2016 Data Breach Investigations Report

**Understand what you're up against.**

2016 DBIR News Conference

- Janet Brumfield, director, corporate communications

- Marc Spitler, senior manager of Verizon security research and lead author

- DBIR co-authors:
  - Anastasia Atanasoff
  - Gabriel Bassett
  - Dave Hylender
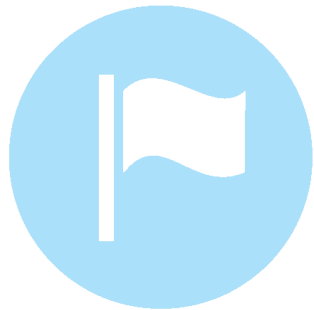 - Suzanne Widup

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Ninth edition.

100K incidents.
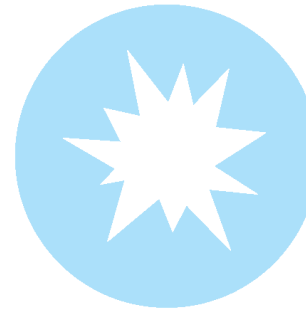
2,260 analyzed breaches.

82 countries.

Data from **67** contributors.

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2016 Data Contributors

2016 DBIR Key Findings

- Cybercriminals are exploiting humans as weakest link, organized in approach

- Phishing tops list of increasing concerns

- 89 percent of all attacks involve financial or espionage motivations.

- Three-pronged attacks highly familiar, repeatable, used frequently

- Risk management is key to safeguarding assets

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The who, where and why.

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Attackers are usually external to the victim's organization.

But you still need to be aware of the internal threat.

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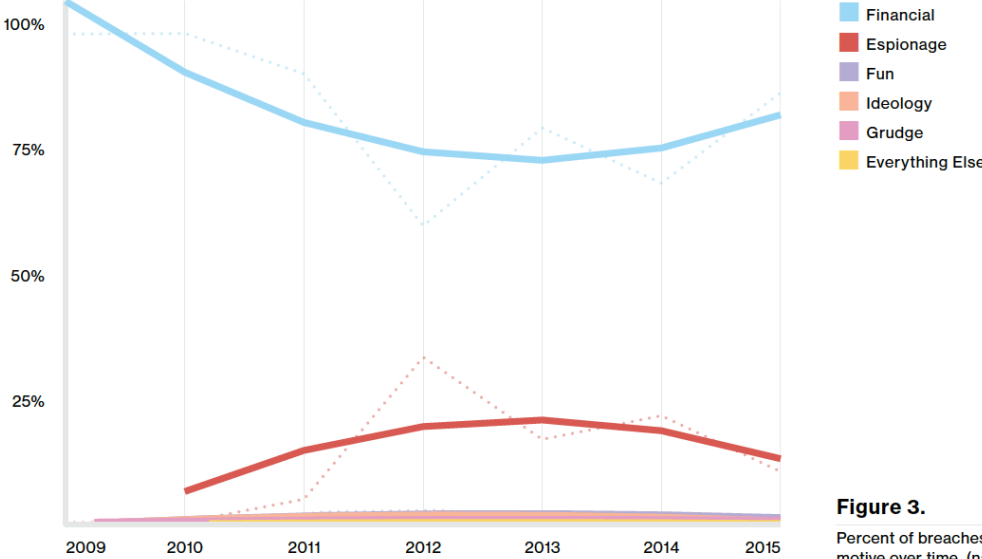# 89% of all breaches had a financial or espionage motive

Figure 3.

Percent of breaches per threat actor motive over time, (n=6,762)

Legend:
- Financial
- Espionage
- Fun
- Ideology
- Grudge
- Everything Else

How do they get in?

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They've got the right credentials.

63%

of confirmed data breaches involved leveraging a weak, default or stolen password.

