Terraform Install

1. **Identify the components of the system you want to use**

Local Proxmox URL: [https://192.168.1.132:8006/](https://35.129.59.31:8006/)

Ubuntu Server Template: UbuntuServerTemplate

1. **Create terraform user account**

Datacenter -> Users -> Add

terraform

1. **Create roles**

Datacenter -> Roles -> Create

Role name: TerraformProvision

**Required Permissions**

Datastore.AllocateSpace

Datastore.Audit

Pool.Allocate

SDN.Use

Sys.Audit

Sys.Console

Sys.Modify

Sys.PowerMgmt

VM.Allocate

VM.Audit

VM.Clone

VM.Config.CDROM

VM.Config.CPU

VM.Config.Cloudinit

VM.Config.Disk

VM.Config.HWType

Vm.Config.Memory

VM.Config.Network

VM.Config.Options

VM.Migrate

VM.Monitor

VM.PowerMgmt

1. **Create group**

Datacenter -> Groups -> Create

Group name: terraform

Add group permissions

Datacenter -> Permissions -> Add - > Group Permissions

Path: /

Group: terraform

Role: Terraform Provision

1. **Edit terraform user**

Datacenter -> Users -> Edit

Group: terraform

1. **Create API token**

Datacenter -> API Tokens -> Add

User: terraform@pam

Token ID: terraform

Privilege Separation: uncheck

1. **Record Token Secret**

Token ID: terraform@pam!terraform

Secret: b77238fa-1ddc-49c2-9178-1afeba1b3d68

1. **Download Terraform into a proxmox vm so it’s accessible from proxmox and unzip**

sudo apt update && sudo apt install -y wget unzip

wget <https://releases.hashicorp.com/terraform/1.10.5/terraform_1.10.5_linux_amd64.zip>

unzip terraform\_1.10.5\_linux\_amd64.zip

1. **Setup permission levels and file locations**

sudo chown root:root terraform

sudo mv terraform /usr/local/bin

cd

mkdir terraform

cd terraform

1. **Configure Proxmox provider by creating main.tf file**

vi main.tf

Code is here: <https://www.learnlinux.tv/provisioning-virtual-machines-in-proxmox-with-terraform-full-walkthrough/>

Adjust code to match proxmox instance

provider "proxmox" {

pm\_api\_url = "[https://192.168.1.132:8006/api2/json"](https://192.168.1.132:8006/api2/json%22)

pm\_api\_token\_id = "terraform@pam!terraform"

pm\_api\_token\_secret = "b77238fa-1ddc-49c2-9178-1afeba1b3d68"

pm\_tls\_insecure = true

}

resource "proxmox\_vm\_qemu" "terraform-created-vm-instance" {

name = "terraform-created-vm-instance"

target\_node = "pve1"

clone = "ubuntuServerTemplate"

full\_clone = true

cores = 2

memory = 2048

disk {  
 size = "32G"  
 type = "scsi"  
 storage = "local-lvm"  
 discard = "on"  
}

network {

model = "virtio"

bridge = "vmbr0"

firewall = false

link\_down = false

}

}

1. **See terraform plan**

terraform init

Terraform plan

1. **Run Terraform**

terraform apply