



State of the Phish

April 8, 2020



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Moderator

Rob Martin, CISSP



Robert Martin is a Certified Information Systems Security Professional with over thirteen years of experience in information security. He holds a Master of Science in Network Technology with a concentration in Information Security. He also holds a Cyber Security Masters Certification. He is a Sr. Security Engineer for Cisco Systems, Inc. in RTP, NC. Robert specializes in areas such as risk management, regulatory compliance, security solutions architecture, security audits, vulnerability assessments, and penetration testing. From 2012-2015, Robert served as President of the Raleigh Chapter of ISSA. During that time, the chapter membership grew at a rate of 125%. Currently, Robert serves on the Raleigh ISSA Board as the Sponsorships Director. Robert is committed to serving the community through outreach by expanding the chapter's mission to students and military. He has held several other IT Security Advisory Board positions over the years with a focus to bring about awareness of information security threats in an ever-changing global IT Security economy.



Speaker

Gretel Egan

**Security Awareness and Training Strategist
proofpoint**

Gretel Egan is the Security Awareness and Training Strategist for proofpoint. A graduate of Carnegie Mellon University, she has extensive experience in researching and developing cybersecurity education content and was named one of “10 Security Bloggers to Follow” by IDG Enterprise. Gretel has written and provided commentary for national, industry, and trade publications, and has previously presented at events hosted by SecureWorld, Infosecurity Europe, ISACA, SC Media, and others.



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2020 State of the Phish Report

Using phishing data to inform decision-making
for your organization

Critical, Actionable Insights

- Sixth annual report, more data-rich than ever
- Multiple sources of data

A survey of more than

3,500

working adults across
seven countries

(the United States,
Australia, France,
Germany, Japan, Spain
and the United Kingdom)

A survey of more than

600

IT security professionals
across the same
seven countries

Nearly

50M

simulated phishing
attacks sent by our
customers over a
12-month period

More than

9M

suspicious emails
reported by our
customers' end users

In the Mind of the End User

Global Awareness Levels of Working Adults

Conquering the Cybersecurity Language Barrier



What is
PHISHING?



Correct
61%

What is
SMISHING?



Correct
30%

What is
MALWARE?



Correct
66%

What is
VISHING?



Correct
25%

What is
RANSOMWARE?



Correct
31%

How Lack of End-User Awareness Leads to Risk



26%

believe they can safely connect to public Wi-Fi networks in trusted locations

32%

don't know what a virtual private network (VPN) is

51%

think IT teams are automatically notified when viruses and/or malware are accidentally downloaded

66%

believe up-to-date anti-virus software prevents attackers from accessing devices

Phishing Impacts and Insights

What infosec pros are experiencing

What Phishing Looked Like for Infosec Teams in 2019

~60%

said the rate of
**phishing attacks stayed
the same or decreased**
compared to 2018

55%

of organizations
**experienced at least
one successful
phishing attack in 2019**

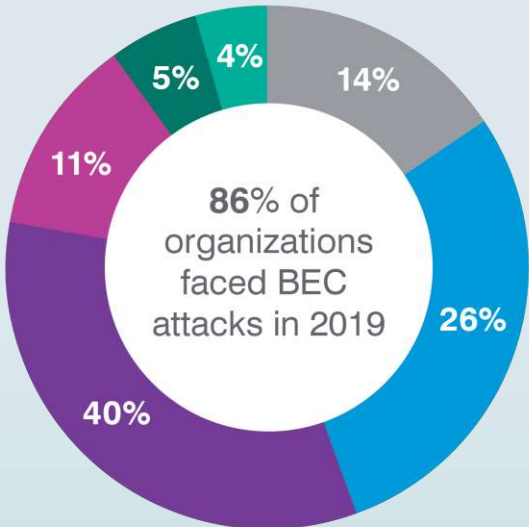
Targeted Attacks Seen by Most Organizations



