

Security helps one of the largest school districts power more efficient learning.



“There’s a beauty in Umbrella’s simplicity.”

Mike Petre
IT Coordinator
Washoe County School District

CASE STUDY



Organization snapshot

Organization:

Washoe County School District

Headquarters:

Reno, NV

Users:

70,000

Objective:

Secure network against malware, ransomware, phishing, and other threats for students, teachers, and administrators distributed across multiple locations without adding personnel or hardware.

Solution:

Cisco Umbrella

Impact:

- 60-to-70 percent reduction in malware
- Decrease in malware infections, classroom downtime, false positives and complaints
- Increased protection against malware, ransomware, and other threats on and off the network

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The objective

Maximize protection from threats with minimal resources

Like most primary and secondary schools, Washoe County (Nevada) School District (WCSD) faced a steep learning curve to bring the ubiquitous digital experience to its 70,000 users in 108 schools.

“Effective teaching and learning in K-12 is increasingly dependent on internet connectivity,” says Mike Petre, WCSD IT Coordinator. “We have to balance the educators’ wishes for a free, open, and unfettered access to the Internet with security. Our internet traffic grows exponentially every year whereas our resources to manage it remain static. We have a relatively small team running a big, geographically dispersed network, which is particularly attractive to thieves seeking student records.”

“To protect against malware, ransomware, phishing, and command and control callback threats, and to maintain CIPA (Children’s Internet Protection Act) compliance, we needed a security solution capable of handling our network’s high-volume traffic that we could implement in every facility across the district’s vast 6,342 square miles without adding hardware or IT personnel,” says Petre.

The solution

Leveraging the power of the cloud to protect a vast district

“Our previous hardware solution was overly complex and shielded malware at the local client level, which grew less effective as threats grew more sophisticated,” says WCSD network analyst Ken Mills. “We had multiple layers of protection including firewalls and antivirus, but realized we lacked coverage at the DNS layer.”

DNS-level protection gives Washoe County a first line of defense and blocks threats before they ever reach the network, while also meeting CIPA web filtering requirements. “To gain protection without adding traffic-inhibiting appliances or necessitating onsite IT staff at each facility was attractive to us,” says Petre.

“The needs of our users vary greatly and would not be evenly supported with a “one-size-fits-all” security policy,” Petre says. “Umbrella offered a simple yet effective way to meet those specific needs. There’s a beauty in Umbrella’s simplicity.”

Mills added: “Since Umbrella is delivered from the cloud, we were freed from having to wrestle with hardware and infrastructure. It just works, and it works well.”

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Ken Mills
Network Analyst
Washoe County
School District

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The results

Reducing malware by at least 60 to 70 percent

Following the deployment of Umbrella, Information Security Officer Alan Cunningham immediately observed a change in the volume of threat traffic and infected systems: “Umbrella reduced malware by at least 60 to 70 percent, and we see a significantly lower number of malware infections now, in addition to fewer false positives and complaints. Umbrella frees up resources and provides up-to-the-minute protection – it’s a force multiplier,” he says.

Washoe County also benefits from increased visibility. Cunningham adds, “Umbrella has given us insight into traffic that’s attempting to leave our network, which we would otherwise not have the ability to see.”

“We’ve been able to apply identity to users and therefore speed up remediation efforts by immediately identifying the infected device,” says Mills. “The Active Directory (AD) integration work was easy; it hasn’t required a lot of tweaking and tuning like other appliance-based solutions. This increased visibility has been a boon to us.”

Umbrella’s roaming client allows devices to go beyond the classroom by enforcing the same policies and delivering the same protection as on-network devices.

“Umbrella really makes a lot of sense in the K-12 area,” says Petre. “Teachers don’t have to jump through authentication and approval hoops, students don’t have to lose valuable class time, and everyone can focus on what’s most important: learning.”

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