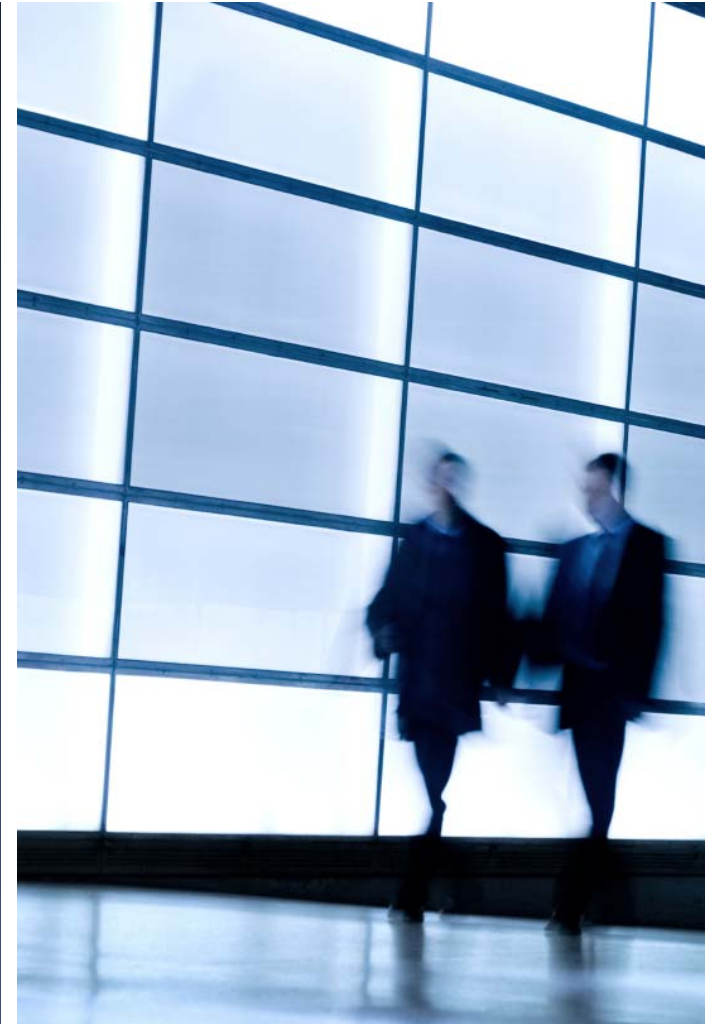


# 2010 Cyber-Security Trends

& SECURITY-FOCUSED SOLUTIONS



AN ICS IMPACT REPORT



ISO 9001:2008 Certified

# Information Security Trends 2008-2009

2008: 285 million records breached\*  
Average cost per record: \$202\*\*

2009: Average cost per Personally Identifiable Information (PII) record  
compromised: \$11,000\*\*\*

*"Properly architected security solutions will provide necessary improvements in infrastructure capacity. Rather than security being a bottleneck, caused by implementing the wrong solutions or too many solutions (impacting performance), we can help them optimize their security spend and deliver the right amount of security, balancing risk management with operational mission imperatives "*

*Steve Goldsby, CISSP, ISSAP, ISSMP  
President/CEO ICS, Inc.*

\*Source: 2009 Data Breach Investigations Report, Verizon

\*\*U.S. Cost of a Data Breach Study, The Ponemon Institute, February 2009

\*\*\*State of Enterprise Security, Symantec, February 2010

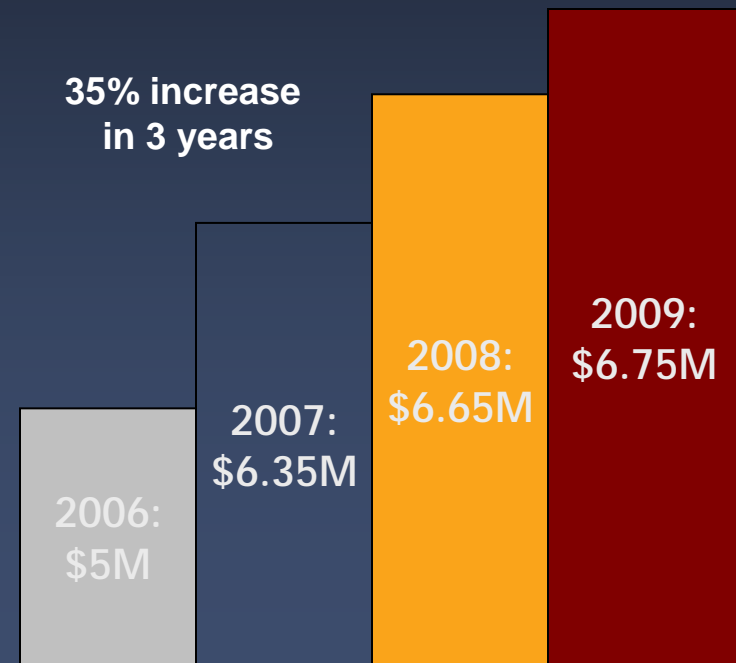


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# Information Security Trends Q1-2010

