

# Cyber Security for Benefits – Version 2.0



# BIO



**CODY GRIFFIN, CPA, CITP, CISA**  
**IT ADVISORY & RISK ASSURANCE PARTNER**

Cody began his career in the risk assurance and advisory practice of PricewaterhouseCoopers and joined HoganTaylor in 2013. He is a CPA, CITP and CISA with over 14 years of experience in both public and private industry. Cody's industry experience includes information technology, telecommunications, retail, financial institutions, energy, higher education and transportation. His areas of practice include Sarbanes-Oxley (SOX) Section 404, IT audit, business process reviews, service organization control audits (SSAE 16), Fraud reviews, agreed upon procedures, internal audit assurance services and compliance audits. Cody leads firm in providing "Attack & Penetration" services, which assists HoganTaylor clients in identifying vulnerabilities in their IT infrastructure. Cody graduated from Oklahoma State University with a B.S. in Accounting and received his M.B.A. from Texas Tech University in Management Information Systems.

# Session Overview

- IT Security Risks
  - Network Attacks
    - Recent Attacks / Data Breaches
    - Cost of a Data Breach
  - Social Engineering
- Cybersecurity and Employee Benefit Plans
  - Choosing and Monitoring Service Providers
  - Protecting Data
  - Staying Up-to-Date on Industry Standards
  - Cyber Liability Insurance

# Statistics

Sobering statistics



The frequency and sophistication of cybersecurity attacks are escalating

# Data Breaches



Statistics presented are based on the Breach Level Index [[breachlevelindex.com](http://breachlevelindex.com)]



# Data Breaches

DATA RECORDS COMPROMISED IN 2016

1,378,509,261

3,776,738

records lost or stolen  
every day



157,364

records  
every hour



2,623

records  
every minute



44

records  
every second



Statistics presented are based on the Breach Level Index [[breachlevelindex.com](http://breachlevelindex.com)]

