Night Owl Network

Connie Uribe Chavez, Geneva Knott,
Nickolaus Alderete, Sierra Maldonado

Agenda

Team Member Introductions

Problem Domain & Project
Overview

Improvements

Team Process & Documentation

Demonstration

Tests

Q&A

Our Team

Connie Uribe Chavez

Nickolaus Alderete

Geneva Knott

Sierra Maldonado

Connie
Uribe Chavez

LinkedIn

- USMC Veteran located in Pensacola, FL.
- Previous software development experience
- Computer Science B.A.
- Enjoy being outdoors
- Gardening

Nickolaus Alderete

- **US Army veteran**
  - **12T- TOPO/ Geodetic engineer**
- **Low Voltage Electrician**
  - **Data/ Security system installs**
  - **CCTV- Installs and programming**
  - **Network room build-outs**
- **Enjoy spending time with my kids**

  Connect with me on LinkedIn below

Geneva Knott

- **Marine Corps Veteran- 0621 Communications**

- **9 yo LE/Criminal Investigator -Violent Crimes w/ Bachelors in Criminal Justice**

- **ITF + Network + CompTia certified- working on Associates in Cyber Defense**

Linked **in**

Sierra Maldonado

- US Navy Veteran, Seabee

- ITF+ and Networking+

- Six Sigma White belt in HR

- Accepted to ASU Pre-Vet Program

- Connect with me on linkedin!

SEABEES
"CAN DO!"

Problem Domain

- Night Owl Network has been tasked with updating the core IT infrastructure of recent GlobeX acquisition called CleanPower.
- CleanPower is a young, innovative startup that specializes in developing renewable energy solutions for homes and businesses.
- Their team of engineers and energy experts works with clients to design and install solar power systems, wind turbines, and other renewable energy technologies.
- Build out new infrastructure and organization which is in line with the rest GlobeX's holdings.
- Develop a secure solution for data transmission between two networks, and demonstrate successful resource access in your upcoming presentation to the executive team.
- AAA security management
- RADIUS system that raises a captive portal for new network users and authenticates them using AD credentials.

Before Network Topology
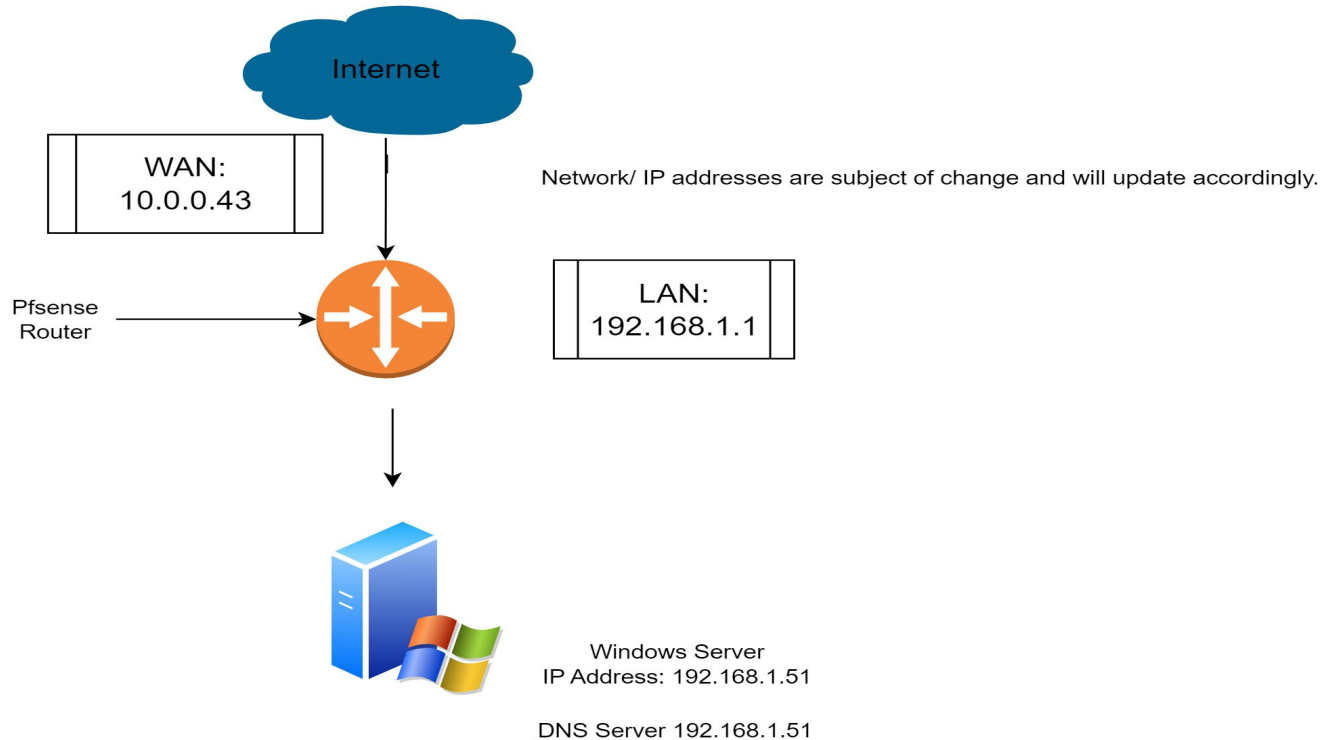
Improvements

Updated by adding a secure OpenVPN tunnel Site-to-site

+ enables secure communication, provide remote access to resources on a network.
+ highly scalable and can be easily configured to support large numbers of users and devices.

