# **Proxmox Lab: Game of Active Directory**

benheater.com/proxmox-lab-game-of-active-directory

0xBEN August 19, 2024

In this project, we'll be using deployment tools and scripts shared by m4yfly to standup and configure Game of Active Directory (GOAD) v3 in the environment set up in my original Proxmox lab series.

## **About this Project**



This project is an extension of my series demonstrating <u>how to set up a Proxmox home</u> lab server.

Because of the size of the *Game of Active Directory (GOAD) v3* project, I made the decision to break it off into its own series, while referencing key points and pages from the original Proxmox project.



<u>Original Author Credits to Mayfly</u>. I borrowed heavily from this documentation, and thank Mayfly sincerely for all of the time and effort that went into creating Game of Active Directory.

## Change Log

#### Show / Hide

#### Dec. 9, 2024

- Rewrite of a large portion of the lab guide to bring the documentation current with GOADv3
- The majority of the <u>process of setting up the provisioning container</u> stays the same, with a small update on setting the environment up with the <u>goad.sh</u> script
- No changes to the process of creating templates with Packer
- This update removes the final Ansible step and <u>combines everything into a lab</u> <u>install step</u> using the <u>goad.sh</u> script after the templates are created
- Overall, the process is largely the same with the majority of it now orchestrated with a single goad.sh script instead of manually invoking terraform and ansible

#### Dec. 3, 2024

 Added temporary workaround for GOAD v3 breaking changes when first cloning the GitHub repo • This involves a git reset to bring the GitHub repo back to the most recent commit around when this project was published until I can do a re-write

#### Oct. 28, 2024

- Updated the <u>Creating VM Templates</u> step
- This change corrects the cloud-init .iso file build procedure, as the previous series of steps broke the cloud-init install on the target VM template

### **Overview of the Lab Environment**



This diagram shows the current state of the Proxmox lab environment that we've created following <u>my home lab guide mentioned above</u>; along with the GOAD introductions that we'll be implementing here.

Open this Diagram in a New Tab

### **Modules in the Project**

Proxmox Lab: Game of Active Directory - Environment Setup

In this module, we'll be taking steps to set up the initial environment and prepare to deploy Game of Active Directory (GOAD) in our existing Proxmox environment.



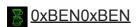
Proxmox Lab: Game of Active Directory - Creating VM Templates

In this module, we'll be taking steps to create some Windows Server 2016 and Windows Server 2019 templates using Packer for use in the Proxmox Game of Active Directory lab



Proxmox Lab: Game of Active Directory - Installing the Lab

In this module, we'll be taking steps to provision the entire Proxmox Game of Active Directory lab environment using Terraform



## Proxmox Lab: Game of Active Directory - Attacking GOAD

In the final module of the lab, we'll be taking steps to ensure that we can access our attack box in certain conditions and successfully ensure connectivity to Game of Active Directory targets in the lab.

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