# Data Breaches

DATA RECORDS COMPROMISED IN FIRST HALF OF 2017

1,901,866,611

10,507,550  
records lost or stolen  
every day



437,815  
records  
every hour



7,297  
records  
every minute



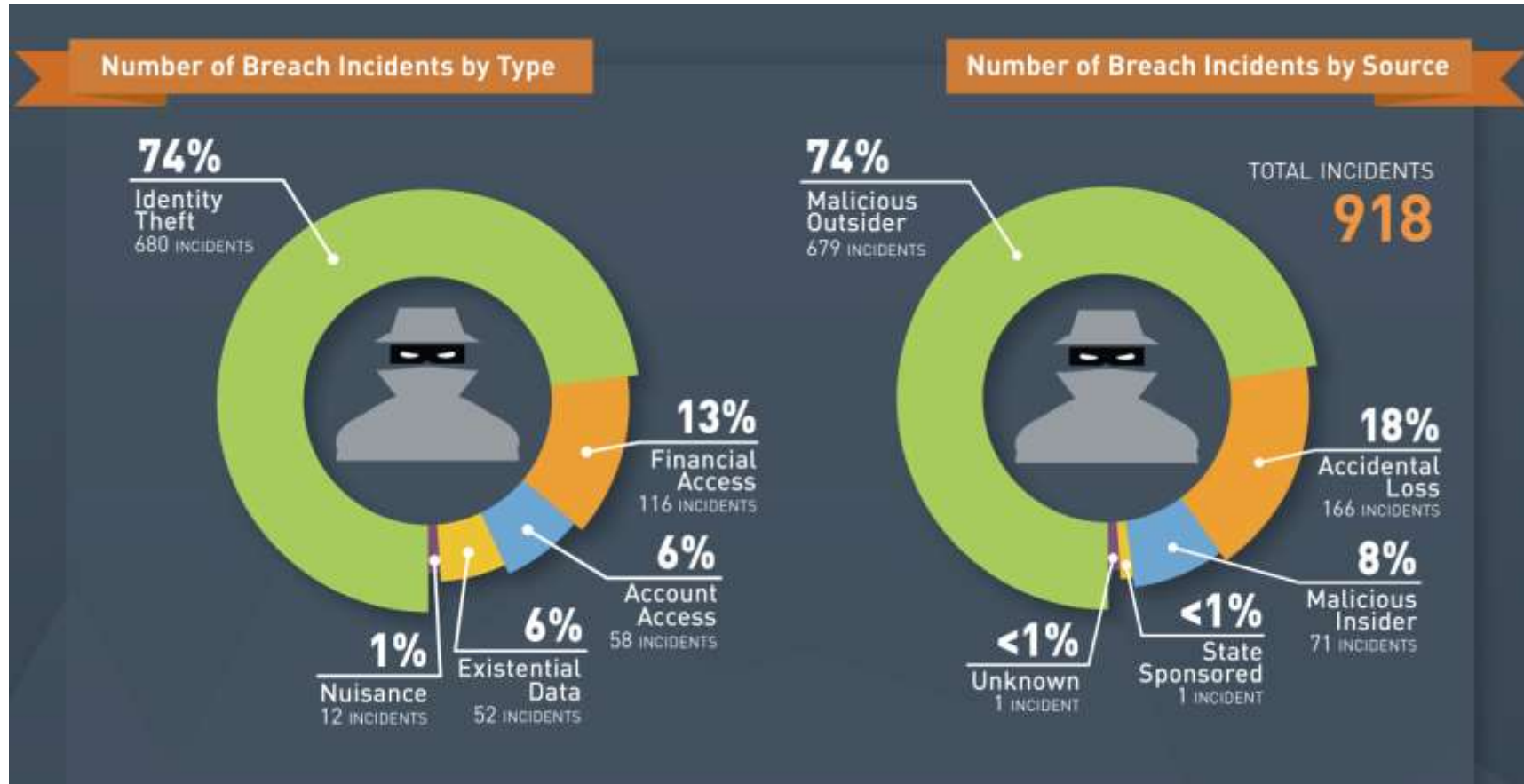
122  
records  
every second



LESS THAN **5%** of breaches were “**Secure Breaches**” where **encryption** rendered the stolen data useless