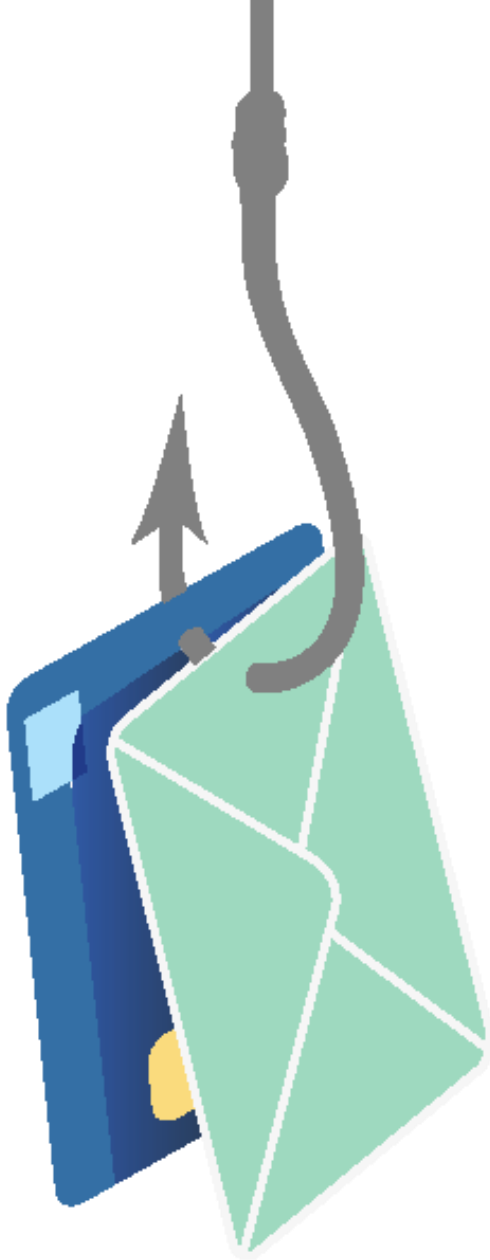2016 Data Breach Investigations Report

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Phishing still works.

30%

of phishing messages were opened.

13%

of targets went on to click the attachment or link.

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225 seconds

On average, it takes less than 4 minutes for a phishing campaign to get its first click.

The same old vulnerabilities exist.

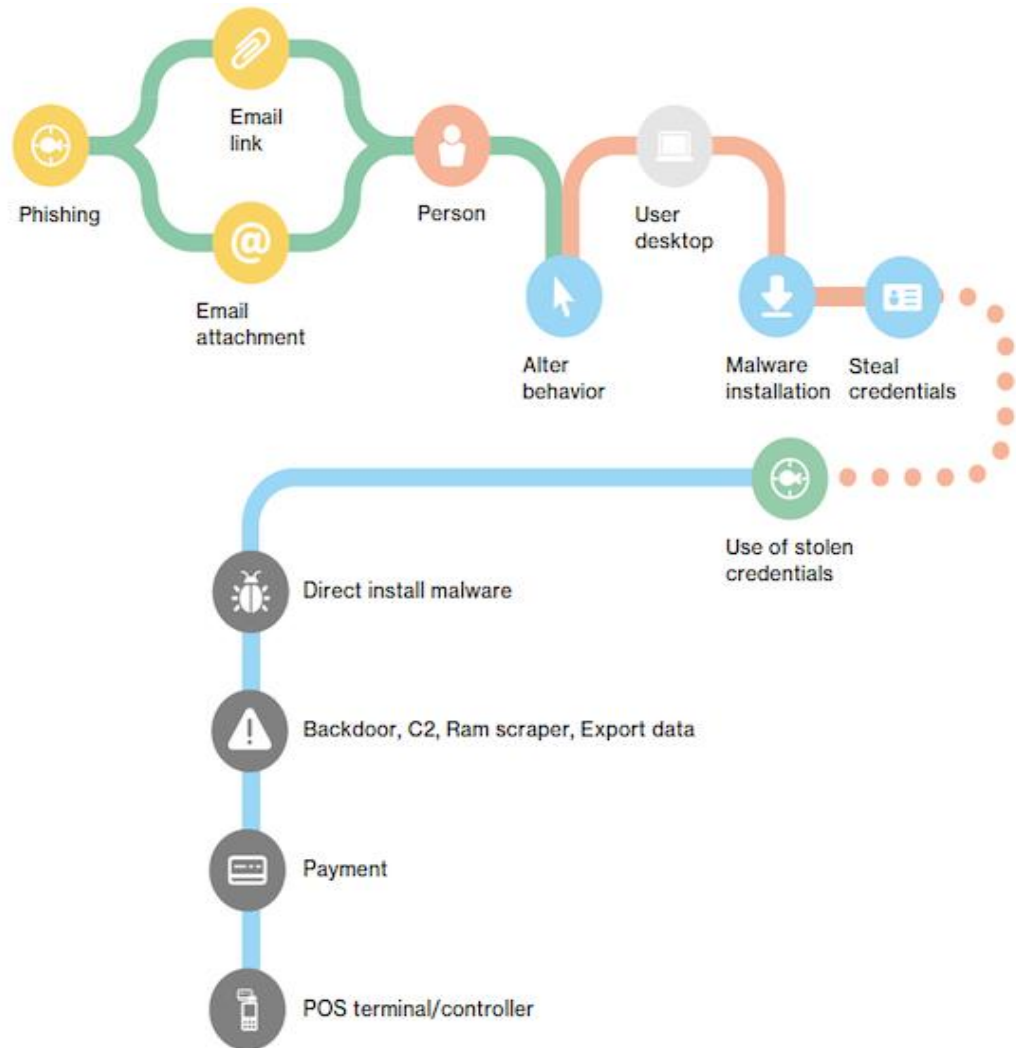**Most attacks exploit known vulnerabilities where a patch has been available for months, if not years.**

