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WV HFMA FALL INSTITUTE 2017

HIPAA Security Update

Presented By
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Dad of a 4 year old daughter and 18 month old son

Goal

To gain perspective on HIPAA Security in context with current risks.

Current Situation

- Security Rule is almost 15 years old
- Meaningful Use is 7 years old
- EHR adoption is increasing
- OCR is conducting HIPAA audits
- Ransomware incidents are increasing

Agenda

1 CURRENT EVENTS AND CONTEXT

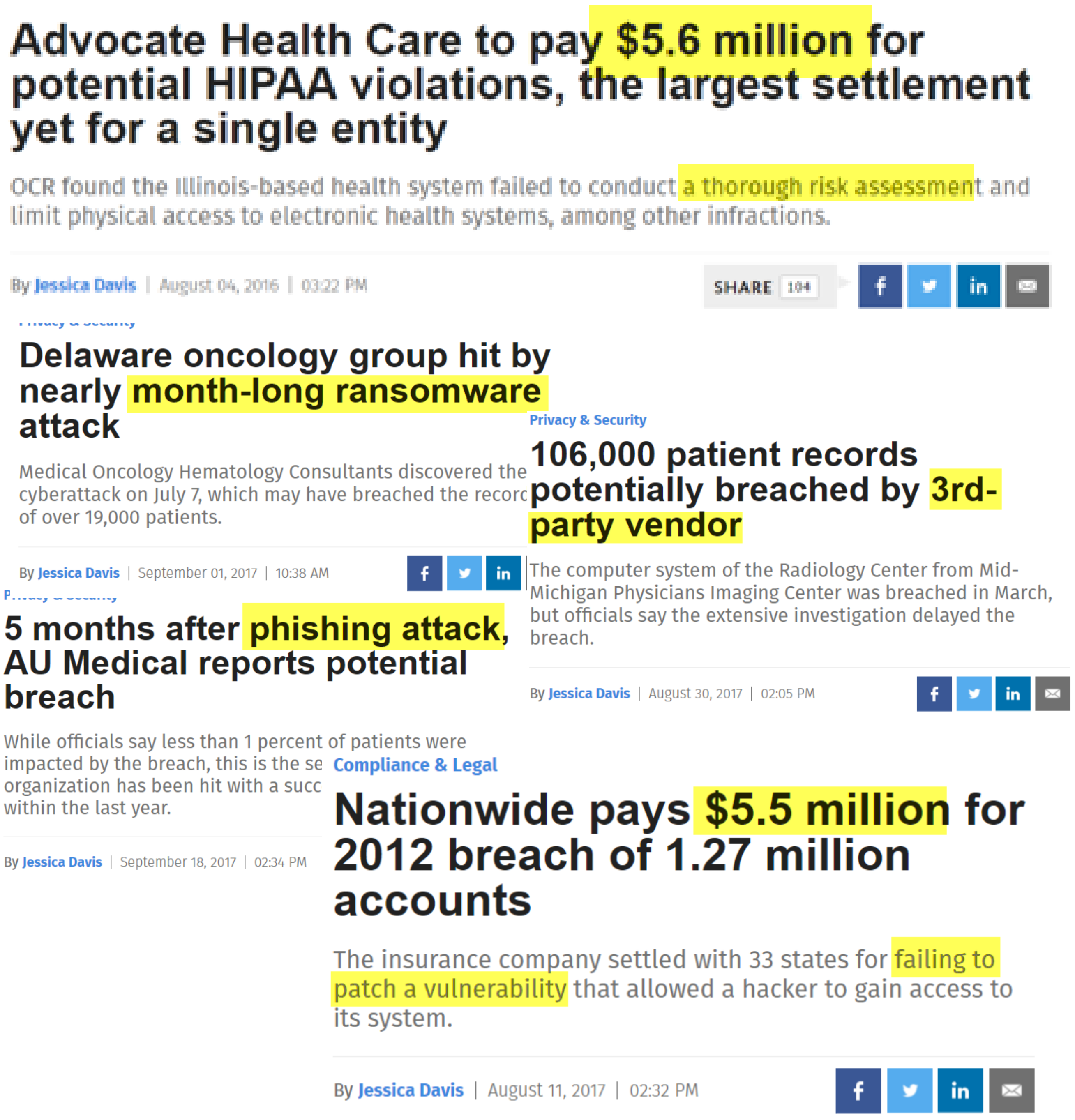
2 PERSPECTIVE ON SECURITY RULE

3 TEN TECHNOLOGY RISKS

Audience Benefits

- Understanding of the Security Rule in current times
- Awareness of the OCR audits
- Greater appreciation for risk analysis
- Identification of potential risks

