Quick Wins for Personal Security

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Matt King

Who am I?

Matt King

- Elkhorn High School Graduate - 2016

- University of Tulsa Graduate - 2020 - B.S.B.A. in Computer Information Systems, Minors in Cyber Security and Computer Science

- Security Consultant – Cerberus Sentinel (Formerly True Digital Security)

What do I do?

Past

- **Security research – focus on hacking toolsets**
- **Social engineering**
- **White-hat hacking**

Present

- **Security program development and planning**
- **Risk assessment**
- **Legal and regulatory compliance management**
- **Virtual CISO**
- **Educational curriculum development**

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Agenda

- Common Attack Exploits
  - Public Wi-Fi
  - Social Engineering
  - Insecure Passwords
- Tools/Knowledge
  - URL Recognition
  - VPN
  - Email Security
  - Password Manager
  - Multifactor Authentication (MFA)
- Summary/Questions
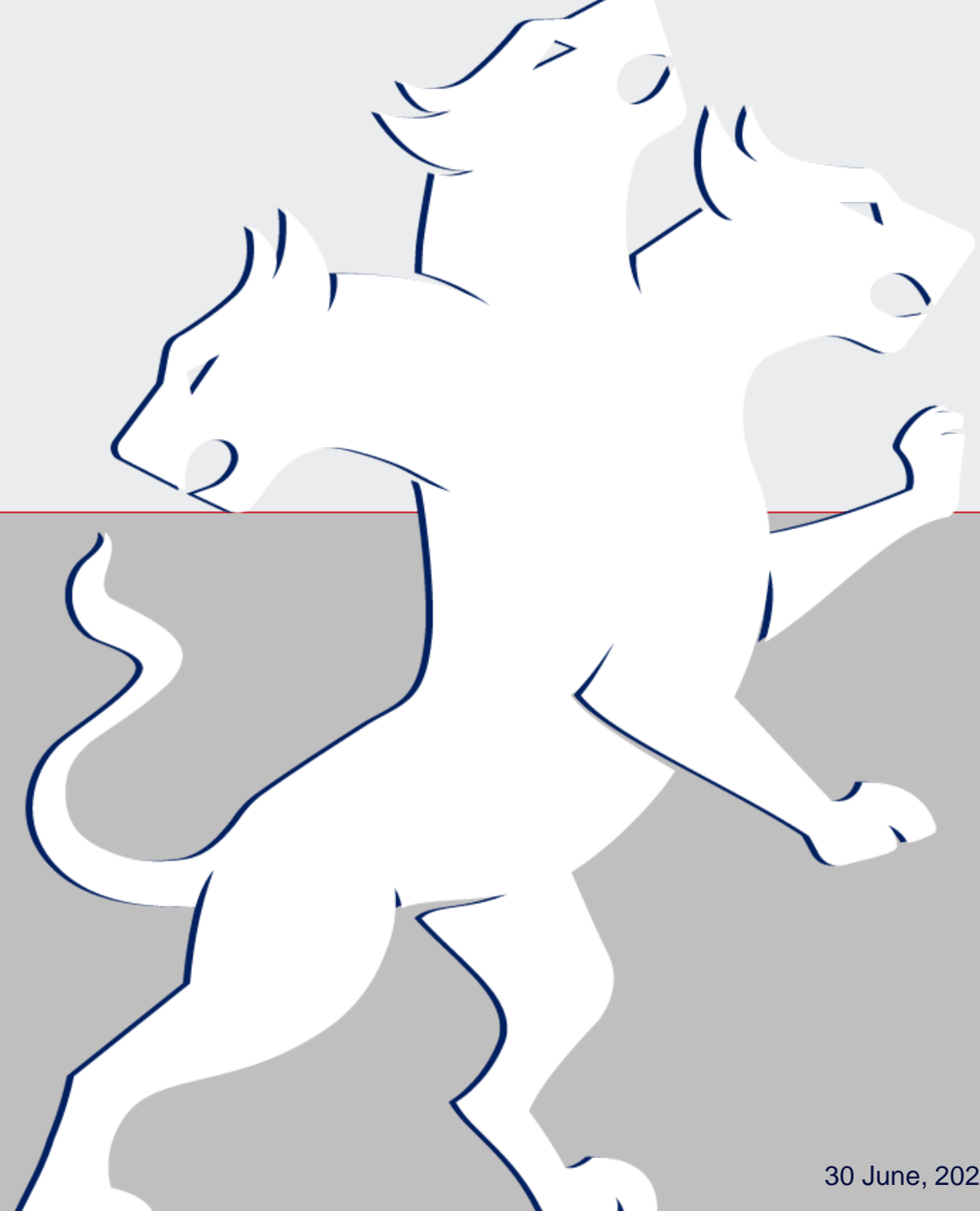
Public Wi-Fi