85 %

of successful exploit traffic is from the top 10 vulnerabilities.

Hacking in progress

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Many incidents share the same threat actions in the early stages of the attack.

What happens next is determined by the attacker's end game.

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How quickly do they get in?

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The detection deficit is growing.
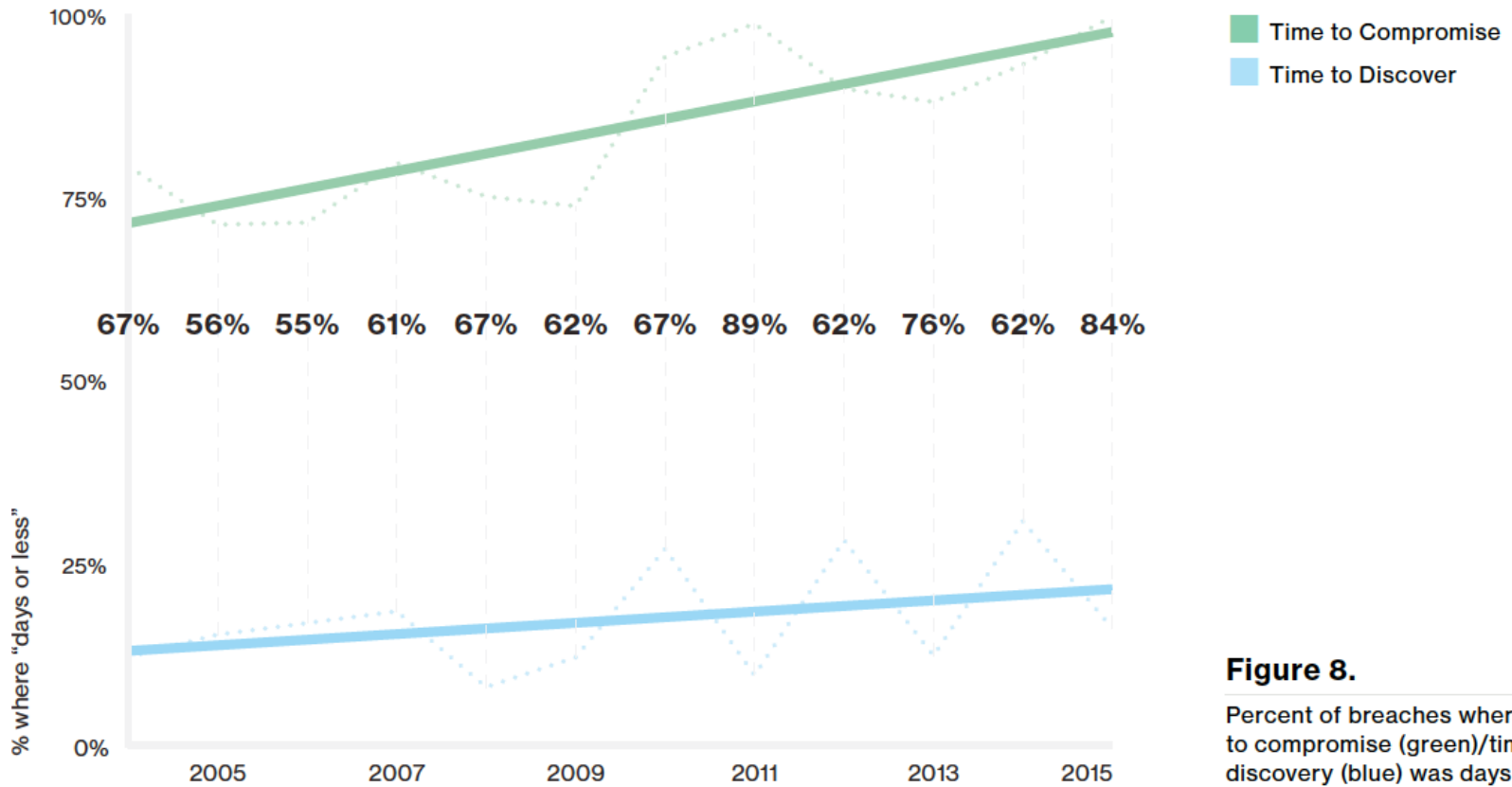
Figure 8.