In the News



Advocate Health Care to pay $5.6 million for potential HIPAA violations, the largest settlement yet for a single entity

OCR found the Illinois-based health system failed to conduct a thorough risk assessment and limit physical access to electronic health systems, among other infractions.

By Jessica Davis | August 04, 2016 | 03:22 PM

Privacy & Security

Delaware oncology group hit by nearly month-long ransomware attack

Medical Oncology Hematology Consultants discovered the cyberattack on July 7, which may have breached the recorc of over 19,000 patients.

By Jessica Davis | September 01, 2017 | 10:38 AM

Privacy & Security

106,000 patient records potentially breached by 3rd-party vendor

The computer system of the Radiology Center from Mid-Michigan Physicians Imaging Center was breached in March, but officials say the extensive investigation delayed the breach.

By Jessica Davis | August 30, 2017 | 02:05 PM

Privacy & Security

5 months after phishing attack, AU Medical reports potential breach

While officials say less than 1 percent of patients were impacted by the breach, this is the se organization has been hit with a succ within the last year.

By Jessica Davis | September 18, 2017 | 02:34 PM

Compliance & Legal

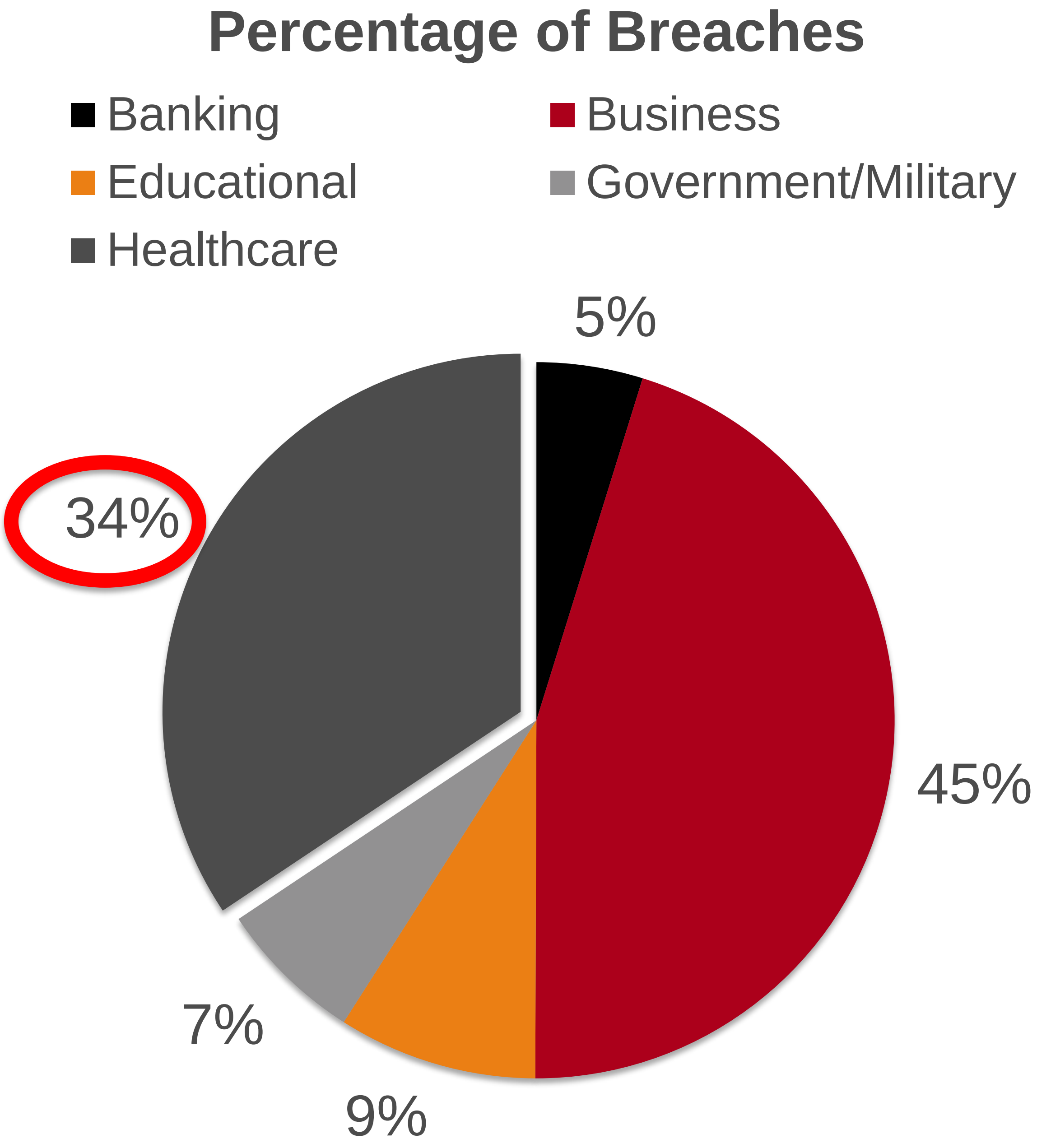
Nationwide pays $5.5 million for 2012 breach of 1.27 million accounts

