

Your team is tasked with updating the core IT infrastructure of a recent GlobeX acquisition. This young, innovative startup aligns well with the mission of GlobeX; unfortunately, its IT systems do not.

Your team believes that trying to integrate the acquisition's existing intranet directly into the rest of GlobeX will result in technical debt. Since the acquisition is still a small startup, your team believes it will be better to simply build out new infrastructure and organization which is in line with the rest of GlobeX's holdings.

However, you still need to convince your leadership by demonstrating that your team is up to the challenge and can perform this kind of task in a repeatable, efficient manner.

The operations chosen for this demonstration are:

- Develop a repeatable means of standing up a DC to oversee the new acquisition's network. The AD will need to automatically populate users and OUs in accordance with the organizational chart.

- Objective: as a team, develop a Powershell script to be executed on a new installation of Windows Server.

- This should be written as a single script, though it can be organized into different files.

- The VM will need to reboot at least once while the script is performing its tasks:

- How will you make sure the script completes its operations? Is there a way to avoid manually restarting/continuing the script after a reboot?

- Each individual of the team is to contribute their share of the overall script and document their individual contribution. The final script should reflect an equal effort from all team members.

- Minimum operations this script should perform:

- Fully standup all requisite services to make the server into a DC

- Assign the Windows Server VM a static IPv4 address and a DNS

- > Note: in class we assigned a *reserved IP* in pfSense, but this script is to assign the VM a *static IP*.

- Rename the Windows Server VM
- Installs AD-Domain-Services
- Create an AD Forest, Organizational Units (OU), and users
- Develop a secure solution for data transmission between two networks, and demonstrate successful resource access in your upcoming presentation to the executive team.
- Objective:
 - Build a site-to-site VPN tunnel
 - Alter at least one parameter compared to what was performed in class (e.g. router used, VPN protocol used, introducing a cloud component, etc.)
 - Demonstrate successful access to a file server, Active Directory, or other network resource on the other end of the tunnel
- Leadership has concerns about the local network security of the new company, if the acquisition's intranet is going to be joined to GlobeX. You will need to demonstrate implementation of some form of network access control that provides a healthy level of AAA security management.
- Objective: Deploy a RADIUS system that raises a captive portal for new network users and authenticates them using