



CUNA Mutual Fiduciary Consultants

Understanding Cybersecurity Vulnerabilities

*Robert Fraser - Senior Corporate Property & Casualty Sales Specialist
CUNA Mutual Group*

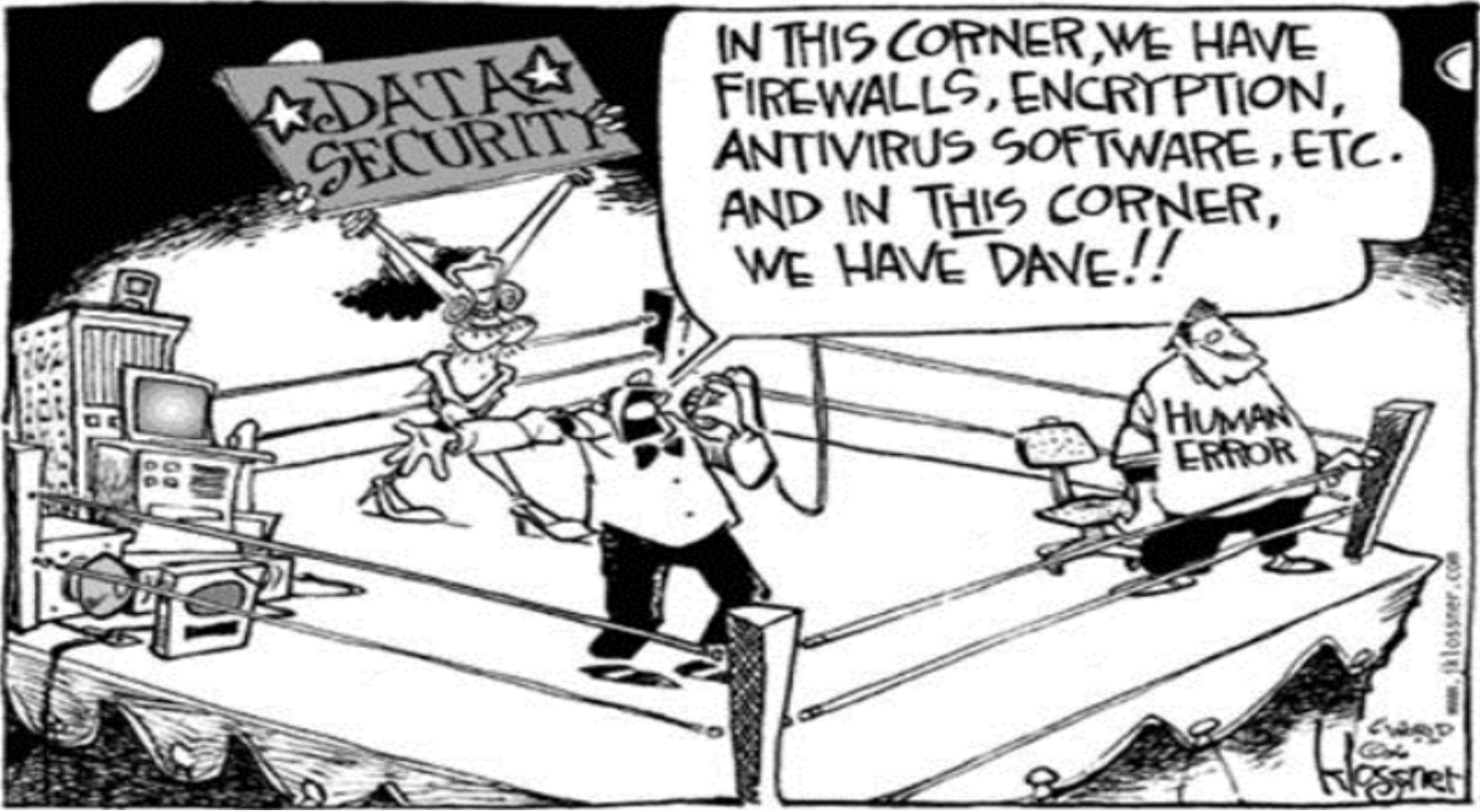
Agenda

1 What is a Breach?

2 Evolving Threats & Trends

3 Credit Union Statistics

4 Beazley Risk Management Solutions



“Hackers Get Employee Records at Justice and Homeland Security Depts. - *New York Times, February 8, 2016*”

“The IRS Says Identity Thieves Hacked Its Systems Again - *Fortune, February 10, 2016*”

“Second Democratic Party Website Hacked - *DarkReading, July 29, 2016*”

Nobody's data is safe.