Statistics presented are based on the Breach Level Index [breachlevelindex.com]

# Data Breaches



Statistics presented are based on the Breach Level Index [breachlevelindex.com]



# Social Engineering



Social Engineering Attack

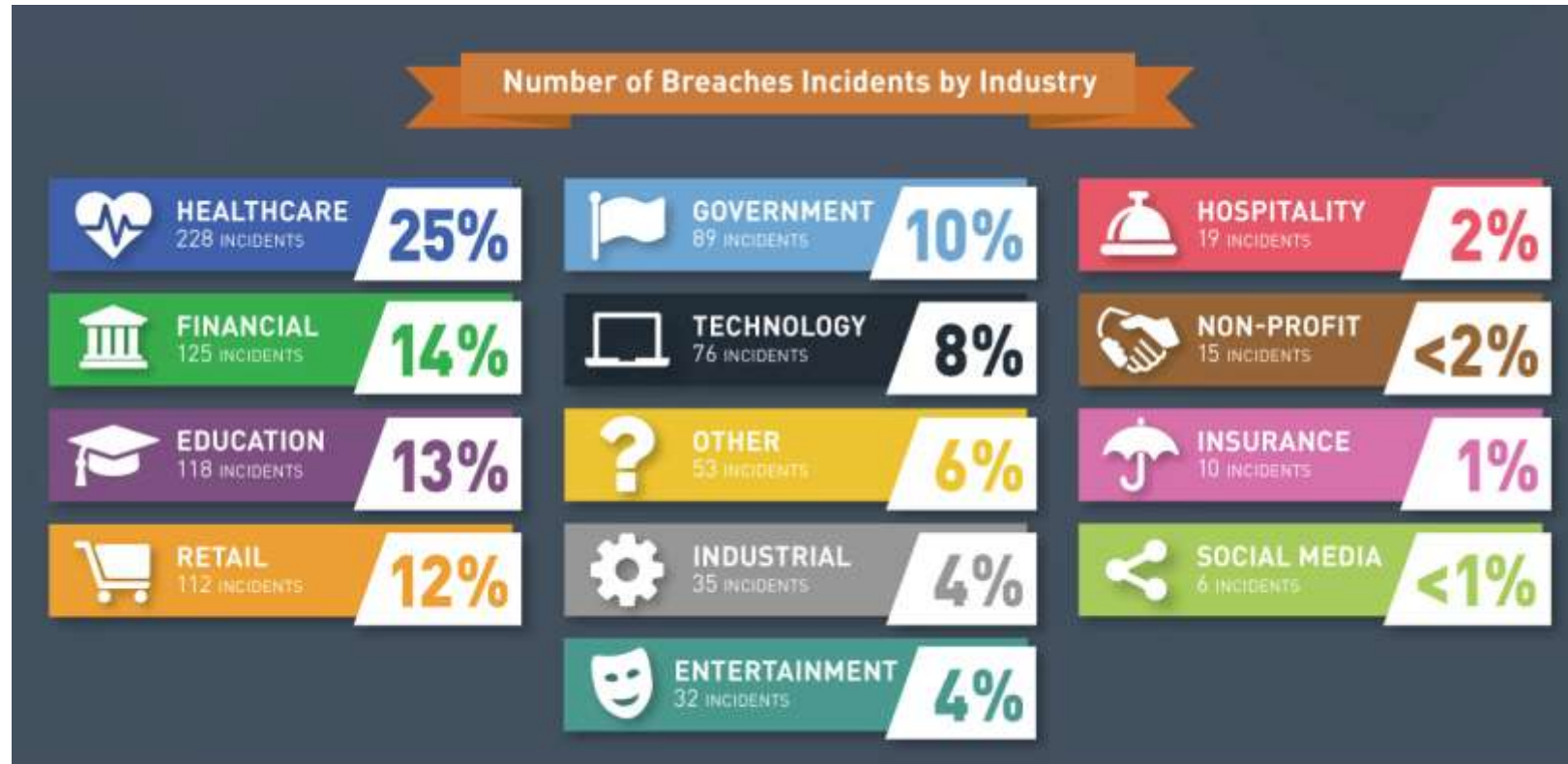
Because There Is No  
Patch To Human  
Stupidity

