

**Final Project: 301d6** 

Agenda



- Team Member Introductions
- Problem Domain & Project Overview
- 3. Team Process & Documentation
- 4. Application

  Demonstration
- 5. Q&A

# **Our Team**





- 1. Anthony Wall
- 2. Jeremy Patton
- 3. Rob Gregor
- 4. Ethan Brock
- 5. Dylan Dempsey



## **Jeremy Patton**

- worked as an Assembly Lead for several years
- strong interest in the security aspect of technology.
- I picked this specific skill because there is a high demand in Cyber Security



















- Previously employed as a DTRA DoD Red Team Liaison
- Chose cybersecurity to challenge myself and expand knowledge







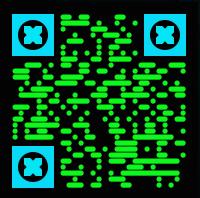






## **Dylan Dempsey**









- Navy Veteran (STG2)
- Security Clearance
- Real Estate Agent/ Investor
- Expert at identifying risks and opportunities

Dylan Dempsey | LinkedIn

### **Problem Domain - Green Spark**

#### Startup offering energy consulting services

- Experts work with clients to reduce energy consumption
- Customized solutions for cost savings and reduction of carbon footprint

#### • Client Requirements

- Develop automated Domain Controller configuration
- Build a site-to-site VPN tunnel
- Provide network access control for Authentication, Authorization, and Accounting (AAA)

### **Solutions**

#### Domain Controller auto-configuration

- A PowerShell script was developed to provide a menu-based interface.
- easily configure various Active Directory services.
- o prompt the administrator for input

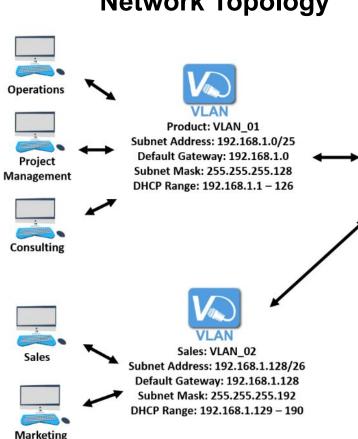
#### VPN tunnel

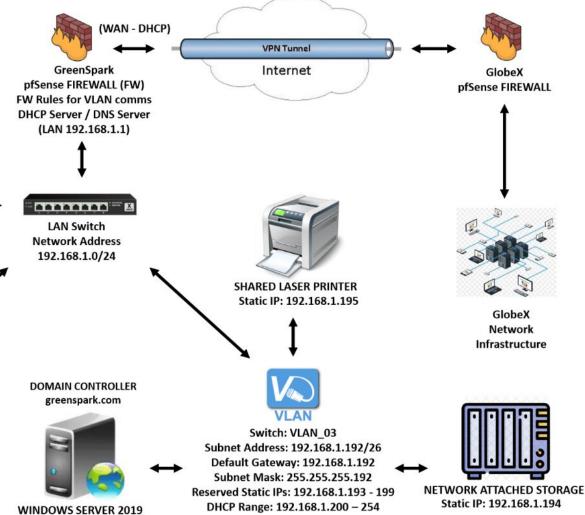
- Set up a VPN tunnel with IPsec protocol
- data is encrypted at the source and decrypted at the destination.
- more difficult to tamper with the data in transit.

#### Network access control

- Implemented a RADIUS system.(Remote Authentication Dial-In User Service)
- o Provides the network with AAA (Authentication, Authorization, and Accounting) Security.
- Raises a captive portal.
- Authenticates new network users.

### VLAN Trunking Network Topology





Static IP: 192.168.1.193

# Demo!

## **Resources & Thanks**

- https://openai.com/blog/chatgpt

Mac's PC













# Questions?