“Security breach threatens more than 11,000 financial institutions - *CNET, April 26, 2016*”

Including yours!

What is a Cyber Breach?

What is a Data Breach?

Most common Definition of Breach -

- ❑ Unauthorized access to and unauthorized acquisition of personal information maintained in computerized form by a person that compromises the security, confidentiality, or integrity of the personal information

- ❑ An incident involving sensitive, protected or confidential data that has potentially been viewed, stolen or used by an individual unauthorized to do so
 - Information has been stolen from or lost by a company entrusted to safeguard the information

- ❑ May involve personal health information (PHI), personally identifiable information (PII), trade secrets or intellectual property

Data Breaches – How do they Happen?

- ✓ Network hackers and malware
- ✓ Employee negligence/theft
- ✓ Lost/stolen laptops, backup tapes/disks and other data-bearing mobile devices
- ✓ Vendor leaks/mistakes



Evolving Threats & Trends

Data Breach Threats & Trends

Internal threats

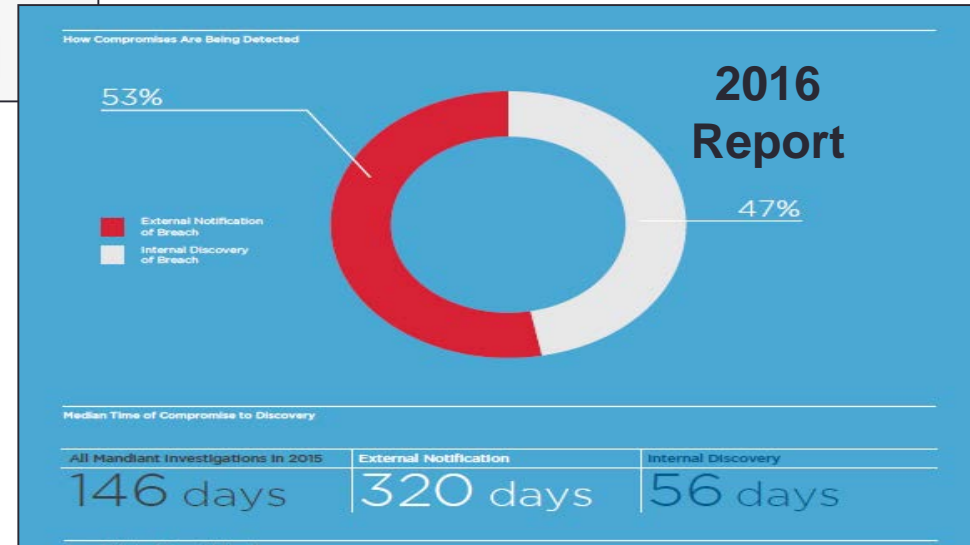
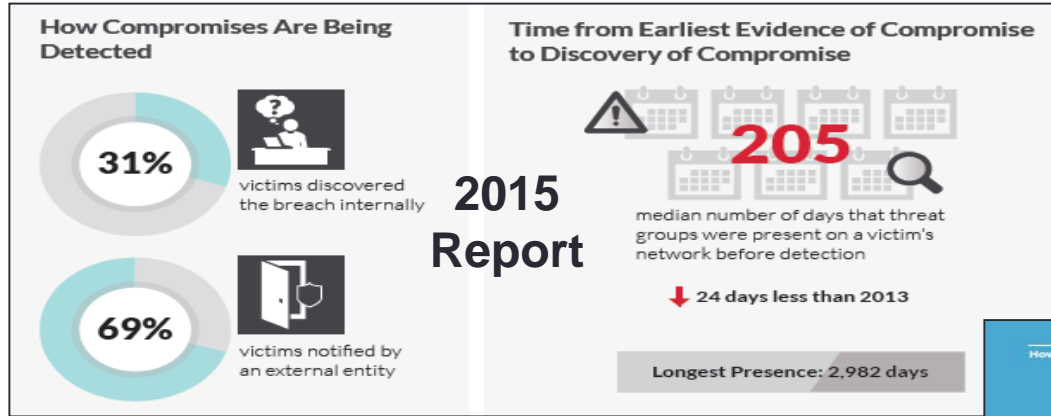
- **Employee negligence**
 - Security failures
 - Lost mobile devices
- **Employee ignorance**
 - Improper disposal of personal information (dumpsters)
 - Lack of education and awareness
- **Malicious employees**