The insurance company settled with 33 states for failing to patch a vulnerability that allowed a hacker to gain access to its system.

By Jessica Davis | August 11, 2017 | 02:32 PM

Breaches

SOURCES



http://www.idtheftcenter.org/images/breach/2016/DataBreachReport_2016.pdf

Breaches

COST

Average[1]

$225 per record

Healthcare[1]

$380 per record

1. Ponemon Institute – 2017 Cost of Data Breach Study

OCR

HIPAA AUDITS

- OCR has completed over 200 desk audits
- Onsite audits begin in 2017 – 2018

OCR FINDINGS THUS FAR:

- Risk analysis
- Risk management
- Business associate agreements
- Transmission security
- Auditing
- Software patching
- Media disposal
- Backup and contingency planning

Administrative Safeguards

Standard	Implementation Specification	R/A
Security Management Process	Risk Analysis	R
	Risk Management	R
	Sanction Policy	R
	Information System Activity Review	R
Assign Security Responsibility		R
Workforce Security	Authorization and/or Supervision	A
	Workforce Clearance Procedure	A
	Termination Procedures	A

Administrative Safeguards (cont.)

Standard	Implementation Specification	R/A
Information Access Management	Isolating Health Care Clearinghouse Functions	R
	Access Authorization	A
	Access Establishment and Modification	A
Security Awareness and Training	Security Reminders	A
	Protection from Malicious Software	A
	Log-in Monitoring	A
	Password Management	A
Security Incident Procedures	Response and Reporting	R

Administrative Safeguards (cont.)

Standard	Implementation Specification	R/A
Contingency Plan	Data Backup Plan	R
	Disaster Recovery Plan	R
	Emergency Mode Operation Plan	R
	Testing and Revision Procedures	A
	Application and Data Criticality Analysis	A
Evaluation		R
Business Associate Contracts and Other Arrangements	Written Contract or Other Arrangement	R

Physical Safeguards

Standard	Implementation Specification	R/A
Facility Access Controls	Contingency Operations	A
	Facility Security Plan	A
	Access Control and Validation Procedures	A
	Maintenance Records	A
Workstation Use		R
Workstation Security		R
Device and Media Controls	Disposal	R
	Media Re-Use	R
	Accountability	A
	Data Backup and Storage	A

Technical Safeguards

Standard	Implementation Specification	R/A
Access Control	Unique User Identification	R
	Emergency Access Procedure	R
	Automatic Logoff	A
	Encryption and Decryption	A
Audit Controls		R
Integrity	Mechanism to Authenticate Electronic PHI	A
Person or Entity Authentication		R
Transmission Security	Integrity Controls	A
	Encryption	A

#1

THE INTERNET OF THINGS (IoT)

WHAT CAN YOU DO?

