

RSA® Conference 2018

San Francisco | April 16–20 | Moscone Center

SESSION ID: STR-W12

ADAPT OR DIE – THE CISO'S NEW ROLE IN A SOCIAL MEDIA FIRST WORLD

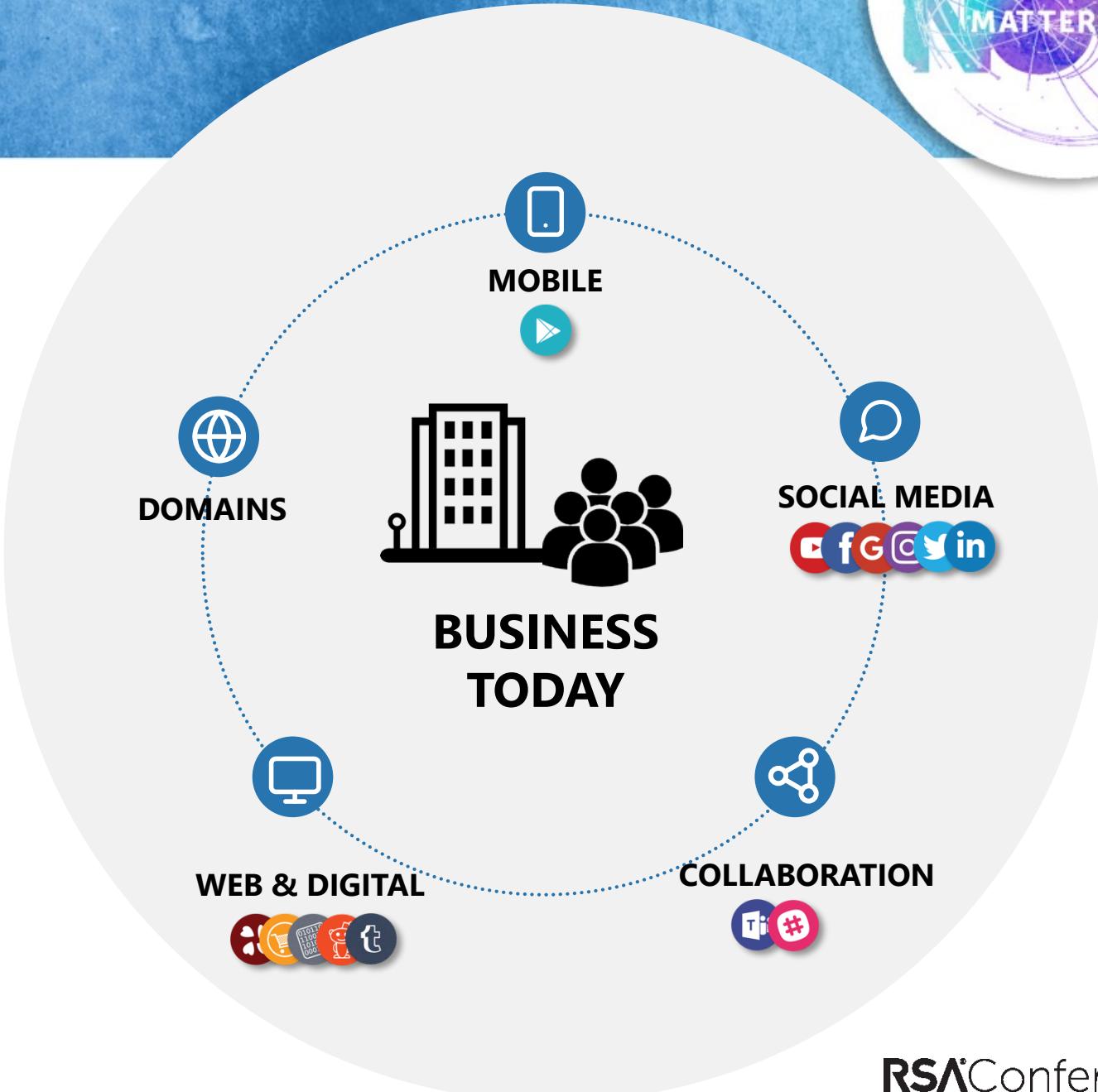
EVAN BLAIR

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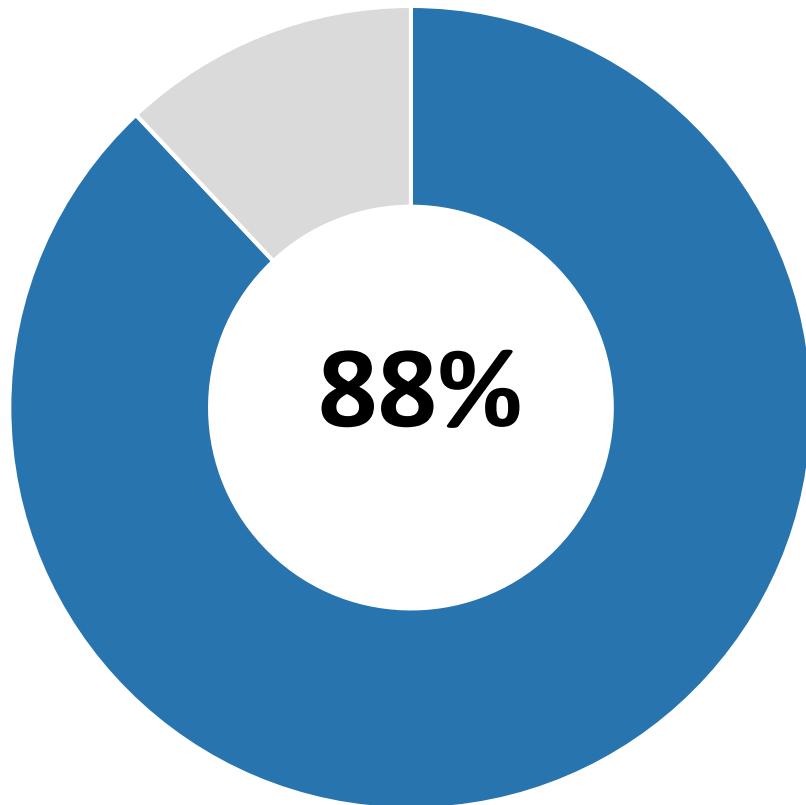
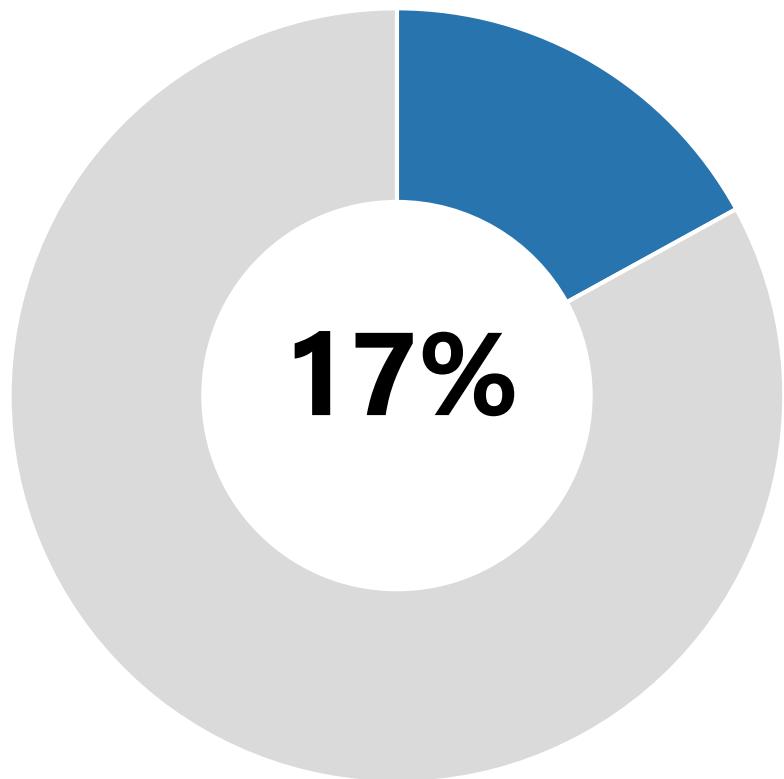
MODERN
BUSINESS
LIVES
OUTSIDE THE
FIREWALL



//PERCEPTION IS REALITY



Percentage of S&P 500 Market Value Comprised From Intangible Assets



Source: Andrew Sherman, "Harvesting intangible assets," Ted Conferences, February 12, 2014.



//THE GAME HAS CHANGED

- Modern business introduces modern security risks
- Where business risk and technology risk overlap has changed dramatically
- We can no longer focus on technology risk in isolation from business growth and risk factors

**WELCOME TO
THE SOCIAL
REVOLUTION**





95%

US WORKING AGE ARE **ACTIVE** ON
SOCIAL MEDIA

3/4

WORLDWIDE INTERNET USERS HAVE
ACTIVE SOCIAL PROFILES

AT THE HEART
OF REAL
REVOLUTIONS



27%

INTERNET TIME SPENT
ON SOCIAL MEDIA

3 HOURS

EVERY **DAY** SPENT ON SOCIAL
MEDIA



>52%

OF ONLINE & OFFLINE PURCHASES
DRIVEN BY FACEBOOK

81%

OF SOCIAL MEDIA USERS PURCHASE
BASED ON SOCIAL INFLUENCE



//SOCIAL IS A BUSINESS PLATFORM



SOCIAL USE & INVESTMENT

83%

Global organization's use social as key
business platform

24%

of total enterprise marketing budgets spent on
social in next 4 years

SOCIAL MEDIA IMPACT

40%

Outperformance in revenues / valuation
vs. S&P 500

\$25B

Spent on advertising products and businesses on
social platforms globally

HR / Recruiting

84% of organizations are now recruiting on social media

Customer Success

70% of consumers use social networks like Twitter & Facebook for customer service

Sales

74% of salespeople who beat their quota say they use of social media

SOCIAL MEDIA... THE [MODERN] BUSINESS PLATFORM

...
FACEBOOK
APPLE APP STORE
GOOGLE
TWITTER
LINKEDIN

SLACK
WORKPLACE
DEEP & DARK WEB
REDDIT
PASTEBIN

...



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WHERE ARE THE RISKS?