External threats

- **Hackers**
 - Malware
 - Phishing and spear phishing
 - Ransomware
- **Social Engineering**
- **Thieves**
- **Vendors**
- **State sponsored**

Data Breach Threats & Trends

Detection / Response

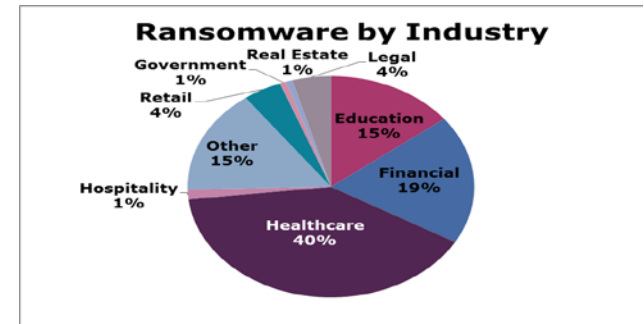
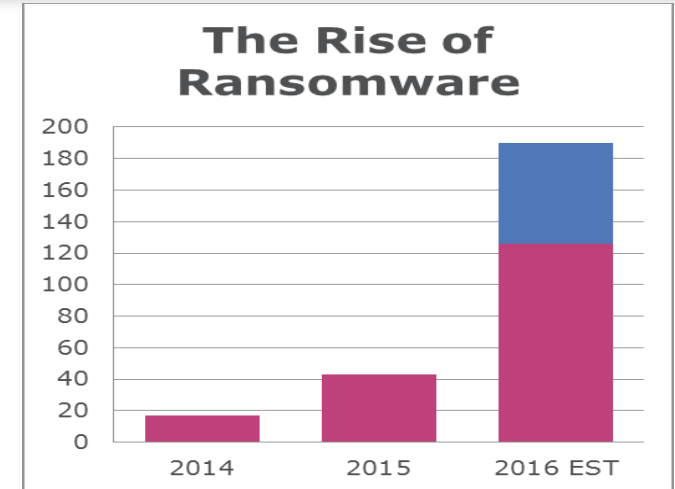


Adapted from Mandiant's *M-Trends Beyond the Breach: 2016 Threat Report*

Data Breach Threats & Trends

Cyber Extortion

- True Extortion
 - Theft of data
 - Deletion of data
- Ransomware/DDoS
 - Many variants of ransomware
 - (1) Automated, open RDP, phishing, drive-bys
 - (2) Requires manual launching, possible key loggers, other malware
 - (3) Targeted disruption (SamSam)
 - DDoS and DDoS “as a Service”





Advanced Persistent Threats

Sophisticated Cyber Attacks

Goals:

- Gain Access
- Maintain
- Modify

Malware planted on network via spear phishing attack

Establishes communication with command & control server

Moves slowly about the network searching for sensitive data to steal and the credentials necessary to access that data

