Dual Deployment: Repeater + Room Server

Dual Deployment: Separate Repeater and Room Server

The recommended best practice for any fixed site is to deploy **two separate devices** rather than enabling repeat mode on the room server.

Why Two Devices?

A repeater and a room server have conflicting placement requirements:

Device	Ideal Placement	Why
Repeater	Outdoors, elevated, high external antenna	Maximum RF range in all directions
Room Server	Indoors, near power and USB/BT access	Easy administration, configuration, and monitoring

Forcing one device to do both jobs means compromising on placement - either the repeater antenna is too low, or the room server is too hard to access for administration.

Recommended Hardware

- **Device 1 (Repeater):** Heltec V3 flashed with Repeater firmware + high-gain external antenna (fiberglass omni or directional yagi)
- **Device 2 (Room Server):** Heltec V3 flashed with Room Server firmware + stock indoor antenna

Cost

Two Heltec V3 units cost approximately **$54** total (roughly $27 each, as of 2026-06-08; pricing is volatile - verify current street price). This is a minimal investment for a significant capability improvement at a fixed site.

When Single-Device is Acceptable

If budget or space constraints make dual deployment impossible, enabling `set repeat on` on the room server is workable - it simply won't perform as well as a dedicated repeater at height. (`set repeat on` is the documented MeshCore CLI command for the repeater-hybrid mode; confirm against your firmware's CLI help output.) In that case, do your best to place the device near a window or in an elevated location to improve the antenna's line of sight.

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