coding & filtering of encrypted Web traffic. Policy enforcement of SSL credentials. Block self-signed or invalid certificates.	Full scanning of all Web traffic, including HTTPS. Detection of anonymous proxy / bypass censorship attempts. Detection of potentially malicious websites (e.g. phishing).
Delegated Administration	Role-based access permissions. Hierarchical policies across multiple schools, districts or domains. Delegated areas of responsibility, local policy ownership. Full configuration & administration auditing.	Establish high-level & local policy settings. Delegate responsibilities to local IT administrators but maintain oversight & control of large scale environments. Complete flexibility to conform to your IT organizational structure.
Maintenance Free	Automated updates & upgrades.	Worry-free administration. Save time & energy. Always up-to-date with latest security & Web content classifications.
Directory Integration / Username Resolution	Automated synchronization with user authentication directories such as Active Directory, LDAP & Open Directory.	Automatically maintain user identification & policy control. Zero maintenance & no administration.
Bandwidth Shaping	Allocate bandwidth allotments for critical applications & online resources. Maintain Quality of Service levels.	Critical learning applications & online resources are always available at optimal bandwidth.
Cloud / Appliance / Virtual Server Deployments	A range of gateway deployment options is available including a cloud or hybrid cloud-based Web filtering platform based on your requirements.	Choose your preferred IT deployment architecture to best fit your environment & apply Web security to all of your users everywhere.
BYOD / 1-to-1 Mobile Device Support	Support for iOS, Windows & Android devices. Support home-based study. Laptops, tablets, iPads & Smartphone devices.	Enable mobility & flexible learning environments. Safely & efficiently support the large scale rollout of devices & utilize the latest technology & hardware as it becomes available. Embrace the future of next-generation learning.
Physical Layer 2 Ethernet Bridge	All Internet traffic has to pass through the bridge, providing the ability to scan all Internet data as speeds 10x greater than proxy-based solutions. Full native support for IPv6.	High scalability & availability. Most robust security available today. Future- proof Internet security. Ready for IPv6 & future requirements to scan beyond standard Web traffic.

#### www.ContinuityFocus.com

#### Sales@ContinuityFocus.com

(800) 399-6085



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