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Phishing Environments, Techniques, and Countermeasures: A Survey

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Abstract
Phishing has become an increasing threat in online space, largely driven by the evolving web, mobile, and social networking technologies. Previous phishing taxonomies have mainly focused on the underlying mechanisms of phishing but ignored the emerging attacking techniques, targeted environments, and countermeasures for mitigating new phishing types. This survey investigates phishing attacks and anti-phishing techniques developed not only in traditional environments such as e-mails and websites, but also in new environments such as mobile and social networking sites. Taking an integrated view of phishing, we propose a taxonomy that involves attacking techniques, countermeasures, targeted environments and communication media. The taxonomy will not only provide guidance for the design of effective techniques for phishing detection and prevention in various types of environments, but also facilitate practitioners in evaluating and selecting tools, methods, and features for handling specific types of phishing problems.

Keywords: Phishing; Social engineering; Phishing detection; Mobile phishing; Social Networks phishing; Honeypots; Ontology.

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