Phishing Email Analysis Report

By:

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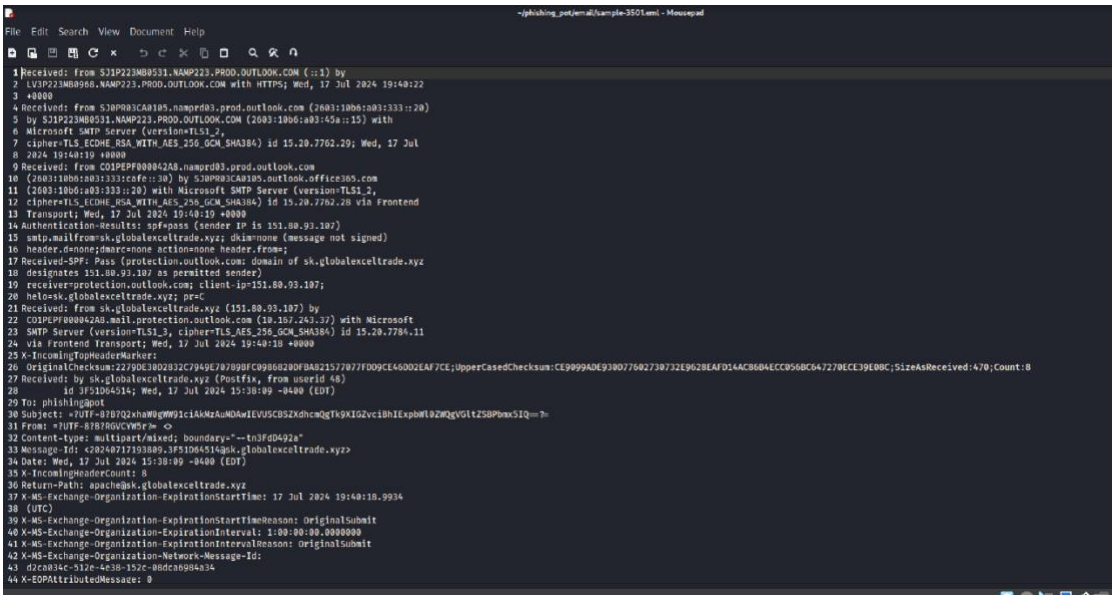
1. Executive Summary

Conducted an in-depth analysis of a suspicious email received through the corporate email gateway. The email was isolated in a sandboxed virtual environment and subjected to multi-layered analysis techniques, including header inspection, URL reputation analysis, and threat intelligence gathering. Based on the results, it is concluded that the email is a phishing attempt designed to lure users into clicking a malicious link.

2. Email Metadata Analysis

2.1 Sender Information

- **Return-Path**: apache@sk.globalexceltrade.xyz
- **Sending Server**: SJ1P223MB0531.NAMP223.PROD.OUTLOOK.COM (::1)
- **Sender IP Address**: 151.80.93.107
- **IP Reputation Check (AbuseIPDB)**: No existing reports were found for this IP address in the AbuseIPDB database. However, the lack of reports does not indicate safety, especially given the suspicious context.



