Homelab overview

- homelab diagram

homelab diagram

```
%%{init: {'theme': 'base', 'themeVariables': { 'primaryColor': '#cfd8dc', 'primaryTextColor': '#eceff1', 'primaryBorderColor': '#cfd8dc', 'lineColor': '#b0bec5', 'tertiaryColor': 'transparent', 'edgeLabelBackground': 'transparent', 'mainBkg': '#121212'}}}%%
flowchart LR
    %% ==========================================
    %% 1. DEFINITIONS & CLASSES
    %% ==========================================
    %% App Nodes (Dark Boxes)
    classDef app fill:#263238,stroke:#546e7a,stroke-width:2px,color:#eceff1,rx:5,ry:5

    %% The "Internet" Circle
    classDef internet fill:#fff,stroke:#333,color:#000,stroke-width:2px

    linkStyle default stroke:#607d8b,stroke-width:1px,fill:none;

    %% ==========================================
    %% 2. THE CANVAS
    %% ==========================================
    subgraph DarkCanvas [ ]
        direction LR
        style DarkCanvas fill:#121212,stroke:#121212,color:#121212

        %% --- SOURCE ---
        Internet((Internet)):::internet

        %% ==========================================
        %% 3. BLUE ZONE: ORACLE CLOUD
        %% ==========================================
        subgraph OracleCloud [Oracle Cloud - Free Tier]
            direction TB
            %% Blue Fill with Bright Blue Border
            style OracleCloud fill:#0d47a1,stroke:#448aff,stroke-width:4px,color:#fff,rx:10,ry:10
```

```
            %% --- SERVER: PHOENIX ---
            subgraph PhoenixBox [Phoenix - Gateway]
                direction TB
                %% Charcoal Box
                style PhoenixBox fill:#212121,stroke:#607d8b,stroke-
width:2px,color:#fff,rx:5,ry:5

                P_Traefik[Traefik Proxy]:::app
                P_WG[WireGuard Interface]:::app

                %% Grey Box: Stack
                subgraph P_Infra [Infrastructure]
                    style P_Infra fill:#424242,stroke:#757575,stroke-width:1px,stroke-
dasharray: 5 5,color:#eee,rx:5,ry:5
                    P_Fail2Ban[Fail2Ban]:::app
                    P_Agent[Portainer Agent]:::app
                    P_Kuma[Uptime Kuma]:::app
                end
            end

            %% --- SERVER: DOBBY ---
            subgraph DobbyBox [Dobby - Game Node]
                direction TB
                style DobbyBox fill:#212121,stroke:#607d8b,stroke-
width:2px,color:#fff,rx:5,ry:5

                %% Grey Box: Stack
                subgraph D_Games [Game Stack]
                    style D_Games fill:#424242,stroke:#757575,stroke-width:1px,stroke-
dasharray: 5 5,color:#eee,rx:5,ry:5
                    D_Wing[Pterodactyl Wing]:::app
                    D_MC[Minecraft Cluster]:::app
                end

                D_Agent[Portainer Agent]:::app
            end
        end

        %% ========================================
```

```
        %% 4. GREEN ZONE: HOME NETWORK
        %% ========================================
        subgraph HomeNet [Home Network - Deltona]
            direction TB
            %% Green Fill with Bright Green Border
            style HomeNet fill:#1b5e20,stroke:#00e676,stroke-width:4px,color:#fff,rx:10,ry:10

            Unifi[Unifi Router]:::app
            style Unifi fill:#000,stroke:#00e676,stroke-width:2px,color:#fff

            %% --- SERVER: FIREBOLT ---
            subgraph FireboltBox [Firebolt - Main Server]
                direction TB
                style FireboltBox fill:#212121,stroke:#607d8b,stroke-
width:2px,color:#fff,rx:5,ry:5

                F_Traefik[Traefik Internal]:::app
                F_WG[WireGuard Interface]:::app

                subgraph F_Stacks [Apps & Services]
                    style F_Stacks fill:none,stroke:none,color:#fff

                    %% Grey Box: Stack
                    subgraph F_Infra [Infrastructure]
                        style F_Infra fill:#424242,stroke:#757575,stroke-width:1px,stroke-
dasharray: 5 5,color:#eee,rx:5,ry:5
                        F_Auth[Authentik]:::app
                        F_Portainer[Portainer]:::app
                        F_Homepage[Homepage]:::app
                        F_Tug[Tugtainer]:::app
                        F_Dozzle[Dozzle]:::app
                    end

                    %% Grey Box: Stack
                    subgraph F_Media [Media Stack]
                        style F_Media fill:#424242,stroke:#757575,stroke-width:1px,stroke-
