



University
of Glasgow



Phishing

not dead, not obvious

... and what it has to do with fishing

Thank You

January 17, 2013

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you will have the opportunity to get a **Macbook Air®**, **iPhone 5®**, or a **iPad 3®**.

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Terminology

- **Phreaking** - “phone” + “breaking”
 - Hacking telecomm networks
 - Started in the 1950s
 - Golden age 60s-70s
- **Phishing** = phreaking + fishing
 - 1st mention - 1987
 - <> and bait
- A form of **social engineering**



Steve Wozniak, Apple co-founder

What exactly is phishing?

Phishing is the attempt to obtain **sensitive information** by disguising as a trustworthy entity in an electronic communication.

Typically carried out by **emails**, **instant messaging** and **social media**, directing users to enter personal information at fake websites who look and feel nearly identical to the real ones.

Sometimes this also involves malware.



Phishing Attack Methods

**MOST
COMMON
TYPE OF
PHISHING
ATTACK**

MASS-SCALE PHISHING

Attack where fraudsters **cast a wide net of attacks** that aren't highly targeted

**HIGHLY
TARGETED
TYPE OF
PHISHING
ATTACK**

SPEAR PHISHING

Tailored **to a specific victim or group of victims** using personal details

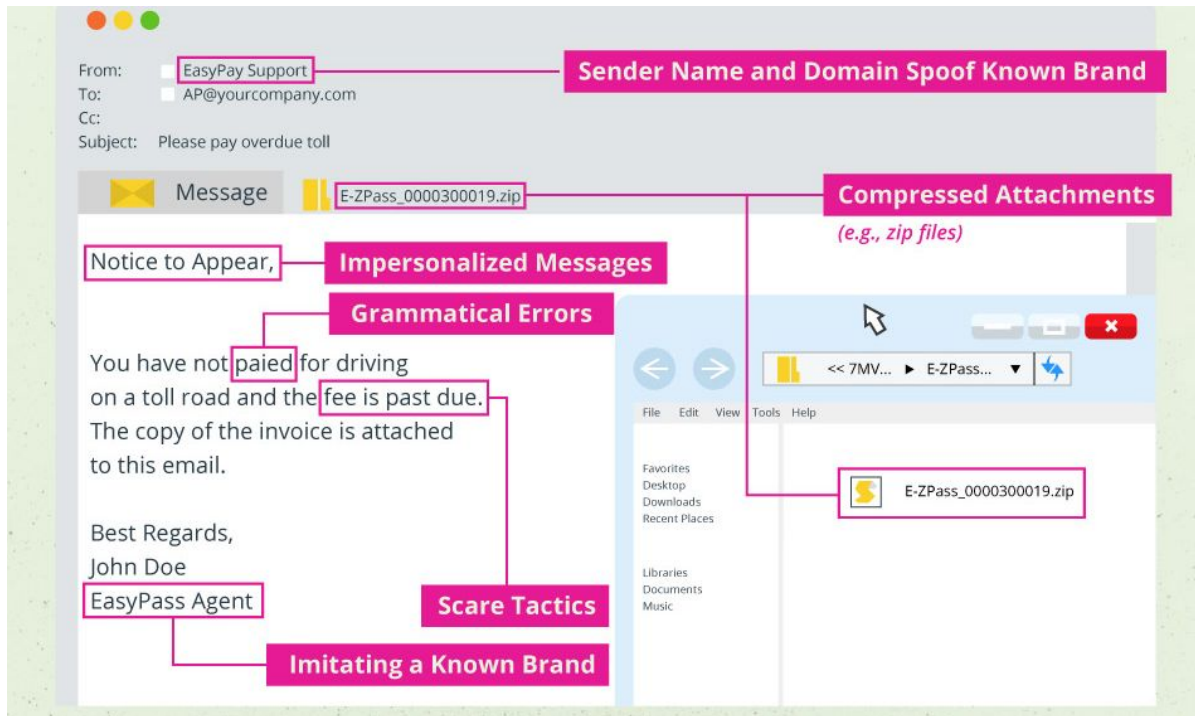
**THE
MOBY DICK
OF PHISHING
ATTACKS**

WHALING

Specialized type of spear phishing that **targets a "big" victim** within a company
e.g., CEO, CFO, or other executive