What happens?

- **Snooping**
- **Man-in-the-Middle**
- **Malware Injection (device compromise)**

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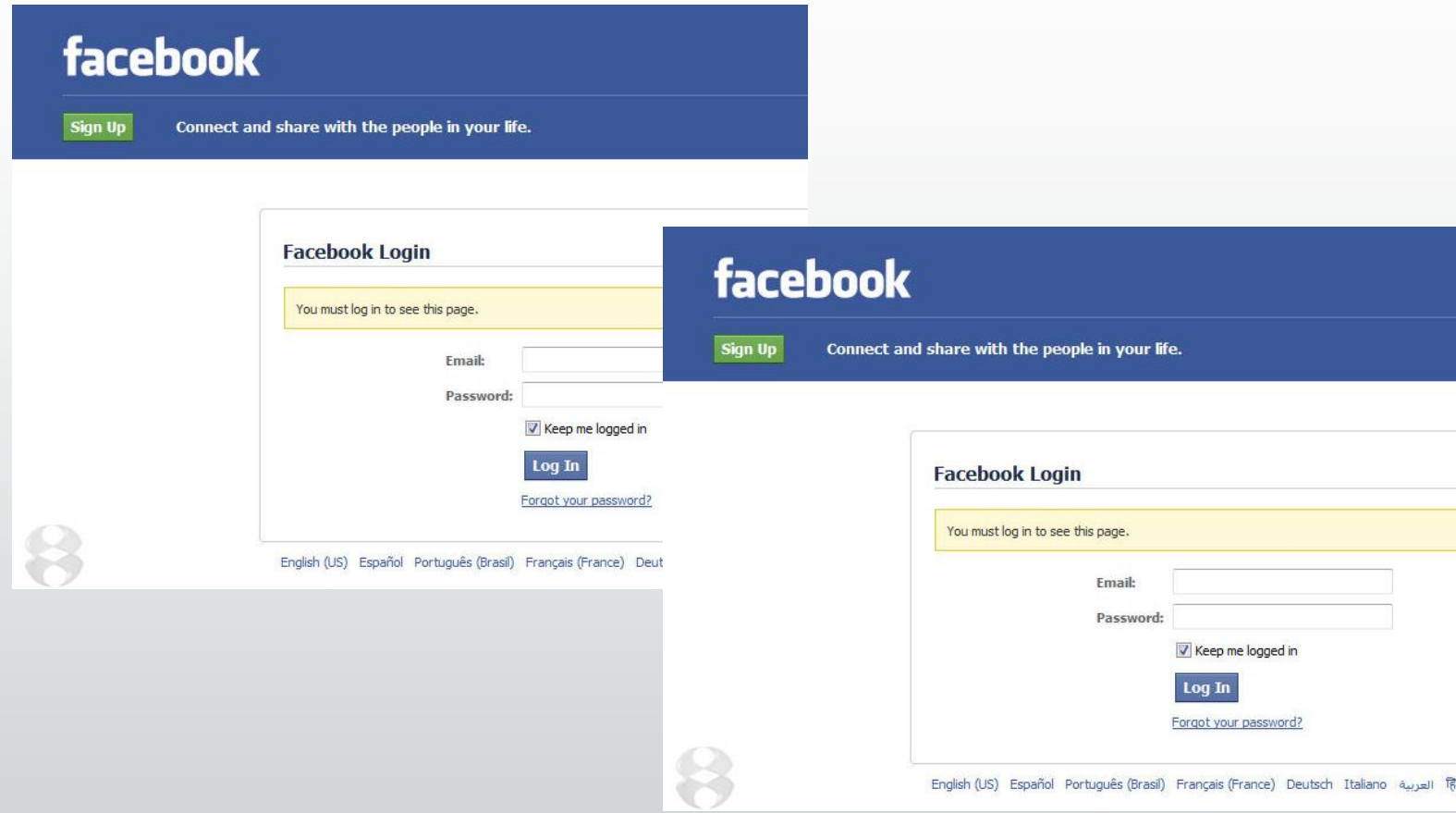# Social Engineering