INFORMATION SECURITY

- SPOOFED DOMAINS
- TARGETED PHISHING & EXPLOITS
- COMPROMISED CREDENTIALS
- INSIDER, DLP & COMPLIANCE



BRAND RISKS

- BRAND PROTECTION
- REPUTATION DAMAGE
- CUSTOMER ATTACKS
- COUNTERFEIT & PIRACY



CORPORATE SECURITY

- SITUATIONAL AWARENESS
- EXECUTIVE PROTECTION
- EVENTS & TRAVEL THREATS
- LOCATION PROTECTION



//OLD & NEW RISKS, BUT A NEW WAY

FORTUNE

MCDONALD'S

Hacked McDonald's Twitter Account: Donald Trump 'Disgusting'

Phil Wahba Mar 16, 2017 50% Off Under Armour Promo Code OFF THE ENTIRE ORDER!!! gekoo.co/buy/01/?query=...

UNDER ARMOUR PROMO-COD

10:41 PM - 29 Apr 2015

McDonald's @McDonaldsCorp

@realDonaldTrump You are a disgusting excuse of a President we would love to have @BarackObama back, also you have tiny hands

PayPal @AskPayPal_Tech

Hi [REDACTED], We sincerely apologize for this, In order to regain access to your account, Please visit bit.ly/[REDACTED]Lxs7

3:11 PM - 19 Aug 2016

Instagram

R-B 80th Anniversary Sponsored

Instagram post by **deluxe review** (@radicosevero) on May 13, 2017 at 1:30 PM PDT

514 FOLLOWS 155K FOLLOWERS 12.3K LIKES 1 COMMENTS

Tweets & replies Media

loClaus @mercucius 1h Nazialmanya Nazihollandada size ufakbir OSMANLITOKADI Nisan da görüşmek üzere ni yazdim Türkçe ÖĞREN #RT Date from Turkish Reis'i Üzeni de biz üzert @sebomubu Nam Almanca, Niem Hollanda İl Türkçe, sebenli

3,721 likes R-B sunglasses 80th anniversary charity sales event today, only \$9.99 now. Don't miss it! View all 635 comments

SHOP NOW

USA TODAY

Vevo suffered a huge hack from a LinkedIn phishing scam

Mike Snider, USA TODAY Published 1:14 p.m. ET Sept. 15, 2017 | Updated 4:36 p.m. ET Sept. 15, 2017

Forbes / Security / #CyberSecurity

OCT 5, 2017 @ 08:00 AM 22,967 Ⓛ The Little Black Book of Bi

Iranian Hackers Targeted Deloitte Via A Seriously Convincing Facebook Fake

Thomas Fox-Brewster, FORBES STAFF

I cover crime, privacy and security in digital and physical forms.

