

PHISH FOR THOUGHT: COMBATTING MODERN EMAIL THREATS

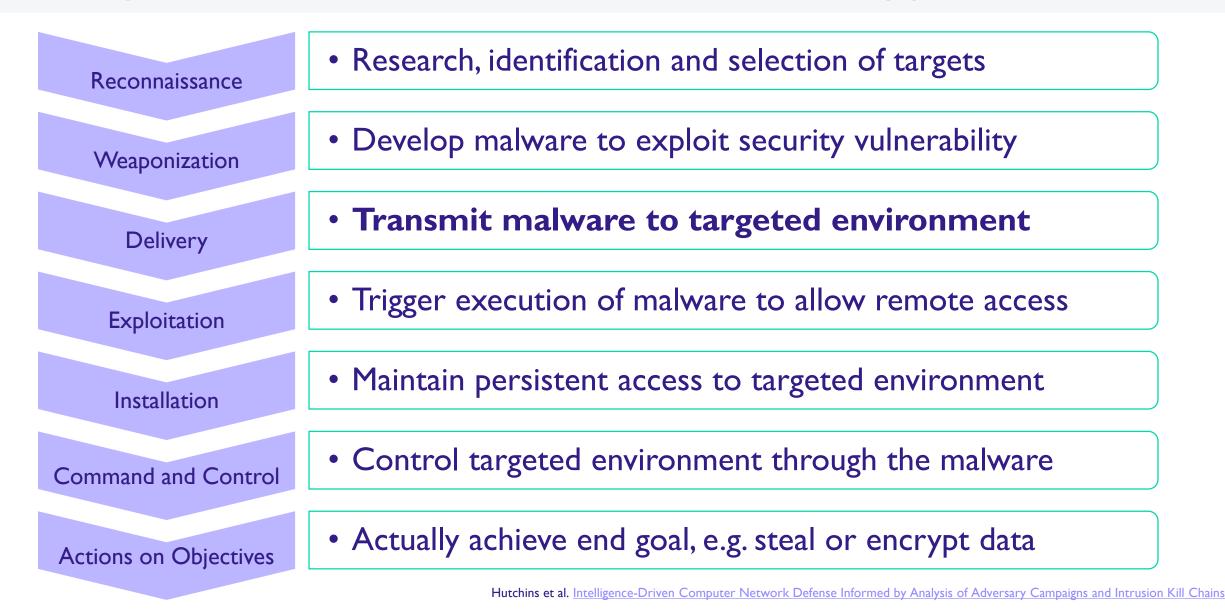
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Phishing is one link in a network intrusion chain – not the only point of defense





Phishing is nevertheless a significant problem

- In 2019, 55% of organizations fell victim to at least one successful phishing attack
- Rate of phishing attacks has decreased, which Proofpoint attribute to a quality over quantity strategy
- Top impacts include
 - Loss of data (53%)
 - Credential compromise (47%)
 - Ransomware infection (47%)
- Only 35% of organisations did not suffer a ransomware infection
 - 65% did, of which half paid the ransom
 - Of those who paid the ransom, 22% never regained access to their data





UK fraud statistics now can quantify financial losses resulting from phishing

- Payment fraud (known as authorized push payments) often involves phishing, including where the email account is compromised
- Where criminals arrange for a legitimate business invoice to be paid to the wrong account accounted for £92.7 million over 3,280 cases in 2018
 - Average £28k per case
- Where the CEO of an organization is impersonated losses were £13.8 million over 519 cases in 2019
 - Average £26k per case

Peebles Media sued its employee Patricia Reilly to reclaim loses of £107,984

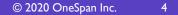
"[Reilly] stated she had not noticed that there were two email addresses. Given her ignorance of any other features of the transaction that suggested that a fraud was being practised on her and the apparently innocuous nature of the spurious email address, I am not convinced that this evidence demonstrates a breach of her implied obligation."

Reilly lost her job; her line manager was demoted, the criminal was not caught

Peebles Media Group v Patricia Reilly: Full case report, Scottish Financial News



OneSpan



NCSC propose a multi-layered approach to mitigating the harm of phishing

- I. Make it difficult for attackers to reach your users (e.g. filtering, spoofing protection and reducing information)
 - Disrupt reconnaissance, weaponization and delivery stages of cyber kill-chain
- 2. Help users identify and report suspected phishing emails (e.g. training and creating culture of reporting)
 - Disrupt delivery stage
- 3. Protect your organisation from effects (e.g. anti-malware, patching and 2FA)
 - Disrupt exploitation and installation stages
- 4. Respond quickly to incidents
 - Disrupt C&C, and actions on objectives

NCSC, Phishing attacks: defending your organisation

"Training your users – particularly in the form of phishing simulations – is the layer that is often over-emphasised in phishing defence. Your users cannot compensate for cyber security weaknesses elsewhere. Responding to emails and clicking on links is a huge part of the modern workplace, so it's unrealistic to expect users to remain vigilant all the time."

– NCSC

"[Mock phishing] does little for security but harms productivity (because staff spend ages pondering emails, and not answering legitimate ones), upsets staff and destroys trust within an organisation."

- Murdoch & Sasse