What is it?

- **Definition – Hacking people rather than technology**
- **Phishing**
- **Vishing**

Tricks/Tactics

- **Fake websites**
- **Fake email addresses**
- **Fake images**
- **Creating a sense of urgency**
- **Making it enticing**
- **Taking advantage of trust**

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Fake Website

Insecure Passwords

Common Vulnerabilities

- **Reused passwords**
- **Default passwords**
- **Weak passwords**
  - `Names`
  - `Dictionary words`
  - `Repeating combinations`
  - `Short passwords`

How are they exploited?

- **Password breaches**
- **Password databases**
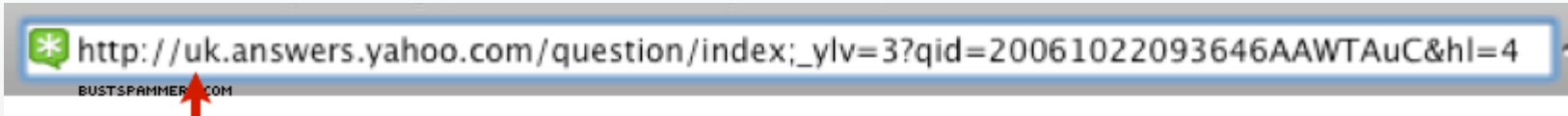- **Password-transformation tools**
- **Brute force**
- **Dictionary attacks**

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Tools/Knowledge

www.cerberussentinel.com

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Know the Pattern

http://uk.answers.yahoo.com/question/index;_ylv=3?qid=20061022093646AAWTAuC&hl=4
BUSTSPAMMER.COM

