

GlobeX

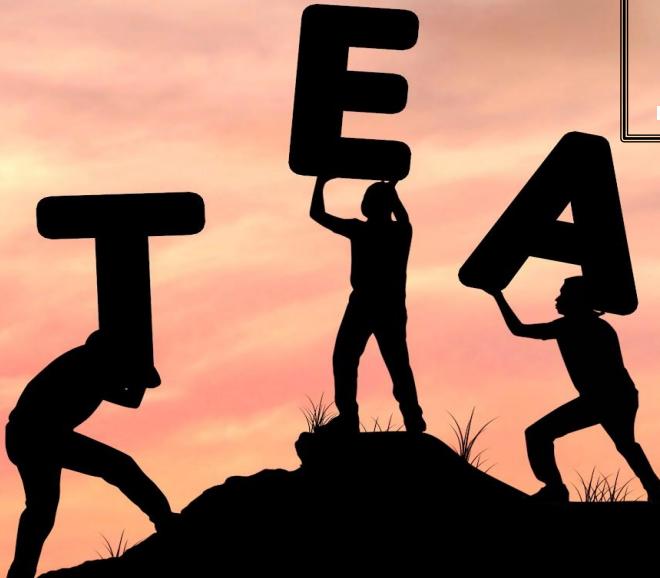
Modernizing IT Infrastructure

Final Project: Seattle-Ops301d6-IT Construct

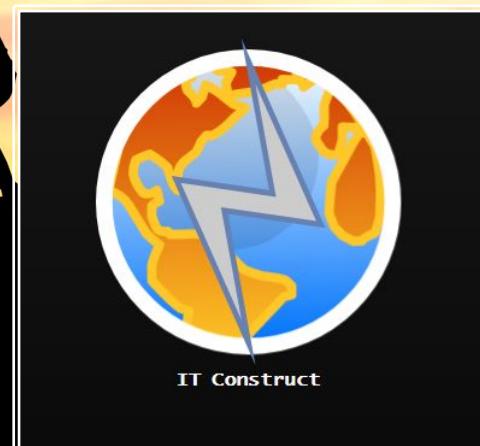
Agenda

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

IT Construct



1. Jordan Marshall
2. Nicholas Loiacono
3. Lamin Mola Touray
4. Stanley L. Ferguson III
5. John Alfred C. Alona

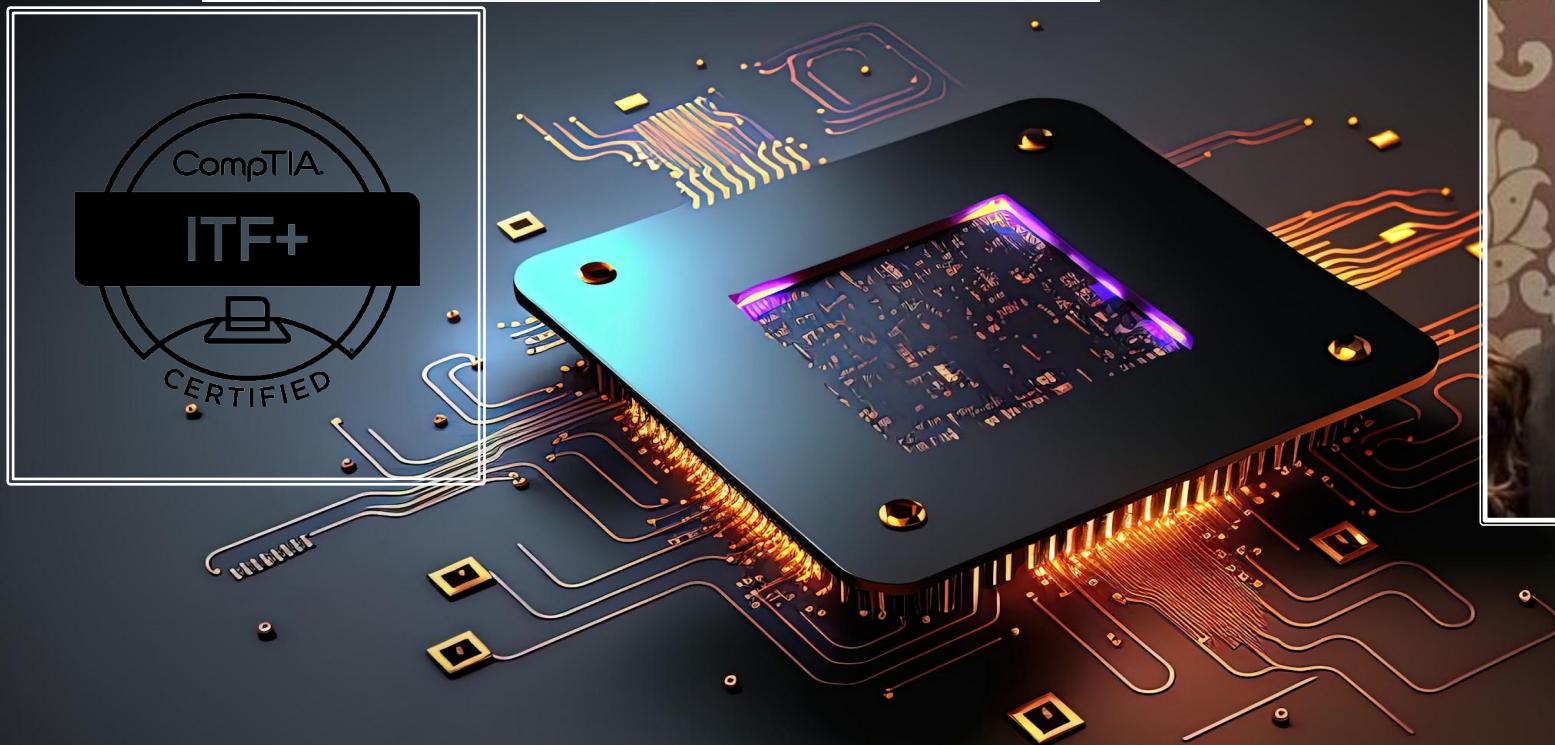


Jordan Marshall

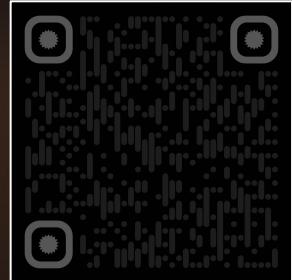


- USAF Medic
- Working in the healthcare field for the past 10 years.
- Newly Comp TIA ITF+ certified
- I chose cybersecurity to learn a new skill and my interest in the field
- No prior IT experience

Nicholas Loiacono



LinkedIn



- Veteran with 10 years of military experience
- Career transition to Cybersecurity from Engineering
- Looking to challenge myself and spend more time with family

Lamin Mola Touray



- Navy VET
- CompTIA ITF+ Certified
- Transitioning from firefighting to cyber security.

Stanley L. Ferguson III

- US Army Reservist
- Driven to learn and expand knowledge
- Avid Gamer and combat sports fan



John Alfred C. Alona

LinkedIn



- US Navy Veteran
- Worked for Fedex Ground
- PC Gamer

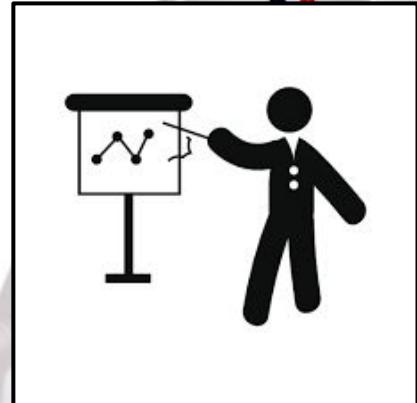
Client Company (GlobeX)

- What is your problem domain?

