

UNDERSTANDING AND
DEMONSTRATING REAL-WORLD
PHISHING ATTACKS

Presented By:

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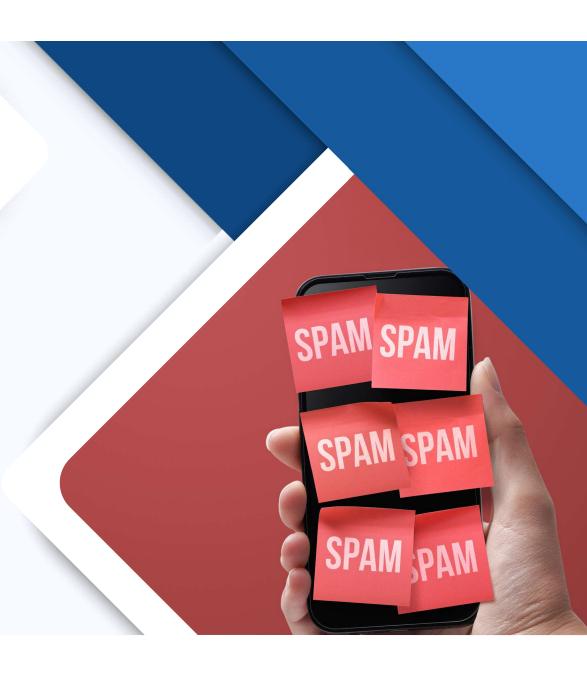
June 9, 2025



INTRODUCTION TO PHISHING

WHAT IS PHISHING?

- A method of tricking users into revealing sensitive data.
- Often done through fake websites, emails, or messages.
- One of the most common and effective cyber threat



COMMON PHISHING TECHNIQUES

Spear Phishing

- A highly targeted form of phishing.
- Attacker customizes emails or messages using specific details about the victim (name, job title, contacts).
- Often appears to come from a trusted source, such as a colleague or supervisor.



- A specialized type of spear phishing aimed at high-level executives or key decision-makers.
- Attacks often mimic urgent business requests, like wire transfers or document sign-offs.
- Success can lead to significant financial or identity damage.

COMMON PHISHING TECHNIQUES



Smishing

- Phishing conducted through SMS or messaging apps.
- Messages may include malicious links, fake alerts, or requests for login details.
- Frequently impersonates delivery services, banks, or tech support.



Vishing

- Voice phishing via phone calls.
- Attackers may pose as government agents, bank officials, or tech support.
- Goal is to verbally extract sensitive information like account credentials or social security numbers.

WHY IT MATTERS

WHY IS PHISHING SO DANGEROUS?

- Exploits human trust and behavior
- Often leads to data breaches, financial loss, and identity theft
- Users tend to reuse passwords across multiple accounts







CYBERSECURITY'S ROLE

OUR JOB IN CYBERSECURITY



Detecting and preventing phishing attempts Training users to recognize suspicious activity

Using tools like MFA and email filtering

Maintaining system security and data integrity

PROJECTIVE OBJECTIVE

PURPOSE OF OUR PROJECT

- Demonstrate how phishing attacks are executed
- Raise awareness about common tactics
- Show how stolen credentials can be misused
- Promote education and prevention



TOOLS USED

TOOLS FOR THE ATTACK SIMULATION



SOCIAL-ENGINEER TOOLKIT (SET)

For cloning websites



KALI LINUX

The operating system used



DNS SPOOFING

Redirected victims to a fake site

ATTACK SCENARIOS

HOW WE DID IT

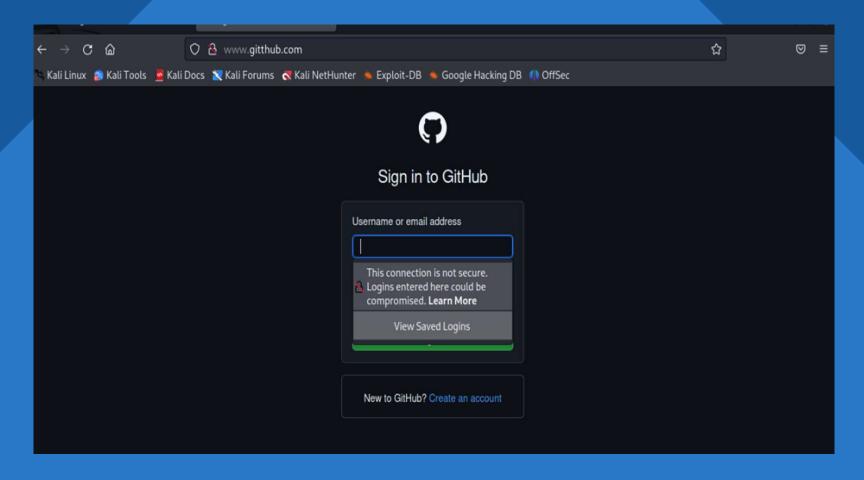
- Cloned LinkedIn login page using SET
- Used DNS spoofing to reroute github.com to our fake site
- Created a phishing email with a malicious link
- Sent email to a fictional executive (John Doe)
- Collected credentials entered on the fake page



