

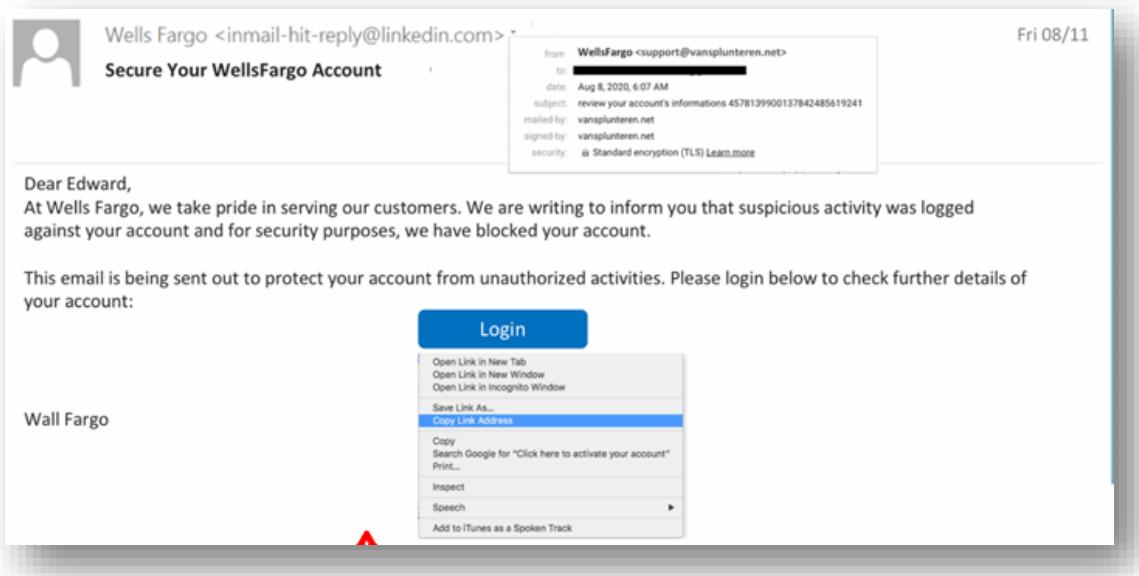
Phishing Email Investigation

Purpose

We are going to investigate a suspected phishing email to determine its legitimacy by performing the following actions:

1. Analyzing embedded URLs for malicious behavior
2. Verifying whether the attached file is malicious
3. Assessing the reputation of the sender's domain

The Phishing Email Screenshot



Section 1: Check If URLs Are Malicious

To analyze the URLs contained in the email, I used **Zscaler**, a reliable web security tool for URL reputation analysis.

The screenshot shows the Zulu URL Risk Analyzer homepage. At the top left is the Zscaler logo and the text "Zulu URL Risk Analyzer". At the top right is the ThreatLab logo. The main heading is "How safe is your web destination?". Below it, a subtext says "Zulu is a dynamic risk scoring engine for web based content." A red box highlights the URL input field containing "http://russellvillea.buzz/1/2/3" and a red arrow points from this field to the blue "Analyze" button. The footer contains navigation links for Solutions, Products, Customers, Resources, and Company, along with social media icons.

The results clearly indicated that the URL was **100% malicious**.

The screenshot shows the Zulu URL Risk Analyzer test results page. At the top left is the Zscaler logo and the text "Zulu URL Risk Analyzer". At the top right is the ThreatLab logo. The main section is titled "URL Information" and shows the URL "http://russellvillea.buzz/1/2/3 ...", the User-Agent "Mozilla/5.0 (Mobile; rv:32.0) Gecko/32.0 Firefox/32.0", and the Status "Completed". To the right is the "Test Results" section, which displays a red box with the text "* Malicious 100/100" and a green progress bar. It also includes "Reanalyze" and "Send Us Feedback" buttons. Below these sections is a link "Read the Latest Test Report (click here to Toggle)" followed by the timestamp "Performed on 2025-10-17 07:29:05.271221". The footer contains the same navigation links and social media icons as the homepage.

I also verified the same URL using **VirusTotal**, which provides detailed multi-engine reports on suspicious links and files.

