

Anti-Phishing Framework Based On Phishing Target Discovery

Madhuri Manmode, Dipika Dagwar, Dipali Baharghare, Mohsin Khan, prof pooja.B.Aher
(CSE, PJLCOE/RTMNU,India)

Abstract: Phishing attacks are one of the attacks which have become popular in recent times. A phishing attack attempts to acquire confidential and personal information of person or a firm. The most targeted domain of these phishing attacks to be known is financial domain, generally phishing attack attempts to obtain private information which can be exploited to gain access to bank account of the individual. Many a times number of people become victim of this phishing.

Many solutions have been proposed ever since the phishing came into existence some validates the URL of the page to be visited to predict whether the page is legitimate or not while some recent practices in predicting the legitimacy of a pages different domains have been exploited such as visual cryptography. With increase in number of naive users of internet the chances of getting trapped in such attacks is quite a possible thing.

So, it is necessary to provide some effective solution to this attack of phishing. This paper explains the details of various techniques used by phishing attacks to acquire sensitive information, it also provide advantages and disadvantages of the various anti-phishing technologies available at this moment to counter the phishing attacks.

Keywords: Phishing, target, sensitive information, legitimate, suspicious, security.

I. INTRODUCTION

Internet Phishing attack has become the fastest growing scam on the Internet. To convince visitors that a phishing page is legitimate, phishers typically use considerable information about targets to make their pages look as similar as possible to those targets. In this sense, phishing web pages aren't isolated but are often associated with their targets. Phishing website is a mock website that looks similar in appearance but different in destination. Phishers use lot of techniques to lure the unsuspected web user. They send generic greetings to the customers to check their account immediately.

In general, phishing attacks are performed with the following four steps:

- 1) A fake web site which looks exactly like the genuine web site which is set up by phisher .
- 2) Phisher then send link to the fake web site in large amount of spoofed e-mails to target users in the name of legitimate companies and organizations, trying to convince the potential victims to visit their web sites.
- 3) Victims visit the fake web site by clicking on the link and input its useful information there .
- 4) Phishers then steal the personal information and perform their fraud such as transferring money from the victims' account.

II. LITERATURE REVIEW

- 1) Separate set of test data are then supplied to the models, and the predicted class of the data instance is compared to the actual to the class of the data to compute the accuracy of the classification models (Ram Basnet and Tenzin Doleck 2015).
- 2) A hybrid (supervised/unsupervised) learning approach may also take the merit of both fuzzy logic and machine learning, while considering the level of uniformity between features of phishing emails (Ammar et al 2014).
- 3) The email inbox is undoubtedly a dangerous place. But using the pattern recognition tools it may be convenient to filter a major portion of the elements that would damage the end users (Sebastin 2013).

III. K-NEAREST NEIGHBOUR ALGORITHM

The K-nearest-neighbor (KNN) algorithm measures the distance between a query scenario and a set of scenarios in the data set.

Suppose we have a data set of 14 scenarios, each containing 4 features and one result as displayed in Table.

Scenario	Outlook	Temperature	Humidity	Wind	Play tennis
Day1	Sunny	Hot	High	Weak	No
Day2	Sunny	Hot	High	Strong	No
Day3	Overcast	Hot	High	Weak	Yes
Day4	Rain	Mild	High	Weak	Yes
Day5	Rain	Cool	Normal	Weak	Yes
Day6	Rain	Cool	Normal	Strong	No
Day7	Overcast	Cool	Normal	Strong	Yes
Day8	Sunny	Mild	High	Weak	No
Day9	Sunny	Cool	Normal	Weak	Yes
Day10	Rain	Mild	Normal	Weak	No

Distances

We can compute the distance between two scenarios using some distance function $d(x,y)$, where x and y are scenarios composed of N features, such that $x = \{x_1, \dots, x_N\}$, $y = \{y_1, \dots, y_N\}$.

Two distance functions are discussed in this summary:

- Absolute distance measuring:

$$d_A(x,y) = |x_i - y_i|$$

IV. CONCLUSION

In the above study we can conclude that most of the anti-phishing techniques focus on contents of webpage, URL and email. Attribute based approach consider almost all major areas vulnerable to phishing so it can be best anti-phishing approach that can detect known as well as unknown phishing attack. Identity based anti-phishing approach may fails if phisher gets physical access to client's computer. This technique also enhanced the classification of phishing and legitimate websites, and finding the phishing target for preventing the phishing.

User education or training is an attempt to increase the technical awareness level of users to reduce their susceptibility to phishing attacks.

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