[www.greenhackerz.com](http://www.greenhackerz.com)

# Ransomware

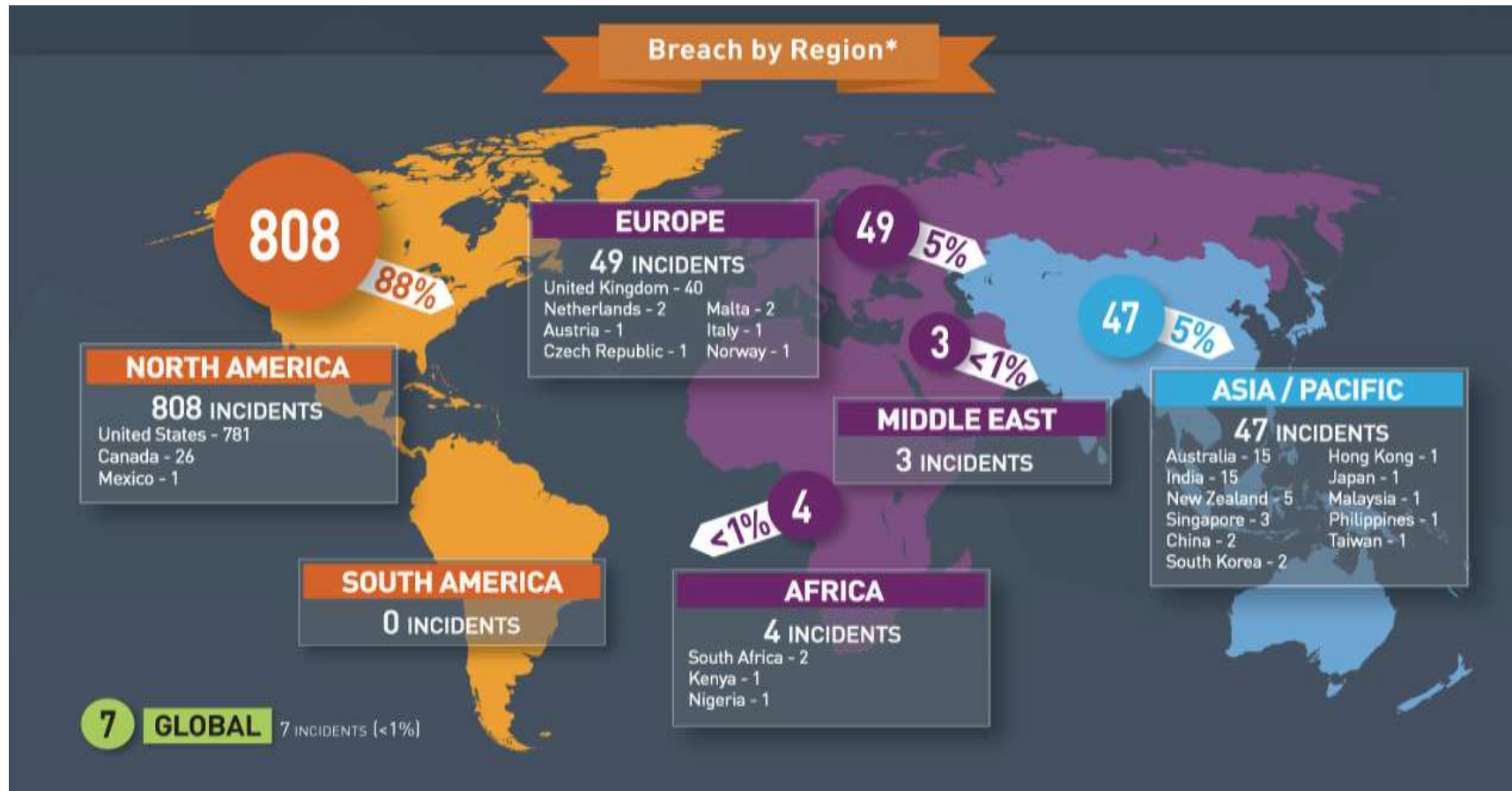


# Data Breaches



Statistics presented are based on the Breach Level Index [[breachlevelindex.com](http://breachlevelindex.com)]

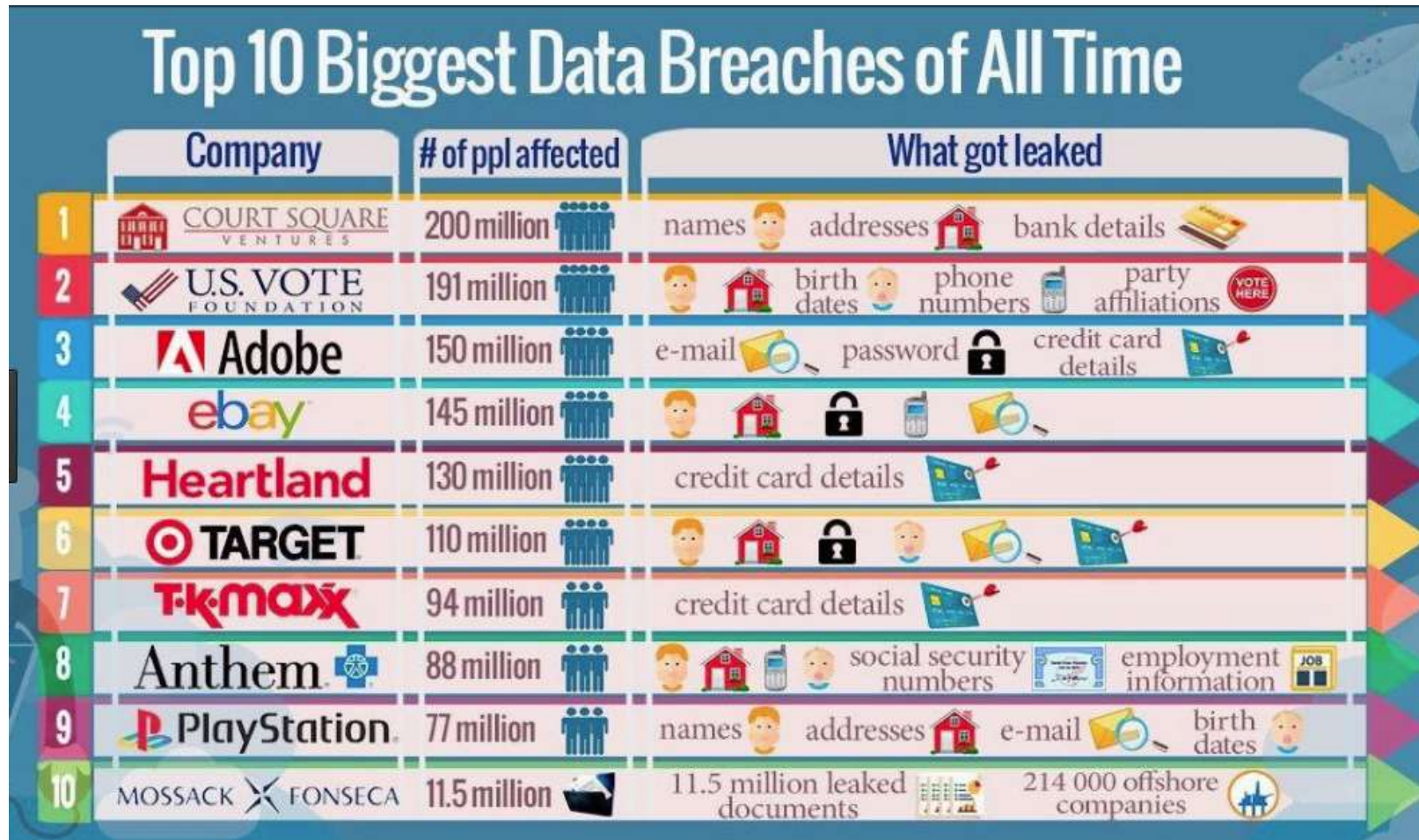
# Data Breaches



Statistics presented are based on the Breach Level Index [breachlevelindex.com]



