Hoala Greevy

Founder CEO, Paubox, Inc. - HIPAA Compliant Email Made Easy.

18 years’ experience in email security & encryption.

Phishing & Fishing expert. =)
Agenda

I. What is Phishing Today?

II. Threat Landscape

III. Best Practices

IV. Looking Ahead

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I. What is Phishing Today?

Overconfidence Dilemma

Display Name Spoofs

Ransomware stealing thunder

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I. What is Phishing Today?

It’s always been about the $$$.
I. What is Phishing Today?

Now it’s about Politics too.
Overconfidence Dilemma

2017 phishing study, University of Texas at San Antonio

Fatal Flaw: Most people believe they are smarter than the criminals perpetrating them.

Source: Science Daily #FISSEA30
Display Name Spoofs

91% of phishing attacks

Highly targeted

Impersonates someone familiar to the recipient (usually C-Level)
II. Threat Landscape
Bogus

has invited you to view the following document:

Open in Docs

Real

Sean Fujiwara has invited you to edit the following document:

LACMA
Google Docs Phish

Shut down quickly.

Yet millions affected.

Named the app Google Docs

Source: Wired
Ransomware

2015: 1K daily attacks

2016: 4K daily attacks

2017: ?
WannaCry at a Glance

Stolen NSA tools

North Korea GDP

150 countries

At least 230K infected
Big Tech Companies Get Hit Too
Facebook & Google Phished

Each paid nearly $100M in fake invoices

Impersonated Quanta Computer

Most funds recovered

Source: The Guardian
Insider Threat

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Office 365 Accounts Hacked

Wire transfer request sent from actual HR employee mailboxes

18,000 accounts affected (why so many?)

Source: SC Magazine
From: Charles Delavan <cdelavan@hillaryclinton.com>
Date: March 19, 2016 at 9:54:05 AM EDT
To: Sara Latham <slatham@hillaryclinton.com>, Shane Hable <shable@hillaryclinton.com>
Subject: Re: Someone has your password

Sara,

This is a legitimate email. John needs to change his password immediately, and ensure that two-factor authentication is turned on his account.

He can go to this link: https://myaccount.google.com/security to do both. It is absolutely imperative that this is done ASAP.
Someone has your password

Hi William

Someone just used your password to try to sign in to your Google Account

Details:
- Tuesday, 22 March, 14:9:25 UTC
- IP Address: 134.249.139.239
- Location: Ukraine

Google stopped this sign-in attempt. You should change your password immediately.

CHANGE PASSWORD

Best,
The Gmail Team
The Perfect Weapon*

Cheap

Hard to see coming

Hard to trace

* NY Times
**$50 Amazon Christmas Reward**

This week and weekend only we have a $50 Christmas Reward for all Amazon and Amazon-Prime members. (Expires 12/24/2015)

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Thanks again for shopping with us.

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Checkout Bonus No. 5398054  
Member ID: UT9662461
Domain Name Shell Game

http://shop.radioactivegamingeu.com

Resolves to:

104.31.65.24
104.31.64.24
Who owns these IPs?

104.31.65.24
104.31.64.24
Cloudflare

Legitimate CDN provider
III. Best Practices

Google Safe Browsing

Macro Policy

Level Up User Training (hold contests)

Nuclear Option: Macs only?

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Google Safe Browsing

It’s Free & Constantly Updated

Lots of data sources (over 1B users)

Used in Chrome, Firefox & Safari

Can be used in Email too

Source: Google Safe Browsing
Macro Policy

Re: allowing macros via attachments

Does the business downside now outweigh the upside?

Blog post: We’re Clamping Down on Deadly Macros and Ransomware

#FISSEA30
Arthur Ream

CISO,
Cambridge Health Alliance

Steak Dinner phishing bounty

Source: HIMSS Privacy and Security Forum in Boston

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Nuclear Option: Macs only?

Something to think about.
IV. Looking Ahead

2FA by default

Clamp down on Domain Registrars

Google Safe Browsing API
IV. Looking Ahead

Machine Learning FTW

Death of the Appliance (Cloud will win)

Port-based Geographic Segmentation
Mahalo!

@hoalagreevy

www.paubox.com

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