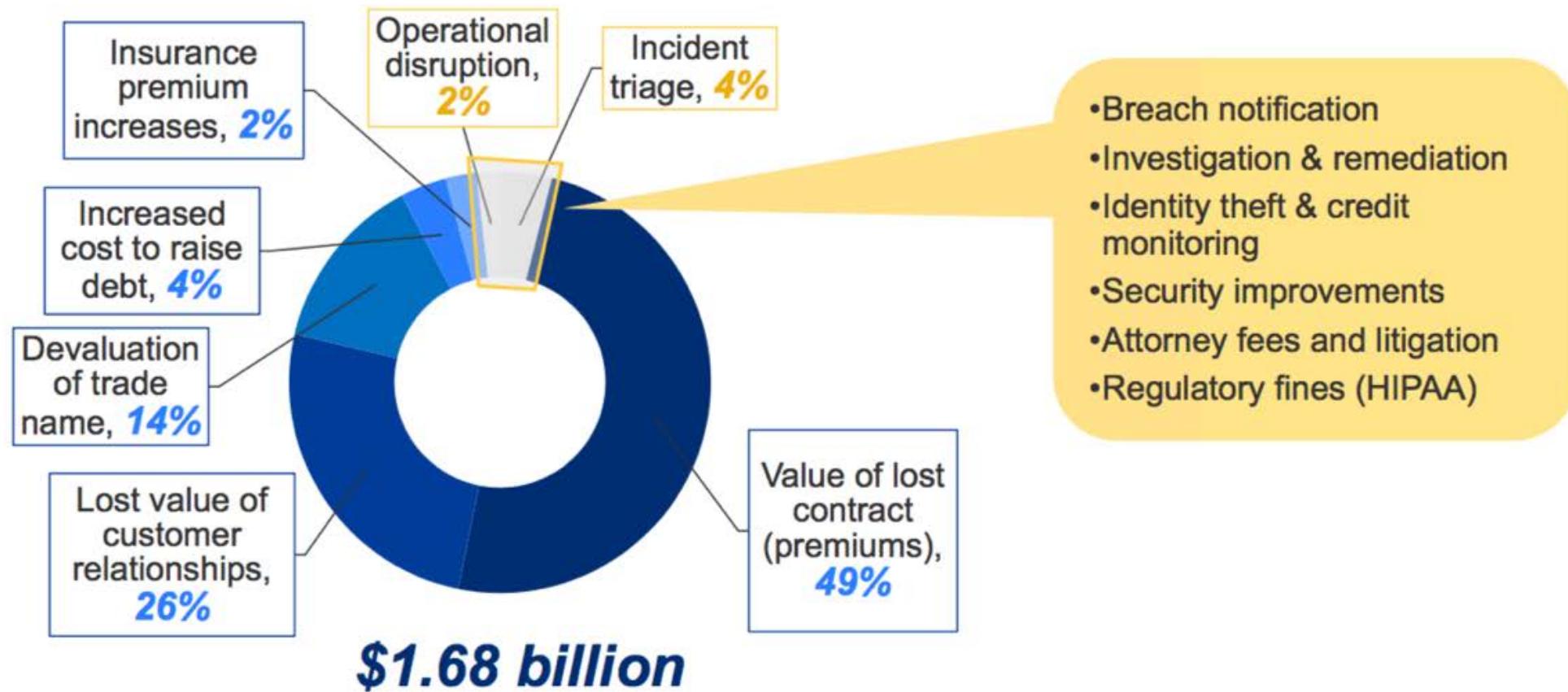
FULL BIO ↗

The New York Times

Hackers Hide Cyberattacks in Social Media Posts

By SHEERA FRENKEL MAY 28, 2017

// OLD RISKS, NEW COSTS



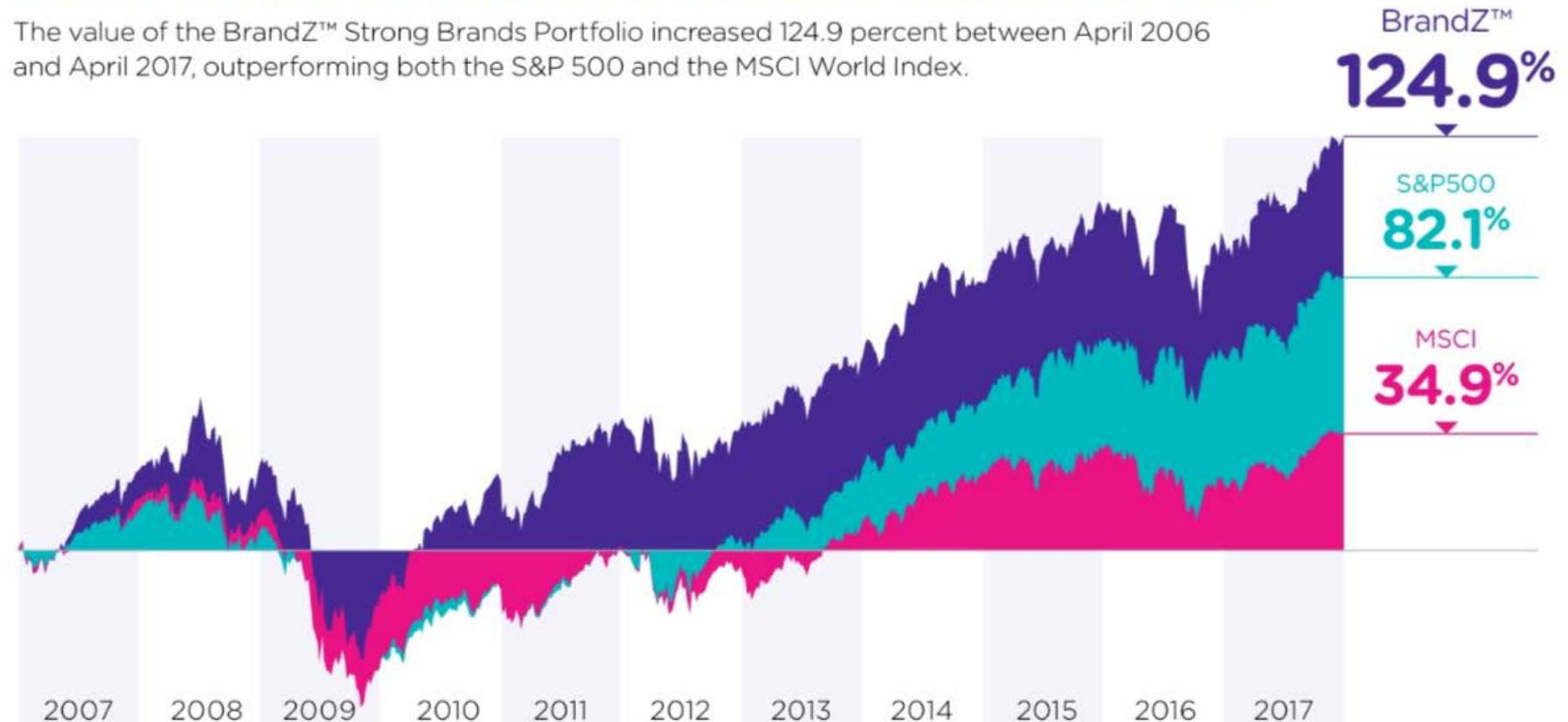
Source: "Beneath the Surface of a Cyberattack", Deloitte, 2016.



//WHAT DO WE HAVE TO LOSE?

