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Scientifically Defensible and Measurable Anti-Phishing Training

Josh Rymer

Virginia Commonwealth University

Chris Neville

Virginia Commonwealth University

Robert Hodges

Virginia Commonwealth University

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Scientifically Defensible and Measurable Anti-Phishing Training



Introduction

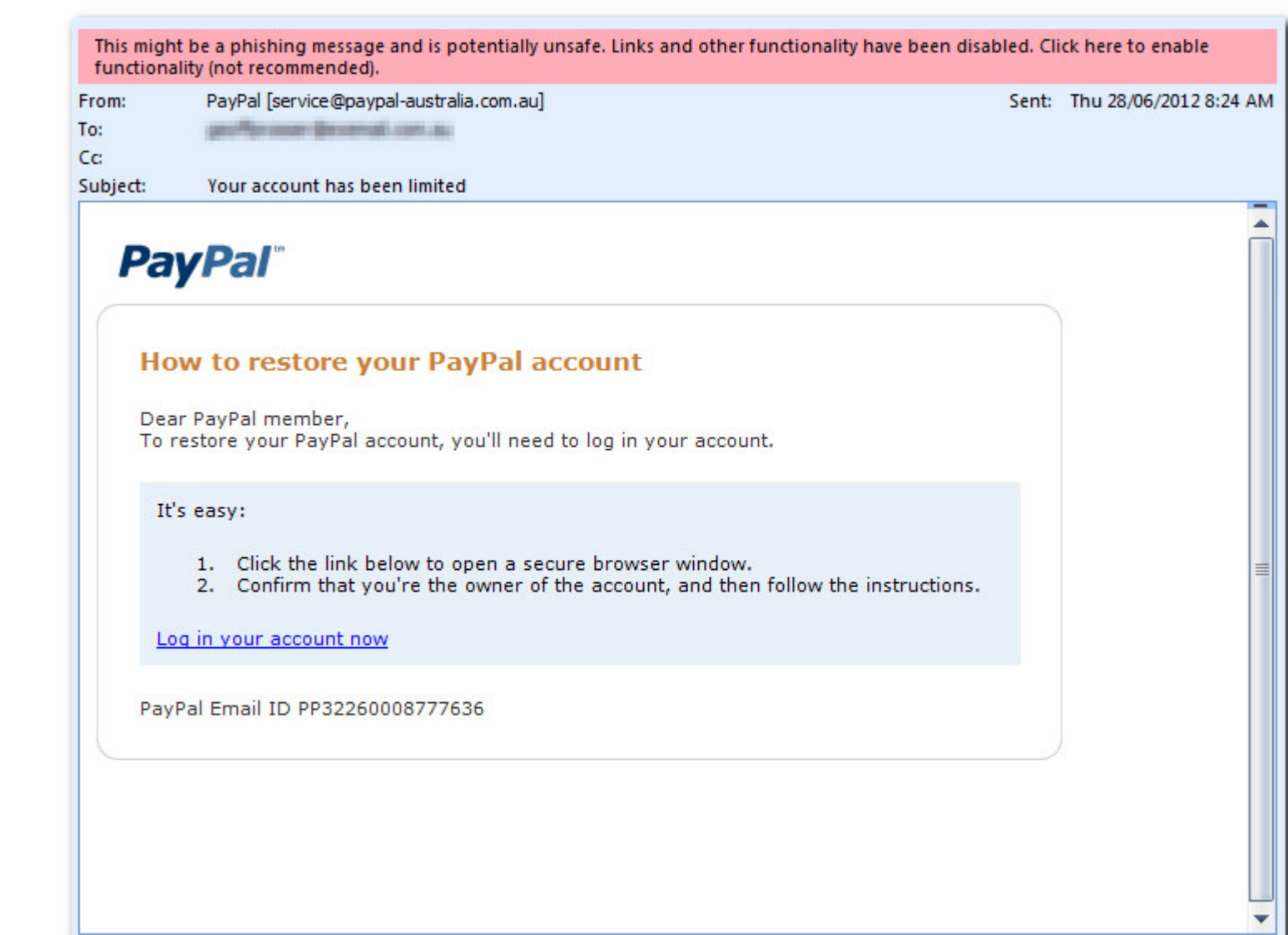
- February 2015 Anthem Insurance cyber attack.
 - Over 80 million member's information compromised.
- **Phishing: to try to obtain financial or other confidential information from Internet users, typically by sending an email.**
- Project focuses on how to quantify the likelihood a phishing email will succeed in tricking the user.
- Conducted a study.
 - Used the data from study to make a program to gauge relative effectiveness of a phishing email.
- This is one of the most pressing issues in security today; How to secure the **human element**.

Algorithm

- To determine the strength of a phishing email, the individual parts must be examined.
- Areas of email that are biggest indication of phishing:
 - **Email's from field.**
 - **Lexical contents.**
 - **Spelling and grammar.**
 - **Addressing the recipient.**
 - **Keywords.**
- The frequency of these test criteria in an email will be used to calculate it's potential threat.
- The scale we are using is a **logarithmic scale** from 1 to 10.
 - 1 is a very poor email, and 10 is a theoretically "perfect" phishing email.

Study

- Our project is based on the results of a study.
 - Conducted in the Spring Semester.
- Asked for consent to conduct our study from VCU students.
- Crafted fake phishing emails.
 - Highlighting certain traits of known phishing emails.
- These emails contained links to a site that was hosted on VCU School of Engineering servers.
 - Able to track site visits.
- Using this information we **developed an algorithm that could determine approximately how dangerous a phishing email is.**
 - Checking for various traits and commonalities.



Phishing Effectiveness Analysis