- Change your password and other settings where possible
- Turn it off when not in use
- Update and re-boot at least weekly
- Conduct a risk assessment specific to devices
- Monitor your network for suspicious activity
- Consider separate and secure network for devices.

#2

NETWORK SECURED ONLY AT PERIMETER

#2

NETWORK SECURED ONLY AT PERIMETER

WHAT CAN YOU DO?

- Multiple firewalls should be in place throughout network
- Segmentation – break servers apart by function with strong access rules
- Monitor network traffic throughout systems
- Segregation of Duties – much like accounting roles
- Log review and alerting

#3

THE WORLD OF FAKES

#3

THE WORLD OF FAKES

WHAT CAN YOU DO?

Understand the source and think about the context

- Validate through multiple sources of information
- Run your anti-virus software before you click
- Don’t “friend” unknown people
- Set Google alerts for your Organization
- Have a PR plan ready
- Build into workforce training

#4

SMARTPHONE HACKING

LOST OR STOLEN PHONES

In the last 3 years it is estimated that 2.1 to 3.3 million phones are lost or stolen in the US each year

72% **American's own a smart phone**

4.5% **Company's mobile assets are lost or stolen each year**

THOSE NUMBERS COMBINED WITH -

Users' continued insistence on merging personal device for work information

30 TO **35%** **Smart phone owners do not use a passcode to access their phone**

#4

SMARTPHONE HACKING

WHAT CAN YOU DO?

- Use a passcode!
- Avoid clicking on short links (used on social media most often)
- Only purchase/download applications from the iTunes or Android store
- Train employees on phishing attempts
- Use a container application for work email and data
- Maintain ability to wipe employees’ lost or stolen phones

#5

MERGERS & ACQUISITIONS

#5

MERGERS & ACQUISITIONS

WHAT CAN YOU DO?

- Understand systems of both organizations
- Take inventory of systems, data, and hardware
- Undertake an M&A IT Risk Assessment
- Test systems extensively
- Understand roles and personnel
- Phase in the merger
- Continuous verification and data integrity checks
- Add protection layers between environments