- The team will update the core IT infrastructure of GlobeX's new acquisition. This new startup is a great addition to GlobeX, but needs work on their IT systems.
- The team suggests building new infrastructure for the acquisition's intranet, rather than integrating it directly into GlobeX, to avoid technical debt. This approach aligns better with GlobeX's overall organization and is preferable for a small startup like the acquisition.
- Leadership is worried about the security of the new company's local network if they integrate the acquisition's intranet into GlobeX.



solution

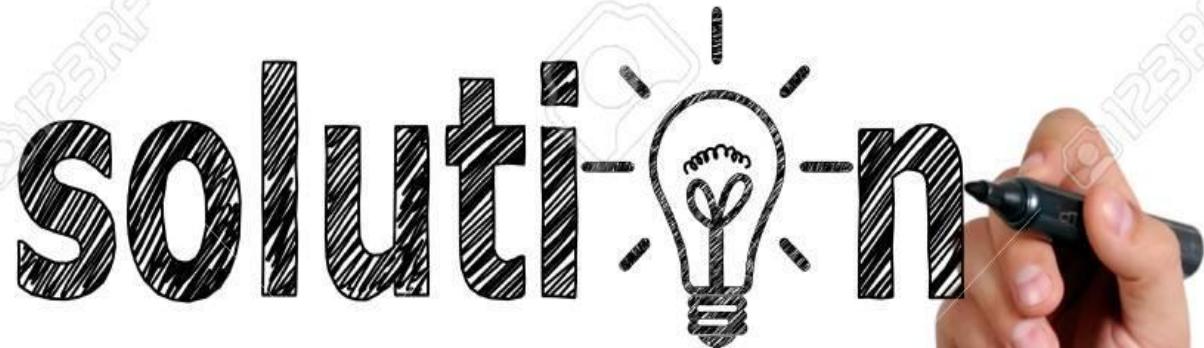


We will demonstrate implementation of network access control that provides a healthy level of AAA security management using:

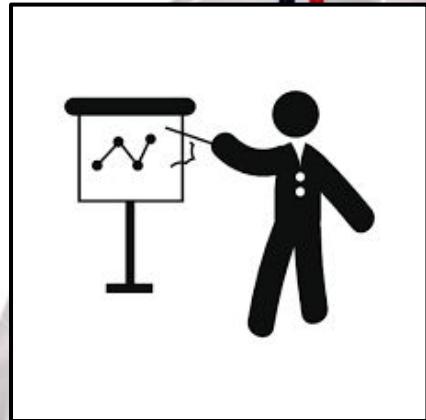
- **pfSense** acts as the gateway to authenticate users and control their access to the network based on their credentials.
- **Windows Server 2019** is where our Server Manager is housed, where the Powershell script will be deployed, and where our pfSense settings were edited.
- **Server Manager Application** being the place where we will create our AD forest & server domain.