The screenshot shows the VirusTotal homepage with a dark theme. At the top, there is a search bar with the placeholder "URL, IP address, domain or file hash". Below the search bar is the VirusTotal logo, which consists of a large Greek letter sigma (Σ) followed by the word "VIRUSTOTAL". A red box highlights the logo area. Underneath the logo, a sub-header reads: "Analyse suspicious files, domains, IPs and URLs to detect malware and other breaches, automatically share them with the security community." Below this, there are three tabs: "FILE", "URL" (which is selected), and "SEARCH". In the center, there is a form for submitting a URL. It contains a text input field with the value "http://russellvillea.buzz/1/2/3" and a "Search" button. A red box highlights this form, and a red arrow points from the "Search" button towards the "Community Score" section. Below the form, there is a note: "By submitting data above, you are agreeing to our Terms of Service and Privacy Notice, and to the sharing of your URL submission with the security community. Please do not submit any personal information; we are not responsible for the contents of your submission. Learn more." At the bottom of the page, there is a link: "Want to automate submissions? Check our API, or access your API key." A blue speech bubble icon is located in the bottom right corner.

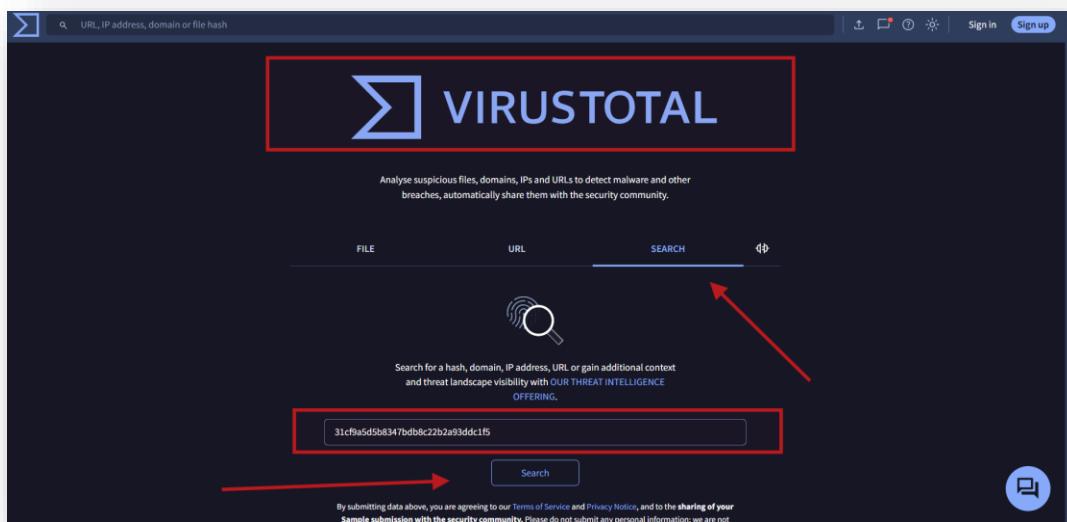
The analysis confirmed that the URL was associated with **malicious activity**.

The screenshot shows the detailed analysis report for the URL "http://russellvillea.buzz/1/2/3". The report is framed by a red box. At the top left, there is a circular "Community Score" icon with a red border, showing a score of "3 / 98". To its right, a message states "3/98 security vendors flagged this URL as malicious". Above the URL, there is a "Reanalyze" button and a "Search" bar. To the right, there is a "Last Analysis Date" indicator showing "4 days ago". Below the main header, there are three tabs: "DETECTION" (selected), "DETAILS", and "COMMUNITY". A green banner at the bottom encourages users to "Join our Community and enjoy additional community insights and crowdsourced detections, plus an API key to automate checks." The main content area displays a table titled "Security vendors' analysis". This table lists various security vendors and their findings for the URL. The table is framed by a red box. The columns include the vendor name, the detection result (e.g., Malware, Suspicious, Clean), and a "Do you want to automate checks?" column with a blue checkmark icon. The table entries are as follows:

