Phishing Attack Simulation with Gophish

Introduction

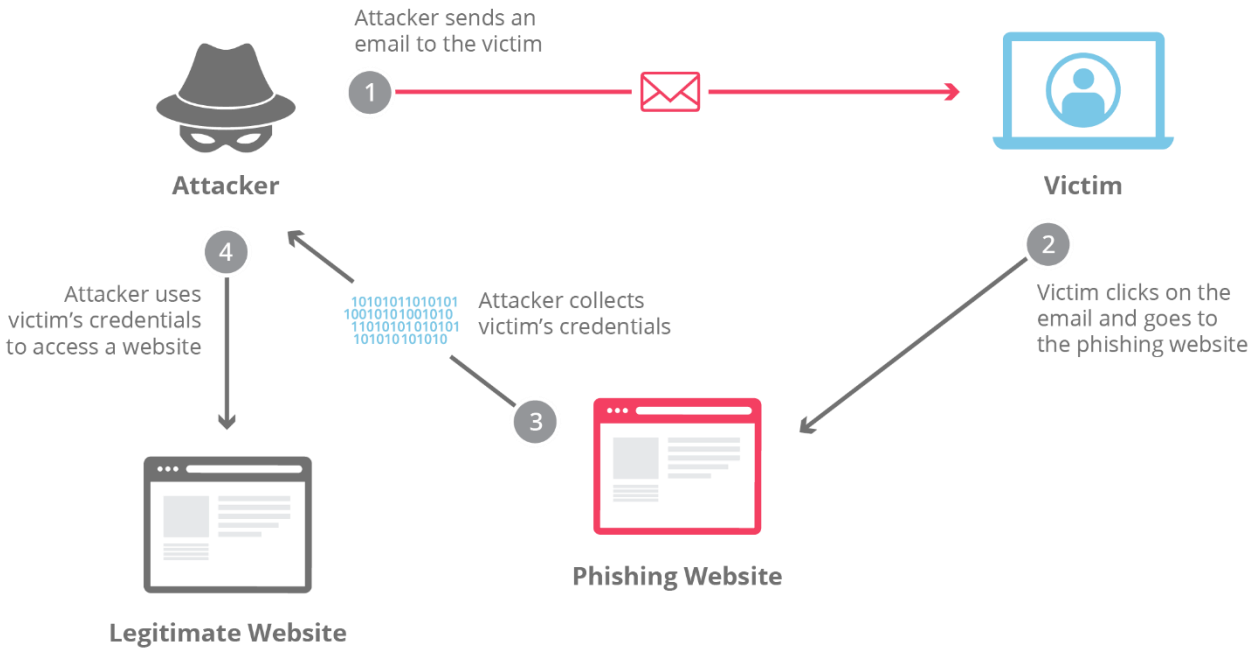
This repository provides a comprehensive guide to setting up and executing phishing attack simulations using **Gophish**, an open-source phishing framework. The objective is to enhance cybersecurity awareness and evaluate an organization's resilience against phishing attacks through controlled simulations.

Why Conduct Phishing Simulations?

Phishing remains one of the most prevalent attack vectors for cybercriminals, often leading to credential theft, financial fraud, and data breaches. While security technologies such as multi-factor authentication (MFA) and email filtering solutions have improved, the **human element** remains a key vulnerability.

Implementing phishing simulations helps organizations:

- **Educate employees** on phishing tactics and social engineering methods.
- **Assess security awareness** by testing users in real-world scenarios.
- **Identify weaknesses** in existing cybersecurity defenses.
- **Strengthen incident response** by reinforcing best practices for recognizing and reporting suspicious emails.



About Gophish

Gophish is an open-source phishing simulation platform designed for security teams to test and improve organizational security awareness. It provides:

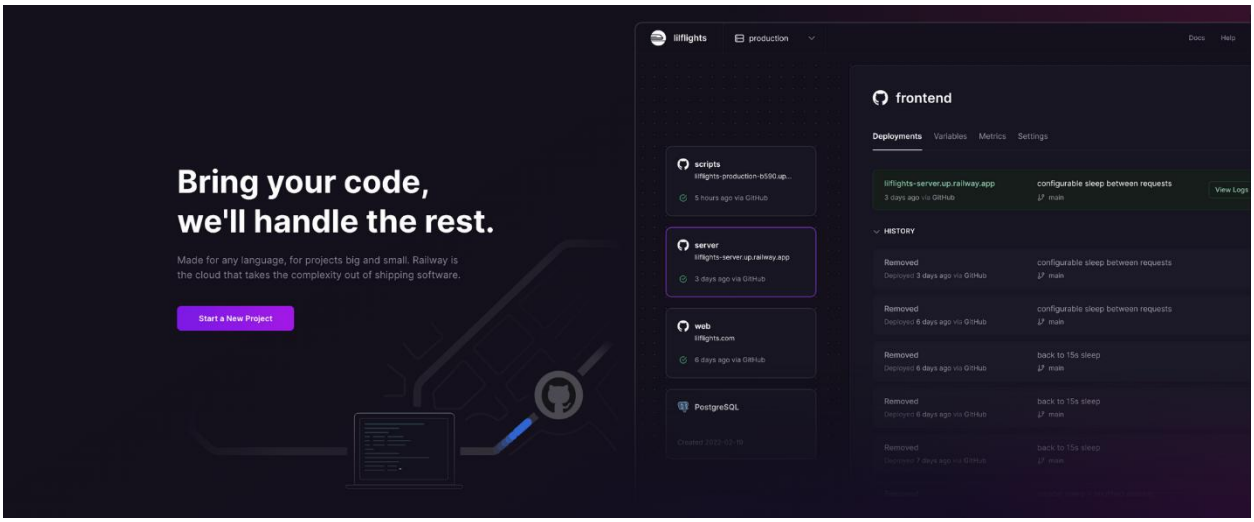
- A **user-friendly web interface** for managing campaigns.
- **Customizable phishing templates** with a full HTML editor.
- **Automated email campaigns** with scheduled delivery.
- **Real-time tracking and analytics** for campaign performance.

Gophish is written in **Go** and supports deployment on Windows, macOS, Linux, and Docker environments.

Deployment Options

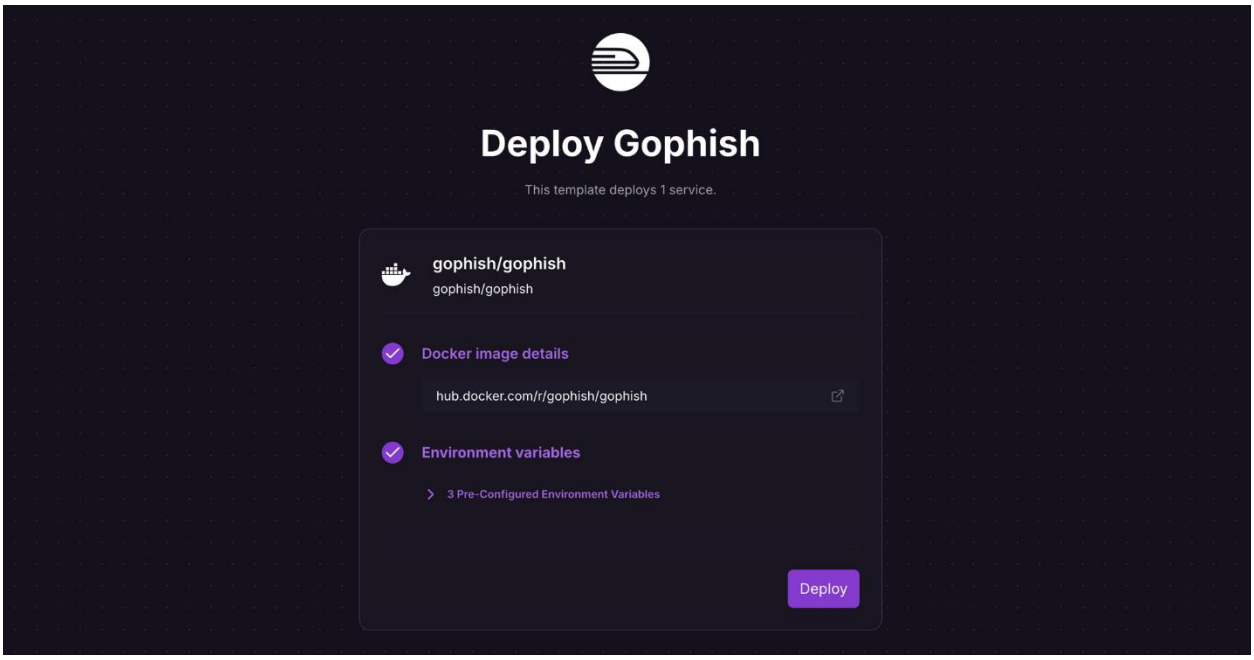
Option 1: One-Click Deployment on Railway

Railway is a cloud-based application hosting platform that streamlines deployments.



