

EDTECH™ FOCUS ON HIGHER EDUCATION

Brought to you by:



CASE STUDIES

TACTICAL ADVICE

RESOURCES

Classroom

Infrastructure Optimization

Security

Storage

Networking

Mobile

Hardware & Software

Management

CURRENT ISSUE



Subscribe





Read the latest reports from Campus Technology 2012 in Boston.

SIGN UP FOR

EdTECH

E-NEWSLETTERS

Follow EdTech

[Follow](#) [RSS Feed](#)

Connect With CDW

[LinkedIn](#) [YouTube](#) [Spiceworks](#)

[Like](#) 6.7k

ADVERTISEMENT

EdTech
**HIGHER
 ED
 SCOPE**

Find out what
 your peers are
 doing around the
 country.

Home » Mobile

< **previous**

next >



Threat Prevention

Colleges Focus on Web App Security

Security takes a high priority at colleges looking to manage the influx of web apps on mobile devices.

Karen D. Schwartz

posted June 19, 2012 | Appears in the Spotlight on Client Computing Strategies issue of the *EdTech Magazine* e-newsletter.

Like Tweet

Share



Related Articles

Serving Up Anytime, Anywhere Apps Over a Private Cloud

Review: Symantec Endpoint Protection.cloud

Colleges Focus on Cloud Security

Building a Security-Conscious Culture

Reduce Risk with Vulnerability Scanning

Editors Picks



Three Easy Steps to BYOD

5 Tips for Optimizing Load Balancers

Why Computer Labs Are Still Essential On Campus

ADVERTISEMENT

The ever-expanding number of mobile users running web apps has raised the profile of the IT security staff at Chapman University in Orange, Calif. Today, students use web browsers on mobile devices to access event calendars, check bus schedules, view grades, read assignments and participate in discussions.

Todd Plesco, the university's director of information security, says IT security's role will only expand as the college deploys a web-based version of *Oracle* PeopleSoft. The new enterprise, resource and planning system lets faculty and staff access human resources, finance and student record information via web browsers.

Keeping these web apps secure requires multiple layers of defense, and Plesco says penetration testing serves as the first layer. The IT staff also bolsters security with *Fortinet's FortiGate* web application firewall, a product that complements the university's mix of Fortinet firewalls for its existing network.

"We know that as we add more web applications, we will have to step up security. We're taking it one step at a time," Plesco says, adding that while penetration testing is still done manually, the university may switch to a commercial tool sometime soon.

Top Priority

Jeff Wilson, principal analyst with Infonetics Research, says there are many reasons why colleges and universities should make securing web applications a top priority. Mobile versions of web apps are yet another stream of code that must be maintained, managed and checked for vulnerabilities.

"Custom code, or simply poor coding that leaves vulnerabilities in the code during development, can cause real security problems," Wilson says.

"If you have the right tools and can get at the code to fix the problems, you'll be in pretty good shape. But if you don't have access to the code because the application was outsourced or built on a platform where you are at the mercy of the platform developer, it's more difficult to find and fix vulnerabilities," he adds.

At Carnegie Mellon University in Pittsburgh, development and testing of web applications takes place campuswide.

86%

The percentage of web applications that are vulnerable to an injection attack, where internal databases are accessed through a website

SOURCE: 2011 Top Cyber Security Risks Report (HP)

“We have IT shops all over campus delivering web-based applications using different technology and tools,” explains Mary Ann Blair, the university’s director of information security.

Because app development is widely distributed across campus, Blair’s staff focuses on publishing security guidelines, providing design consulting and review, hosting training opportunities and conducting penetration testing.

“The goal is to ensure that campus developers are equipped to deploy web apps that can defend against common attacks such as SQL injection, cross-site scripting and cross-site request forgery,” Blair adds.

Tools of the App Security Trade

There are several possible tools that colleges and universities can use to ensure the security of their web apps, including penetration testing and web application firewalls.

Penetration testing tools, such as *IBM Rational AppScan* and Tenable Network Security’s *Nessus ProfessionalFeed*, actively try to find vulnerabilities in web apps caused by problems such as cross-site scripting and SQL injection. They work by simulating the methods real attackers might use, but without actually damaging the web application. Typical features of these tools include both static and dynamic testing, content audits (for example, for adult content and personally identifiable information), and the ability to pinpoint specific lines of code causing problems. They are also used for compliance auditing.

Web application firewalls are just that: firewalls that protect web applications. Marketed by providers such as *Fortinet*, *Barracuda Networks*, *F5 Networks*, *WatchGuard Technologies* and *Imperva*, these products block threats such as cross-site scripting, SQL injection, buffer overflows and denial of service cookie poisoning. They can also help organizations comply with the Payment Card Industry Data Security Standard. Other features include load balancing and Secure Sockets Layer offloading and acceleration.

Although these tools are invaluable, there is also great value in old-fashioned ingenuity, says Jeff Wilson, principal analyst at Infonetics.

“Whatever investment you make in web application security, there will still be bugs you miss,” he says. “Consider trying the crowdsourcing approach, like Google does. They pay a bounty to anyone who finds bugs in their code.”

Higher Ed Scope

For more stories on colleges in California | Pennsylvania

About the Author

Karen D. Schwartz

Karen D. Schwartz is a freelance technology writer based in the Washington, D.C., area.

0 comments

0 Stars 



Leave a message...

Discussion 

Community 



No one has commented yet.

Classroom

Does Distance Learning Encourage Cheating? [Infographic]

Affordable access to online learning creates new opportunities for cheating.

Will Technology Push Colleges Away From the Traditional Lecture Model?

A new survey by CDW•G finds that students learn best when professors use a mix of...

...more

Infrastructure Optimization

Client Virtualization Saves Money and Improves Performance

Universities cut costs and run desktops more efficiently with client virtualization.

Trend Micro Deep Security 8.0

New software lets IT shops manage security with ease in virtual environments.

...more

Security

What Colleges Can Learn from Mat Honan's "Epic Hacking"

Simple security measures can prevent digital catastrophes.

Review: Symantec Endpoint Encryption Device Control, Full Disk Edition and Removable Storage Edition 8.2.2

Get control of your organization's data security policies.

...more

Storage

Colleges Use Storage Virtualization to Support Distance Learning

As colleges expand online learning, storage takes center stage — and virtualization makes...

5 Strategies for Deploying Deduplication Effectively

Deduplication can save space, time and money, but it must be done correctly.

...more

Networking

Increase in Devices Causing Bandwidth Trouble on Campus [Infographic]

How can IT departments keep up?

Dark Fiber Delivers for Columbia College Chicago

An upgraded network at the noted arts and film college gives students and faculty the...

...more

Mobile

Call Me, Maybe? The College Student's Affair with Smartphones [Infographic]

How are students using their high-tech smartphones?

3 Ideas to Make the Most of Mobile Apps on Campus

Students already have the devices, so how can schools embrace the trend?

...more

Classroom

Infrastructure Optimization

Security

Storage

Networking

Mobile

Hardware & Software

Management

Copyright © 2012 CDW LLC | 230 N. Milwaukee Avenue, Vernon Hills, IL 60061