Sensitive data is extracted using encryption and other techniques to disguise it

Ransomware – A Growing Threat

- Multi-Million dollar industry
- How does it work?
 - Use social engineering
 - Disable PC/Mobile
 - Demand ransom
- New variants defeat security



Credit Union Impact

Trends – Financial Institutions

■ General Hacking / Malware

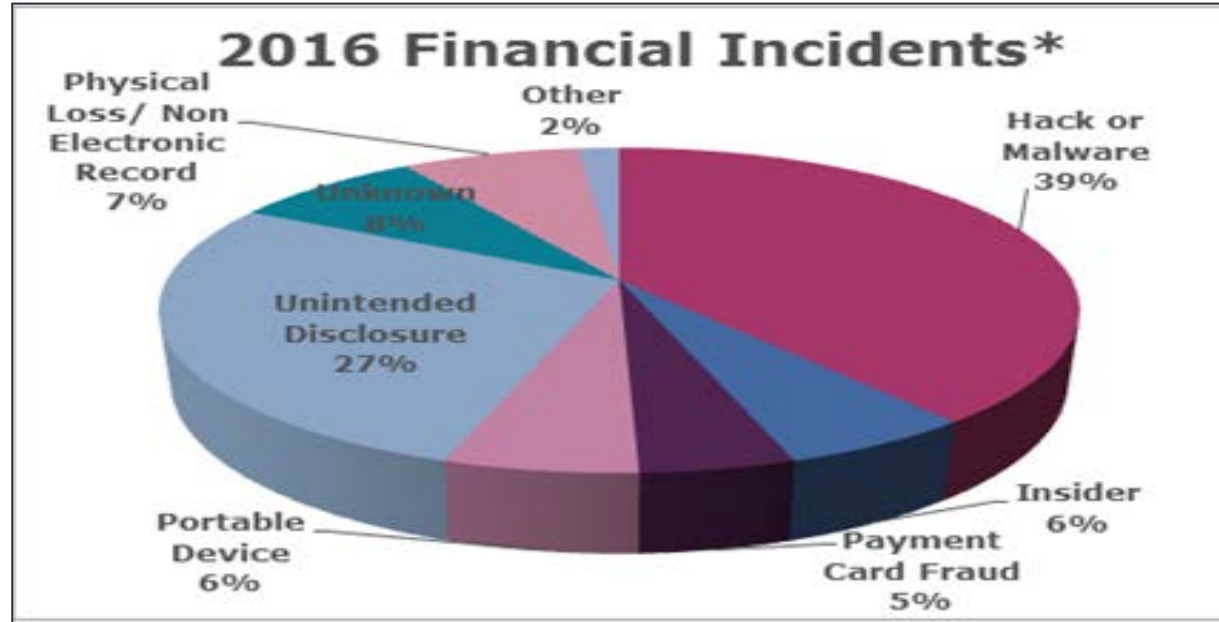
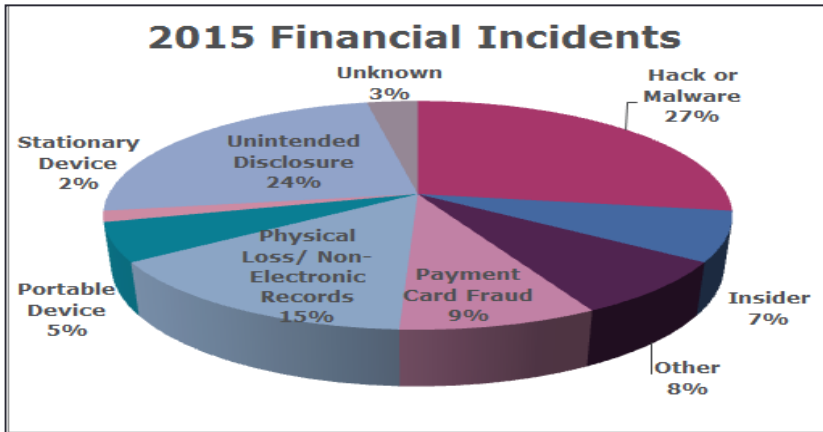
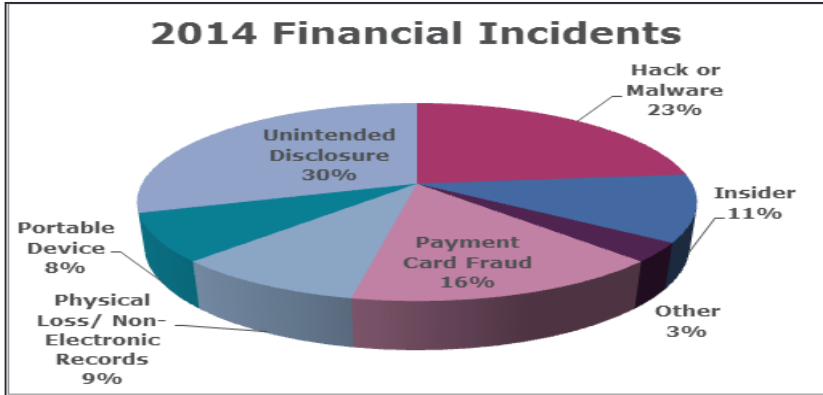
- Still seeing a fair number of hacking incidents and/or purposeful targeted hacking of FI network/computers leading to larger incidents
 - Carbanak (Russian APT – UK Banking)
 - U.S.-related incidents now