BRANDZ™ STRONG BRANDS PORTFOLIO VS. S&P 500 VS. MSCI WORLD INDEX

The value of the BrandZ™ Strong Brands Portfolio increased 124.9 percent between April 2006 and April 2017, outperforming both the S&P 500 and the MSCI World Index.



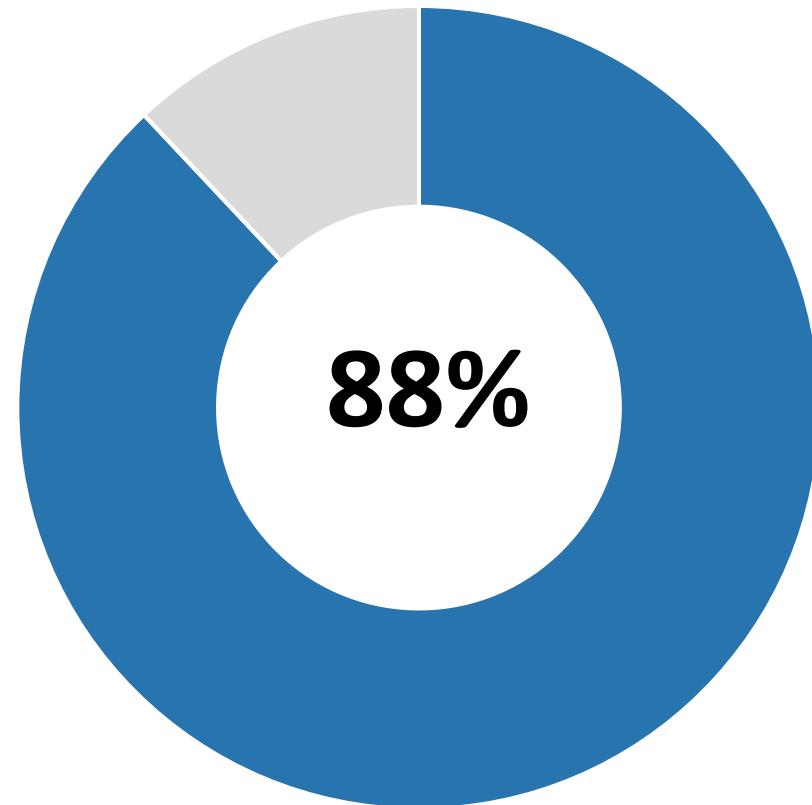
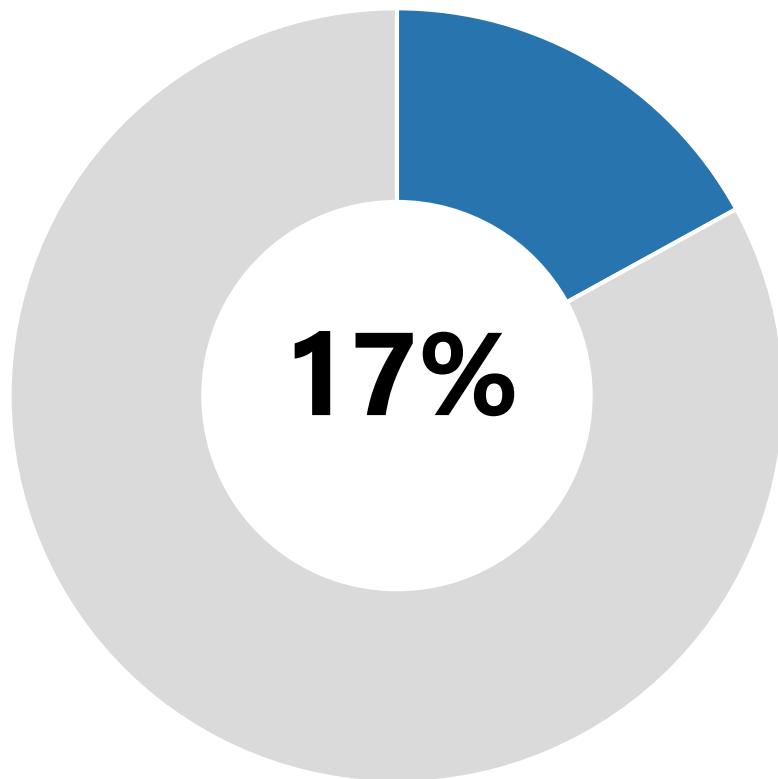
Source: Kantar Millward Brown / BrandZ™

The BrandZ™ Strong Brands Portfolio is a subset of the BrandZ™ Top 100 Most Valuable Global Brands.

//VALUE IS PERCEPTION



Percentage of S&P 500 Market Value Comprised From Intangible Assets



Source: Andrew Sherman, "Harvesting intangible assets," Ted Conferences, February 12, 2014.

UNPACKING THE REAL VALUE OF YOUR ASSETS



WHAT REALLY ARE YOUR INTANGIBLE ASSETS?

RIGHTS

- Licensing, royalty, & service agreements
- Financing terms
- Supply contracts & franchises
- Usage rights (e.g., drilling, water, air, mineral, timber, etc.)

RELATIONSHIPS

- Customer relationships (non-contractual)
- Production & distribution channels
- Alliances & joint ventures
- Corporate reputation & culture

IP

- Trademarks & tradenames
- Patents & copyrights
- Trade secrets & knowhow
- Customer lists
- Proprietary technology

//JUST LOOK AT FACEBOOK



DON'T FORGET ABOUT GDPR!





