

Switching & Core Network Hardware

Overview

The core network is built around a **UniFi Cloud Gateway Fiber (Whistler)** as the sole router and firewall. All switching downstream is unmanaged. The Bell Home Hub 3000 remains inline as the Fiber ONT termination point but serves no routing or WiFi function.

WAN & Core Routing

Device	Hostname	Role	Location
Bell Home Hub 3000	—	Fiber ONT + PPPoE upstream passthrough	Basement Electrical Panel
UniFi Cloud Gateway Fiber	Whistler	Sole router, firewall, DHCP, DNS upstream	Basement Electrical Panel / Network Closet

WAN topology:

Bell Fiber (ONT) → HH3000 (PPPoE passthrough, no NAT, WiFi disabled) → UCG Fiber WAN (10GbE) → LAN

“ The HH3000 remains inline rather than bypassed to support troubleshooting and recovery during frequent Bell ISP deprovisioning events. PPPoE credentials are configured directly on the UCG — there is **no double NAT**.

UCG LAN Port Assignments:

Port	Connected To	Speed
WAN	Bell HH3000	10GbE

Port	Connected To	Speed
LAN 1	GigaPlus Switch (SFP+)	10GbE
LAN 2	Emporia Vue (Electrical Panel)	1GbE

Switch Inventory

Switch	Model	Location	Ports	Uplink	Notes
GigaPlus	GigaPlus (unbranded)	Network Closet	2x SFP+ 10GbE, 8x 2.5GbE	UCG LAN1 (SFP+)	Core distribution switch
5-port PoE	Unbranded	Network Closet	5x 1GbE PoE	GigaPlus (2.5GbE)	Powers cameras and PoE Deco APs
MokerLink	MokerLink	Office	8x 2.5GbE	GigaPlus (SFP+)	Homelab + work desk uplink
Media Room #1	Netgear (older)	Media Room	Unknown	Single Cat5a wall drop	Daisy-chains to Media Room #2
Media Room #2	Unbranded	Media Room	Unknown	Media Room #1	AV + gaming devices
Garage	Unbranded	Garage	5x 1GbE	Deco X50-Outdoor LAN port	Non-PoE — uses downstream injector

“ **All switches are unmanaged.** No VLANs or managed switching features are in use at the switch level. IoT and Guest network segmentation is handled at the Deco/UCG layer.

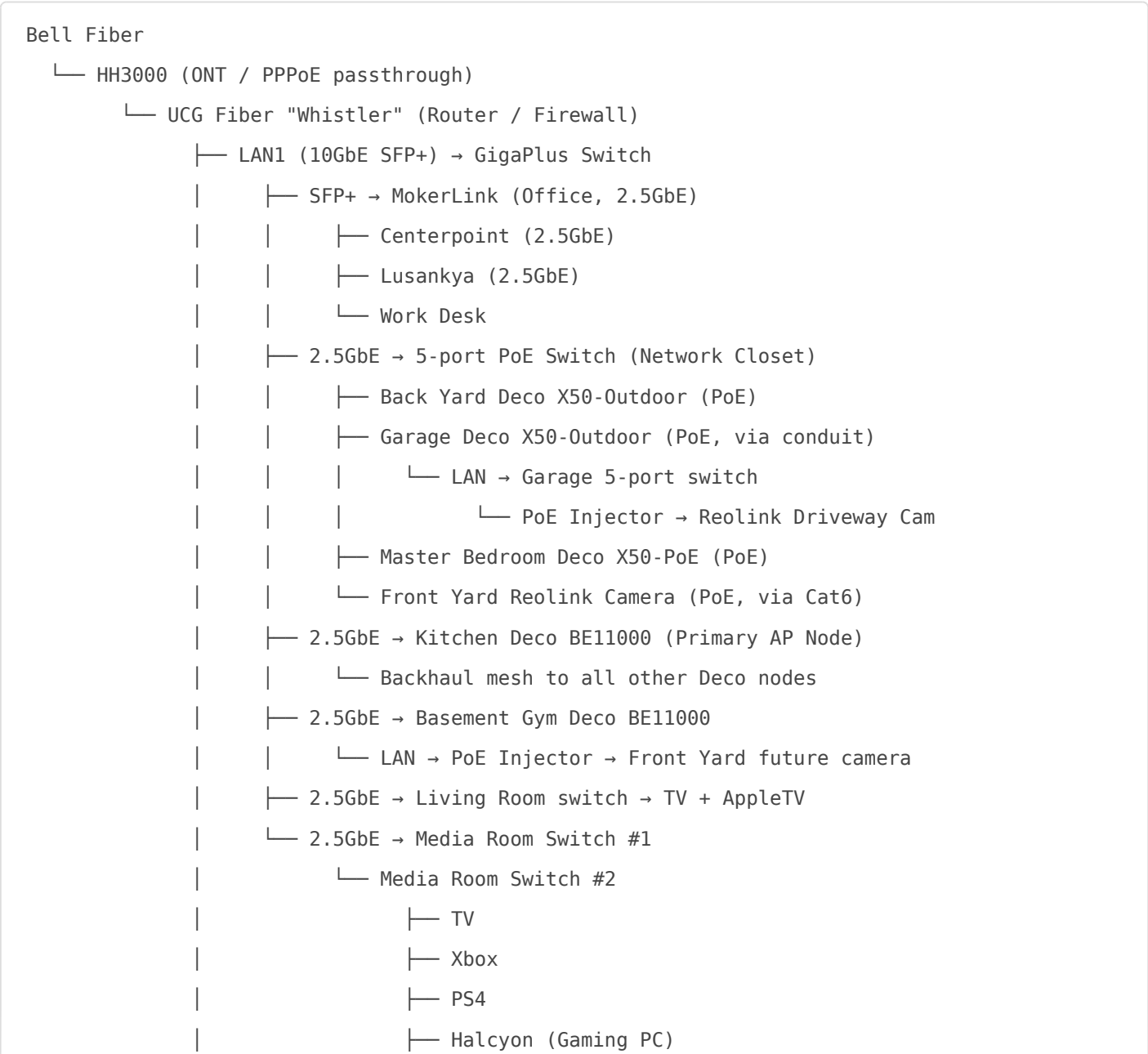
“ **Media Room note:** Both switches are daisy-chained off a single Cat5a wall drop — a known bottleneck. All Media Room bandwidth is constrained to 1GbE on a single shared uplink.

PoE Infrastructure

Injector / Source	Location	Powered Device
-------------------	----------	----------------

5-port PoE Switch (port)	Network Closet	Back Yard Deco X50-Outdoor
5-port PoE Switch (port)	Network Closet	Garage Deco X50-Outdoor (via conduit Cat6)
5-port PoE Switch (port)	Network Closet	Master Bedroom Deco X50-PoE
5-port PoE Switch (port)	Network Closet	Front Yard Run 1 → Reolink Camera
PoE Injector (passive)	Basement Gym	Front Yard Run 2 → future gas meter camera
PoE Injector (passive)	Garage	Reolink Driveway Camera

Network Topology Diagram (Text)



Outstanding Action Items

- ☐ Identify and document Media Room switch models and port counts
- ☐ Confirm GigaPlus full model number
- ☐ Confirm exact UCG LAN1 port type (copper 2.5GbE vs SFP+)
- ☐ Evaluate managed switch replacement for Media Room (single uplink bottleneck)

Last Updated

2026-06-18

Revision #1

Created 2026-06-18 15:33:10 UTC by Admin

Updated 2026-06-18 15:33:40 UTC by Admin