Utilized Captive Portal

+ Only authorized users can access a given network and to provide a means of authentication for new users.
+ Enforces security measures
+ Compliance with legal and regulatory requirements

Used Network Policy and Access Services

+ A client health policy creation, enforcement, and remediation technology

Network Infrastructure Table

	DEVICE	IP ADDRESS (LAN)	IP ADDRESS (WAN)	TUNNEL IP ADDRESS	DOMAIN NAME	SERVICE USED
VPN ENVIORNMENT SIERRA + GENEVA						
	DEVICE	IP ADDRESS (LAN)	IP ADDRESS (WAN)	TUNNEL IP ADDRESS	DOMAIN NAME	SERVICE USED
	SERVER	192.168.2.20 /24 (STATIC)	N/A	N/A	CleanPower	N/A
	PFSENSE (A)	192.168.2.1 /24	192.168.2.1 /24	10.0.2.0	N/A	OPENVPN SERVER
	PFSENSE (B)	192.168.1.1 /24	10.0.2.7 /24	10.0.2.0	N/A	OPENVPN SERVER
	WINDOWS 10- END USER	192.168.1.101 /24	N/A	N/A	N/A	N/A
CAPTIVE PORTAL/ RADIUS CONNIE + NICK						
	SERVER	192.168.1.20 /24	N/A	N/A	CleanPower	NPAS (NETWORK POLICY and ACCESS SERVICES)
	PFSENSE	192.168.1.1 /24	192.168.0.133 /24	N/A	N/A	FREERADIUS
	WINDOWS 10- END USER	192.168.1.101 /24	N/A	N/A	N/A	N/A

After Network Topology
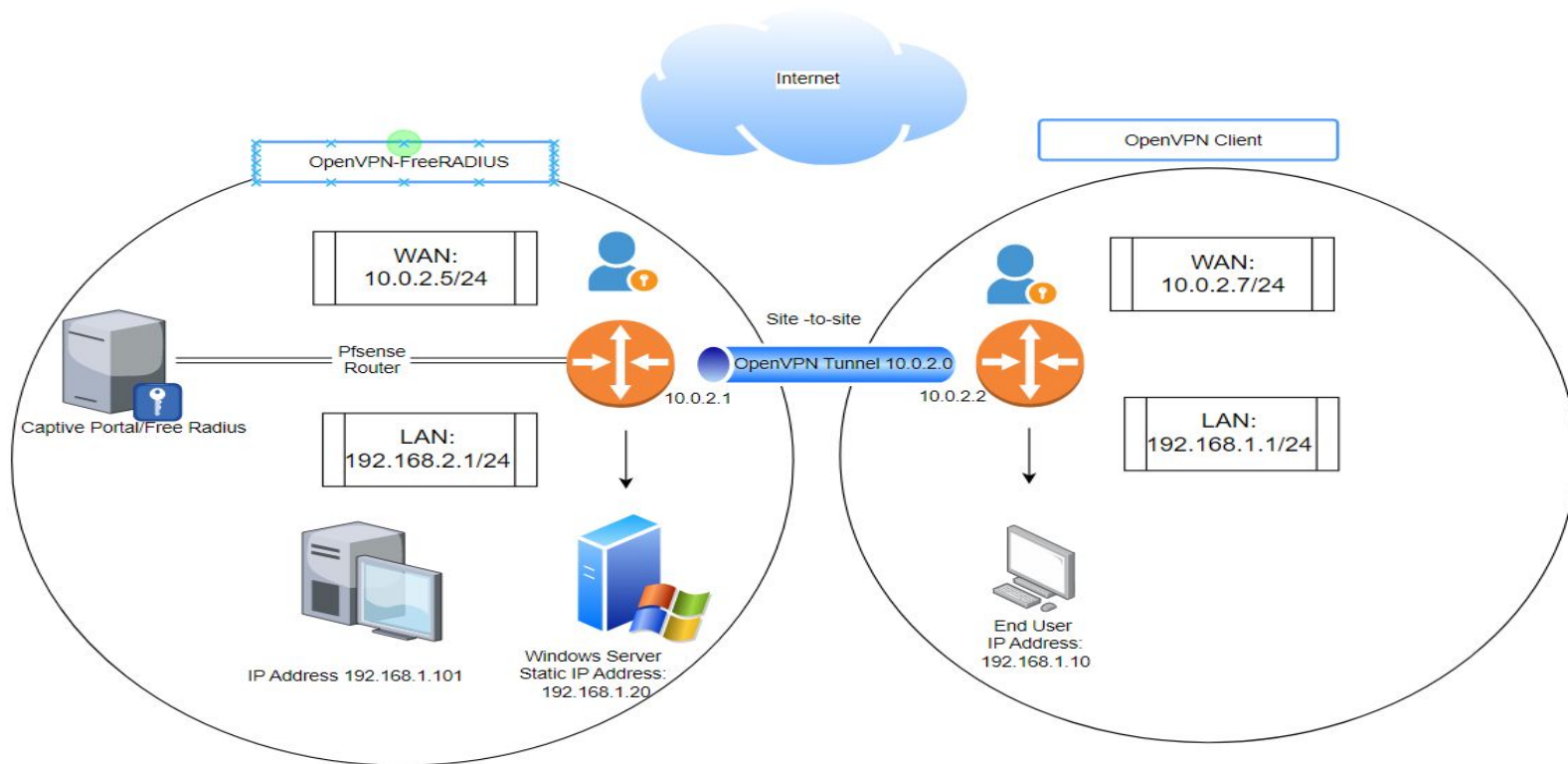
Process & Documentation