#6

GOVERNMENT HACKING

#6

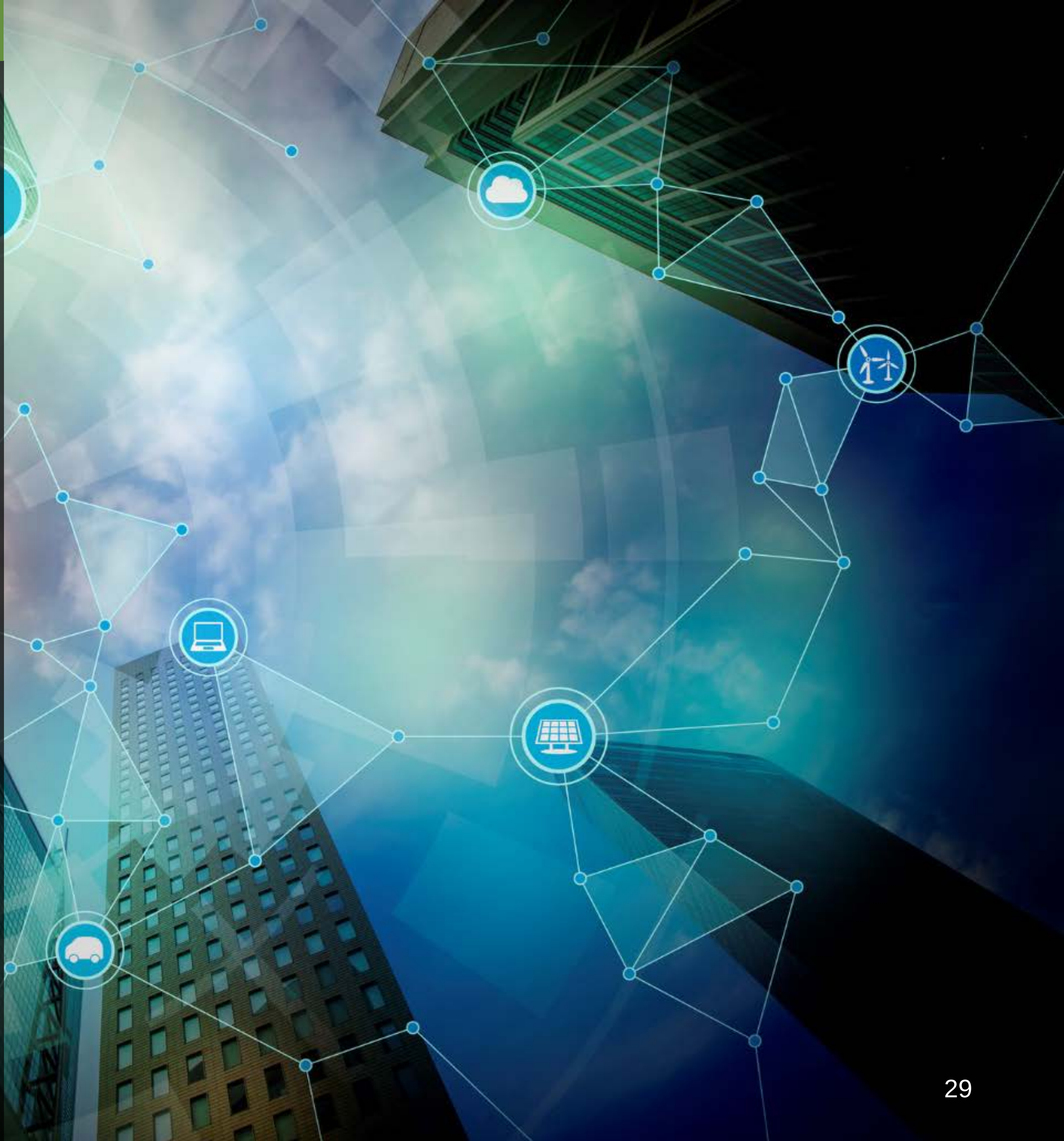
GOVERNMENT HACKING

WHAT CAN YOU DO?

- Employee background checks
- Manage access – rule of least privilege
- Know what data you have and where it is
- Monitor internal activity
- Prevent local saving – data grabbing
- Don’t ignore patches – often these are addressing 0-day vulnerabilities
- Force Weekly server re-boots
- Firewalls and Intrusion Detection Systems should be in place

#7

CYBER INSURANCE



#7

CYBER INSURANCE

WHAT CAN YOU DO?

