

# OpenDNS Enterprise for K-12 Schools

## Innovative Cloud-Based Web Content Control and Security For CIPA Compliance

OpenDNS is the world's leading provider of DNS and security services that make K-12 school networks faster, safer and more reliable. OpenDNS Enterprise provides fast and reliable DNS, integrated Web content filtering, phishing protection, botnet protection, and malware site protection, built on the world's largest cloud-based DNS platform. Twenty five thousand (25,000) K-12 schools and school districts currently use OpenDNS to protect their students and staff from inappropriate and malicious content while providing improved DNS performance. OpenDNS is the easiest way to achieve CIPA (Children's Internet Protection Act) compliance necessary for E-rate funding.

### Challenges for K-12 Schools

#### Providing CIPA Compliance and Web Security Protection to Students and Staff with Limited IT Resources and Budget

K-12 schools and school districts face multiple challenges in managing Internet access, usage and network security across their distributed campuses in an environment of tough-to-meet IT budgets. To participate in the E-rate program, which provides discounts to make access to the Internet affordable to schools and libraries, school IT administrators must comply with CIPA criteria that require them to prevent access to sites containing inappropriate content to minors. In addition, IT administrators are also spending more time chasing down and remediating the increase in Web 2.0 security threats and vulnerabilities such as malware exploits and botnets that infect their school networks and computers. Solving both of these challenges with reduced IT budgets has been difficult. K-12 schools need a flexible solution that provides control to meet CIPA and protection against security threats while reducing the cost and burden their IT staff must take on to deploy and manage it.

### The Solution

#### Control, Protect and Manage Networks and Users in the Cloud

OpenDNS pioneered the concept of integrating security features into one of the most fundamental protocols that underlies the Internet, DNS (Domain Name System). The result is a robust service that enables K-12 schools to control, protect and manage their networks and network resources using their existing infrastructure with no additional equipment, software or on-going upgrades and maintenance involved. Deploying OpenDNS Enterprise can take less than 30 minutes - with a web based account set-up, K-12 schools simply point their external DNS at each of their campuses to OpenDNS's two anycast IP Addresses (208.67.222.222 & 208.67.220.220) and are ready to go. OpenDNS's web based management dashboard provides IT administrators flexible and customizable options to control web access and gain visibility into their networks. No new hardware devices are required, there is no need to backhaul all external internet traffic to a centralized datacenter for filtering and since OpenDNS operates at the DNS level the service does not slow down network performance unlike other appliance based solutions.

### Control

#### Web Content Filtering and Control

OpenDNS's rich database of more than 57 categories and millions of domains allows K-12 schools to control which sites can be accessed on their networks. The web based administration console allows quick set up and management of content filtering policies on a per-site or per network basis and contains flexible options such as white and black lists and white list only to enable more granular control. The Block Page Bypass feature enables IT administrators to create exceptions to the content filtering rules by granting trusted users, such as teachers, the ability to bypass some or all of the content filters permanently or temporarily. This flexibility gives K-12 schools control without limiting productivity of teachers and staff that require access to certain sites. The Web content filtering system is powered by the OpenDNS Domain Tagging system, an innovative approach to Web site categorization that empowers OpenDNS customers around the world to contribute insight about category accuracy.

#### Why OpenDNS?

- Largest independent DNS service provider processing over 30B DNS requests per day
- Global coverage and capacity with 12 datacenters across the world
- 100% network uptime and availability
- Trusted by 1000's of SMBs to the Fortune 100 to provide fast reliable DNS and security services
- To learn more visit: [www.OpenDNS.com](http://www.OpenDNS.com)

- Ensure CIPA compliance by controlling access to inappropriate sites
- Reduce security exposure by limiting access to sites frequently compromised
- Control bandwidth usage by reducing access to P2P, streaming and high bandwidth sites

## Protect

### Providing Networks with a Protective Hardened Outer Shell

With the proliferation of Web 2.0, Malware, Botnet and Phishing attacks have increased significantly leaving K-12 schools vulnerable and exposed to drive by downloads, key loggers, trojans and other malicious and unwanted threats.