Percent of breaches where time to compromise (green)/time to discovery (blue) was days or less

67% 56% 55% 61% 67% 62% 67% 89% 62% 76% 62% 84%

Time to Compromise
Time to Discover

% where "days or less"

100%
75%
50%
25%
0%

2005 2007 2009 2011 2013 2015

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What can you do?

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Over 80% of security incidents fit into just nine incident classification patterns.
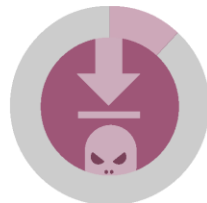
Miscellaneous errors 18%
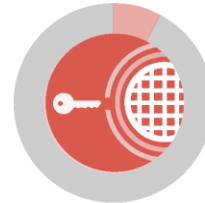
Privilege misuse 16%
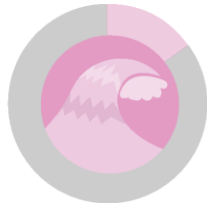
Physical theft and loss 15%

Denial of service 15%

Crimeware 12%

Web app attacks 8%

POS intrusions 1%

Cyber-espionage 0%

Payment card skimmers 0%

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Over 95% of breaches fit into just nine incident classification patterns.

Miscellaneous errors — 9%

Privilege misuse — 8%

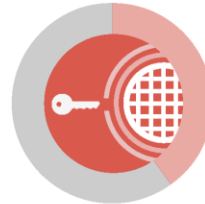**Physical theft and loss** — 2%

Denial of service — 0%

Crimeware — 2%

Web app attacks — 40%

POS intrusions — 23%

Cyber-espionage — 7%

Payment card skimmers — 4%

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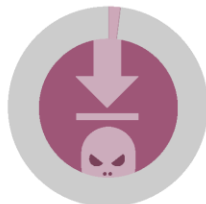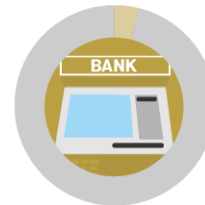
Financial services