# Data Breaches





# Data Breaches

BREACH LEVEL INDEX

HOME DATA BREACH DATABASE TOP BREACHES RISK CALCULATOR A NEW MINDSET RESOURCES REPORT A BREACH

Showing 1 to 10 of 1,034 entries

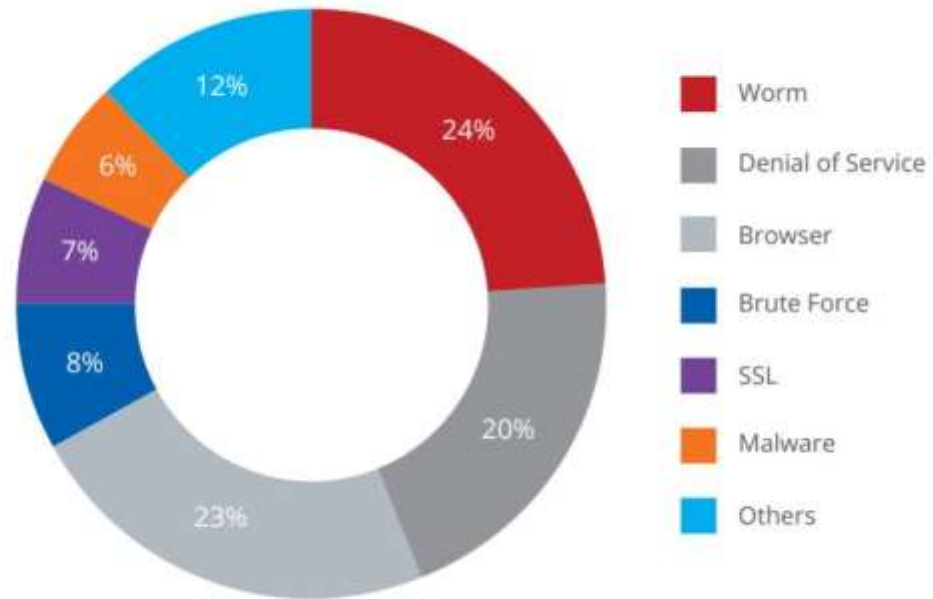
Rank	Organization Breached	Records Breached	Date of Breach	Type of Breach	Source of Breach	Location	Industry	Risk Score
1	Motor Vehicles Department in Kerala	200,000,000	05/01/17	Nuisance	Malicious Outsider	India	Government	9.9
2	River City Media	1,340,000,000	03/06/17	Nuisance	Accidental Loss	United States	Other	9.8
3	Deep Root Analytics/ Republican National Committee	198,000,000	06/13/17	Identity Theft	Accidental Loss	United States	Government	9.6
4	New Oriental	20,000,000	03/22/17	Identity Theft	Malicious Insider	China	Education	9.4
5	Center for Election Systems at Kennesaw State University	7,500,000	03/03/17	Identity Theft	Malicious Outsider	United States	Education	9.1
6	Avison Young	9,700,000	01/04/17	Identity Theft	Malicious Insider	United States	Other	9.1
7	Zomato	17,000,000	05/04/17	Account Access	Malicious Outsider	Global	Social Media	9.1
8	The National Health Service (NHS)	26,000,000	03/17/17	Identity Theft	Accidental Loss	United Kingdom	Healthcare	9.0
9	America Joblink Alliance	4,800,000	03/21/17	Identity Theft	Malicious Outsider	United States	Technology	8.9
10	Kansas Department of Commerce System	5,500,000	03/06/17	Identity Theft	Malicious Outsider	United States	Government	8.9