xyz.cn/chaseonline.chase.com/ index.jsp?p=dw

chase.com@209.131.36.15/ index.jsp?p=dw

www.chase.com.online.to/index.jsp?p=dw&fr=yfp-t

onlinebanking-chase.com/checking/ssl/update.php

chaseonline.chasee.com/ index.jsp?p=dw
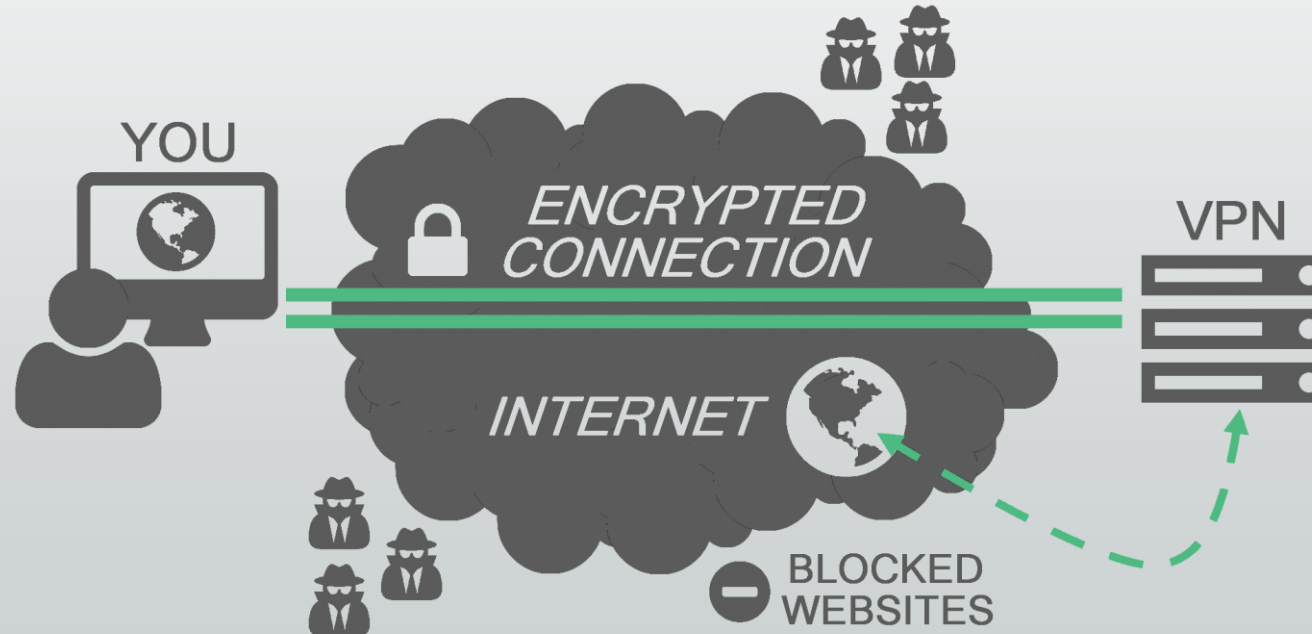
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Virtual Private Network (VPN)

What does it do?

- **Encrypts your information**
  - `End to end tunnel`
- **Hides your IP address**
- **Redirects traffic to its own servers**

Recommended VPNs

- **ExpressVPN**
- **NordVPN**
- **Surfshark VPN**
- **Proton VPN**

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Email Security

Why is it important?

- **Account linking**
- **Personal information**
- **Common source of social engineering attacks**

How do we protect accounts?

- Use email aliases
- Use multiple emails
  - Keep important accounts/information on a separate email
- **Strong passwords with regular rotation**
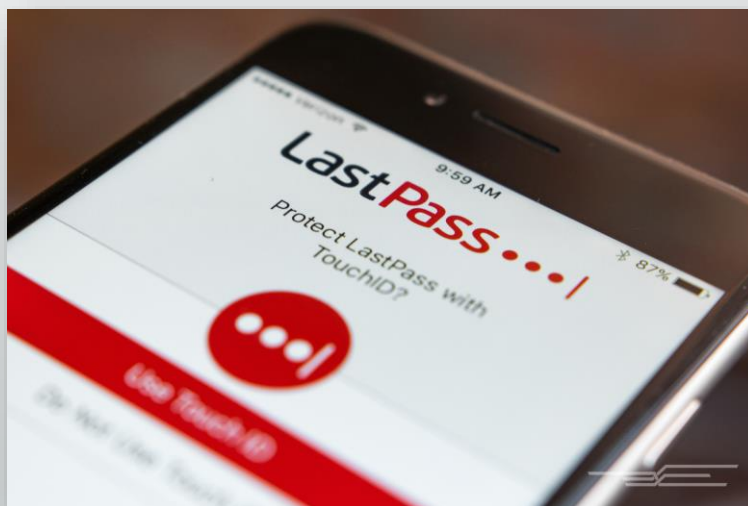- **Strong Multi-Factor Authentication (MFA)**

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Password Manager

What does it do?

- **Stores all of your passwords**

- **Allows for complex, strong passwords**

- **Reduces threat of spoofed websites**

Recommendations

- LastPass

- 1Password

- Dashlane

- Bitwarden

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Multi-Factor Authentication

Why is it important?

- What you know (password) + what you have/are (software token, biometric, hardware token)

- Weak MFA (SMS texts) vs. strong MFA (hardware token)

- Coinbase SMS attacks

Recommendations

- Always use MFA when it is available

- Avoid SMS texts as a second factor

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Thank you!

The greater your interest in security, the less interest hackers have in you.

Contact Information

Matt.King@cerberussentinel.com

(402) 689 6231

https://www.linkedin.com/in/matthew-s-king/

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