Gophish BootCon: Hook, Line, and Security

"Don't get caught slippin'—stay phish-free!"



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What is Phishing?

Phishing: a scam where attackers pretend to be a trustworthy source to steal your sensitive information



Phishing Family Tree: It's a Big, Scammy Family

Email Phishing

--- Spear Phishing

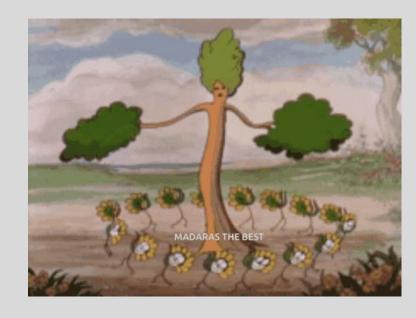
----- Whaling (Execs)

Phishing ----- Smishing (SMS)

----- Vishing (Voice)

----- Angler (Social Media)

Pharming (Redirected Sites)



Gophish: The Ethical Hacker's Secret Weapon

- Free Open-source phishing simulation toolkit
- Used by security teams to test employee awareness
- Simulates real phishing campaigns without harm
- Helps train people to recognize suspicious emails

Gophish lets us play the bad guys—without actually being bad guys. It's designed to help organizations test their defenses before real attackers do. Think of it as cyber paintball... but with email.



The Dark Side of Gophish

- Anyone can access!
- Everything that can be used ethically can also be used for bad
- In the wrong hands, they can capture everything
- It only needs one click and/or password...



Why did the hacker bring a fishing pole to the office?



To catch some phish, of course.....

Installing and Opening Gophish

Gophish Installation – Windows

- Download the latest release from <u>github.com</u>
- Extract the ZIP to C:\gophish
- Open \gophish file
- Run Gophish: .\gophish.exe
- Go to https://localhost:3333 in your browser
- Log in with the credentials shown in the console

Easy as 1, 2 & 3

Github, the bible for nerds



Unzip and you're ready to launch.

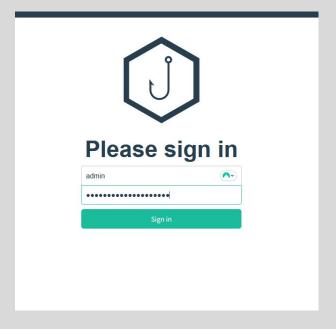
Name	Date modified	Type
∨ Yesterday		
gophish.db	5/28/2025 8:10 PM	Data Base File
嘱 gophish_admin.crt	5/28/2025 8:07 PM	Security Certificate
gophish_admin.key	5/28/2025 8:07 PM	Keynote Presentation
config.json	5/28/2025 8:06 PM	JSON File
LICENSE	5/28/2025 8:06 PM	File
README.md	5/28/2025 8:06 PM	Markdown Source File
VERSION	5/28/2025 8:06 PM	File
gophish.exe	5/28/2025 8:06 PM	Application
□ db	5/28/2025 8:06 PM	File folder
templates	5/28/2025 8:06 PM	File folder
static	5/28/2025 8:06 PM	File folder

Cmd Prmt and Login

Admin, password, url

```
20180527213648_0.7.0_store_email_request.sql
     20180830215615 0.7.0 send by date.sql
     20190105192341 0.8.0 rbac.sql
     20191104103306 0.9.0 create webhooks.sql
     202001160000000 0.9.0 imap.sql
     20200619000000 0.11.0 password policy.sql
     20200730000000 0.11.0 imap ignore cert errors.sql
time="2021-09-14711:54:44+02:00" level=info msg="Please login with the username admin and the password e1414bb8c8464ade
time="2021-09-14T11:54:44+02:00" level=info msg="Starting IMAP monitor manager"
time="2021-09-14T11:54:44+02:00" level=info msg="Starting phishing server at http://0.0.0.0:80"
ime="2021-09-14T11:54:44+02:00" level=info msg="Background Worker Started Successfully - Waiting for Campaigns"
ime="2021-09-14T11:54:44+02:00" level=info msg="Creating new self-signed certificates for administration interface"
time="2021-09-14T11:54:44+02:00" level=info msg="Starting new IMAP monitor for user admin"
:ime="2021-09-14T11:54:44+02:00" level=info msg="TLS Certificate Generation complete"
time="2021-09-14T11:54:44+02:00" level=info msg "Starting admin server at https://127.0.0.1:3333"
 021/09/14 11:55:03 http: TLS handshake error from 127.0.0.1:62735; remote error: tls: unknown certificate
2021/09/14 11:55:06 http: TLS handshake error from 127.0.0.1:61997: remote error: tls: unknown certificate
time="2021-09-14T11:55:06+02:00" level=info msg="127.0.0.1 - - [14/Sep/2021:11:55:06 +0200] \"GET / HTTP/2.0\" 307 51 \"
   \"Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/92.0.4515.159 Safari/537.36
ime="2021-09-14T11:55:06+02:00" level=info msg="127.0.0.1 - - [14/Sep/2021:11:55:06 +0200] \"GET /login?next=%2F HTTP/2
    200 1033 \"\" \"Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/92.0.4515.1
ime="2021-09-14T11:55:06+02:00" level=info msg="127.0.0.1 - - [14/Sep/2021:11:55:06 +0200] \"GET /images/logo inv small
    HTTP/2.0\" 200 1118 \"https://127.0.0.1:3333/login?next=%2F\" \"Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebK
it/537.36 (KHTML, like Gecko) Chrome/92.0.4515.159 Safari/537.36\""
time="2021-09-14T11:55:06+02:00" level=info msg="127.0.0.1 - - [14/Sep/2021:11:55:06 +0200] \"GET /images/logo purple.pn
 HTTP/2.0\" 200 4735 \"https://127.0.0.1:3333/login?next=%2F\" \"Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/
      (KHTML, like Gecko) Chrome/92.0.4515.159 Safari/537.36\""
```

Ready to log in



Wait—Was This Even Legal?