//A COMPOUNDING PROBLEM

Ransom Desktop Locker Ransomware Scans Social Media Profiles for Exploitation

By Uzair Amir on November 16, 2016 Email @hackread MALWARE PRIVACY

AdultFriendFinder network hack exposes 412 million accounts

Almost every account password was cracked, thanks to the company's poor security practices. Even "deleted" accounts were found in the database.

Mark Zuckerberg Hacked

Malwarebytes LABS

CYBERCRIME | SOCIAL ENGINEERING

Promoted Tweet leads to credit card phishing

Drug sales on social media, security expert says

Daniel Tobok says there should be legislation to hold the

CBC News Posted: Nov 15, 2016 4:00 AM CT | Last Updated: Nov 15, 2016 4:00 AM CT

11 OCT 2016 NEWS

Eko Malware Targets Facebook Users

Cyber security experts warn firms

about sections search

NEW YORK POST

hacker Big Brother 2.0: 160,000 Facebook pages are hacked

Networki

Mirror

NEWS ▾ POLITICS SPORT ▾ FOOTBALL CELEBS ▾ TV & FILM WEIRD NEWS MORE ▾



March 1, 2015 | 9:19am



Sir Patrick Stewart's Twitter hacked by PORN bot which posted X-rated images on his account

The actor's social media account was hacked on Monday - just hours after Cheryl's Instagram was targeted

BY KURT WAGNER | AUG 18, 2016, 2:27PM EDT

Groups Mobile Gadgets Enterprise Social Europe

Trending Tesla Google Facebook



Facebook Sees 600,000 Compromised Logins Per Day

Posted Oct 28, 2011 by Sarah Perez (@sarahintampa)



Confidential & Proprietary

RSA Conference 2018

TARGET

WHY / IMPACT

TACTICS

EMPLOYEES

Humans are compromised in order to bypass security defenses and gain access to "protected" systems and sensitive data



HASHTAG HIJACKING



ACCOUNT TAKEOVER



IMPERSONATIONS



ATTACK PLANNING



SOCIAL PHISHING



SOCIAL ENGINEERING



INFORMATION LEAKAGE

BUSINESS ASSETS

Sensitive, confidential & protected information is published & malicious actions coordinated to damage revenue generating activities & biz trust

CUSTOMERS

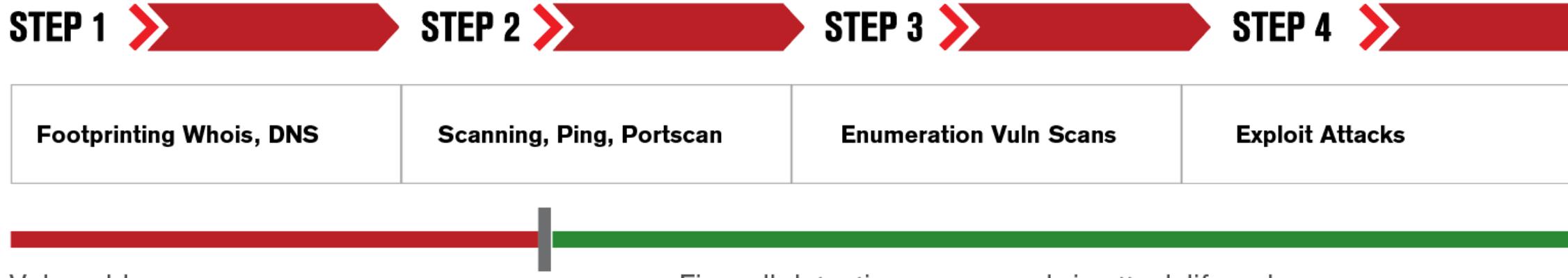
Customers are targeted through fraudulent impersonations of the org and key executives to steal customer data & damage reputation



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// TRADITIONAL NETWORK ATTACK VS. SOCIAL ATTACK

TRADITIONAL NETWORK ATTACK





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// SOCIAL MEDIA ATTACK – A NETWORK OF TRUST

SOCIAL MEDIA NETWORK ATTACK



Build a network of “trust”!!!