Showing 1 to 10 of 1,034 entries

Previous 1 2 3 4 5 104 Next

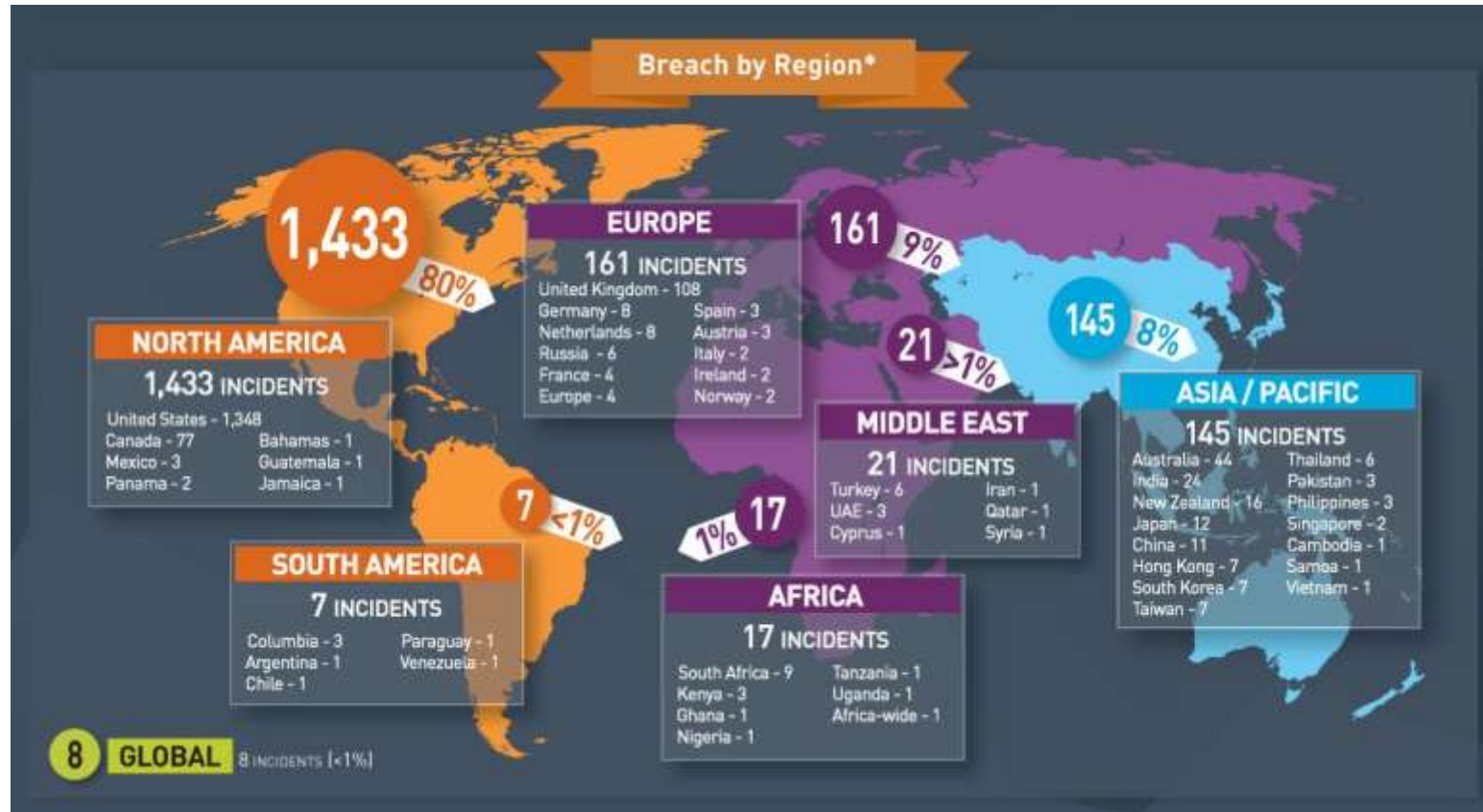
# Network Attacks

Top Network Attacks in Q1 2017



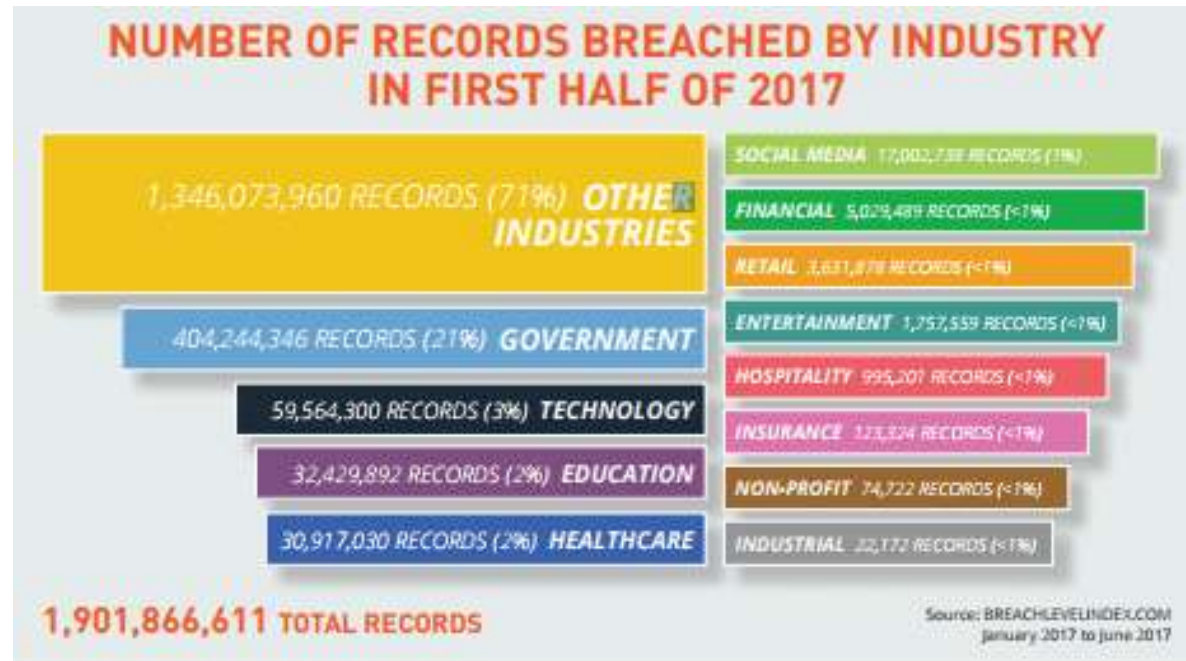
Source: McAfee Labs, 2017.

# Data Breaches



Gemalto

# Data Breaches



# Data Breaches

## NUMBER OF BREACH INCIDENTS BY INDUSTRY OVER TIME

INDUSTRY	H1 2013	H2 2013	H1 2014	H2 2014	H1 2015	H2 2015	H1 2016	H2 2016	H1 2017
Healthcare	176	170	240	209	237	214	303	229	228
Financial Services	79	86	87	126	155	123	145	97	125
Education	8	28	86	88	102	64	110	58	118
Retail	56	41	82	115	131	109	122	125	112
Government	131	65	113	180	161	137	157	125	89
Technology	55	57	73	67	60	63	119	82	76
Other Industries	152	111	138	137	177	140	130	47	53
Industrial	-	+	+	+	0	0	17	11	35
Entertainment	-	+	+	+	3	2	18	10	32
Hospitality	1	0	0	1	1	0	15	15	19
Non-Profit	-	+	+	+	0	0	10	10	15
Insurance	-	+	+	+	1	1	8	6	10
Social Media	-	+	+	1	1	0	1	0	6
TOTALS	658	558	819	924	1,209	853	1,155	815	918