OpenDNS's innovative security approach delivers Malware site, Botnet and Phishing protection at the DNS level. Malicious, compromised and infected sites are identified and blocked from resolving during DNS resolution stopping users from going to known sites that may infect the user's machines. OpenDNS Enterprise prevents malware and malicious content from reaching the school's network providing networks with an additional "hardened outer shell" protective layer. In addition to protecting networks from external attacks, OpenDNS provides protection and mitigation for Botnet infections that currently exist on the school's networks by blocking and cutting off the ability for Botnets to access and communicate with their command and control center. This prevents Botnets from sending out data about students and staff and other sensitive information to hackers outside the firewall and provides schools with the ability to detect which machine on their networks are infected.

- Protect networks with "Hardened Outer Shell" by stopping malware sites or compromised sites from resolving at the DNS level
- Prevent data leakage from Botnet infections
- Reduce time and resources used to remediate infected machines
- Shorten mitigation time by identifying which machines on the network are compromised and connecting to command and control or drop sites

## Manage

### Delivered through the cloud to 1 to 1000 campuses with Web Based Management and Reporting

OpenDNS delivers its service through the cloud so there is no equipment or software to purchase, implement or maintain onsite enabling schools to simplify their network infrastructure while reducing ongoing operational costs. Setup and deployment is quick and simple and all configuration, management and reporting is done through the web-based dashboard that is accessible from any location and at any time. OpenDNS easily scales to accommodate school's changing needs and growth. Adding new locations, campuses and networks is as simple and seamless as the initial set-up: add new networks in the web based management console, point the new routers or servers to the OpenDNS Anycast IPs, and you're done.

Reporting is a key feature used to gain insight into network activity both at the DNS and content filtering level. OpenDNS Enterprise features web based reports that help schools track the usage of their network at a detailed level. In addition to reports through the management console, a daily email can be sent to their inbox with detailed information on daily traffic, blocked sites and categories of traffic. OpenDNS allows schools to store historical data and compare changes over time giving them insight into network traffic trends.



### Customer Spotlight: Mississippi Department of Education

#### The Challenge

After reviewing annual IT budget, coupled with Web content filtering needs, the DOE technology staff deemed Websense both far too expensive and an unsatisfactory solution for Web content filtering and blocking bandwidth-consuming and non-educational P2P traffic.

#### The Solution

Since switching to OpenDNS from Websense, the DOE has reported a marked improvement in Web content filtering accuracy and the effective blocking of P2P sites.

#### What They're Saying

"Using OpenDNS has cut down on the amount of traffic generated by our networks by as much as 40 percent. OpenDNS's increased performance when dealing with thousands of queries has been well worth the switch from Websense, in addition to the cost savings it represents. DNS systems are the hinges that the doors of the Internet swing on and OpenDNS provides us with an additional layer to help keep kids safe and on task."

— Wade Grant  
Senior Network Specialist

- Works with school's current infrastructure - No new appliances or software required
- Deploy and manage across 1 to 1000's of distributed campuses quickly and easily through the web dashboard
- Simplify school's network infrastructure and reduce ongoing operational costs
- Insightful web based reporting

## Performance

### Fast, Reliable and Consistent

OpenDNS provides the most reliable DNS service available helping schools ensure uninterrupted access to the Internet while adding control and protection to their network. OpenDNS owns and operates its large global network with datacenters situated strategically at the most well connected intersections of the Internet ensuring that distributed school campuses have the fastest most consistent DNS and web security service performance available. Anycast routing technology combined with OpenDNS's current and expanding datacenter footprint creates network resiliency and redundancy ensuring 100% uptime with no noticeable latency across the world.