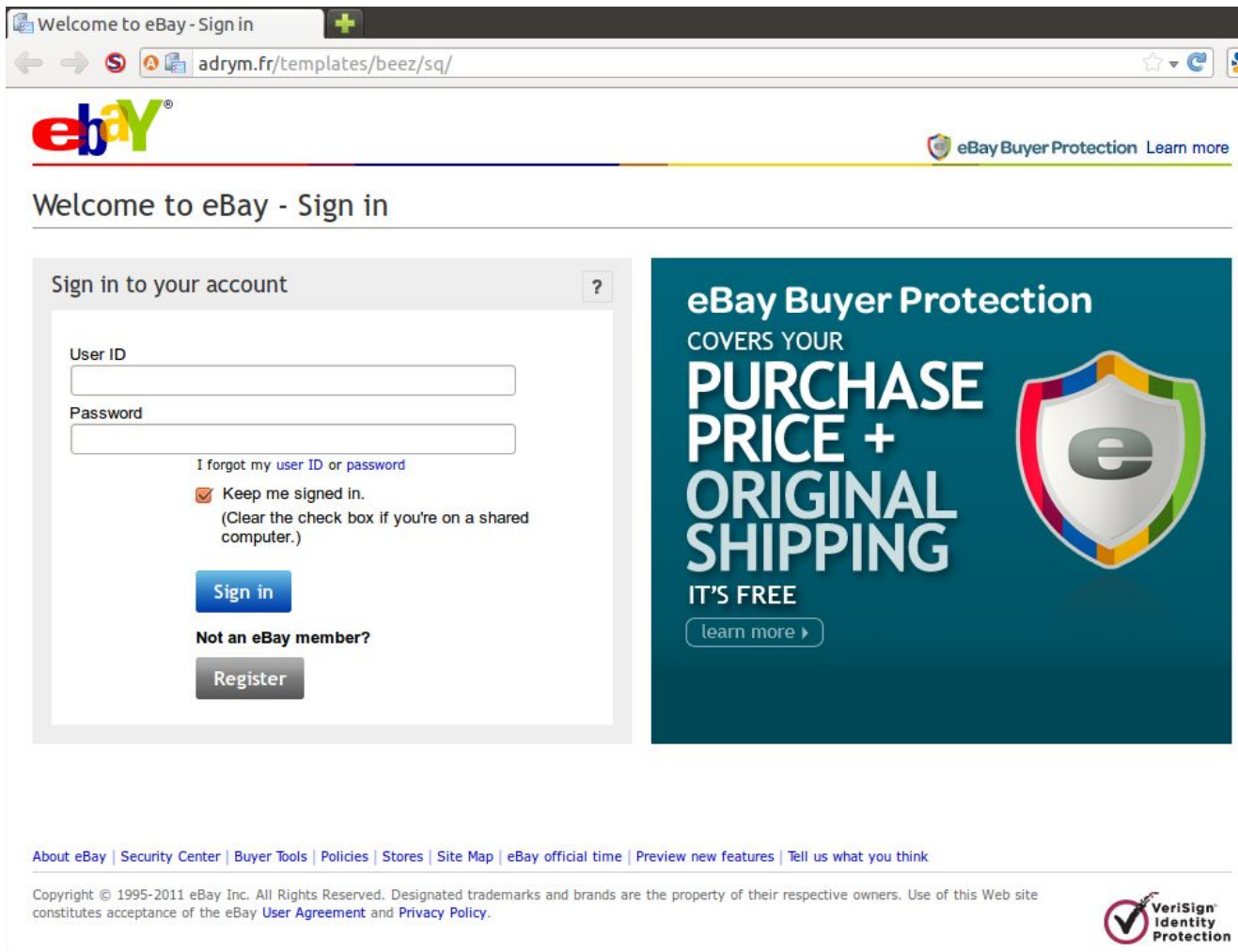
Emails

- Address spoofing
- Dear customer
- Appeal to emotion
- Spelling
- Links



Websites

- URL
- SSL certificate
- Spelling
- Request details
- Outdated
- Links



The screenshot shows the eBay sign-in page in a web browser. The browser's address bar displays the URL `adrym.fr/templates/bee/sq/`. The page features the eBay logo at the top left and the "eBay Buyer Protection" badge at the top right. The main heading is "Welcome to eBay - Sign in". Below this, there is a sign-in form titled "Sign in to your account" with fields for "User ID" and "Password". A link for "I forgot my user ID or password" is provided. The "Keep me signed in" checkbox is checked. Below the form are buttons for "Sign in", "Not an eBay member?", and "Register". To the right of the form is a large promotional banner for "eBay Buyer Protection" which states it "COVERS YOUR PURCHASE PRICE + ORIGINAL SHIPPING" and is "IT'S FREE". A "learn more" button is at the bottom of the banner. The footer contains a navigation bar with links: "About eBay", "Security Center", "Buyer Tools", "Policies", "Stores", "Site Map", "eBay official time", "Preview new features", and "Tell us what you think". Below the navigation bar is a copyright notice: "Copyright © 1995-2011 eBay Inc. All Rights Reserved. Designated trademarks and brands are the property of their respective owners. Use of this Web site constitutes acceptance of the eBay User Agreement and Privacy Policy." A "VeriSign Identity Protection" logo is in the bottom right corner.

Welcome to eBay - Sign in

