

Challenges and Directions for Security in Networked Systems

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FORTH

Hackers are getting more sophisticated

- Hackers use new ways to attack
 - Social Networks (e.g. Facebook users)
 - Twitter
 - Search Engines (e.g. Google users)
 - Corrupt ordinary data files (e.g. PDF)



Do you trust your “friends” on social networking sites?

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Koobface worm to users: Be my Facebook friend

New variant steals log-in credentials for Facebook, MySpace, other social networking sites

By Gregg Keizer
March 2, 2009 12:00 PM ET

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Computerworld - A worm that hit Facebook last December has resurfaced, a security researcher said today, and is now hijacking user accounts -- not only for that social networking service, but also for MySpace, Friendster, LiveJournal and others.

The Koobface worm is again making the rounds on Facebook. said Jamz


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Internet

Hackers launch Facebook phishing attack

Perpetrators broke into some member accounts and sent messages to friends urging them to click on fake Web sites.

May 14, 2009: 7:16 PM ET

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BOSTON (Reuters) -- Hackers launched an attack on Facebook's 200 million users Thursday, successfully gathering passwords from some of them in the latest campaign to prey on members of the popular social networking site.

Facebook spokesman Barry Schnitt said Thursday that the site was in the process of cleaning up damage from the

Quick Vote

Do you think the changes being made at Chrysler and General Motors will save the companies?

- ☐ Yes, both of them
- ☐ Only GM
- ☐ Only Chrysler
- ☐ Neither

Are you really getting what you Googled for?

Haiti earthquake donate

(January 13, 2010, 7:45 pm) **HAITI EARTHQUAKE DONATE**: And **haiti earthquake donate** from the embroiled regina and unsportsmanlike of the ulva saw, ...

1.70/.../phpmyvisites.php/?jcv=**haiti+earthquake+donate**

Haiti Earthquake Donation

13 Jan 2010 ... Tags : **haiti** death toll, **haiti donation**, **Haiti earthquake**, **haiti** . One of the most publicized ways to **donate** to **Haiti earthquake** relief

hania.net/?q=**haiti-earthquake-donation**

April Fools Blackhat SEO Campaign

Posted on 04/1/10 by Sean-Paul Correll

 (1) Comment

Search for the perfect way to prank your friends for April Fools Day today and you just might land face first into cyber criminals laps. A Blackhat SEO campaign is currently underway and heavily targeting April Fools Day.

Malicious search results:

1. April Fools

Mar 31, 2010 ... This April 1st, the day the 2010 Census forms are officially due, the laughing you hear all around is the sound of an Obama **April Fools** Day ...

19 hours ago - [Cached](#)

2. April Fools Day Recipes

Mar 27, 2010 ... A fun menu for 6 with wacky **April Fool's** recipes By The Canadian Living Test . **April Fool's** Day recipe: Pineapple Fish Sticks. ...

19 hours ago - [Cached](#)

3. April Fools Jokes For Kids

Mar 31, 2010 ... What kind of pranks should you do for **April Fools** Day? What are good **april fools** day pranks for elementary school kids? ...

19 hours ago - [Cached](#)

Source: PANDA SECURITY

Can birds twit malware?



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digitalbiz IN ASSOCIATION WITH KONICA MINOLTA

Twitter message could be cyber criminal at work

June 22, 2009 -- Updated 2036 GMT (0436 HKT)

By Kevin Voigt
CNN

(CNN) -- Cyber criminals are setting snares that move at the speed of news.

Panda Security, a Spain-based antivirus maker, has been monitoring an onslaught of links with malicious software, or "malware," on Twitter that tag

STORY HIGHLIGHTS

- Some officials say cyber crime has eclipsed drug trade as a money maker
- Latest play is planting malicious software in intriguing Twitter topics
- Some companies give in to extortion and remain silent, officials say
- Skimmed credit card numbers can be found for sale on Web sites