■ Brute-Force Password Attacks



Credit Union Impact

Incidents by Financial Institutions (Beazley)



Guidelines for Safeguarding Member Information

- Board Involvement
 - Credit union’s board of directors or an appropriate committee of the board of each credit union must:
 - Oversee the development, implementation and maintenance of the credit union’s information security program, including assigning specific responsibility for its implementation and reviewing reports from management
 - Annual report to board that includes status of Cyber compliance and addresses risk assessment. Covering risk management and control decisions, service provider arrangements, results of testing, data incidents, and management’s response thereto and recommendations for changes to the information security program
- Assess Risk
 - Identify reasonably foreseeable internal and external threats that could result in unauthorized disclosure, misuse, alteration or destruction of member information or member information systems
 - Assess the likelihood and potential damage of these threats, taking into consideration the sensitivity of member information
 - Assess the sufficiency of policies, procedures, member information systems and other arrangements in place to control risks

Guidelines for Safeguarding Member Information

- Manage and Control Risk
 - Access controls on member information systems, including controls to authenticate and permit access only to authorized individuals and controls to prevent employees from providing member information to unauthorized individuals
 - Access restrictions at physical locations containing member information
 - Encryption (at rest and in transit) of electronic member information
 - Dual controls procedures, segregation of duties and employee background checks for employees with responsibility for or access to member information
 - Monitoring systems and procedures to detect actual and attempted attacks on or intrusions into member information systems
 - Incident response plan that sets forth the actions to be taken when the credit union suspects or detects unauthorized access to sensitive member information
 - Measures to protect against destruction, loss or damage of member information due to potential environmental hazards

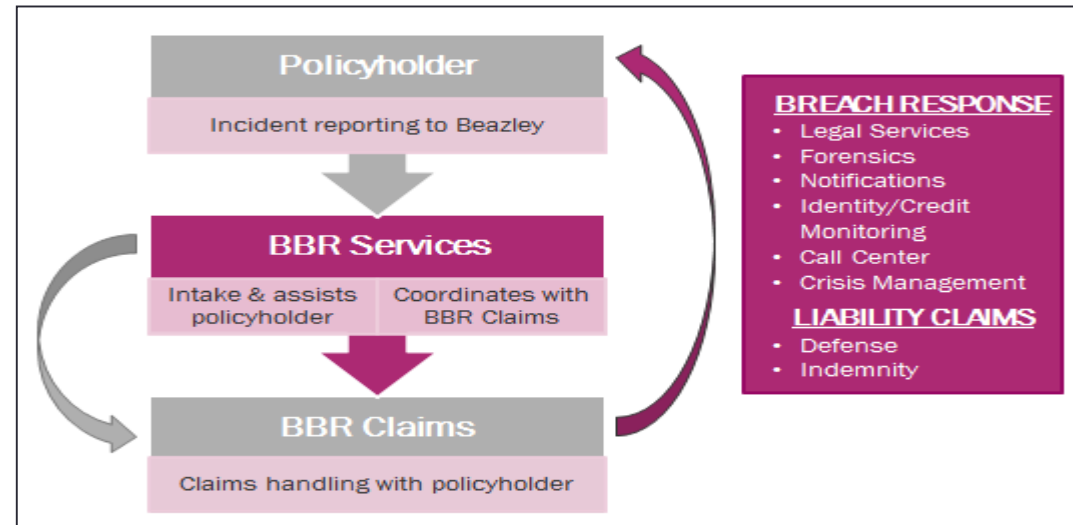
Guidelines for Safeguarding Member Information