Sign in to your account

User ID

Password

[I forgot my user ID or password](#)

☒ Keep me signed in.
(Clear the check box if you're on a shared computer.)

[Sign in](#)

[Not an eBay member?](#)

[Register](#)

eBay Buyer Protection
COVERS YOUR
PURCHASE PRICE + ORIGINAL SHIPPING
IT'S FREE
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VeriSign
Identity Protection

How EV Appears in Your Browser:



Internet Explorer



Chrome



Firefox



Safari



Opera

Question: the golden age for phishing?

A. 1980s

B. 1990s

C. 2000s

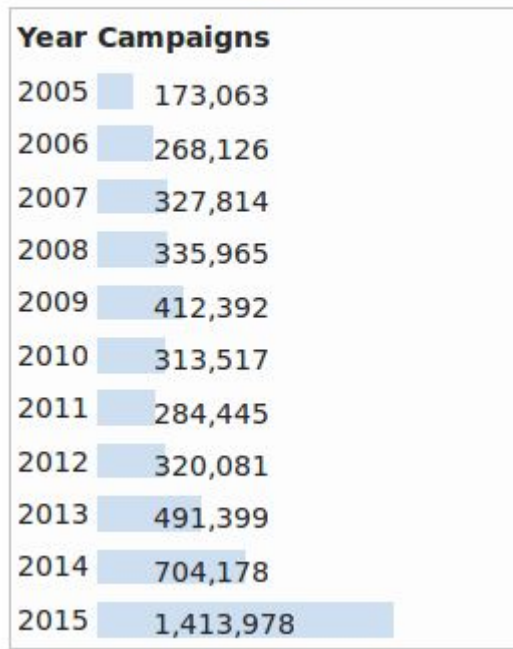
D. Now

Question: the golden age for phishing?

- A. 1980s
- B. 1990s
- C. 2000s
- D. Now

Unique phishing reports by year

[69]



Prevention is difficult

- Everyone has to undergo personal training
 - Whereas exploits can be patched by professionals
- Everyone has to be cautious
- People overestimate their ability to detect such attacks

demo demo demo demo demo

Quiz time

<https://www.sonicwall.com/phishing/phishing-quiz-question.aspx>

<https://www.opendns.com/phishing-quiz/>

Or lookup “phishing quiz” using your search engine.

References

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<https://www.jitbit.com/alexblog/256-targetblank---the-most-underestimated-vulnerability-ever/>

<https://github.com/anttiviljami/browser-autofill-phishing>

Graphics

<https://hackingstuffs.com/attacks/phishing-attack/>

<https://www.extremetech.com/extreme/94647-black-hat-down-what-happened-to-the-most-famous-hackers/6>

<http://www.visualistan.com/2016/10/how-to-recognize-phishing-attacks.html>