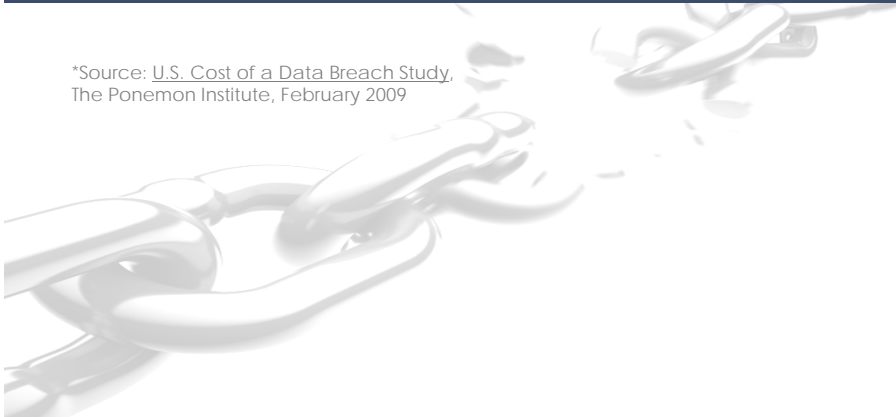
Large-scale security hacks reaching across all industry sectors have left over THOUSANDS of organizations, including US government agencies, scrambling to counter the attacks.

While many organizations have postponed crucial technical security measures such as risk assessments, penetration tests and vulnerability assessments due to the economy, many are learning the hard way that technical security is one area in which they cannot afford to compromise. The risk is just too high.



\*Source: [U.S. Cost of a Data Breach Study](#),  
The Ponemon Institute, February 2009

The average organizational cost of data breach cost continues to rise\* with an increase of 35% over the last 3 years.



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# Trends and Impact 2010



HEADLINE: Malware Exposes 900  
Personal Records

INDUSTRY: Colleges & Institutions

DATE: February 2010



Conservative Estimated Cost:

**\$ 181,800**

**“Data breaches cost businesses  
an average of \$202 per record.”**

U.S. Cost of a Data Breach Study, The  
Ponemon Institute, February 2009

# Trends and Impact 2010



HEADLINE: SSN's of 17,000 Students  
and Faculty Exposed

INDUSTRY: Colleges & Institutions

DATE: February 2010



Conservative Estimated Cost:

**\$ 3,434,000.00**

**"Data breaches cost businesses  
an average of \$202 per record."**

U.S. Cost of a Data Breach Study, The  
Ponemon Institute, February 2009

# Trends and Impact 2010



HEADLINE: Mailing Error Exposes 600,000  
SSN's

INDUSTRY: Financial

DATE: February 2010



**"Data breaches cost businesses  
an average of \$202 per record."**

U.S. Cost of a Data Breach Study, The  
Ponemon Institute, February 2009

Conservative Estimated Cost:

**\$ 121,200,000.00**

# Top Cyber-Security Menaces 2009-10

## 1. Phishing

"Waves of targeted email attacks, often called spear phishing, are exploiting client-side vulnerabilities in commonly used programs such as Adobe PDF Reader, QuickTime, Adobe Flash and Microsoft Office. This is currently the primary initial infection vector used to compromise computers that have Internet access. Those same client-side vulnerabilities are exploited by attackers when users visit infected web sites."\*

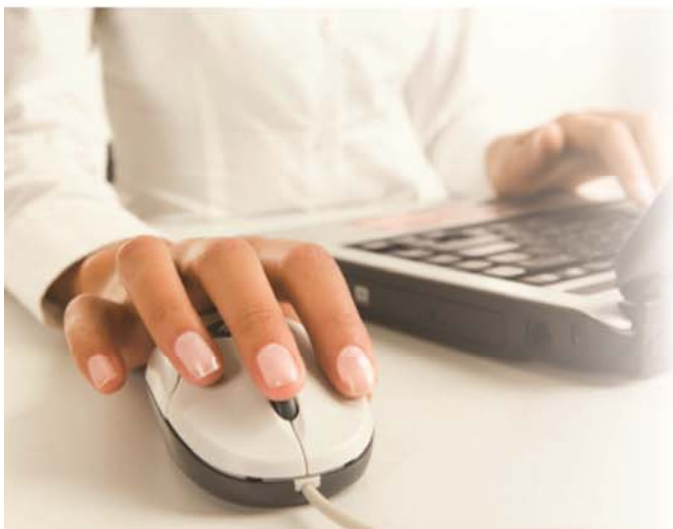
## 2. Web Applications

"Attacks against web applications constitute more than 60% of the total attack attempts observed on the Internet. These vulnerabilities are being exploited widely to convert trusted web sites into malicious websites serving content that contains client-side exploits."\*