- Oversee Service Provider Arrangements
 - Exercise appropriate due diligence in selecting service providers
 - Require service providers by contract to implement appropriate administrative, technical and physical safeguards and security measures to protect sensitive member information
 - Monitor service providers to confirm that they have satisfied their obligations, including reviewing audits, tests or other equivalent evaluations of service providers
- Adjust the Program
 - Monitor, evaluate and adjust, as appropriate, the information security program in light of changes in:
 - technology and member information systems
 - internal or external threats
 - credit union's own changing business arrangements
 - vendor and other outsourcing arrangements

Beazley Risk Management Solutions

What is BBR Services?

- Structured as a distinct unit within Beazley's BBR program
 - Service under your policy
 - Breach response guidance
 - Coordination of breach services
- Experts in breach handling
 - Over 5,000+ incidents handled by team



BBR Services To Assist You

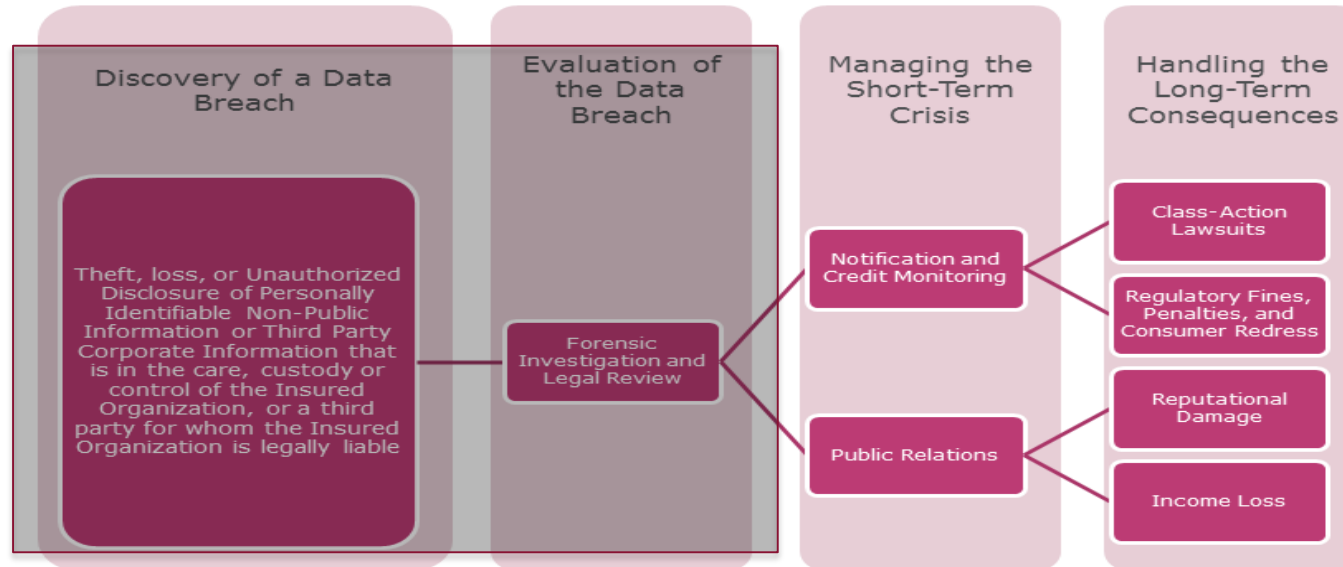