- Experience faster, more consistent and more reliable DNS performance across the world
- No network performance impact - provides control and protection without slowing down existing network performance
- Reduce complexity and variables in network performance by standardizing on one DNS platform/ service provider

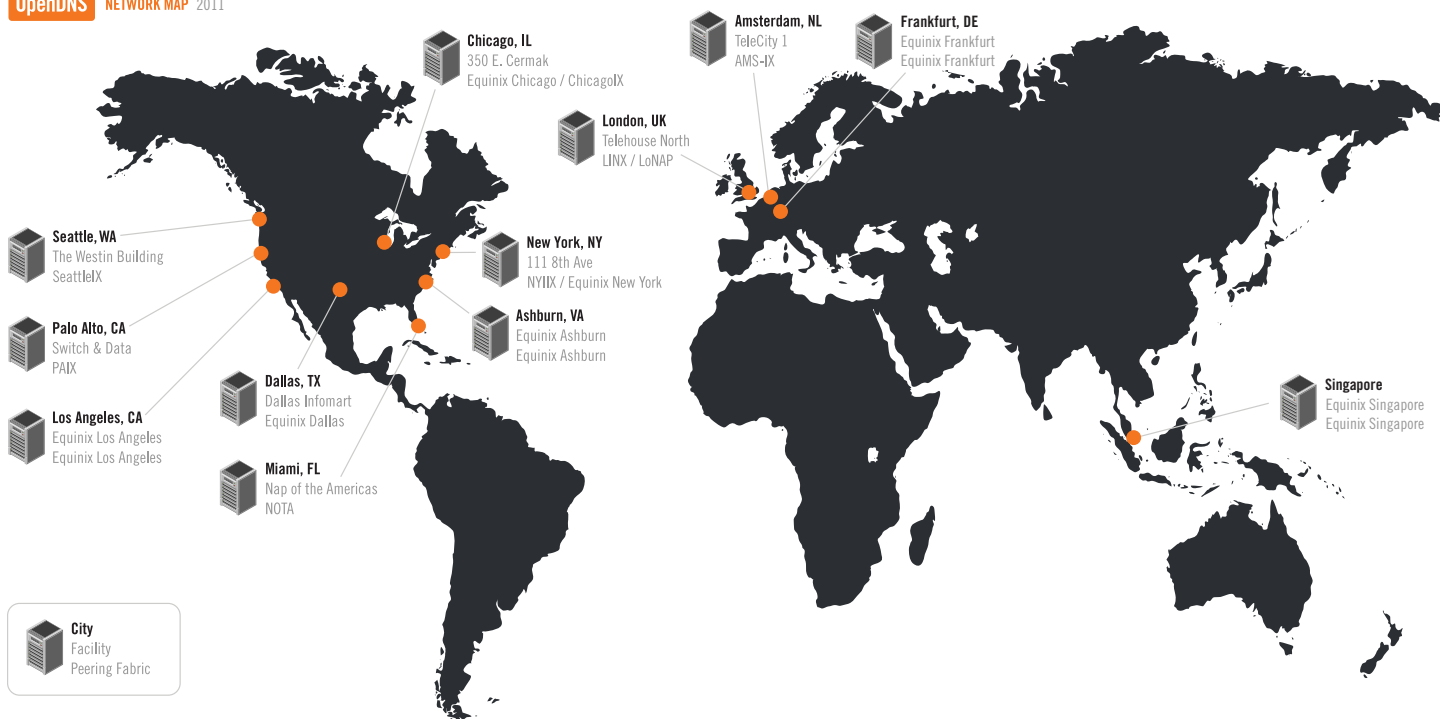
## BALTIMORE CITY PUBLIC SCHOOLS

### What They're Saying

"Before OpenDNS we suffered gaps in our content filtering at Baltimore City Schools. The rapid proliferation of proxy/anonymizer sites was a problem for our district and students were able to get to many that were not blocked by our content filter. OpenDNS helped us to close this gap, was very easy for us to implement and requires very little maintenance. We've found it to a valuable resource in our efforts to protect our children."

— **Guy Tochoy**  
Baltimore City Schools

### OpenDNS NETWORK MAP 2011



OpenDNS is the world's leading provider of DNS and web security services that make networks safer, faster, smarter and more reliable. Through DNS resolution, cloud-based Web content filtering and security services, OpenDNS empowers millions of households, schools and businesses to control how users navigate the Internet on their network, while dramatically increasing the network's overall performance and reliability.

For more information please visit: [www.opendns.com](http://www.opendns.com)