NIGHT OWL NETWORK

👋 Welcome to our team project

We are 🛡 Cybersecurity professionals 🔥 studying at Code Fellows. Night Owl Network is our end of the course presentation where we demonstrate our skills and knowledge we have learned in our Networking class 👀.

🤝 Connect with us

[LINKEDIN] [GITHUB] 👤 **Nickolaus Alderete**

Army combat veteran. Transitioning low voltage electricain, data/ security installs and network room build-outs. CompTIA ITF+ certified.

[LINKEDIN] [GITHUB] 👤 **Geneva Knott**

My name is Geneva, I go by Gege. I am moving into cyber security and Operations and have a background in law enforcement. I did nine years in law enforcment and left as a violent crimes, Crimminal Invesitgator. I saw an uptik in cyber crimes and wanted to learn more about cyber security and am looking into cyber forensics. I currently hold a Bachelors degree in Criminal Justice and am actively working towards an associates in Cyber Defense. I currently hold CompTia certifications in ITF +, and Network + and am seeking more.

[LINKEDIN] [GITHUB] 👤 **Sierra Maldonado**

US Navy Veteran, Seabee. ITF+ and Networking+. Six Sigma White belt in HR. Accepted to ASU Pre-Vet Program

[LINKEDIN] [GITHUB] 👤 **Connie Uribe Chavez**

USMC veteran with programming experience. Computer Science B.A. and CompTIA ITF+ certified. Hobbies include being outdoors and gardening.

💾 Description of our project 🚧

Our company: Night Owl Network is a company that provides network solutions to other companies struggling with security and setting up an effective network.

Our scenerio: Night owl Network has been tasked with updating the core IT infrastructure of recent GlobeX acquisition called CleanPower. CleanPower is a young, innovative startup that specializes in developing renewable energy solutions for homes and businesses. Their team of engineers and energy experts works with clients to design and install solar power systems, wind turbines, and other renewable energy technologies.

💻 PM Tools used 💻

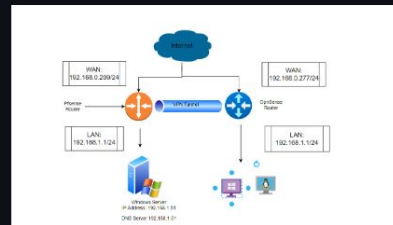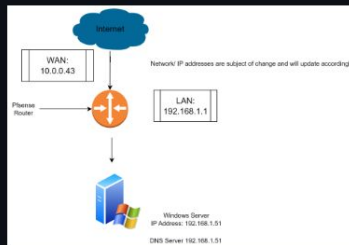- Trello Board

🔎 Repos 🪝

Repo Standard Operating Procedures

Repo Prep Docs

Repo Scripts

💬 Slideshow presentation and presentation video 🎤

- Slide show upload - TBD
- Vide Presentation upload - TBD

🌐 Topology and other images 🎛

Demo

NIGHT OWL
NETWORK

Status / OpenVPN

Peer to Peer Server Instance Statistics

Name	Status	Connected Since	Virtual Address	Remote Host	Bytes Sent	Bytes Received	Service
VPN2 UDP4:1194					0 B	0 B	

- It routes all of your network traffic through an encrypted tunnel via the VPN.
- Routing the network traffic disguises your IP address when using the internet, replacing it with the location and an IP address from the VPN server making its location invisible.

Servers   Clients   Client Specific Overrides   Wizards

OpenVPN Servers

Interface	Protocol / Port	Tunnel Network	Mode / Crypto	Description	Actions
WAN	UDP4 / 1194 (TUN)	10.0.2.0/24	**Mode:** Peer to Peer (Shared Key) **Data Ciphers:** AES-256-CBC **Digest:** SHA256	VPN2	

➕ Add

Why OPEN-VPN?

Resources & Thanks

We would like to thank the 301 cohort, to include staff, instructors, TA and peers for collectively helping us grow and learn and all the family members who support us!

Questions?