solution



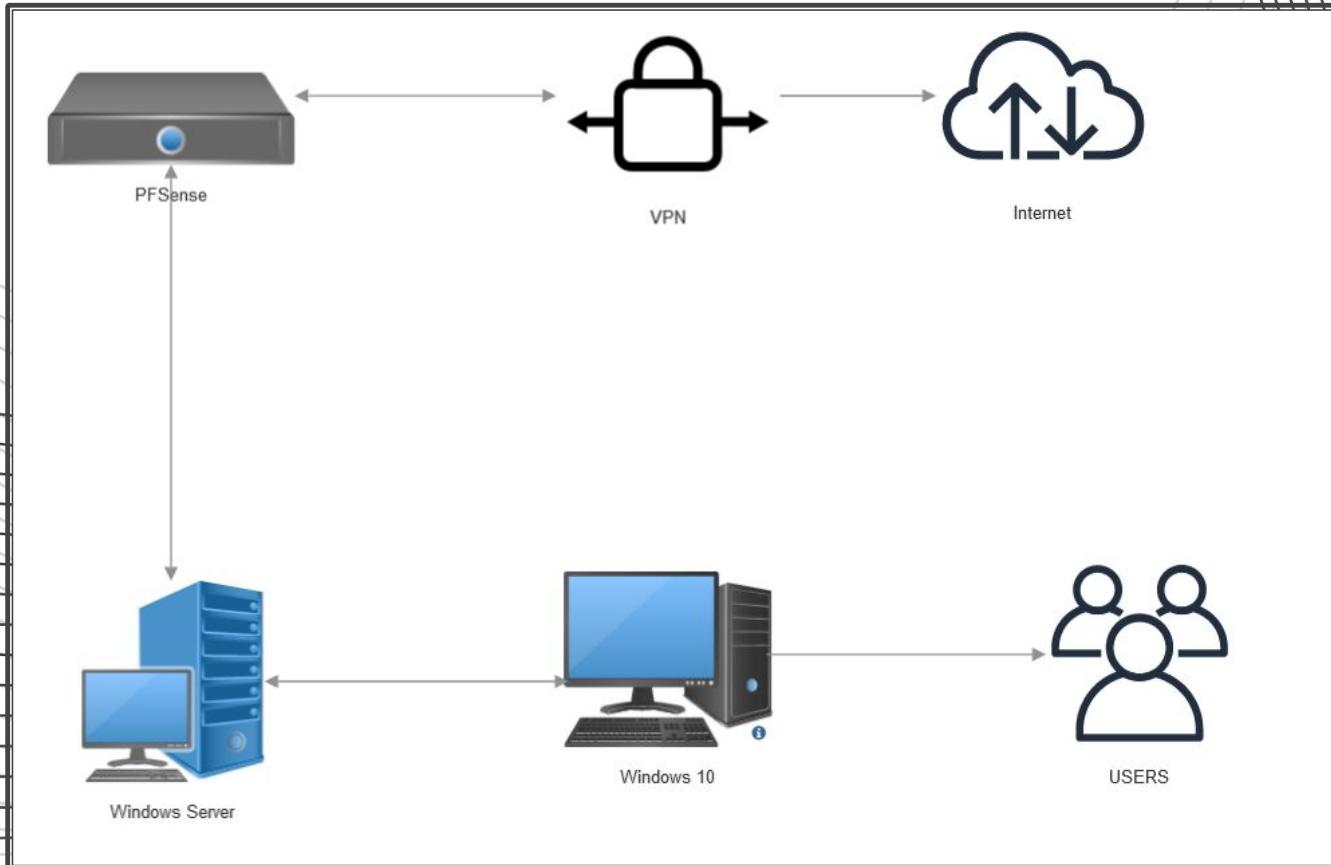
- **Powershell ISE** script will be deployed to fully stand up all requisite services to:
 - Make the server into a Domain Controller (DC).
 - Assign the Windows Server VM a static IPv4 address and a DNS.
 - Rename the Windows Server VM.
 - Install Active Directory Domain Services, and create an AD Forest, Organizational Units (OU), and users.
 - Additionally, the Powershell ISE script will reboot the VM once while continuing to perform its required tasks. Windows 10 VM will be our way to remotely perform server actions and access domain information.



Topologies and Flowcharts



pfSense®



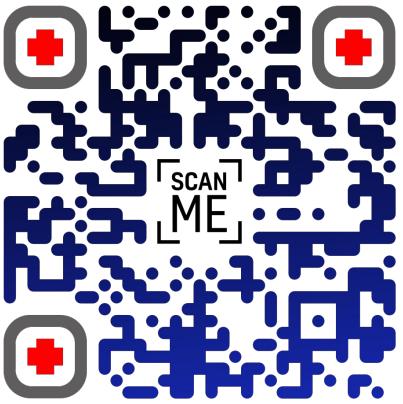


The background features a dark blue gradient with three concentric circular light trails in shades of cyan and white. Numerous small, glowing, semi-transparent particles resembling stars or distant galaxies are scattered across the dark space.

Demo!

Resources & Thanks

- Link to your documentation and resources for IT-Construct:
 - Please scan our QR code to reach our GitHub Organization!
- Gratitude to those who helped you get it done:
 - A big thank you to Ethan Denny, Hexx King, Justin Buffington, and Zak Derrick for all of the technical assistance with our new GlobeX Acquisition company.
- Links to any other attribution and/or resources worth noting:



[IT-Construct GitHub](#)

Questions?

CONTACT US!