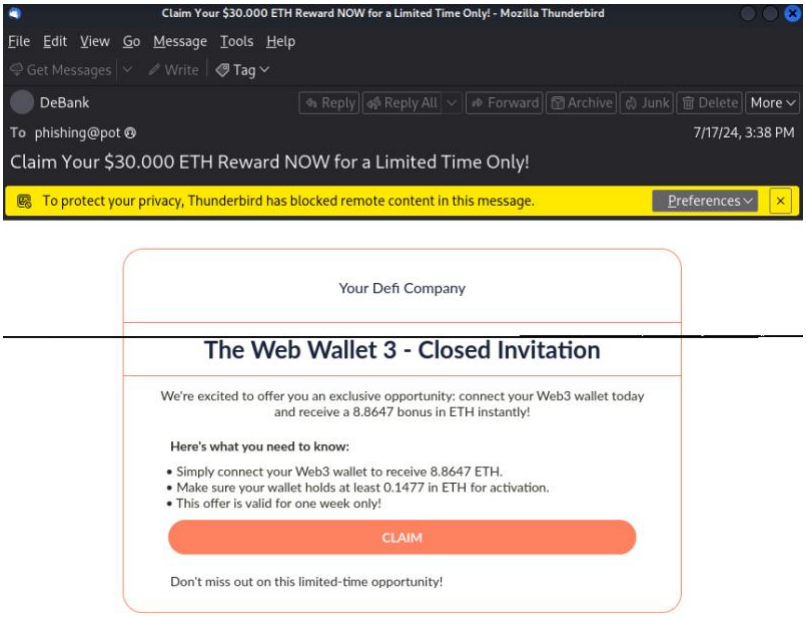
2.2 Email Authentication Results

- **SPF (Sender Policy Framework)**: PASS
  - The SPF record validated successfully, suggesting that the sending server is authorized to send mail on behalf of the domain. However, SPF alone is not a reliable indicator of legitimacy.
- **DKIM (DomainKeys Identified Mail)**: NONE
  - No DKIM signature was present, indicating the email was not cryptographically signed. This reduces the credibility and makes the email susceptible to spoofing.
- **DMARC (Domain-based Message Authentication, Reporting, and Conformance)**: NONE
  - The domain lacks a DMARC policy, increasing the likelihood of unauthorized use and spoofing.

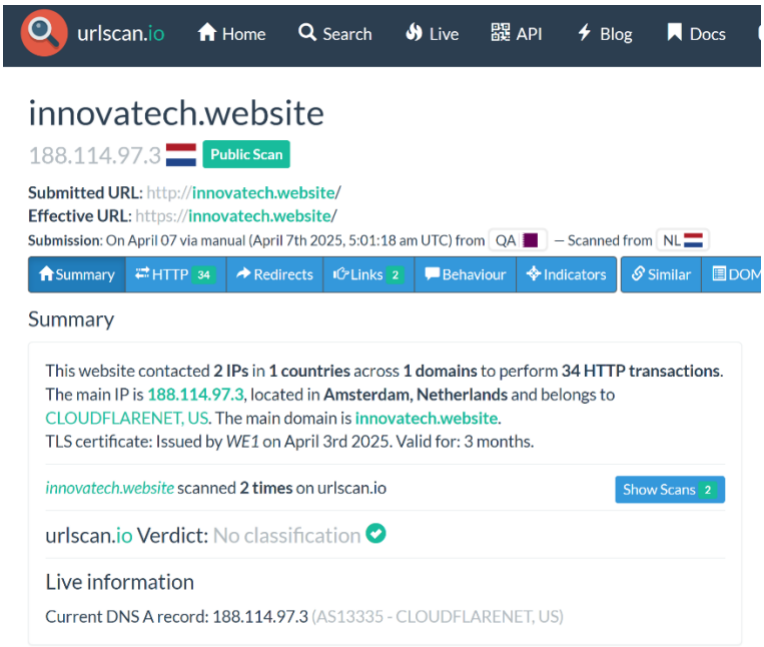
3. Embedded URL Analysis

3.1 Suspicious Link

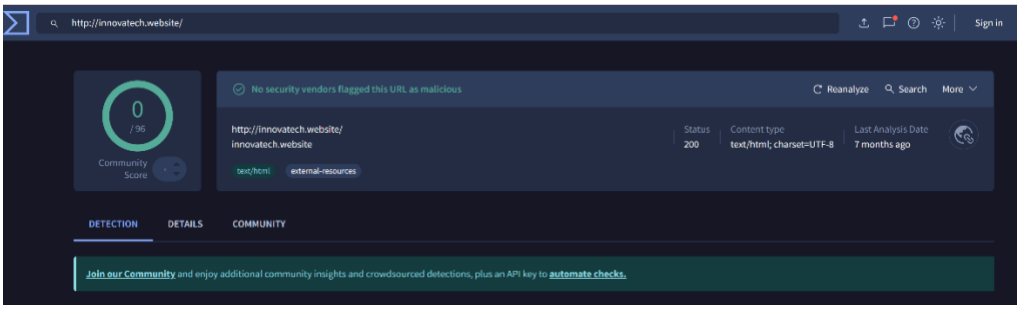
- **URL Found in Email**: https://innovatech.website



