

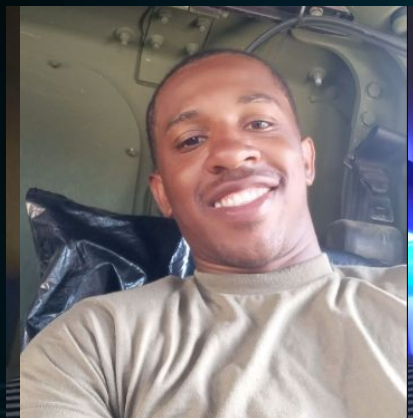


Agenda

1. Team Member Introductions
2. Problem Domain & Project Overview
3. Solutions
4. Application Demonstration
5. Q&A

Team DataVerse

Robert Gillespie



David Siebert

Gerald Rietmeyer

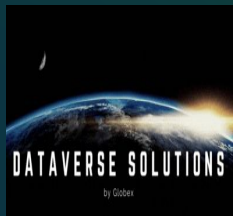


David Prutch



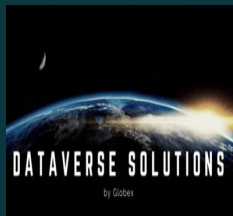
Robert Gillespie

Current Army National Guards
Member. Chose Code Fellows to build
a strong foundation towards a
fulfilling and challenging career
within Cybersecurity.



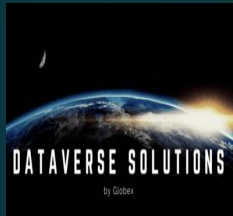
David Siebert

US Army retired. Previous Finance & Healthcare Licensed careers. Enrolled @ Code Fellows for my educational interests & future career rewards.



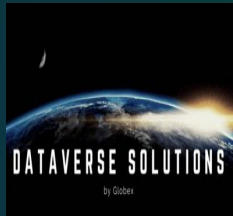
Gerald Rietmeyer

Worked in retail and landscaping before taking Code Fellows. Had a interest in cyber security since high school.



David Prutch

US Navy Veteran. Previous Software QA Manager. Chose Cyber Security Engineering to increase my tech skills and provide greater future career possibilities.



SunFlow

- Develops smart IOT home devices, powered by solar energy.

Products:

- Smart thermostats
- Security cameras
- Lighting systems

Device Control Parameters:

- Mobile app
- Reducing energy consumption
- Maximizing efficiency

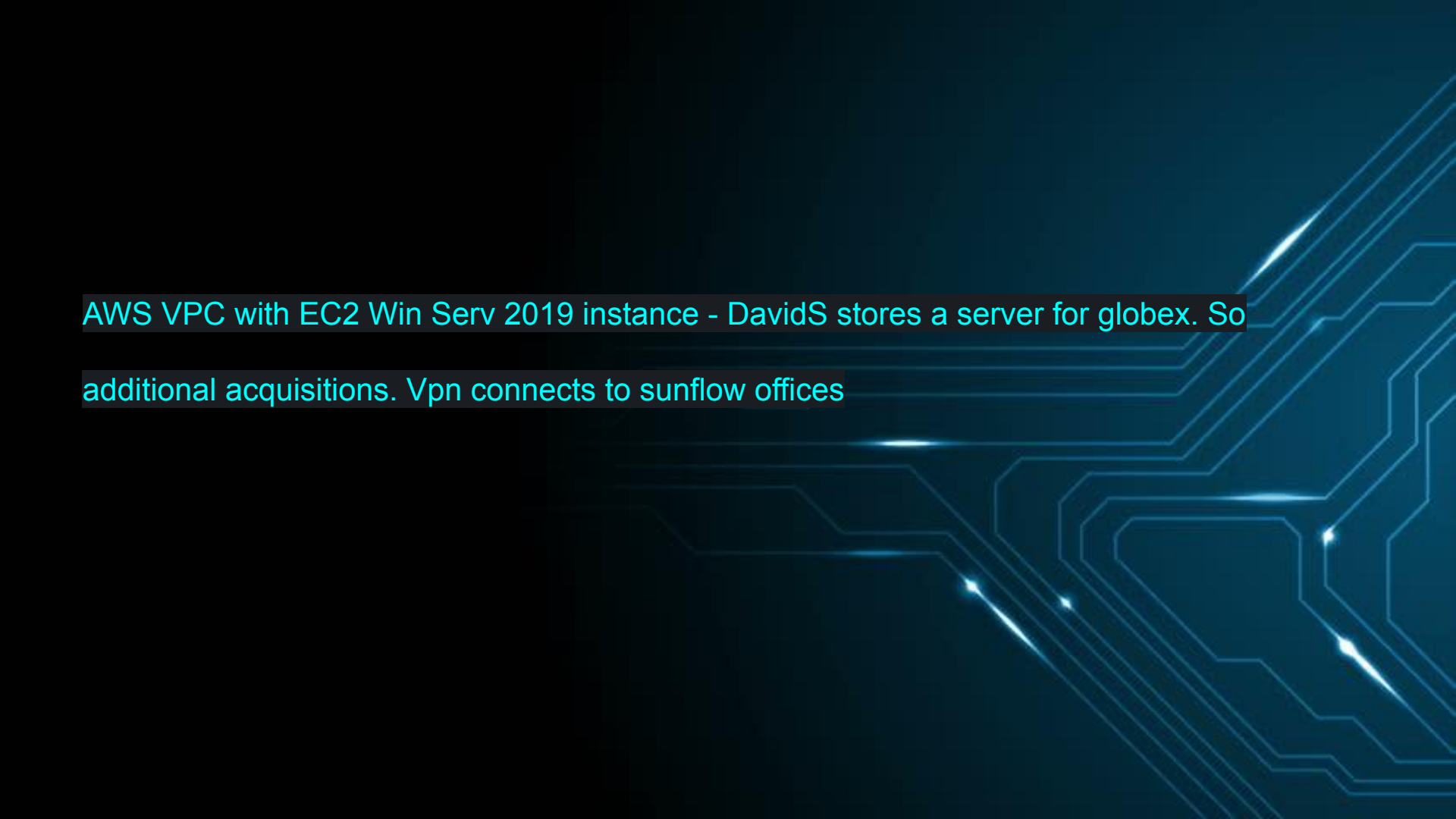


Network Integration Prototype

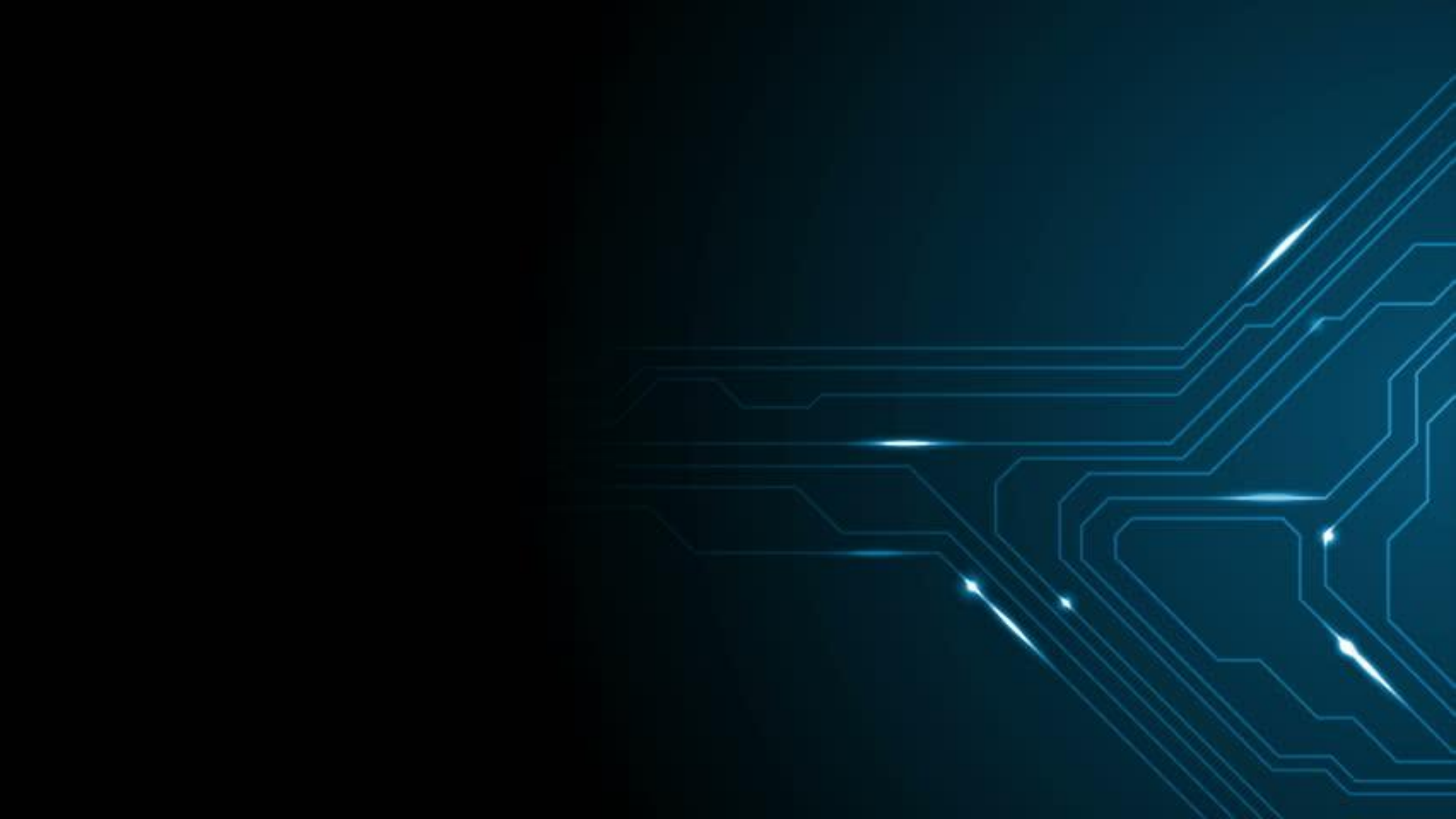
- Connect SunFlow to Globex Central Server
 - Provide access from any endpoint
 - Centrally store company data
 - Secure company resources
- Make process easily repeatable

Solutions

- AWS VPC with EC2 Win Serv 2019 instance
- VPN Connection from AWS VPC to pfSense
- Internal Network access to Server
- Active Directory and DNS in Windows Server
- Automation

An abstract graphic featuring a series of glowing blue lines that resemble a circuit board or data pathways. These lines originate from the right side of the frame and extend towards the left, with some lines branching out. The background is a dark, solid blue, and the overall aesthetic is high-tech and digital.

AWS VPC with EC2 Win Serv 2019 instance - DavidS stores a server for globex. So
additional acquisitions. Vpn connects to sunflow offices



IPSec VPN Connection

- Multiple Site to Site VPN Connection
- IPSec - Secure, Encrypted, Reliable and Free
- pfSense router to connect to AWS VPC



