

LITERATURE SURVEY

Phishing is a social engineering attack that aims at exploiting the weakness found in system processes as caused

by system users. For example, a system can be technically secure enough against password theft, however unaware end users may leak their passwords if an attacker asked them to update their passwords via a given Hypertext Transfer Protocol (HTTP) link, which ultimately threatens the overall security of the system.

Moreover, technical vulnerabilities (e.g. Domain Name System (DNS) cache poisoning) can be used by attackers to

construct far more persuading socially-engineered messages (i.e. use of legitimate, but spoofed, domain names can be far more persuading than using different domain names). This makes phishing attacks a layered problem, and an effective mitigation would require addressing issues at the technical and human layers.

Since phishing attacks aim at exploiting weaknesses found in humans (i.e. system end-users), it is difficult to mitigate them. For example, as evaluated in [1], end-users failed to detect 29% of phishing attacks even when trained with the best performing user awareness program. On the other hand, software phishing detection techniques are evaluated against bulk phishing attacks, which makes their performance

practically unknown with regards to targeted forms of phishing attacks.