

Network Closet & Structured Cabling

Overview

The network closet is located in the **Basement Electrical Panel room**, which serves as the central termination point for all Ethernet and Coax runs in the house. This is not yet a finished closet — it is an open area with a floor-standing rack in place. Full rack buildout (patch panel punch-down, cable labelling, power management) is planned for **Summer 2026**.

“ **Status:** Work in progress. All Ethernet runs are currently raw ends. Patch panel is not yet installed.

Rack

Property	Detail
Type	Floor-standing
Size	6U
Status	In place, not fully secured or built out

“ **Note:** 6U is tight at full population. Current planned rack residents: 24-port patch panel (1U), GigaPlus switch (1U), 5-port PoE switch (1U), PDU (1U) — leaves 2U spare. Consider upsizing before finalizing rack procurement.

Patch Panel

Property	Detail
Type	24-port Cat6 keystone
Status	Not yet installed — pending cable labelling
Blocker	All 18 runs require labelling at both ends before punch-down

Ethernet Runs — Full Inventory

18 total runs. All Cat6 runs were self-installed post-purchase. Cat5a runs are builder-installed dual-purpose cable.

#	Room / Zone	Count	Type	Notes
1	Basement Gym	1	Cat6	Single wall plate (unfinished). Feeds Deco AP, TV, PoE injector → Front Yard Camera
2	Living Room	1	Cat6	Self-run through wall. Feeds unmanaged switch → TV + AppleTV
3	Front Yard	2	Cat6	Run 1: from Network Closet → Reolink camera (active). Run 2: from Gym PoE injector → future gas meter camera (Fall 2026)
4	Back Yard	2	Cat6	Run 1: PoE → outdoor Deco X50-Outdoor AP. Run 2: unconnected — reserved for future WAN failover (Starlink or UniFi SIM)
5	Garage	1	Cat6	~50-70ft via conduit. Feeds Deco X50-Outdoor AP (PoE-powered from Closet)

#	Room / Zone	Count	Type	Notes
6	Kitchen	2	Cat6	Run 1: Deco BE11000 AP (primary node). Run 2: spare / unconnected
7	Kitchen	1	Cat5a	Builder run — awkward termination position, unconnected
8	Media Room	1	Cat5a	Single wall drop — daisy-chained switches downstream
9	Guest Bedroom	1	Cat5a	Not directly in use for Ethernet — MoCA adapter at desk end
10	Office	1	Cat5a	Feeds Deco XE75 Pro AP + MokerLink switch → homelab + work desk
11	Master Bedroom	1	Cat5a	PoE — feeds Deco X50-PoE on-wall AP
12	MoCA Network Feed	1	Cat6	Dedicated run from Network Closet to Coax splitter for MoCA/OTA distribution

“ **Labelling status:** Starting from zero. Previous labels have fallen off. Full re-labelling required at both ends of all 18 runs before patch panel work begins.

Coax Infrastructure

A coax network runs in parallel to Ethernet throughout the house, fed from the Network Closet via a coax splitter.

Signal sources at splitter:

- OTA antenna (attic-mounted, amplified)
- MoCA Ethernet bridge (1x adapter at Network Closet end)

Coax-capable rooms:

Room	Active Use
Living Room	Coax present — current use TBD
Media Room	Connected to TV (OTA)
Guest Bedroom	MoCA adapter → desk Ethernet
Master Bedroom	Coax present — not actively in use for MoCA

MoCA Adapters:

Location	Role
Network Closet	Coax → Ethernet bridge (network side)
Guest Bedroom	Coax → Ethernet bridge (endpoint)

“ MoCA expansion is possible but unlikely. The Guest Bedroom use case is a unique placement issue where Coax terminated at the right desk location but no Ethernet run was present.

Outstanding Action Items

- ☐ Label all 18 Ethernet runs at both ends (Network Closet + room end)
- ☐ Install 24-port Cat6 keystone patch panel in rack
- ☐ Secure and complete rack buildout
- ☐ Verify IoT network isolation method (see Wireless page)
- ☐ Install gas meter camera on Front Yard Run 2 (Fall 2026)
- ☐ Determine WAN failover solution for Back Yard Run 2 (Starlink vs UniFi SIM)

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