



Securing Your School Network

Steven Song
Security Business Manager
Cisco

George Bobias
Network & Systems Operations Manger
Campbell Union High School District

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Learning without Boundaries

- School, home and everywhere else
- Exploding content
- Emerging technologies

Security Challenges

SECURITY
dark READING

ATTACKS / BREACHES

VULNERABILITIES

APPLICATION S

SECURITY MANAGEMENT

STORAGE SECURITY

ENCRYPTIO

Schools Suffer One-Third of Total U.S. Data Breaches

New report reveals 12.4 million student and consumer profiles were compromised in 324 breaches at colleges, K-12 schools

Nov 13, 2008 | 05:11 PM

By Kelly Jackson Higgins
DarkReading

Internal Abuse

Security checkpoint

June 2009

eSCHOOL NEWS

Campus network used in spamming scheme *Alleged perpetrators made more than \$4M selling to college students*

Dennis Carter
Assistant Editor

Two Missouri brothers were indicted by a federal grand jury April 23 for illegally harvesting student eMail addresses from more than 2,000 campuses using a

whiteners, spring break travel guides, and digital cameras.

Osmaan Shah, a student at the university, allegedly connected to Missouri's network via its wireless internet connection and by using an Ethernet cable

A spokesman for Whitworth's office said he could not discuss anything that was not mentioned in the indictment, including how much money the University of Missouri spent to repair its networks

More Threats

The screenshot shows the CNET News website interface. At the top, there is a navigation bar with links for 'home', 'reviews', 'news', 'downloads', and 'cnet tv'. A secondary navigation bar includes 'Latest News', 'Crave', 'Webware', 'Business Tech', 'Green Tech', and 'Wire'. A search bar is located in the center of the top navigation area. The main content area features a breadcrumb trail: 'Home > News > Software flaws'. The article title is 'University systems a haven for hackers' in a large, bold, red font. The author is identified as 'By Robert Lemos, Staff Writer, CNET News'. A 'Post a comment' link is visible on the right side of the article. Below the article title, there is a 'Related Stories' section with a sub-header and a list of related articles, one of which is partially visible: 'Shades of gray at security...'. The article text begins with 'VANCOUVER, British Columbia--College is intended to nurture the quest for knowledge, but many universities are also unwitting breeding grounds for hacking and online piracy.'

Campbell Union High School District

- 8500 students, 750 staff, 8 main sites in northern California
- 400+ switches, 200+ access points, 2000+ desktops
- Data bases, servers, 100+ applications
- Business services, integration with county offices
- 1000+ visitors weekly, most with mobile devices
- Small IT staff



A Story of Two Parts

- Outside coming in
 - Probing
 - viruses
 - attacks on student resources
 - ...
- Inside going out
 - What students and visitors bring to schools
 - DDOS launching pads, harbor for malicious content
 - “Students are your best beta testing group”

A Holistic Approach



Connect with people:

- Work with administrators, staff and students
- annual Internet use policy for students



Trust and collaborate:

- Service providers
- County and school district office



Use the best technology:

- Controls
- Efficiency

NAC: Controls and Protection

- Network Access Control
- Wired, wireless, guests
- Control access to critical resources
- Reduce network infections



MARS: Efficiency

- Monitoring, analysis and response system
- Identify attacks and issues
- Support more w/ less
- Provide visibility while saving IT staff time