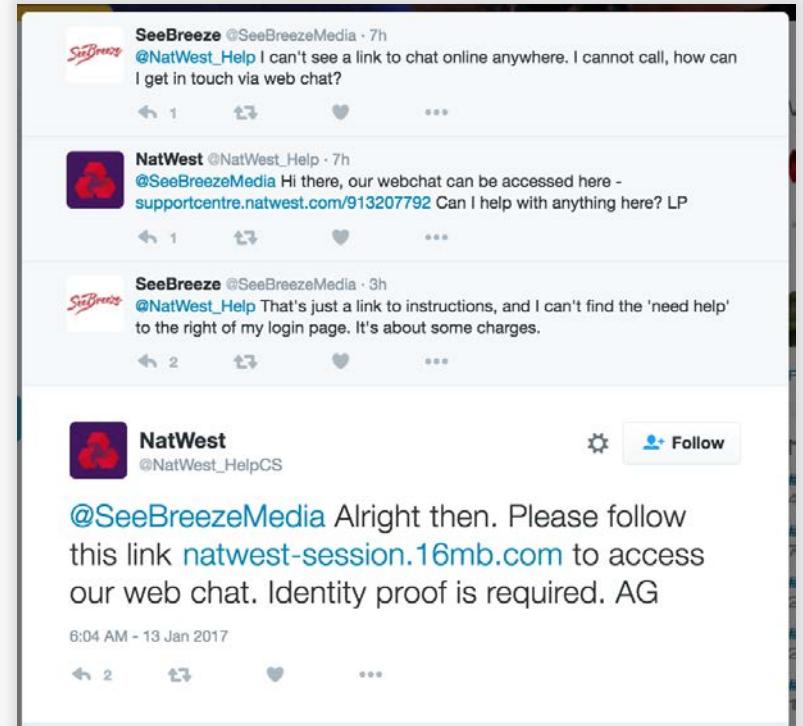
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QUICK EXAMPLE

THREAT: SPOOFED ACCOUNTS

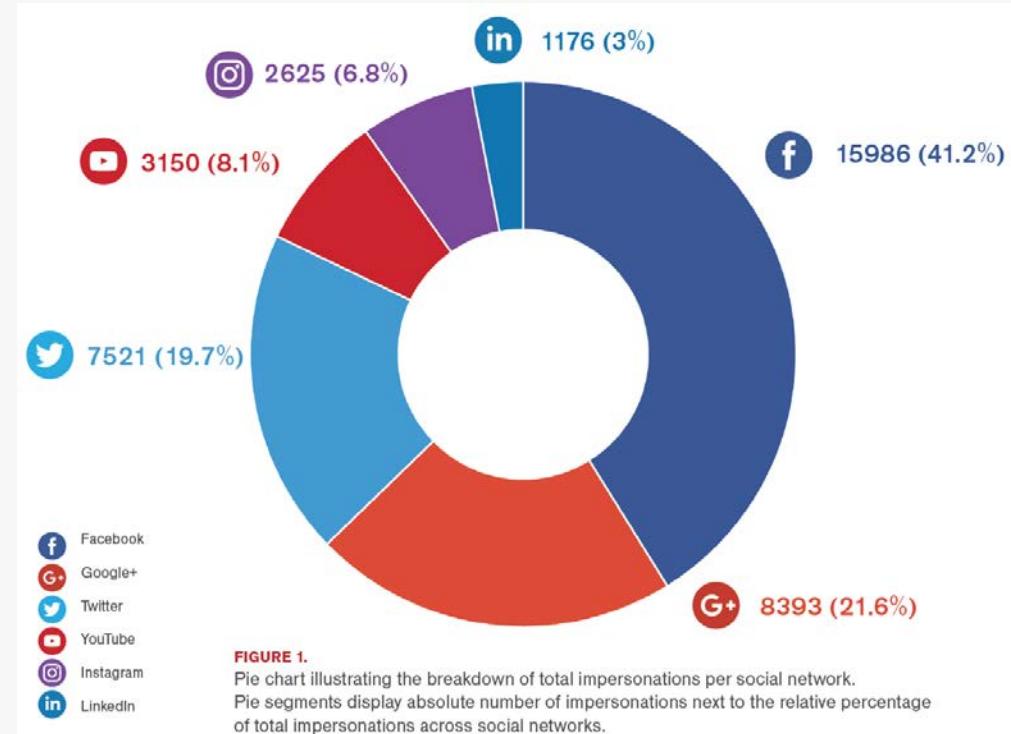
IN THE WILD



THREAT: SPOOFED ACCOUNTS

BY THE NUMBERS

- Pretend to be someone/thing else
- **11X** increase over 2 years
- 38% redirect to phishing pages
- Paid social promotion, verification
- Other examples:
 - Financial scams
 - Counterfeit offers
 - Fake job recruiters



THREAT: SOCIAL PHISHING

IN THE WILD



28m

@PayPal is a joke stopping me from using my PayPal account till i send of a bank statement well i am raging 😡😡😡😡



PayPal

@AskPayPal_Tech



Follow

Hi [REDACTED], We sincerely apologize for this, In order to regain access to your account, Please visit [bit.ly/\[REDACTED\]Lxs7](https://bit.ly/[REDACTED]Lxs7)