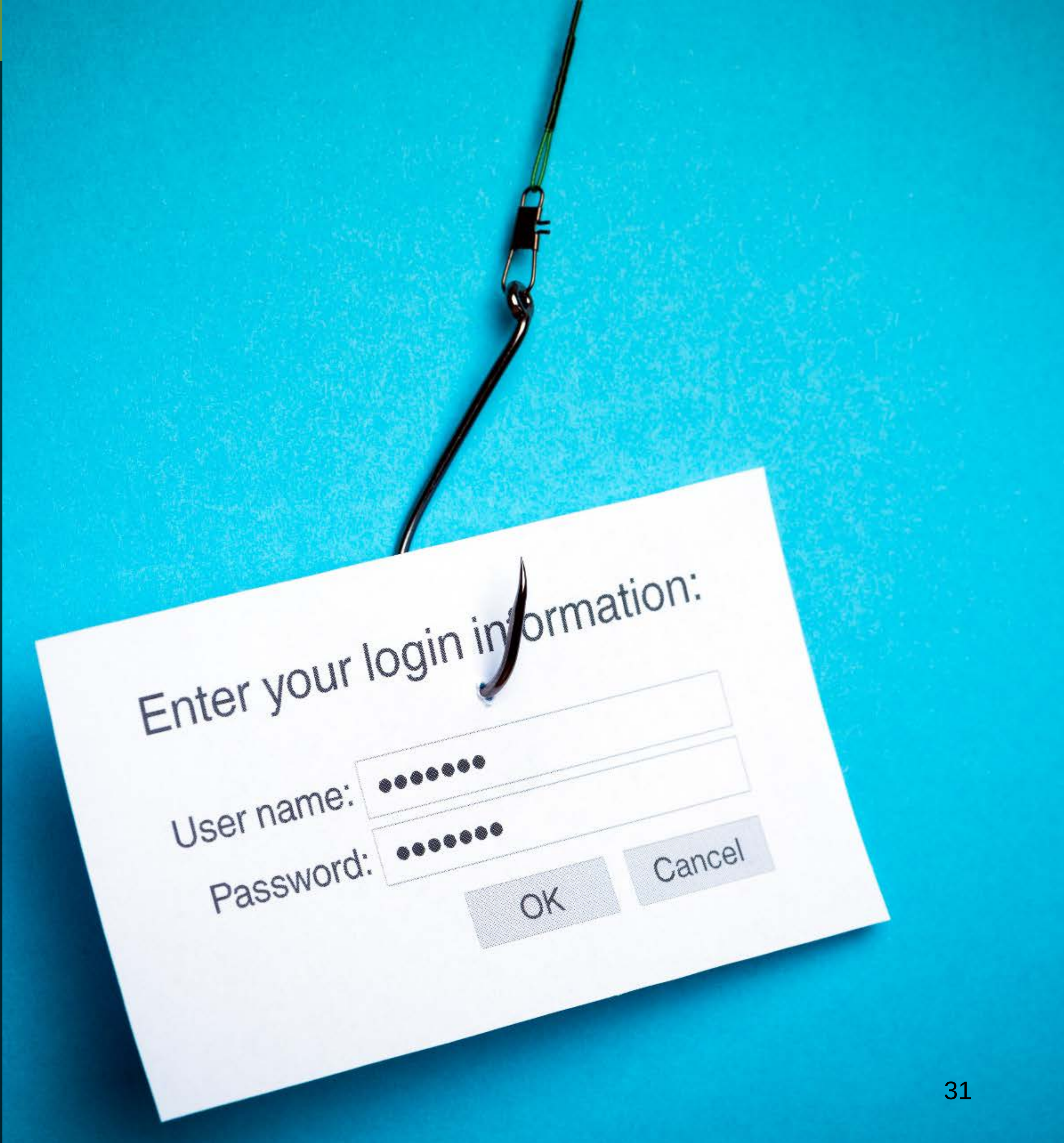
- Cyber Insurance is used as a last resource
- Critical to have, but you should have a robust security program in place as well
- Backups and Business Continuity

THINGS TO CONSIDER…

1. May not cover your reputation
2. Expensive for good coverage
3. Effective if you have the right coverage

#8

ADVANCED PHISHING SCAMS



#8

ADVANCED PHISHING SCAMS

WHAT CAN YOU DO?

Always be a skeptic.

- If it looks fake, it is fake. Call the company, your helpdesk, etc.
- Companies do not email customers over account information
- Hover over the link….
- Security Awareness Training
- Social Engineering Testing
- Email filers, anti-virus, patching