- V No sensitive data was collected
- V Only personal LinkedIn was used to simulate sender
- V No impersonation of others occurred
- Goal was to demonstrate how easily phishing can happen



Crafting the Bait: How We Built the Phish

What We Built:

- Landing Page: Cloned LinkedIn login page
- Email Template: Dummy email with spoofed sender
- **___ Target**: One placeholder user



How We Did It (Tools + Process)

Step	Tool Used	Description
1	GoPhish	Created and launched campaign
2	Cloudflare	Created a secure tunnel for external access
3	Rebrandly	Shortened phishing URL
4	Link	LinkedIn Wiley T Johnson (mocked)

Crafting the Bait: How We Built the Phish

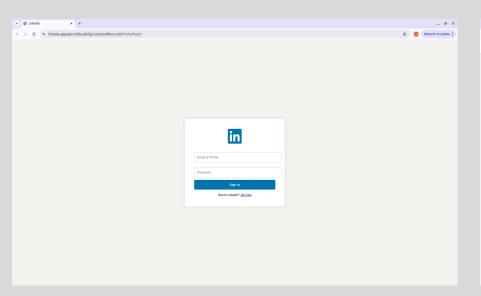
Why It Worked (Psychology of the Click)

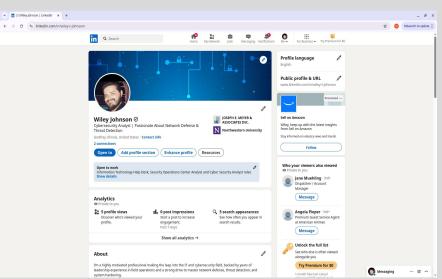
- "It looked legit."
- "The link seemed harmless."
- "They didn't expect to be tested."



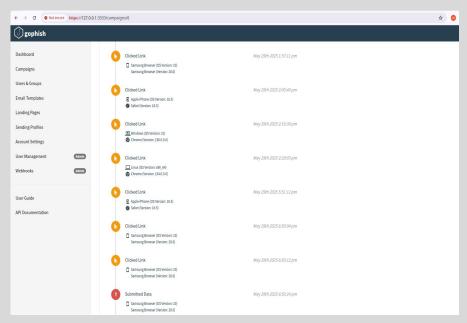
💡 "Phishing succeeds not because tech fails, but because we trust what feels familiar."

Landing Page





Monitoring the Campaign





Monitoring

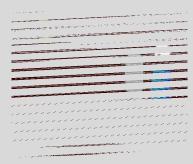
- Tracked link clicks in real time via GoPhish dashboard
- No actual emails sent, no credentials captured — just emails & click tracking
- 6 Users clicked in 7 hour campaign

Demo

Mitigations: How to Not Get Hooked

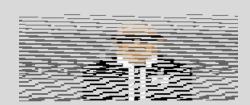
Train the Humans: your brain is the first firewall

- Security Awareness Training, helps users recognize threats like phishing, vishing, and smishing.
- Simulated phishing campaigns give people safe practice
 It's like cyber self-defense class—but no punching involved.
- Teach users to "Hover, Think, Verify"



Email Defense Tools

Enable Email Filtering & Scanning
Use **DMARC**, **DKIM**, and **SPF** to prevent spoofing



- SPF = "Name on the guest list" (Sender Policy Framework)
- DKIM = "Signature matches" (DomainKeys Identified Mail)
- DMARC = "Checks the bouncer's checklist" (Domain-based Message Authentication, Reporting & Conformance)

These tools validate if an email is really from who it says it is. Think of them as **email bouncers**—only letting the real VIPs in.



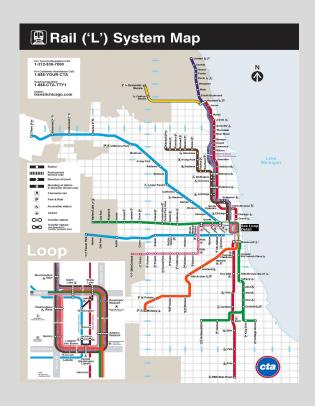
Personal Habits



- When in doubt, Don't click!
- Go to the site yourself (don't trust Rebrand.ly in the wild).
- Enable MFA whenever possible

Hover before you click, trust your gut!

The "L"



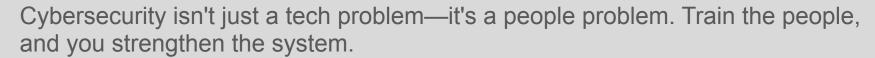
remember clicking suspicious links is like licking a pole on the RedLine. Just...don't do it!



Mitigation Recap

Build the (Fire)Wall, Not the Excuses

- + 6 Human Training
- ▶ + ♥ Email Tools
- ← Safe Habits



Stay alert—don't become the phish story in your next company newsletter