Volume of Spear Phishing Attacks



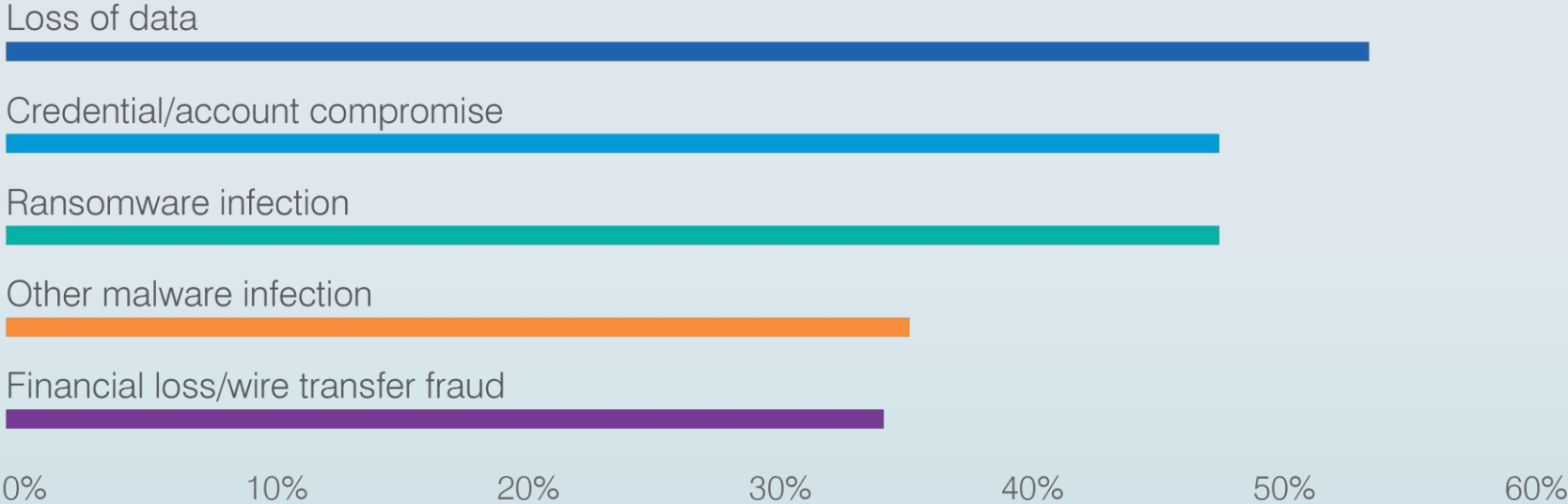
Volume of BEC Attacks



Legend: No attacks (grey), 1-10 (blue), 11-50 (purple), 50-100 (pink), Over 100 (dark green), Total unknown (light green)