SOCIAL ENGINEERING TOOL

```
Homepage: https://www.trustedsec.com
      Welcome to the Social-Engineer Toolkit (SET).
       The one stop shop for all of your SE needs.
 The Social-Engineer Toolkit is a product of TrustedSec.
         Visit: https://www.trustedsec.com
sit https://github.com/trustedsec/ptf to update all your tools!
Select from the menu:
 1) Spear-Phishing Attack Vectors
 2) Website Attack Vectors
 3) Infectious Media Generator
 4) Create a Payload and Listener
 5) Mass Mailer Attack
 6) Arduino-Based Attack Vector
 7) Wireless Access Point Attack Vector
 8) QRCode Generator Attack Vector
```

CLONED WEBSITE (SET)



DNS SPOOFING

```
GNU nano 7.2
                                                              hosts
Your system has configured 'manage_etc_hosts' as True.
# a.) make changes to the master file in /etc/cloud/templates/hosts.debian.tmpl
127.0.1.1 ip-172-31-0-143.us-west-2.compute.internal kali
127.0.0.1 localhost
172.31.0.143 www.gitthub.com
# The following lines are desirable for IPv6 capable hosts
:: 1 localhost ip6-localhost ip6-loopback
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

EMAIL DRAFT







5:51 PM (4 minutes ago)







to me -

Hi [Azsante],

As part of our ongoing internal security audit, we're asking all administrators to verify their access credentials through our secure portal.

Please log in at your earliest convenience to complete the verification process:

gittub.com (Secure Internal Access Only)

Azsante Hawkins <azsantehawkins33@yahoo.com>

This is a routine measure to ensure compliance with our updated infrastructure access policies. If you encounter any issues accessing the portal or have questions, reach out to [IT/Security contact] immediately.

Thank you for your prompt attention to this matter.

Best regards,

[Darnell Hawkins]

Chief Executive Officer

GitHub

[darnellhawkins@gitthub.com]

COLLECTION OF INFORMATION

```
The best way to use this attack is if username and password form fields are available. Regardless, this captures all POSTs on a weblic.

[*] The Social-Engineer Toolkit Credential Harvester Attack
[*] Credential Harvester is running on port 80
[*] Information will be displayed to you as it arrives below:
172.31.0.143 -- [08/Jun/2025 20:13:40] "GET / HTTP/1.1" 200 -
[*] WE GOI A RITH Printing the obtput:
PARAM: commit-Sign+in
PARAM: cauthenticity_token=PiHPQbbh9Gvi8xbPr03v8KNJT8a2Qw2ffZ5V64cJnVcNt8cW7/c7MmeNSg0hrF7BGN7mYAbEwgaQ9NkSU3i8YA=
PARAM: add_account=
POSSIBLE USERNAME FIELD FOUND: login=Azsante
POSSIBLE DASSWORD FIELD FOUND: password=DavidBates191
PARAM: webauthn-conditional-undefined
PARAM: webauthn-conditional-undefined
PARAM: webauthn-support=unsupported
PARAM: webauthn-support=unsupported
PARAM: webauthn-iuvpaa-support=unsupported
PARAM: webauthn-iuvpaa-support=unsupported
PARAM: allow_signup=
PARAM: client_id=
PARAM: integration=
PARAM: integration=
PARAM: integration=
PARAM: imestamp=1749413597566
POSSIBLE PASSWORD FIELD FOUND: timestamp_socret=7ad8354dd20e8c2165998d736Bd93197586a9f8e35b3e523142dcecc9de41a65
[*] WEEN YOU'RE FINISHED, HIT CONTROL-C 10 GENERATE A REPORT.
```

REAL WORLD IMPACT

THE CONSEQUENCES





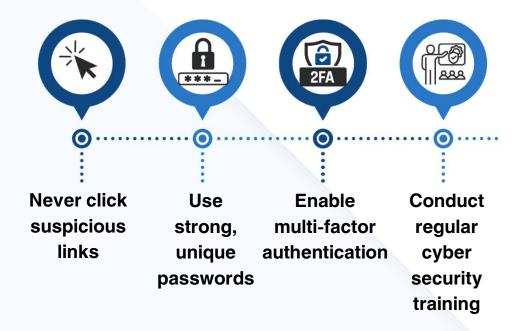
☐ Targeted Individuals (e.g., executives) = Higher Risk

☑ Breaches can be fast and far-reaching



DEFENSE AND PREVENTION

HOW TO PROTECT AGAINST PHISHING



CONCLUSION

WHAT WE LEARNED

Key Takeaways

- Phishing remains a major threat due to human error
- Tools like SET are easily available to attackers
- Awareness and training are the best defense
- Stay vigilant, stay secure