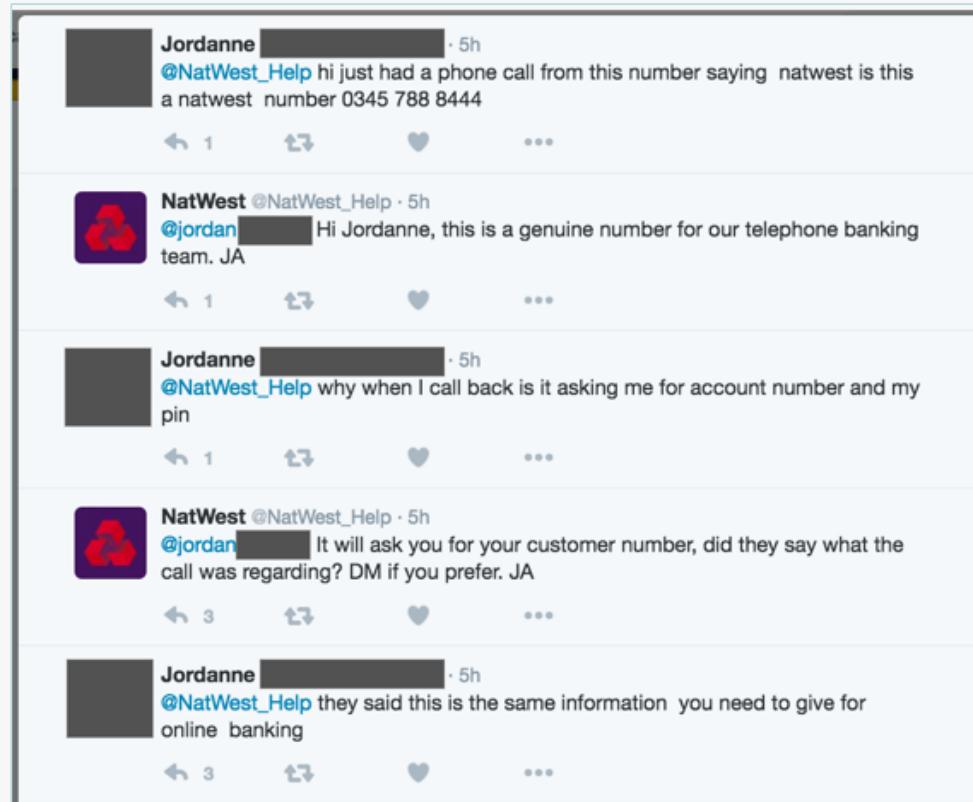
3:11 PM - 19 Aug 2016



THREAT: SOCIAL PHISHING

IN THE WILD

REAL



THREAT: SOCIAL PHISHING

SCALE

Facebook is the most common delivery mechanism for malware; the #1 way to breach the network

- CISCO

FREQUENCY

7.57 million victims annually

- Kaspersky

IMPACT

Avg enterprise company spends \$3.7M / year remediating phishing

-
Kaspersky & CSO Magazine

WHO?

92% of employees have experienced cyberattacks on social

- Barracuda

SocialTimes

Facebook Twitter

FACEBOOK | PRIVACY/SECURITY

Gone Phishing: Facebook Apps Used as Bait



@HomeStarBank - Aug 18

We have some big plans for Sept. 1 at our Bradley Branch! Check our Facebook page for details! facebook.com/HomeStarBank



Stuart

@HomeStarBank Are these going to be kosher? There is a coupon from Kroger that might help...ow.ly/R3Ge8

fed @federic008 · Feb 10
"@L_AmDalvyn: @federic008 OMG when did you do this? flashscore.ro/redirect/?url=..."
Lol ur twitter got hacked ? I know u ain't tweet that

Yardstick Golf @YardstickGolf · Feb 10
Thanks for the mention! golfrustree: YardstickGolf OMG when did you do this? flashscore.ro/redirect/?url=...

Adrian Carvajal @AdrianCarvajal · Feb 10
"@anambabe: @AdrianCarvajal OMG when did you do this? flashscore.ro/redirect/?url=... / que es esto? Lol

[View conversation](#)

THREAT: ACCOUNT TAKEOVER

IN THE WILD

Dow Jones Industrial Average (^DJI) - DJI
14,676.57 +109.40(0.75%) 2:35PM EDT [Add to Portfolio](#)

AP The Associated Press verified Following

Breaking: Two Explosions in the White House and Barack Obama is injured

Reply Retweet Favorite More

851 RETWEETS 29 FAVORITES

1:07 PM - 23 Apr 13



New York Post verified Follow

#BREAKING: Chinese anti-ship missile fired at USS George Washington.

RETWEETS 30 FAVORITES

10:08 AM - 16 Jan 2015



Adaptation.

ADAPT (



) APPLY)

WHO IS A [MODERN] CISO?

//CISO TRENDING



87%

Of global security
workforce
did not start in cyber

43% Of global
security C-suite from
non-security & non-
technical background



//A MODERN CISO HAS...

1. Alignment with business leaders
2. Understanding of balance between business & technology risk
3. A focus on building cross-functional teams
4. Defined communication plan that is frequent and bi-directional
5. Hiring program that looks for diverse backgrounds
6. Focus on workforce improvement and skill building, enhancing existing diverse perspectives
7. Created culture of value protection vs. risk mitigation

//HOW TO BECOME A MODERN CISO



1. Understand *how* the business grows
 1. Schedule 1-on-1 meetings with executive / leadership peers
2. Engage with your Organization: Communication is Key
 1. Communicate business first security strategy and explain asks from business leaders & employees
3. Establish cross-functional “working group” to support business & technical risk alignment
4. Inventory *external*/technologies in use across the organization
 1. Work with business units & ensure your engagement is NOT confrontational or “security” focused
5. Identify high-impact *external*/risk events
 1. This should stem from your understanding of how the business grows – not all risk events have same impact on different businesses
6. Create shared departmental responsibility and process for addressing *external*/risk events
7. Integrate technology
8. Communicate
9. Go Back to #1

THANK YOU!



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