How Organizations Were Affected by Phishing

Impacts of Successful Phishing Attacks



Putting Data to Work for You

Using benchmarks and organizational data to your advantage

Failure Rates: A Fresh Look for 2020



9%

average failure rate
of aggregated users
across all tests sent

VS



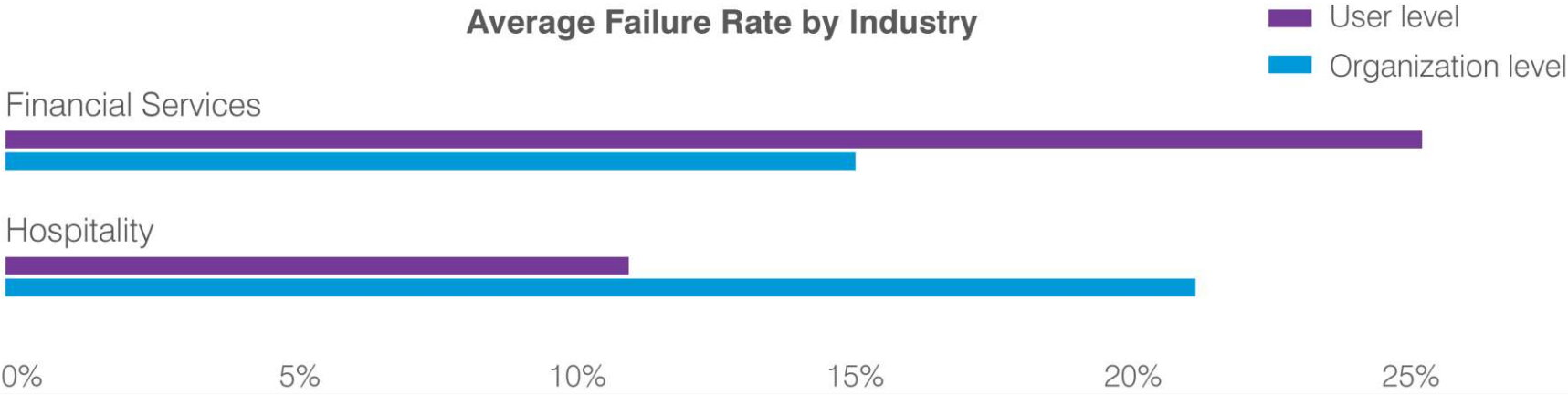
12%

average failure rate
of organizations
across all tests sent

Industry Failure Rates: Better Benchmarking for 2020



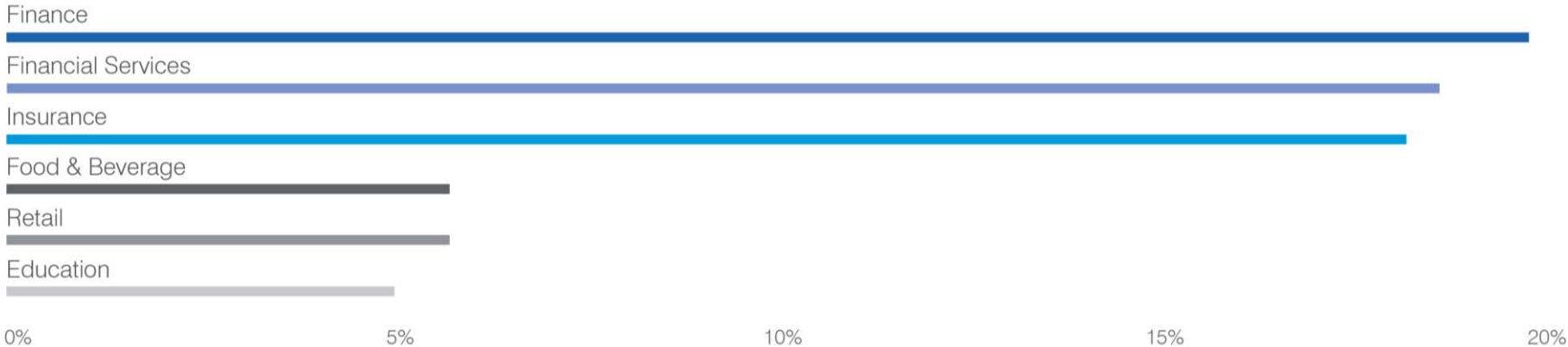
Average Failure Rate by Industry



Email Reporting Metrics: Key for Gauging Success



Average Reporting Rate by Industry



Deep Data Dive: Get to Know Your VAPs

Regularly review your Very Attacked People™ so you can:

- Identify who is being attacked and how attackers are attempting to compromise them
- Address threats with greater certainty
- Identify potential attack trends
- Make more informed decisions about your training approach
- Deliver the right training to the right people at the right time