34%

Denial of service

48%

Web app attacks

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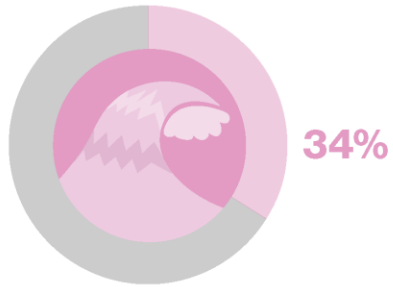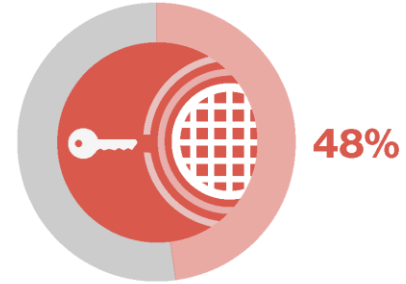
Public sector

Miscellaneous errors 24%

Privilege misuse 22%

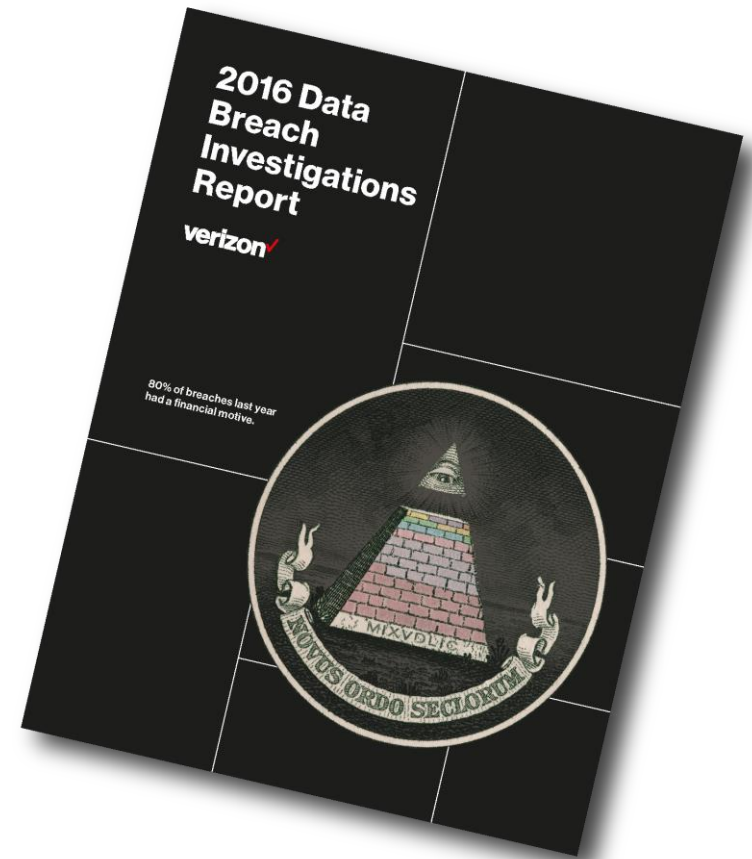**Physical theft and loss** 20%

Crimeware 16%

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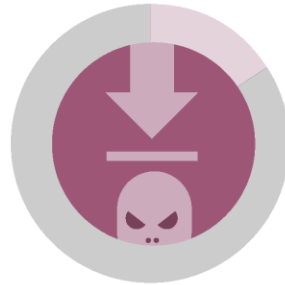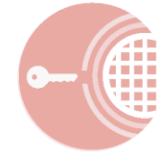
Quick tips

✓ **Be vigilant**

✓ **Make people your first line of defense.**

✓ **Only keep data on a "need to know" basis.**

✓ **Patch promptly.**

✓ **Encrypt sensitive data.**

✓ **Use two-factor authentication.**

✓ **Don't forget physical security.**

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Use the lessons learned from analyzing more than 2,200 confirmed data breaches. Read the 2016 DBIR:

Verizonenterprise.com/DBIR2016

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80% of breaches last year
had a financial motive.

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Q & A

Thank you.

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