



Cyber Security

- Health and Safety

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Agenda

- A few definitions before we begin
- Why am I here?
- How exposed are we? (Video Kevin Roose)
- Threat landscape and examples of losses
- What are the threats?
- Phishing
- What can you do to protect yourself?
- Q&A

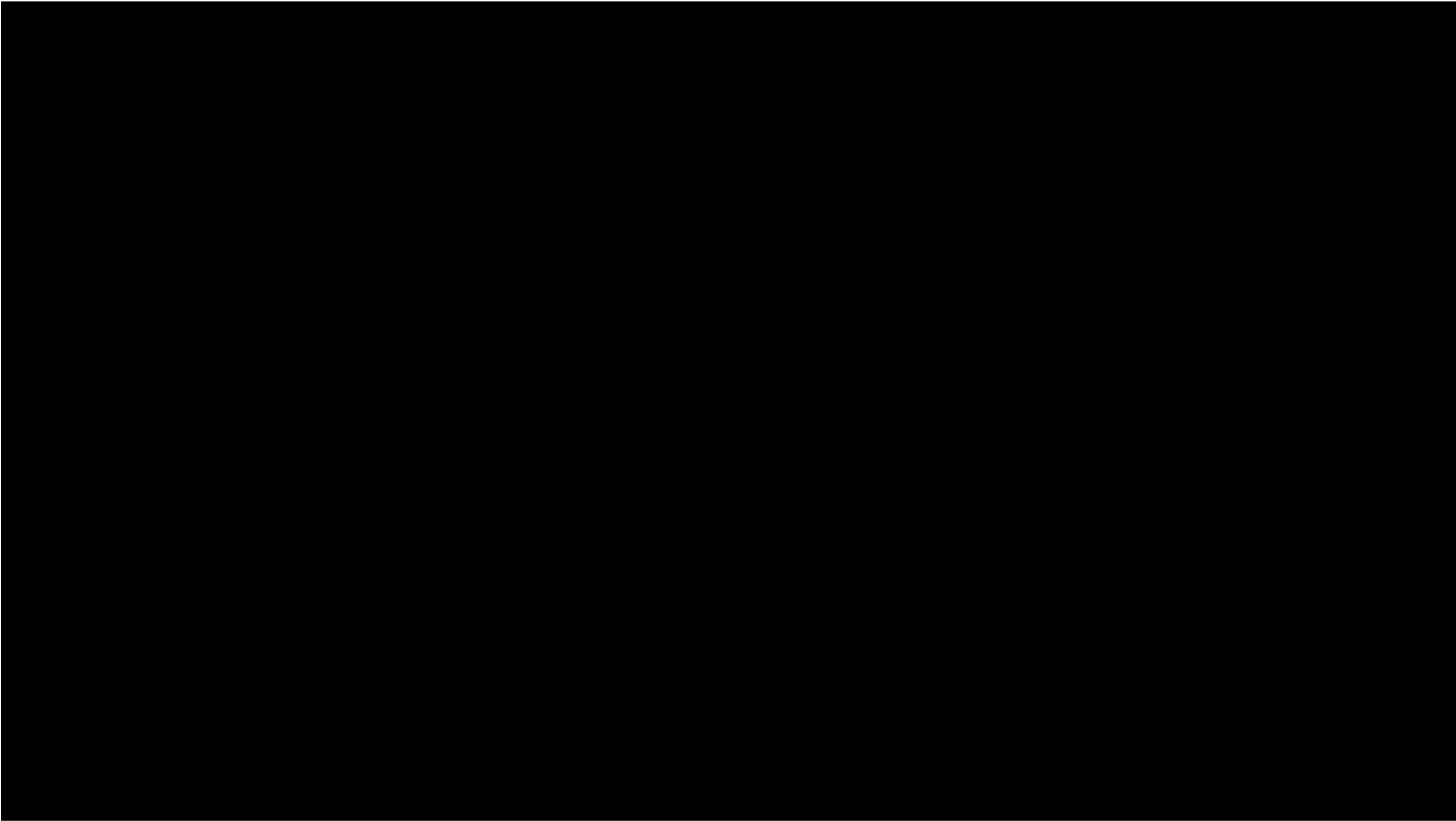
A few Definitions

- Phishing – An attack in which the target is contacted by email or text message by someone posing as a legitimate institution to lure individuals into providing personal information, sensitive information or passwords
- Human error - An unintended action by an individual directly resulting in a data breach E.g. sending a document containing personal information
- Social engineering/impersonation - An attack that relies heavily on human interaction to manipulate people into breaking normal security procedures and best practices in order to gain access to systems, networks or physical locations
- Malware - Software which is specifically designed to disrupt, damage, or gain unauthorised access to a computer system

Why am I here?

- Cyber Security Education
 - Won't happen to me
 - The threat hasn't even started
 - Basic levels of attack currently
 - AI and Machine Learning have started
 - Not just technology but also social engineering
 - Why do you think the government is taking this threat seriously?