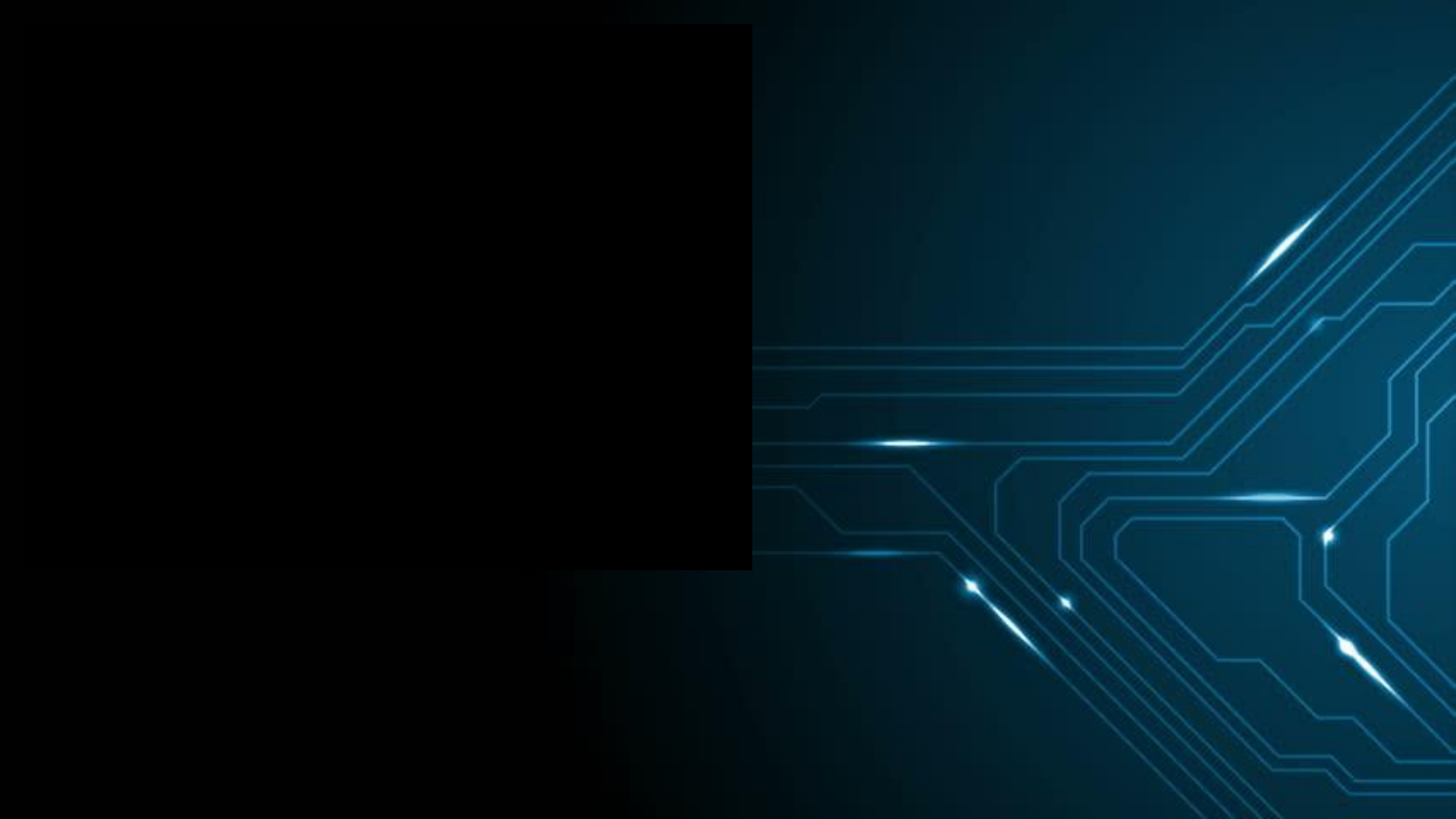
VPN Tunnel



pfSense

Logging into a Domain

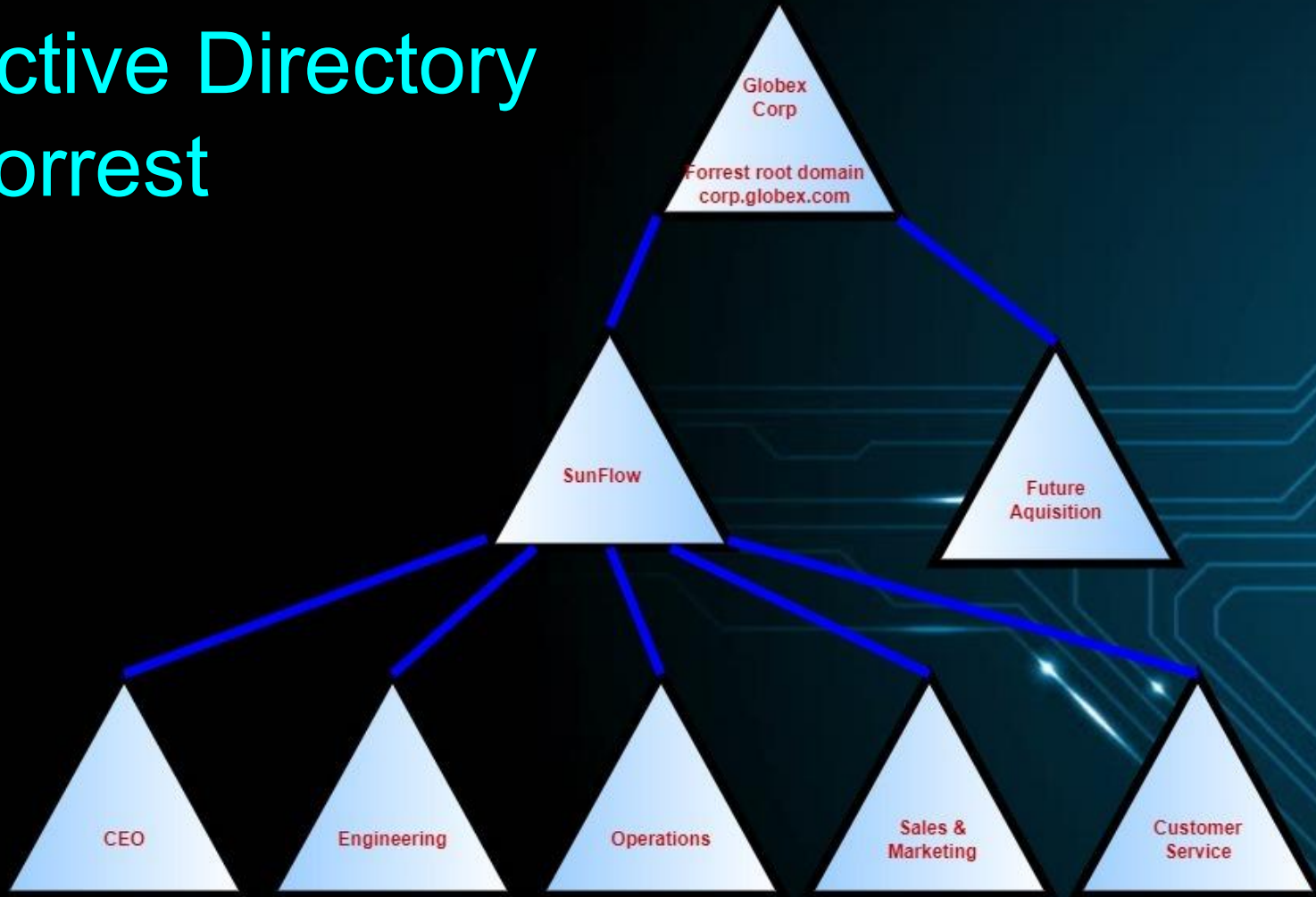
- Domain
 - Users, workstations, devices and more
 - Standardized settings
- Captive Portal
 - Security checkpoint
 - Double checks credentials



Windows Server

- Primary DNS Server
 - Remote location traffic flows through central location
 - Traffic Mirroring on AWS end
- Active Directory
 - Independent Organizational Units
 - Group Policy based on individual subsidiary needs
 - Automated insertion

Active Directory Forrest



Resources & Thanks

- Special Thanks to our families and friends for putting up with us during the process.



To our Incredible instructors, TAs, and fellow students:

Thank you for making this learning journey unforgettable.

Your support and dedication have made all the difference.

Questions?



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