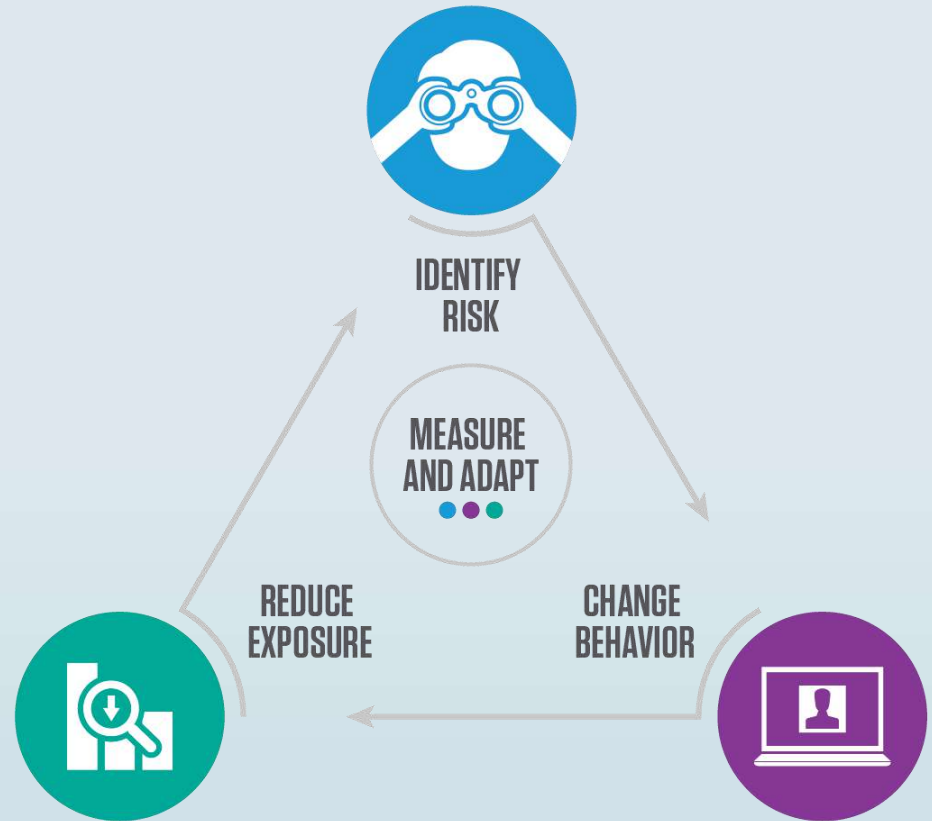
Key Takeaway: Focus on Actionable Data

Use our report to guide you

The Goal: Putting It All Together

Combination of four key activities:

- Identifying risk
- Changing behavior
- Reducing exposure
- Measuring and adjusting





Speaker

Steve Sanders

Vice President of Internal Audit

Steve is an experienced cybersecurity and audit expert who specializes in helping board members and senior management excel in risk oversight. He has an educational background in computer security and data protection, and he possesses more than 15 years of audit experience with a focus on information security, privacy, and cybersecurity. Steve has extensive experience with corporate governance and regulatory oversight. He holds the following certifications: Certified Information Security Auditor (CISA), Certified in Risk and Information Systems Control (CRISC), and Certification in Risk Management Assurance (CRMA)



@SteveSanders7



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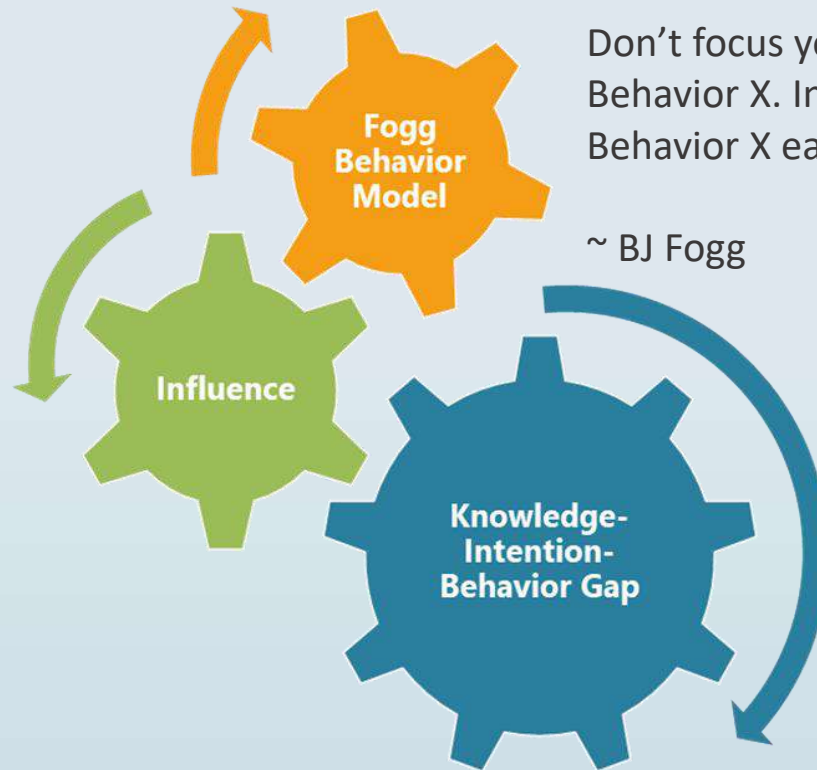
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Phishing Psychology

That's a fool's game to think that every situation will yield to the same tactic or strategy. We have to assess every situation in terms of what's truly available for us there.

~ Robert Cialdini



Don't focus your motivation on doing Behavior X. Instead, focus on making Behavior X easier to do.

~ BJ Fogg

Three realities of security awareness:

- 1) Just because I'm aware doesn't mean that I care.
- 2) If you try to work against human nature, you will fail.
- 3) What your employees do is way more important than what they know.

~ Perry Carpenter 23

KNOWLEDGE-INTENTION-BEHAVIOR GAP



When it comes to the human side of security, you must treat the knowledge-intention-behavior gap as a fundamental law of reality that affects any behavior your hope to encourage or discourage.

