

Scope of Work – Meetinghouse Network Refresh (US)

Specifications

- Coordinate installation dates and blackout dates with specified Operations Manager (OM) or Facilities Manager (FM). Crews should avoid work on Saturdays and leave the building in a usable state for the weekend.
- Ensure locations are clean and secure at the end of each day on site.
- Install ¾" plywood on the wall when necessary for the rack location.
- Cable installation – provide Cat6A cable for each Access Point (AP) (plenum-rated where necessary).
- Provide and install additional Cat6A cables for equipment (ISP hardware to firewall, AV rack, chapel camera, door control system, HVAC) locations (generally five (5) cables). Additional cables may be authorized for VoIP phones for business operations in a meetinghouse (e.g., seminary classes and offices, mission office, FM office).
- If there is no camera installed in the rear of the chapel, run the new line to the side closest to the switch. Provide the termination box and patch cord for future camera install.
- Install cable support for all new cable runs.
- Network equipment – Install owner-provided network equipment and APs in accordance with the provided instruction guide. Firewall must be on a shelf and not stacked on other network equipment.
- Approved locations for an additional managed switch: AV rack, an official Family History Library designated on the property list provided by the church, a location where the number of APs and approved building systems consumes more than 20 ports on the core switch.
- Install APs as shown on the Church-provided heatmaps (generally within 3 feet of the prescribed location and in the room specified). Variations of the building will exist, and reasonable decisions on locations should be made to reflect the modelled environment.
- Where necessary, provide and install a wall-mounted rack (open face when located in a secure location, or lockable when in an accessible space). If the network equipment is not in an ideal location, it should be moved to more suitable space (air conditioned, dust free, in compliance with code, etc.) Rack locations should be coordinated with the FM and may be co-located with the AV rack if requested by the FM.
- Inform the FM if the ISP equipment needs to be relocated because of the new rack location.
- Provide and install new modular Cat6 patch panels and patch cords for horizontal cabling.
- Where it can be accommodated, provide and install a Cat6 patch panel for existing cables that can reach the rack location.
- Demolition – Remove and demo the existing network equipment (firewall, switch, unmanaged hubs, APs) from the meetinghouse for vendor to recycle. Remove all Meraki devices with an announced EOS date. Replace switches only in authorized situations listed above.
- Relocate existing cables into the new Cat6 patch panel. Any existing cables that do not reach the patch panel will not be repulled and should be removed if it will not damage other building systems or infrastructure.

- Install blank faceplates in locations that have network cables removed.
- Termination and patch cords – Terminate AP cabling with Cat6A jack, surface mount box, and patch cord into the AP.
- Provide and install new patch cords for all new wireless and connected network locations specified above.
- Label the patch panel with logical labels not just patch numbers. Update port labels in Church network Manager (CNM) for the devices connected to the switch.
- Repair any holes in the ceiling from removing old APs or hardware. If the holes are too large to fill, cover them with an escutcheon plate.
- Surface mount wire track is acceptable as a last resort when other cable paths are not viable, AND with FM/OM approval. Lack of agreement on the way forward should be escalated to the HQ project team.
- Testing and documentation – Perform Cat6A ANSI/TIA-568-C testing with screen capture of results. Cable certification is for newly installed cabling.
- Obtain and provide the cable manufacturer's certificate of warranty.
- Perform wireless site surveys for each location.
- Upload deliverables to CNM for each site.
- Before leaving a site, validate that the HVAC, door control system, and A/V systems function. Consult Church-provided AV resources for any AV system questions.
- Provide an internal QA system to ensure work is done in an acceptable manner. Provide to the buyer the QA checklist that will be used before execution.

Key Deliverables

- Cable test results
- Wi-Fi site survey (post-upgrade heatmap)
- Manufacturer's warranty documentation
- Photo documentation of network rack (close-up so labels can be read, and wide angle to show rack in reference to the room), cable installation, and at least one AP mounting.
- Network diagram as-built that provides information on patch panel connections
- Invoice with details about time and materials broken down by site.