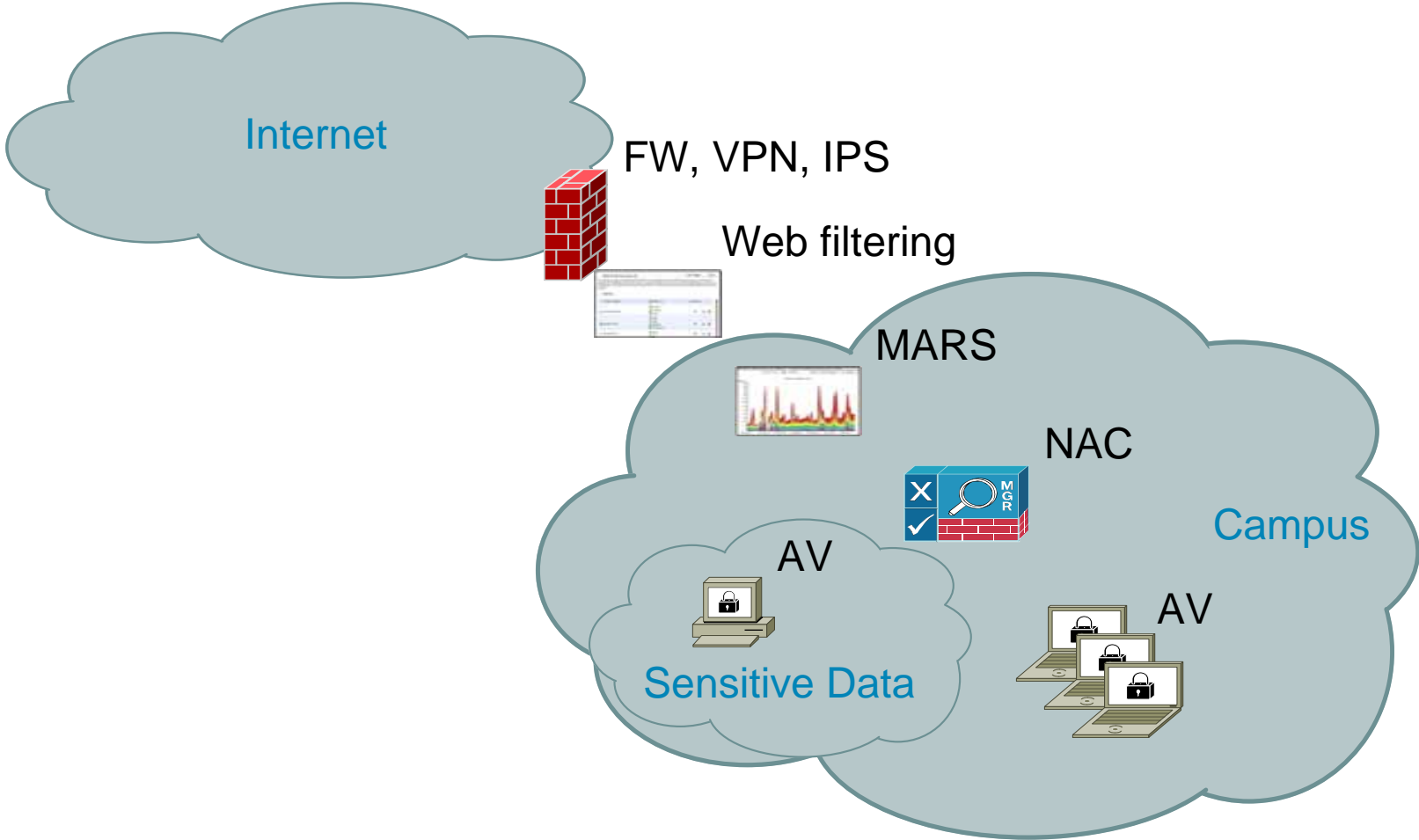


ASA: Threat Defense

- Adaptive Security Appliance
- Firewall, VPN, Intrusion Prevention System all in one
- Defend external attacks
- Detect internal threats



Layered Security



Summary

Business Goals

- Support 21st century education
- Reduce attacks, infections, and security incidents

Benefits

- More secure and safer school network
- Better protection of confidential information and resources
- Cost and time savings

Cisco Solution List

- NAC, MARS, ASA



“There are two parts of Internet security: outside coming in and inside going out. Cisco security helps us build a layered protection in both areas”

- **Charles Kanavel**
Director of IT Services,
Campbell Union High
School District



CISCO