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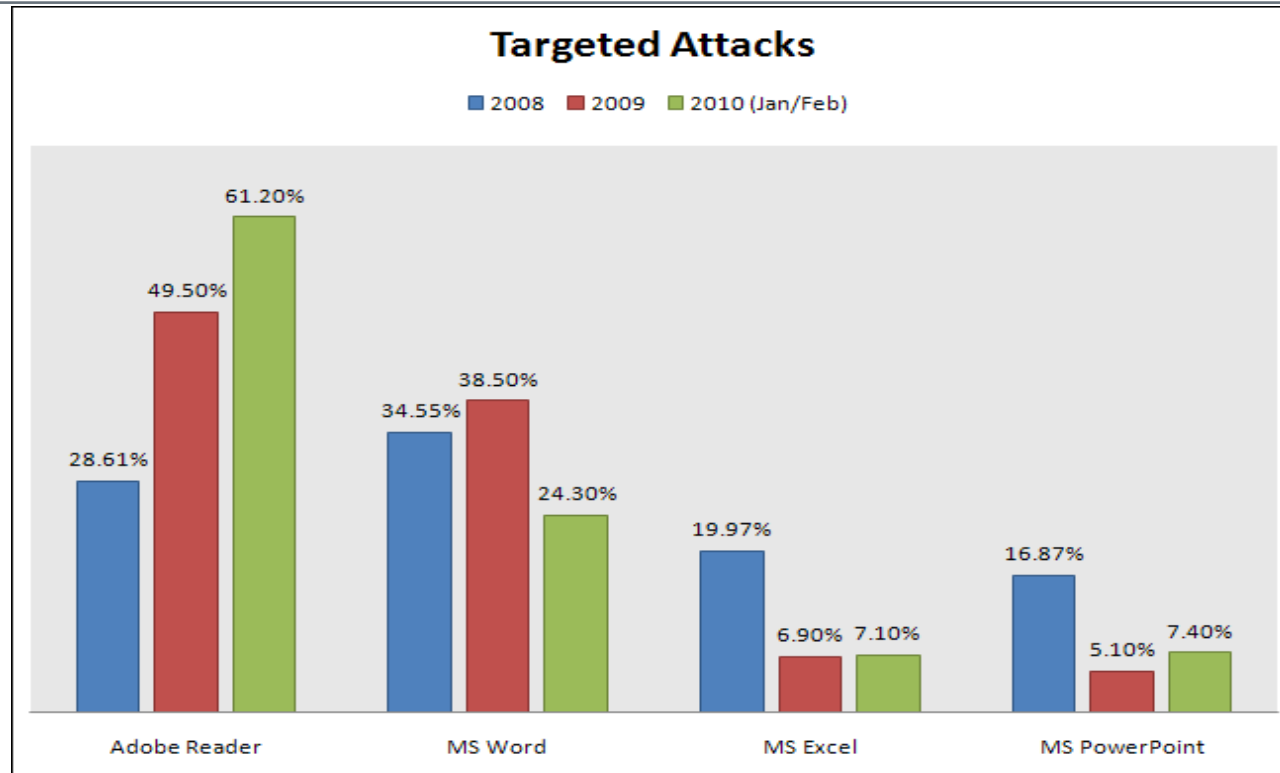
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Exploits do not come only in .exe files



- Hackers use ordinary documents (e.g. PDF, WORD) to deliver exploits

Source: F-Secure

Government: The Parliament under attack

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Houses of Parliament computers infected with Conficker virus

The Houses of Parliament IT system has become infected with the Conficker computer virus, it has emerged, raising questions about possible security flaws at the Palace of Westminster.

By Matthew Moore
Published: 7:00AM GMT 27 Mar 2009



The Conficker virus has infected computers in the Houses of Parliament Photo: GETTY

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 Stressed teachers 'considering suicide'

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Transportation: No train signals

Computer Virus Brings Down Train Signals

The virus infected the computer system at CSX's headquarters, shutting down signaling, dispatching, and other systems for trains throughout the East.

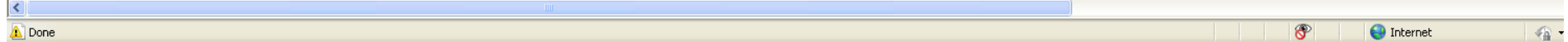
By Marty Niland, Associated Press Writer
InformationWeek

August 20, 2003 06:00 PM

NEW YORK (AP) -- A computer virus was blamed for bringing down train signaling systems throughout the East on Wednesday.