# Top Internet Security Risks 2009-10

1. Web Browsers
2. Office Software
3. Email Clients
4. Web Applications
5. Windows Operating System Services
6. UNIX/Mac Operating System Services
7. Back-Up Software





# Top Internet Security Risks 2009-10

8. Anti-Virus Software
9. Management Servers
10. Database Software
11. User Rights, Unauthorized Devices
12. Phishing, Spear Phishing
13. Unencrypted Laptops, Removable Media
14. Instant Messaging



# The Bottom Line

---

- **93%** of organizations that have lost IT for more than **9 days** reported **bankruptcy** within 12 months; **50%** of these were **bankrupt immediately**.\*
- **46%** of businesses that suffer **downtime** estimate that the cost of lost revenue exceeds **\$50,000**; **28%** estimate it to be more than **\$250,000**.\*\*

Average cost per incident:

2008: \$6.65 million

2009: \$6.75 million

\*National Archives & Records Administration

\*\*IDG Research Services Study of 215 CIOs and CSOs

\*\*\*2009 Annual Study: Cost of a Data Breach, Ponemon Institute



# The Answer

## We Must Be Proactive.

“We must ensure a risk management approach is integrated into all processes, remain diligent about project selection, move beyond just firefighting, & get smarter with technology investments. For some organizations, this will require a wholesale transformation.” – Greg Shipley\*

\*Risk Management: Do It Now, Do It Right, Greg Shipley, InformationWeek.com, March 29, 2008.



## Security-Focused Solutions from ICS



- Business Continuity Planning
- Disaster Recovery Planning
- Penetration Testing
- Vulnerability Scanning
- Gap Analysis
- Web Application Assessments
- Security Assessments
- Regulatory Compliance

# = Measurable Results



**Client:** Community Health Agency  
Riverside, Ca  
*The third largest county in California*

- Challenge:**
- Perform Risk Assessment
  - Develop Business Continuity / Resumption Plans - 28 locations, 18 divisions.
  - Achieve HIPAA compliance



**RISK ASSESSMENT**



**BUSINESS CONTINUITY**

ICS identified and prioritized Security Mitigation Strategies, including security of HIPAA electronic records.

New Business Continuity and Business Resumption Plans brought agency into regulatory compliance.

Agency-wide system upgrades and training performed.

# = Measurable Results

Client: International Airport  
Florida

Challenge:

- Perform Vulnerability Assessment, Penetration Test, Social Engineering
- ID security vulnerabilities



ICS performed Vulnerability Assessment, Penetration Test and Social Engineering and immediately identified serious vulnerability hosts.

ICS identified and prioritized Security Mitigation Strategies, which were promptly implemented by the port authority.

# = Measurable Results

Client: National Restaurant Chain  
Denver, Colorado

Challenge:

- Perform Risk Assessment
- ID security vulnerabilities



ICS performed a Risk Assessment following NIST/ISO Standards of Security Control.

ICS developed a sustainable method to proactively manage strategic and operational risk.

# = Measurable Results

Client: Central State IT Department  
Southern US

Challenge: • Incident Response



Within 48 hours, ICS

- Identified infected hosts
- Contained the outbreak
- Restored network functionality
- Eradicated the infecting worm
- Recommended strategic efforts to avoid similar situations in the future

# = Measurable Results



Client: Federal Credit Union  
Birmingham, Alabama

Challenge:

- Forensic support services
- Recovery of data/files
- Security Assessments



ICS performed security assessments to identify vulnerabilities and identified evidence of remote access and unauthorized activity.

ICS uncovered previously unknown avenues of remote access, and recovered over 10,000 files from target system.



# = Measurable Results



Client: Southeastern University

- Challenge:
- Incident Response
  - Backup analysis
  - Hardware review
  - Email server restoration



The university contacted ICS after their email service had been down for almost 3 days. The ICS consultant restored email service and provided guidance toward implementing a reliable, permanent solution.

# = Measurable Results



Client: State Government,  
Southeastern United States

Challenge:

- Security risk analysis encompassing the entire state computing infrastructure



ICS performed a security assessment of state-wide connected computing and network infrastructure, in order to:

- Provide a baseline of the security posture
- Identify current and future vulnerability domains and risk factors
- Develop strategic and tactical information security policies

# Make Your Move

What are your organization's greatest information security risks?

What is an acceptable level of risk?

What steps are needed for your organization to achieve a definitive enterprise security posture?



*...before a damaging compromise occurs.*



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