Steps to Deploy

1. **Sign up on Railway** using a GitHub account.
2. **Deploy Gophish** using the one-click template.



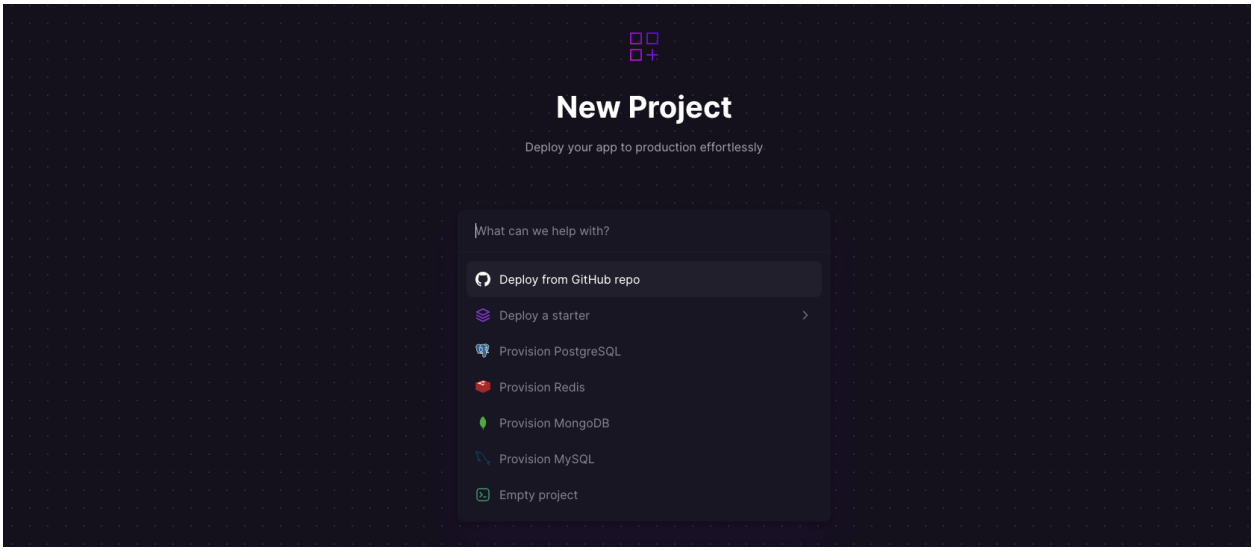
3. **Monitor deployment logs** to retrieve admin credentials.
4. **Access the Gophish dashboard** via the generated Railway domain (xxx.up.railway.app).

Option 2: Deploying Gophish via Forked Repository

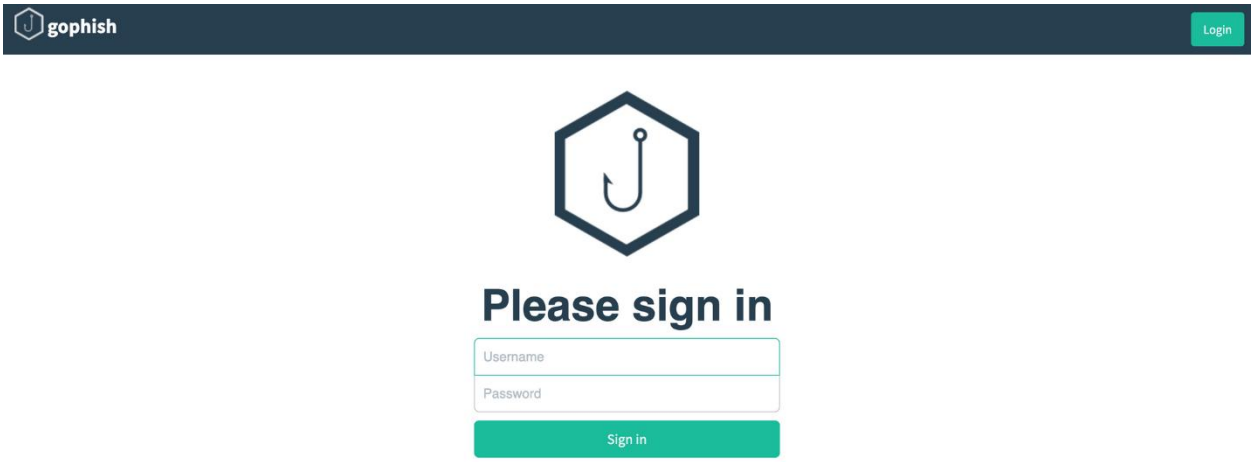
For a more customizable setup, deploy Gophish using a forked repository on Railway.