The virus infected the computer system at CSX Corp.'s Jacksonville, Fla., headquarters, shutting down signaling, dispatching, and other systems at about 1:15 a.m. EDT, CSX spokesman Adam Hollingsworth said.

"The cause was believed to be a worm virus similar to those that have



Transportation: No cars

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Hacker Disables More Than 100 Cars Remotely

By [Kevin Poulsen](#)  March 17, 2010 | 1:52 pm | Categories: [Breaches](#), [Crime](#), [Cybersecurity](#), [Hacks and Cracks](#)

More than 100 drivers in Austin, Texas found their cars disabled or the horns honking out of control, after an intruder ran amok in a web-based vehicle-immobilization system normally used to get the attention of consumers delinquent in their auto payments.

Police with Austin's High Tech Crime Unit on Wednesday arrested 20-year-old Omar Ramos-Lopez, a former Texas Auto Center employee who was laid off last month, and allegedly sought revenge by bricking the cars sold from the dealership's four Austin area lots



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Energy: No electricity

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Computer virus in Australian power grid

Published: Oct. 2, 2009 at 4:22 PM

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SYDNEY, Oct. 2 (UPI) -- A "sinister" computer virus has infected computers controlling Australia's Integral Energy power grid

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French fighter planes grounded by computer virus

French fighter planes were unable to take off after military computers were infected by a computer virus, an intelligence magazine claims.

by Kim Willsher in Paris
Published: 11:43AM GMT 07 Feb 2009



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What about our lives? Are they next?

FUTURE CRIMES: ANTICIPATING TOMORROW'S CRIMES TODAY

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The future is already here - it is just unevenly distributed. ~

WEDNESDAY APRIL 14TH 2010

The Crimes

- Artificial Intelligence/Automated Crime (1)
- Biological and Human Genome (2)
- Biometrics (2)
- Cloud Computing (2)
- Critical-Infrastructure (3)
- GPS/Location

Hacking the Human Heart: Medical Devices Found Subject to Technical Attack



Since the dawn of the 1970's television action show the [Six Million Dollar Man](#), the public has been fascinated by bionics and the integration of technology into the human body. What once seemed to be a far-off science fiction fantasy, is increasingly, however, becoming real. For years, surgeons have been replacing human

Future Crimes

A futurist perspective on the effect of scientific and technological progress on crime, policing and the criminal justice system.

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Research Roadmap

- Privacy
- Targeted Attacks
- Security of New and Emerging Technologies
- Mobile, Smart, Ubiquitous
- Usable Security

Privacy

- Must investigate how to protect users against disclosure of personal info
- Expected Impact:
 - Increase confidence of citizens in privacy-preserving ICT
 - Further increase adoption of ICT though assured protection of privacy
 - Protect the privacy rights of citizens

Targeted Attacks

- Must develop new techniques to collect and analyze data on with such attacks
- Expected Impact:
 - Win ground against sophisticated attacks
 - Improve collaboration
 - Better protect users

Security of New and Emerging Technologies

- Cloud Computing – Online Social Networks – Smart Meters – SCADA Networks – etc.
- Must secure these new and emerging technologies before it is too late
- Expected Impact:
 - Citizens will increase adoption and place trust
 - Reduce costs of associated security incidents
 - Lower barrier to provide services on these platforms

Mobile, Smart, Ubiquitous

- Tools and techniques to detect and prevent attacks against smart, mobile devices
- Expected Impact:
 - Increase adoption for commercial use by citizens
 - Improve (European) industrial competitiveness in mobile apps

Usable Security

- Usability of security mechanisms and countermeasures
- Possible need for interdisciplinary research
- Expected Impact:
 - Empower citizens for a more secure cyberspace
 - Support decision making
 - Increase adoption of security/monitoring tools

Data, Analysis, Threat Intelligence

- We must try to be one step ahead of the attackers
 - Learn how the attackers think, act and operate
- We must collect data
- We must analyze data
- We must share data

European Effort

- WOMBAT



- Worldwide Observatory of Malicious Behaviors and Attack Threats

- FORWARD



- Identify and coordinate research for secure and trusted ICT systems and infrastructures.

- SysSec



- Create a Network of Excellence in the field of Systems Security in Europe

Challenges and Directions for Security in Networked Systems

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