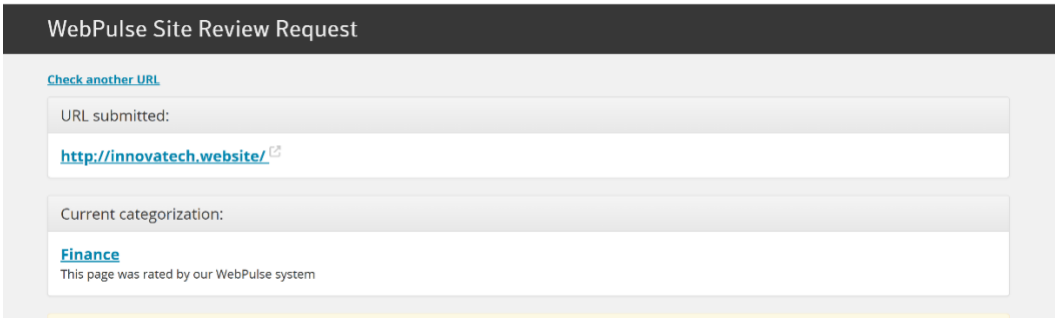
- I extracted the link and performed scans using the following tools:
  - **URLScan.io**



- **VirusTotal**



- **Bluecoat SiteReview**



3.2 Threat Intelligence on Domain

- **Domain**: innovatech.website

A WHOIS lookup revealed

Registrar:HOSTINGER operations, UAB

Registered On:2024-05-28

The domain appears to be newly registered and lacks a solid reputation, which is consistent with common phishing infrastructure.

4. Threat Intelligence Analysis

4.1 IP Address Reputation

- **IP Address**: 151.80.93.107
- The IP address did not return any reports on AbuseIPDB. However, attackers often rotate IPs and domains, so absence of prior activity does not imply trustworthiness.

4.2 Indicators of Compromise (IoCs)

- **Email Header Anomalies**: Missing DKIM/DMARC, mismatched Return-Path and sending server.
- **Malicious URL**: The URL embedded in the email links to a suspicious domain.
- **Unusual Return-Path Domain**: sk.globalexceltrade.xyz is a non-standard and suspicious domain name.

5. Conclusion & Recommendations

5.1 Conclusion

Based on comprehensive email header inspection, authentication failures, and third-party threat intelligence scans, I assess this email to be a **confirmed phishing attempt**. The email was crafted to trick recipients into clicking a potentially malicious link hosted at innovatech.website. The domain and IP involved exhibit red flags consistent with phishing infrastructure.

5.2 Recommendations

1. **Immediate Quarantine**: Ensure the email is removed from all user inboxes.
2. **Block Indicators**: Add innovatech.website and 151.80.93.107 to all perimeter security blocklists (firewall, proxy, email gateway).
3. **Report to Authorities**:
    - Report the phishing attempt to Microsoft via the Security & Compliance Center.
    - Submit indicators to APWG and Google Safe Browsing.
4. **Security Awareness Campaign**: Notify users about this phishing attempt and reinforce phishing awareness training.
5. **Enhance Email Filtering**: Strengthen email gateway rules to enforce strict DMARC/DKIM/SPF policies.
6. **Threat Hunting**: Initiate monitoring of internal logs and endpoints for any interaction with the flagged domain/IP.

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