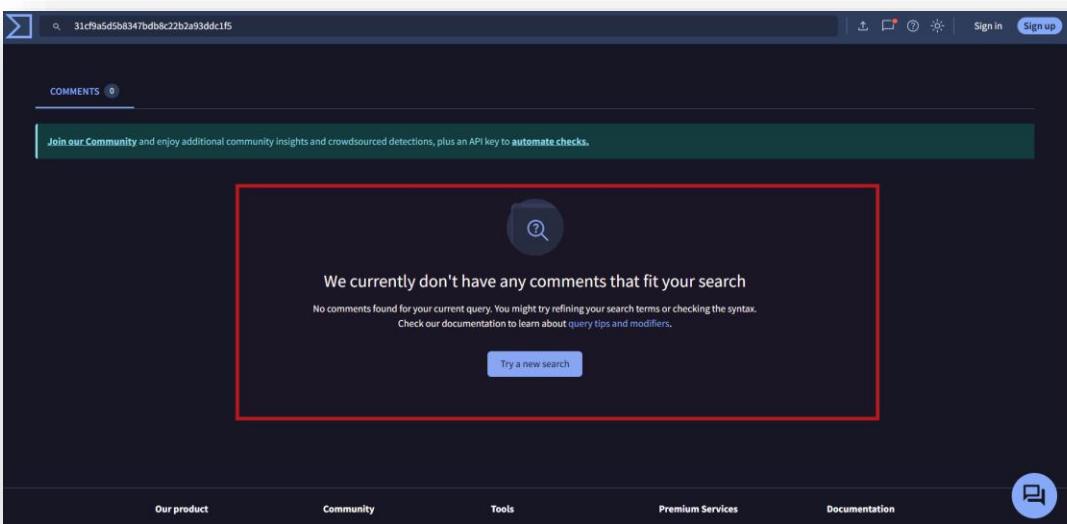
Security vendors' analysis	Do you want to automate checks?	
BitDefender	Malware	Malware
Webroot	Malicious	Suspicious
Trustwave	Suspicious	Clean
Acronis	Clean	Clean
AI Labs (MONITORAPP)	Clean	Clean
Anti-AVL	Clean	Clean
G-Data	Malware	Clean
Forcepoint ThreatSeeker	Suspicious	Clean
Abusix	Clean	Clean
ADMINUSLabs	Clean	Clean
AlienVault	Clean	Clean
Artists Against 411	Clean	Clean

Section 2: Is the file malicious (based on the given hash)?

To verify whether the attached file was malicious, I used VirusTotal again. Instead of uploading the file directly, I calculated its hash value (**MD5: 31cf9a5d5b8347bdb8c22b2a93ddc1f5**) using a hash calculation tool and submitted the hash to VirusTotal. So I just pasted the value on the VIRUSTOTAL



The search returned no prior reports for this hash, indicating that the file had not yet been analyzed or flagged by the platform.



Section 3: Check reputation of the sender domain

To assess the sender's credibility, I examined the domain reputation of [vansplunteren.net](https://www.vansplunteren.net) using Cisco Talos Intelligence.

The screenshot shows the Cisco Talos Intelligence Center homepage. At the top is a search bar containing "support@vansplunteren.net" with a magnifying glass icon. Below the search bar is a message: "Experiencing an issue? Submit a support ticket." Underneath are six square modules: "Web Reputation" (globe icon), "Content Categorization" (tag icon), "Sender IP Reputation" (monitor icon), "Sender Domain Reputation" (envelope icon), "File Reputation" (file icon), and "IPS/IDS" (cloud icon). A red arrow points from the text above to the search bar. The bottom of the page features a "Threat Research" section with some graphical elements.

The query returned no specific results for this domain, which may indicate that it is neither recognized as reputable nor previously associated with malicious activity. However, the absence of data for a single email address does not necessarily represent the entire domain's reputation.

The screenshot shows the Cisco Talos IP & Domain Reputation Overview page. At the top is a search bar containing "vansplunteren.net" with a magnifying glass icon. Below the search bar are two tabs: "IP & Domain Reputation Overview" and "Email & Spam Trends". A red box highlights a message: "Unfortunately, we can't find any results for your search. You can search again using the following criteria: IPv4 address, IPv6 address, CIDR range, Domain or Hostname, URI, Network Owner, and Country." To the right of the search bar is an orange button labeled "UNDER ATTACK?" with a shield icon. The rest of the page is mostly blank.

Conclusion:

The investigation confirmed that the URL included in the email was malicious, while the attached file hash was not previously flagged. The sender domain showed no known reputation data. Based on the malicious URL result and phishing indicators, this email can be classified as a phishing attempt.