Landscape

- Overview

- Internet Users Year 2000 → 415 Million
- Internet Users Year 2018 → 3.9 Billion

- Ransomware 2015 → 325 Million
- Ransomware 2019 → 11.5 Billion

- IOT devices 2006 → 2 Billion
- IOT devices 2020 → 200 Billion

- CyberCrime 2015 → 3 Trillion
- CyberCrime 2021 → 6 Trillion

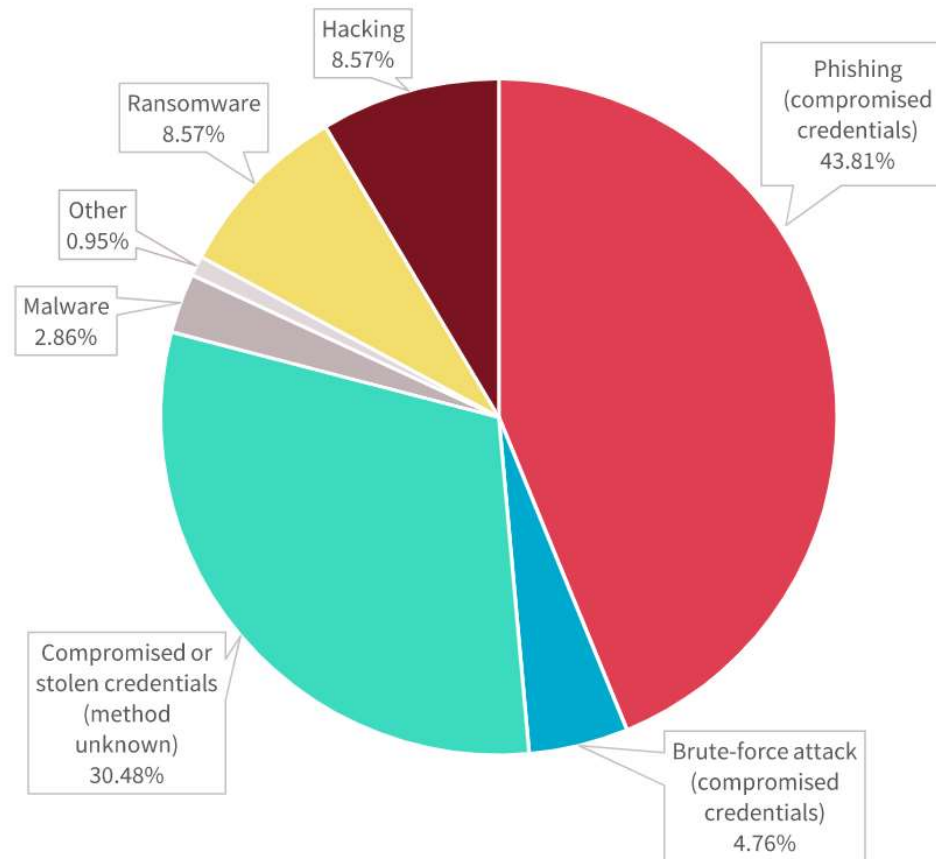
Threat Landscape

- 81% of data breaches are due to weak passwords
- More than 99% of cyberattacks rely on human interaction
- Nearly 1 in 4 phishing emails sent in 2018 were associated with Microsoft products
- 35% of phishing attacks happen between 9am and 12pm
- 61% of Australian organisations have experienced a data breach in the last two years
- UK Business - 55% had faced an attack in 2019, up from 40% last year

Losses - September 2019

- Secret Service Investigates Breach at U.S. Govt – Cyber Attack
- Hong Kong Stock Exchange – Cyber Attack
- Australian Attorney-General's office – Data Breach
- Australian Online Ticketing Company - Data Breach of approx 200,000 users
- The New Zealand Transport Agency (NZTA) – Data Breach – API
- July to September 245 breaches reported in Australia

What are the threats?



Phishing

Attempt to steal/intercept user names, passwords and financial credentials by combining spoofed emails and counterfeited web sites

Responsible for more than:



90% of malware infections

72% of data breaches in organisations



Phishing attacks on mobile devices have grown by an average of **85%** year-over-year since 2011

What can you do to protect yourself?

- Passwords
 - Use a Password Application – Last Pass has a free version
 - Don't use the same passwords for work and home
 - Change default passwords – Home Devices
 - Multi Factor Authentication
- Put protection on your mobile – Norton for example
- Home technology – beware “Free” software
 - Use VPN on open WiFi
 - Social Media – multi factor authentication
 - Protect your personal information - Shopping
 - Physical; cables, line of sight, Bluetooth, WiFi SSID
 - Cover your web cam
- Destroy information securely – Physical and Virtual
- Updates – Sad but true

Phishing – 10 things to look out for

1. Don't click the display name of the send email address
2. Look but don't click
3. Check for spelling errors
4. Consider the salutation
5. Is the email asking for personal information?
6. Beware of urgency
7. Check the email signature
8. Be careful of attachments
9. Don't believe everything you see
10. When in doubt contact the sender using previously trusted information

Q&A



Are attackers more chameleon, less Rhino?