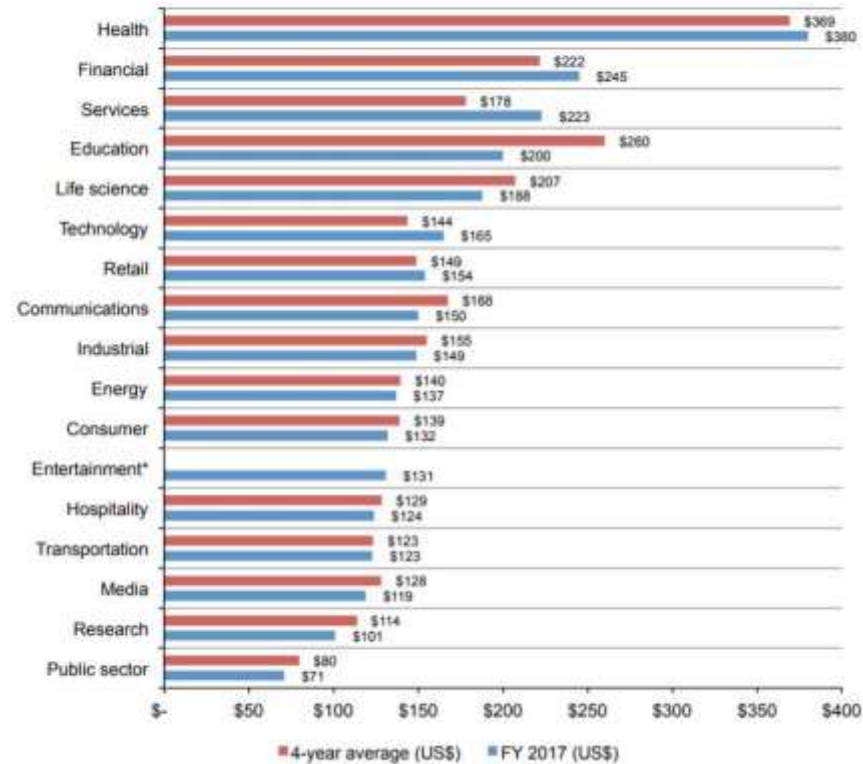
Source: BREACHLEVELINDEX.COM



# Cost of a Data Breach

Figure 5. Per capita cost by industry classification

\*Historical data are not available for all years  
Measured in US\$



IBM / Ponemon Institute 2017

# Cyber Security and Employee Benefit Plans

- DOL has begun raising concerns
- Responsibility for cyber security resides with the Plan administrator



# Cyber Security and Employee Benefit Plans

Choose  
and  
monitor  
service  
providers

Implement  
procedures  
to protect  
data

Stay up to  
date on  
industry  
best  
practices

Explore  
Cyber  
Liability  
Insurance

# Choosing new service providers and continuous monitoring

## Questions to ask your service provider

How do you manage electronic data?- both in flight (being manipulated or moved) and at rest (sitting in storage)

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How do you secure the physical hardware storing the data?- including the facility, printers and portable hardware (laptops, tablets, smartphones)

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How do you manage your employees that interact with the data?- the “Human Factor”

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How do you monitor for suspicious activity?

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How do you react to potential security breaches?

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Note: Most of this information is covered in your service provider’s SOC1 report, which should be reviewed annually.

# What can I do as Plan Sponsor?





# What can we do?

## How Hackable Is Your Password?

The length and strength of your password can make a huge difference in how long it takes for hackers to crack the code!

2 Minutes	10 Minutes	1 Hour	17 Years +
<p>Would you like fries with that?</p> 			
<p>If you have an all lowercase 5-character password, a hacker can feast on your personal data by the time you get your drive-thru order.</p>	<p>Do you have a 5-character password with all lowercase letters and numbers? A hacker can crack it before you and Spike make it around the block.</p>	<p>Hackers are incredibly flexible, even without exercise. In the hour you spend doing yoga, they can crack a 5-character password with upper and lowercase letters.</p>	<p>Longer, stronger passwords put hackers in a time-out. An 8-character password that uses upper and lowercase letters and symbols takes longer to crack than raising a child.</p>

 **RoboForm**

# Cloud / Third-party Service Providers

## PROTECTING YOUR DATA WHEREVER IT GOES

The top 4 places your files are at risk



**SECLORE** Seclore, an award-winning provider of information-centric security solutions, helps organizations achieve their security, privacy and compliance objectives through its innovative Information Rights Management software. Learn more at [www.seclors.com](http://www.seclors.com)

Sources: <http://krebsonsecurity.com/2014/home-depot-breach/> | 2014 US State of Cybercrime Survey | [http://www.gatesafe.com/wireless\\_stolen\\_phones.asp](http://www.gatesafe.com/wireless_stolen_phones.asp) | <http://www.darkreading.com/mobile-security/how-mobile-security-lags-by-odd-id-112902> | <http://www.esecurityplanet.com/mobile-security/86-percent-of-mobile-apps-lack-adequate-security.html> | <http://www.rftscale.com/blog/cloud-industry-insights/cloud-computing-trends-2014-state-cloud-survey> | <http://gbest.com/tech-news/shocking-stats-email-data-safe/> | <http://www.infoworld.com/article/2607997/cloud-security/users-learn-cloud-breaches-are-more-expensive.html> | Icons by [flaticon.com](http://www.flaticon.com)

# What can I do as Plan Sponsor?

Implement procedures to protect data

Use caution when handling participant information (social security numbers, dates of birth, email addresses, etc.)

Limit access to participant's online personally identifiable information to few individuals

Know your company's cyber security policy

Appropriately destroy hard copies of documents



# What can I do as Plan Sponsor?

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Stay up to date on industry best practices

Explore current legal and regulatory concerns

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Understand the applicable state laws should there be a data breach

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Attend seminars in person and on the web

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Regularly review updates on the IRS and DOL websites

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Consider engaging an attorney with ERISA expertise

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# What can I do as Plan Sponsor?

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Explore  
cyber  
liability  
insurance

Understand what your general business insurance policy does and does not cover

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Cyber liability insurance helps mitigate the administrative, technological and legal costs of a data breach

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Can help provide the Plan with experienced attorneys, forensic experts and public relations professionals

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Good Luck!





# Questions / Contact Information

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