#9

LACK OF IT SECURITY RISK ASSESSMENTS

#9

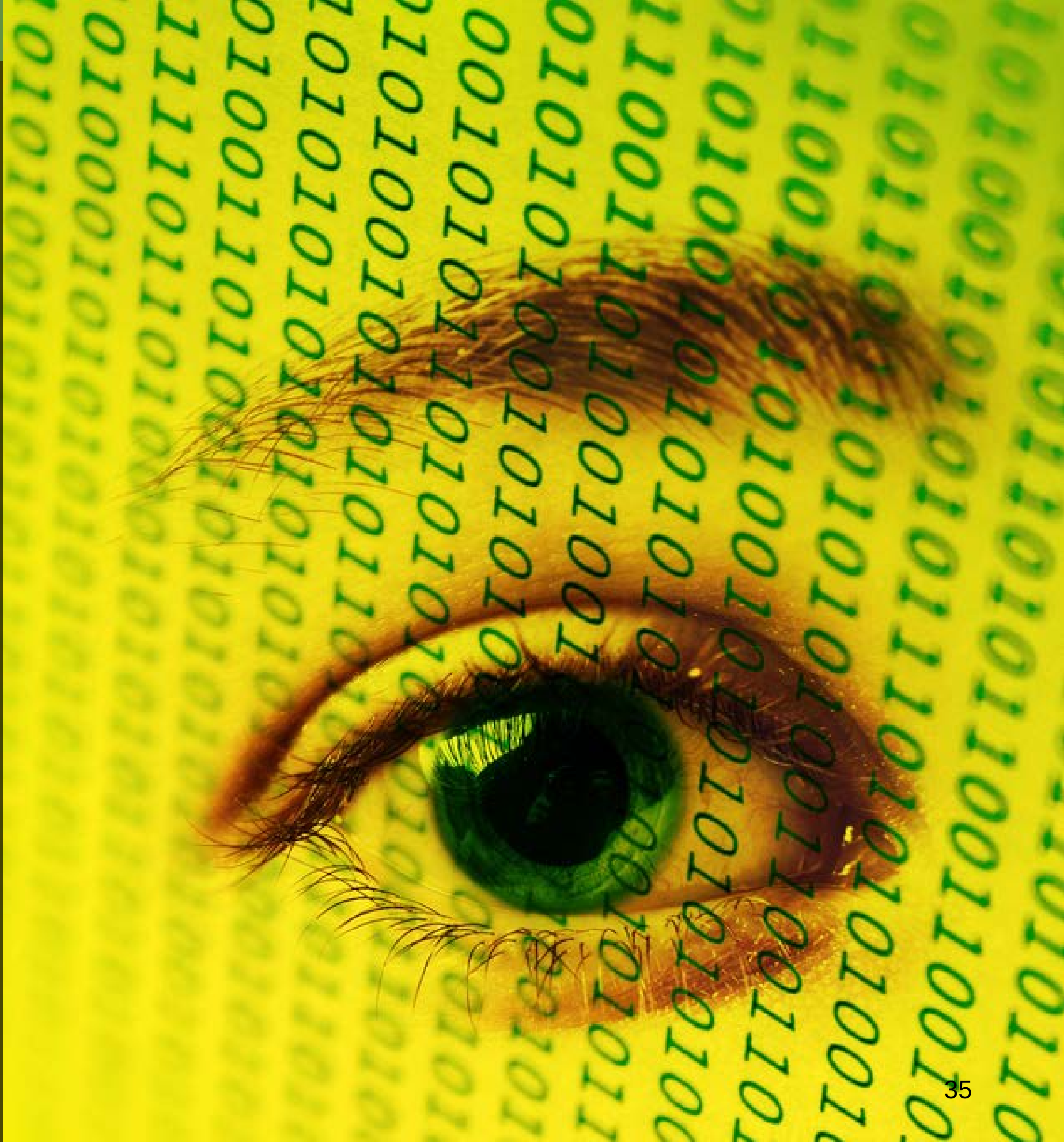
LACK OF IT SECURITY RISK ASSESSMENTS

WHAT CAN YOU DO?

- Risk Management Program
- Risk = Impact x Likelihood to occur
- You cannot secure your systems properly if you do not know where the potential gaps may be
- Pick a framework – CoBit, COSO, NIST
- Re-visit at least annually
- Make risk management a effort at the senior leadership and board level

#10

ADVANCED RANSOMWARE



#10

ADVANCED RANSOMWARE

WHAT CAN YOU DO?

- Employee training – STOP CLICKING!
- Take away local administrator use of employee workstations – prevents installation of software
- Backups and patches
- Disaster recovery planning
- Software whitelisting
- Disable auto-play
- Micro-segmentation
- Table top exercises
- Email filtering

Contact Us

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