What is a Room Server?

What is a MeshCore Room Server?

A **Room Server** is a store-and-forward bulletin board that runs directly on a LoRa node running MeshCore firmware. It acts as a shared message board for the mesh community - any node that can reach the room server can post and read messages without needing internet access or a central server. The whole point of a room server (versus an ordinary channel) is that it **retains message history**: roaming users who were out of range can come back later and pull the messages they missed, much like an email server.

Key Characteristics

- **Storage:** The room server **retains** message history and pushes it to clients when they connect - a client receives the previous 32 unseen messages on login. (Persistence across a reboot/power cycle depends on your firmware and hardware; do not assume messages survive a power loss without verifying on your firmware version.)
- **Access control:** Two passwords - an **admin** password and a **guest** password - plus a per-companion ACL (`setperm <pubkey> <level>`, with levels Guest / Read-only / Read-write / Admin) and a separate `set allow.read.only` flag for unauthenticated read access.
- **Repeater hybrid:** A room server can also be configured as a repeater with `set repeat on` , but this is a trade-off - room servers benefit from an indoor location for USB/Bluetooth administration, whereas repeaters perform best with a high external antenna.
- **Radio requirements:** The room server's radio preset (frequency/bandwidth/spreading factor/coding rate) must match the rest of the network; otherwise its packets and adverts cannot be received by other nodes.

Access Control

MeshCore room servers use two passwords plus a per-companion ACL - not a single "three-tier" password ladder:

Mechanism	Default	Permissions
Admin password	`password`	Full control: manage permissions, delete messages, change all settings

Mechanism	Default	Permissions
Guest password	`hello`	Read and write messages once authenticated as a guest
Per-companion ACL (`setperm`)	per node	Levels: Guest / Read-only / Read-write / Admin
`set allow.read.only` **flag**	off	When enabled, allows unauthenticated read-only access; off by default (no automatic no-password read)

Warning: Both default passwords must be changed immediately after first login. The default admin password `password` and guest password `hello` are publicly known.

Why Room Servers Matter

Room servers enable asynchronous community communication entirely over the mesh. A traveler passing through can read recent area messages, a neighborhood can coordinate during a power outage, or volunteers can leave notes for the next person who checks in - all without any internet connection or cellular infrastructure. Because the server stores and re-pushes missed messages, participants do not all need to be in range at the same time.

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