Steps to Deploy

1. **Fork the Gophish repository** on GitHub.

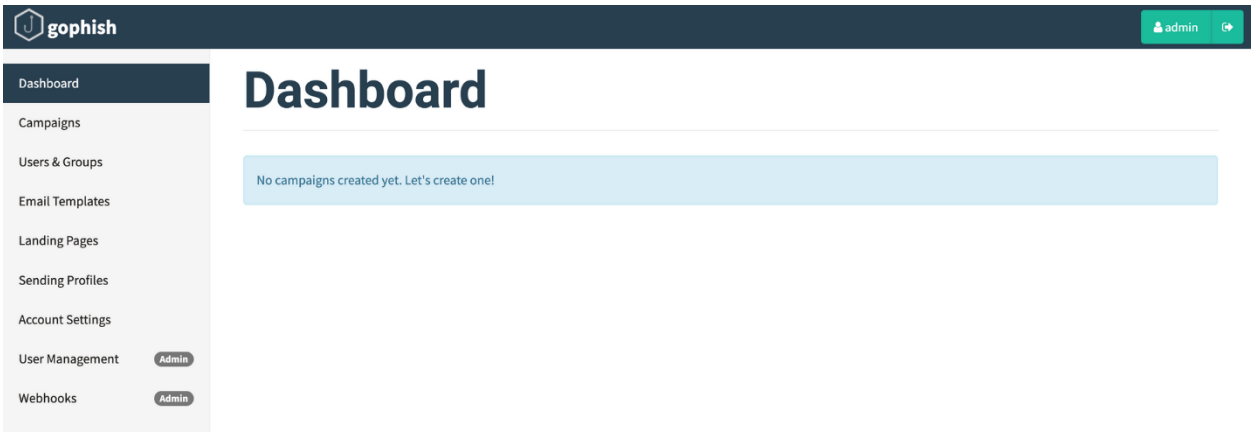


2. **Create a new Railway project** and deploy from the forked repository.
3. **Modify the config.json file** to include:
    - Setting listen_url to 0.0.0.0:3333 for external access.
    - Disabling use_tls (Railway manages TLS automatically).
    - Adding the Railway domain under trusted_origins.
4. **Commit changes** and redeploy the application.
5. **Access Gophish** via the Railway-assigned domain.



Running Phishing Simulations

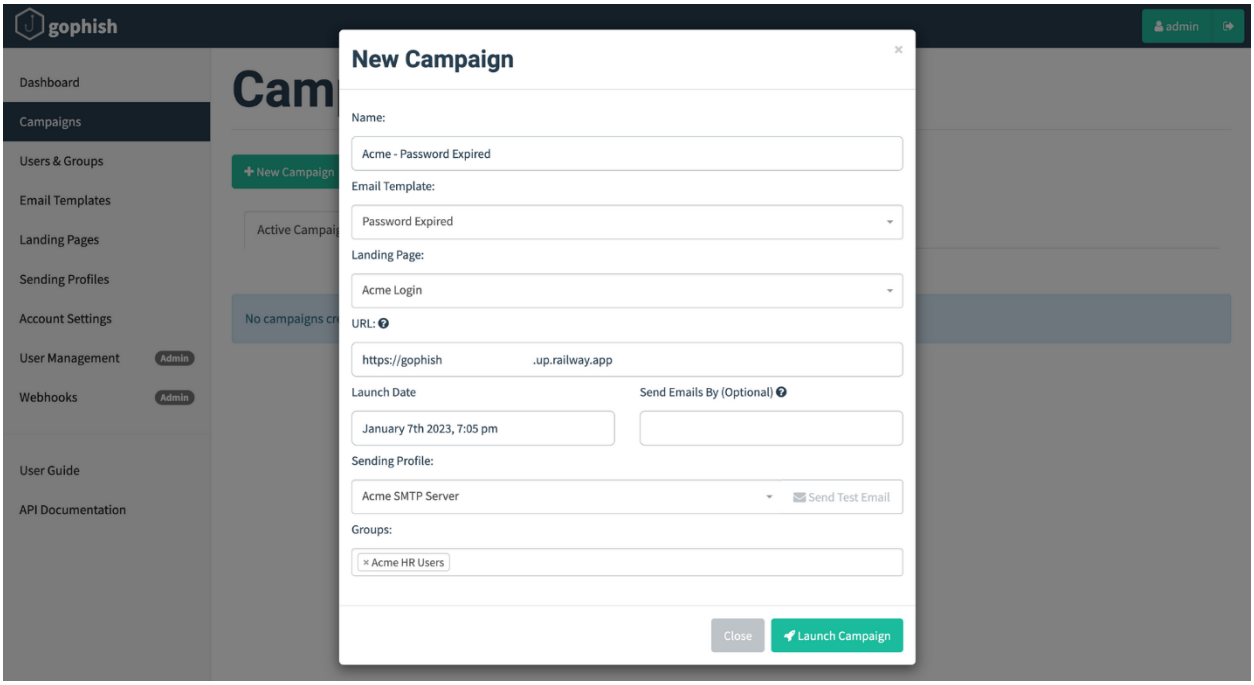
1. **Login** to the Gophish admin dashboard using the credentials from the deployment logs.



