vault

Proxmox box running virtualized network infrastructure

- Physical Hardware
- Base Install
- Configuration (deprecated)
- VM / firewall (needs verification)
- VM / homeassistant

Physical Hardware

Basic Components



Proectli Vault

Compute

Processor

Intel Celeron Bay Trail-D J1800 - Provides excellent mix between performance and efficiency using only 10W.

Cores / Threads	2 / 2
Base Frequency	2.41 GHz
Burst Frequency	2.58 GHz
Cache	1MB L2 Cache
TDP	10W

GPU

Intel HD Graphics for Intel Atom Processor Z3700 Series

Base Frequency	688 MHz
Burst Frequency	792 MHz
QuickSync Video	Yes

Motherboard

Form Factor	Proprietary

CPU	Soldered Intel Celeron J1800
Chipset	unknown
Memory	1x DDR3L 1333MHz SODIMM, 1.35v, Max 8GB
Video	1x VGA
Networking	2x Intel Gigabit 82583V 1GbE
PCI	none
Storage	1x mSATA
USB	1x External USB 2.0 (Type-A) 1x External USB 3.0 (Type-A) 1x Internal USB 2.0 (mPCIe)
COM	1*RS232

Memory

Slot 1 	Timetec Hynix IC 8GB DDR3L 1333MHz (1x8GB) 2Rx8 Dual Rank CAS Latency 13 1.35V

Case

n/a

Storage

SATA1 	Dogfish 64GB mSATA MLC SSD

Cooling

n/a

Power Supply

n/a

UPS

n/a

Add-On Cards

mPCIe (USB) 	Protectli Wifi Adapter • Wireless B/G/N at 2.4Ghz • USB Channel communication

Base Install

Operating System

Proxmox Virtual Environment 6.x

Configuration

> Proxmox configuration has been transitioned to being automated by an Ansible Role

Configuration (deprecated)

DHCP Server

Domain	Subnet	Gateway
hermz	10.0.0.0/21	10.0.1.1

IP Reservations

A few reservations were setup to ensure certain interfaces get a static IP address assigned to make managing these machines/devices easier.

MAC Address	Client Id	IP Address	Description
`02:1c:83:7d:15:8e`	firewall	10.0.1.1	PfSense firewall
`02:1c:83:7d:15:8e`	pihole	10.0.2.2	Pi-hole DNS
`02:1c:83:7d:15:8e`	wireguarded	10.0.2.2	wireguarded
`b4:fb:e4:8f:f9:74`		10.0.2.99	Ubiquiti UniFi Switch 8
`e0:d5:5e:63:fe:30`	blackbox	10.0.3.2	blackbox proxmox management
`e0:d5:5e:63:fe:30`	mini	10.0.3.3	mini proxmox management
`d0:a6:37:ed:8c:7f`	silverbook	10.0.4.4	Dustin's MacBook Pro (wifi)
`82:13:00:9c:c7:00`		10.0.4.5	thunderbolt ethernet adapter
`32:cc:fb:a3:1a:57`	docked	10.0.44.4	docker services

DNS Resolver

DNS overrides were setup to allow accessing some services directly across the LAN instead of going through the router.

No overrides are currently being used

Firewall/NAT

Interface	Protocol	Destination	Port(s)
WAN	IPv4 TCP	docked.hermz	80 *(HTTP)* 8080 *(HTTP alternative)* 443 *(HTTPS)* 8443 *(HTTPS alternative)*
WAN	IPv4 TCP	docked.hermz	2222 *(SSH alternative)*
WAN	IPv4 TCP/UDP	wireguarded.hermz	51820 *(Wireguard)*

Dynamic DNS

Interface	Service	Hostname
WAN	Namecheap	@.swigg.net
WAN	Namecheap	*.swigg.net
WAN	Namecheap	@.dustins.site
WAN	Namecheap	*.dustins.site
WAN	Namecheap	@.notgandhi.com
WAN	Namecheap	*.notgandhi.com

VM / firewall (needs verification)

Description

This VM is for running VyOS to act as a firewall/router for the network. Originally this machine was running pfSense (which is excellent) but that is based on FreeBSD and I wanted a firewall/router based on Linux.

Configuration

Resources

Hostname	CPU	Memory
firewall	2 vCPU	512MB

Storage

Disk	Controller	Size	Purpose
vpool-zfs:vm-104-disk-0	ide0	1M	EFI

Networking

Interfaces

ID	Name	Bridge	IP Address
net0	n/a	vmbr0	(DHCP)
net1	n/a	vmbr1	10.0.1.1/21

VM / homeassistant

220px-Home_Assistant_Logo.svg.png

Description

This VM is for running HomeAssistant which acts as the control system for smart home devices with focus on local control and privacy.

Configuration

Resources

Hostname	CPU	Memory
homeassistant	2 vCPU	4096MB

Storage

Disk	Controller	Size	Purpose
vpool-zfs:vm-104-disk-0	ide0	1M	EFI

Networking

Interfaces

ID	Name	Bridge	IP Address
net0	n/a	vmbr0	(DHCP)