dasharray: 5 5,color:#eee,rx:5,ry:5
                        F_Plex[Plex Media Server]:::app
                        F_Req[Overseerr / Tautulli]:::app
```

```
                    F_Arr[Sonarr / Radarr / Prowlarr<br/>Huntarr / Doplarr]:::app
                    F_Down[qBit / Unpackerr / Flare]:::app
                end

                %% Grey Box: Stack
                subgraph F_Admin [Admin Tools]
                    style F_Admin fill:#424242,stroke:#757575,stroke-width:1px,stroke-
dasharray: 5 5,color:#eee,rx:5,ry:5
                    F_Bit[Vaultwarden]:::app
                    F_Book[BookStack]:::app
                    F_Dup[Duplicati]:::app
                    F_File[FileBrowser]:::app
                    F_PMA[PhpMyAdmin]:::app
                end

                %% Grey Box: Stack
                subgraph F_GameStack [Game Stack]
                    style F_GameStack fill:#424242,stroke:#757575,stroke-width:1px,stroke-
dasharray: 5 5,color:#eee,rx:5,ry:5
                    F_Panel[Ptero Panel]:::app
                    F_Wing[Ptero Wing]:::app
                    F_DB[Panel DB & Redis]:::app
                    F_Ark[Ark Survival Evolved]:::app
                end
            end
        end

        %% --- SERVER: NORBERT ---
        subgraph NorbertBox [Norbert - Storage]
            direction TB
            style NorbertBox fill:#212121,stroke:#607d8b,stroke-
width:2px,color:#fff,rx:5,ry:5

            N_WG[WireGuard]:::app
            N_Store[Media Storage]:::app

            %% Grey Box: Stack
            subgraph N_Apps [App Stack]
                style N_Apps fill:#424242,stroke:#757575,stroke-width:1px,stroke-
```

```
dasharray: 5 5,color:#eee,rx:5,ry:5
                    N_Hass[Home Assistant]:::app
                    N_LLM[LLMCord AI]:::app
                end

                %% Grey Box: Stack
                subgraph N_Games [Game Node 1]
                    style N_Games fill:#424242,stroke:#757575,stroke-width:1px,stroke-
dasharray: 5 5,color:#eee,rx:5,ry:5
                    N_Wing[Ptero Wing]:::app
                    N_MC[MC Test]:::app
                end
            end

            %% --- HARDWARE: RASPBERRY PI ---
            subgraph PiHoleBox [Raspberry Pi]
                direction TB
                style PiHoleBox fill:#212121,stroke:#607d8b,stroke-
width:2px,color:#fff,rx:5,ry:5
                PI_SVC[DNS Sinkhole]:::app
                PI_VPN[PiVPN Ingress]:::app
            end
        end
    end

    %% ========================================
    %% 5. TRAFFIC WIRING
    %% ========================================

    %% Internet Ingress (GREEN - PUBLIC)
    Internet ==>|HTTPS| P_Traefik
    Internet ==>|MC Ports| D_Games
    Internet ==>|32400 / 51820 / Games| Unifi
    linkStyle 0,1,2 stroke:#00e676,stroke-width:3px;

    %% Tunnel (ORANGE - WIREGUARD)
    P_Traefik --> P_WG
    P_WG ==>|WireGuard Tunnel| F_WG
    linkStyle 3,4 stroke:#ff9100,stroke-width:4px;
```

```
%% LAN (BLUE - INTERNAL)
F_WG --> F_Traefik
linkStyle 5 stroke:#2979ff,stroke-width:2px;

%% LAN Distribution (BLUE)
F_Traefik --> F_Infra & F_Media & F_Admin & F_GameStack
linkStyle 6,7,8,9 stroke:#2979ff,stroke-width:2px;

%% LAN Remote (BLUE)
F_Traefik -.-> N_Apps & PI_SVC
linkStyle 10,11 stroke:#2979ff,stroke-width:2px;

%% Split Route (ORANGE - TUNNEL)
P_WG -.->|Direct Route| N_WG
linkStyle 12 stroke:#ff9100,stroke-width:3px,stroke-dasharray: 5 5;

%% LAN Internal (BLUE)
N_WG -.-> N_Games
linkStyle 13 stroke:#2979ff,stroke-width:2px;

%% PORT FORWARDING (GREEN DASHED - PUBLIC MAPPED)
Unifi -.->|32400| F_Plex
Unifi -.->|Game Ports| F_GameStack
Unifi -.->|Game Ports| N_Games
Unifi -.->|UDP 51820| PI_VPN
linkStyle 14,15,16,17 stroke:#00e676,stroke-width:2px,stroke-dasharray: 5 5;

%% Management (GREY/NEUTRAL)
F_Portainer -.-> P_Agent & D_Agent
F_Down -.->|NFS| N_Store
F_Panel -.-> D_Wing & N_Wing & F_Wing
```

Color Legend

🟩 **Green Lines:** Public Internet Traffic (HTTPS, 32400, Game Ports)

🟧 **Orange Lines:** WireGuard Tunnel Traffic

🟦 **Blue Lines:** Internal LAN Traffic

- **Blue Zone:** Oracle Cloud Infrastructure
- **Green Zone:** Home Network Infrastructure
- **Charcoal Boxes:** Servers & Hardware (Phoenix, Firebolt, etc.)
- **Grey Boxes:** Logical Stacks (Media, Infra, Admin)
- **Dark Boxes:** Individual Applications