- Discovery of a Data Breach

Event discovered, triggers IRP, Beazley is notified

Breach Manager assigned, guidance provided

- Evaluation of the Data Breach

Breach Manager provides recommendations and helps coordinate services based on the incident



BBR Services To Assist You

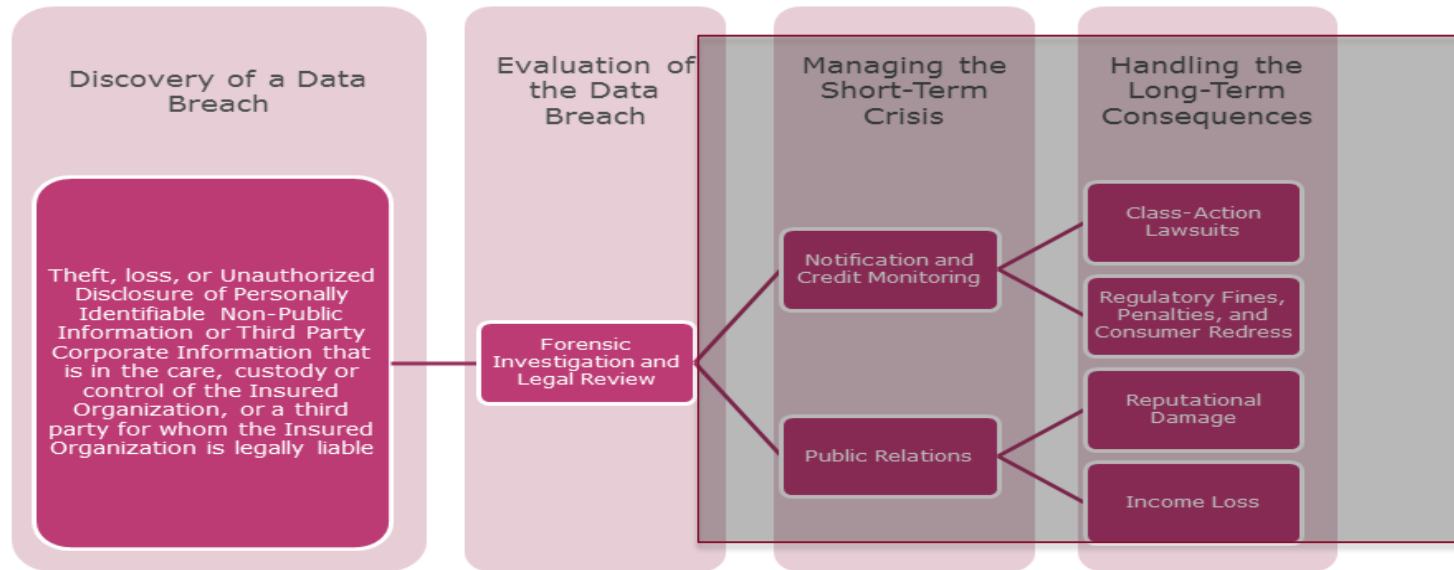
- Manage the Short-Term Crisis

Let forensics (if needed) drive the facts

Meet complex breach notification timelines based on facts

If needed, make notification and provide mitigation product

Minimize long-term consequences



BBR Services To Assist You

- Breach Managers respond with initial incident guidance
- Recommendations on next steps and a combination of services
 - Emergency services
 - Critical breach decisions
- Breach Managers will walk you through *the process*
- Initial incident project management/on-going monitoring
 - MSA, SOW, notification and call center management
- Incident knowledge transfer
 - Breach response empowerment

PRESENTER

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Q & A

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