~ Perry Carpenter, 'Transformational Security Awareness'



Knowledge

The mental understanding of what needs to be done and why it needs to be done.



Intention

The desire to do the right thing – or the wrong thing!



Behavior

The ultimate outcome: your actions.

INFLUENCE & PERSUASION

- “All the weapons of influence [...] work better under some conditions than others. If we are to defend ourselves adequately against any such weapon, it is vital that we know its optimal operating conditions in order to recognize when we are most vulnerable to its influence.”
- ~ Robert Cialdini, ‘Influence’.



Reciprocity

People feel an obligation to give back when someone first gives to them (Quid Pro Quo).



Scarcity

People want what they cannot have.



Authority

People follow the lead of ‘experts’, whether real or imagined.



Consistency

People want to honor their commitments.



Liking

People want to say yes more to those people they like.



Consensus

People want their actions to be in line with the actions of others.



Speaker

Paige Yeater

**Director of Information Security Program Management
Mainstay Technologies**

Paige is the Director of Information Security Program Management at Mainstay Technologies. In this role, she works with clients across many industries, of many sizes, supporting their Information Security Programs.

With an MBA from The Citadel, and close to 20 years of experience in training, client operations and program management, she works to align business operations with Security and Compliance requirements. Most of her time is spent working with clients to educate them on their security risk and compliance requirements, and to align their business processes with a strong security posture. Her love of a well written policy has proven to be beneficial in this role!

Paige leverages her time in the training field to work with clients on their training and awareness programs, to ensure that their staff is well educated, aware and alert, and can help protect the organization from Security threats.



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Corporate Culture & Phishing

Where to start

➤ Awareness – What to Know

- Understanding the threat
- Where it might come from
- The impact it may have
- Ongoing Discussion

➤ Training – What to do

- How to Identify a phishing email
- What to do if you get one
- How to report them
- Test, Retest, Support



Meet Joe

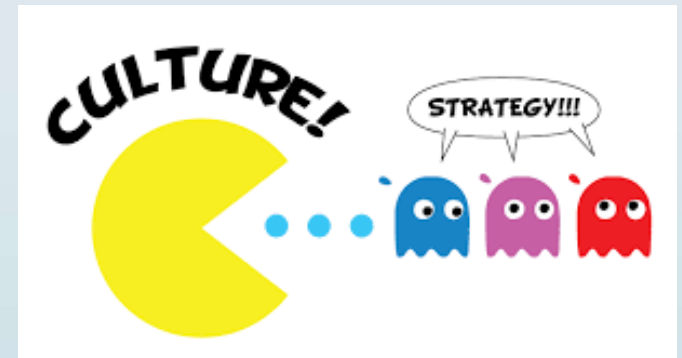
Misspellings, Phishy Links,
Request for information,
odd delivery times, spoofed
addresses, odd requests,
sense of urgency ... are all
signs of a potential phishing
email



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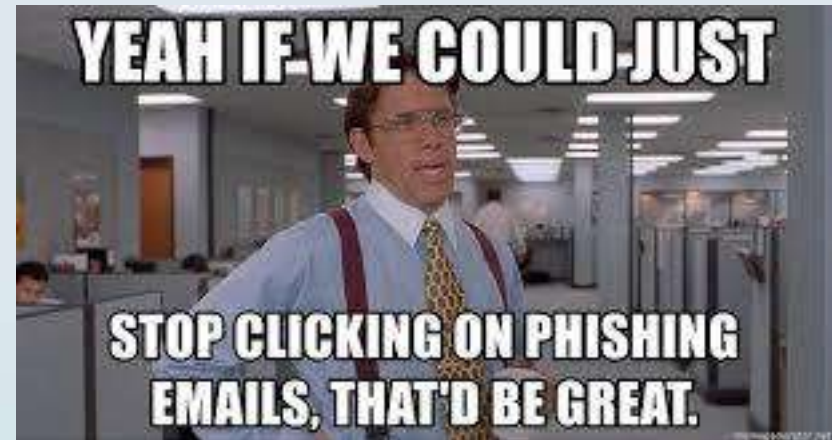
Things to Consider

- What is your email Culture?
- Is there a belief that IT will prevent Phishing?
- Are there formal procedures for key processes?
- “Can you do me a quick favor?”
- Are there guardrails in place?
- Does your culture offer a “Safe Space”?



Next Steps

- Assess your culture and its possible impacts
- Align it with your training and awareness programs
- Stay Safe out there friends!





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QUESTIONS?