2. **Configure key components**:

- **User groups**: Define recipients for phishing emails.
- **Email templates**: Create realistic phishing messages.
- **SMTP settings**: Configure mail servers for email delivery.
- **Landing pages**: Design response pages for captured credentials.

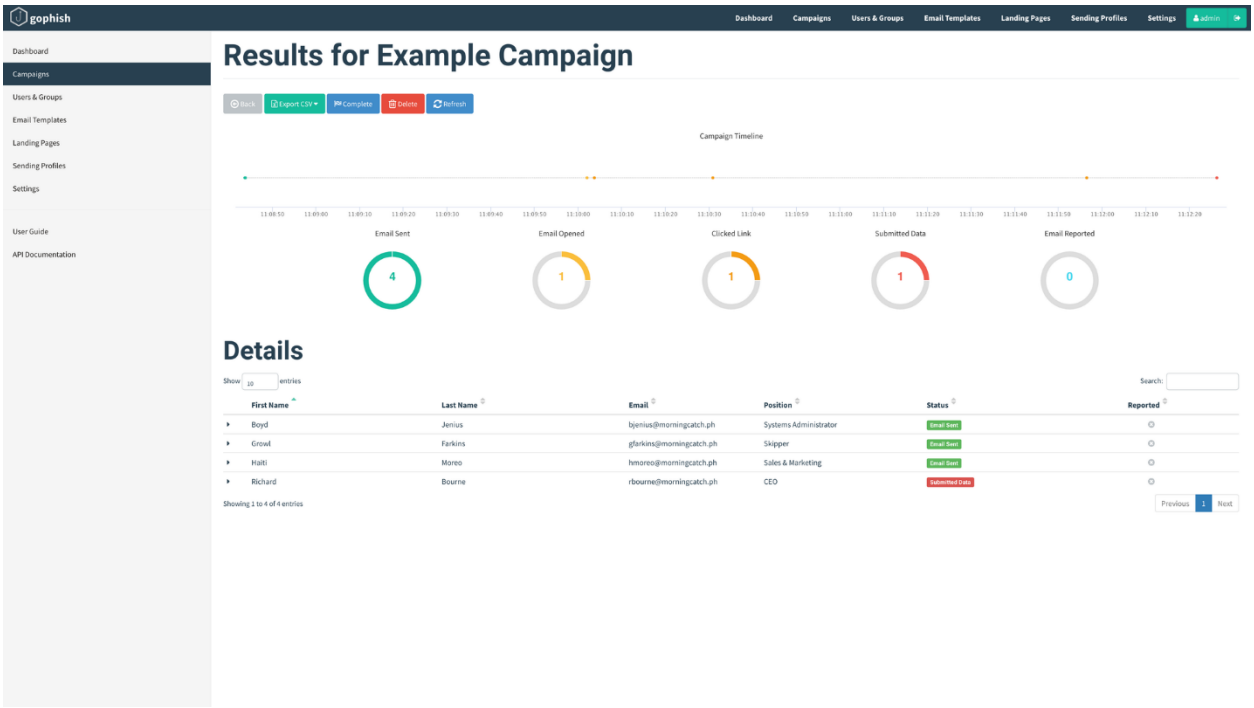
3. **Launch a phishing campaign** via the Gophish dashboard.
4. **Monitor and analyze results** in real time.



Monitoring & Analytics

Gophish provides detailed insights into campaign performance, including:

- **Email open rates** and user engagement.
- **Click-through rates** for phishing links.
- **Credential submission tracking** to assess user awareness.



These insights help organizations refine their cybersecurity awareness programs and strengthen their defense mechanisms against phishing attacks.

Conclusion

Gophish is a cost-effective solution for organizations looking to enhance their **security awareness training programs**. While it lacks some of the advanced features of commercial phishing simulation platforms, it offers a **robust, scalable, and customizable** alternative for testing and improving security resilience.