

MeshCore vs Meshtastic: Choosing for Your Community

If you're building a community mesh from scratch, choosing between MeshCore and Meshtastic is one of the first decisions. This page provides a framework for that decision.

The Most Important Factor: Community

The single most important factor is what your local community already uses. A technically inferior protocol with 50 active nodes in your area is better than the technically superior protocol with zero. **Check what's already deployed in your area before committing.**

- For MeshCore nodes, check the MeshCore map at meshcore.co.uk/map.html. Note that meshmap.net maps Meshtastic nodes only - it will not show MeshCore presence, so don't rely on it to gauge MeshCore adoption (as of 2026; verify the current map URLs).
- Search for local ham radio ARES/EMCOMM groups - many have adopted one protocol
- Ask in local ham radio clubs and maker communities, and ask local MeshCore operator groups directly

Choosing MeshCore When

- Your area already has MeshCore infrastructure or a MeshCore operator community
- You are building dedicated repeater infrastructure for a larger network (50+ nodes)
- You want public-key encrypted DMs. Both projects now use Curve25519 ECDH for direct messages (Meshtastic since v2.5, released 2024); neither MeshCore nor Meshtastic provides forward secrecy. MeshCore is not uniquely strong here.
- You have technically sophisticated operators who understand routing and can configure path-based routing

- You are building a network where room servers and internet connectivity are part of the design

Choosing Meshtastic When

- Your area already has an active Meshtastic community
- You want the widest hardware compatibility and largest ecosystem
- Your user base is non-technical and needs the most polished, easy-to-use apps
- You want the most beginner-friendly experience for recruiting new members
- Your network is small enough that managed flooding works well. Meshtastic does not publish a hard node-count limit - scaling depends on traffic, airtime, and the configured hop limit, not a fixed node count.

Running Both

Some communities operate parallel Meshtastic and MeshCore networks. This is common in areas where early adopters chose different protocols. The networks operate on the same frequency band but use different packet formats and cannot interoperate. A single operator can run both by using two LoRa boards - one flashed as MeshCore, one as Meshtastic.

Running parallel networks adds complexity but ensures coverage for all community members regardless of which protocol they chose. If your community has both, coordinate channel settings and coverage to complement rather than duplicate each other.

Summary Comparison Table

Factor	MeshCore	Meshtastic
Routing	Path-based (path discovery/acknowledgment)	Flooding
Scales to	Larger networks (path-based routing scales better than flooding)	Smaller networks; flooding degrades as traffic grows. Exact node counts depend on traffic, airtime, and topology - load-test your own deployment.
DM encryption	Curve25519 ECDH + AES-128 (no forward secrecy)	PSK pre-v2.5; Curve25519 ECDH since v2.5 (no forward secrecy)
App ecosystem	Smaller	Larger (Android, iOS, Web, Python)
Beginner friendliness	Moderate	Very high

Factor	MeshCore	Meshtastic
Hardware support	Multi-band (firmware default 869.525 MHz EU; US builds ~910/915 MHz); runs many of the same LoRa boards as Meshtastic	Broad (many boards/frequencies)
Room servers	First-class firmware role (alongside Repeater and Sensor)	No direct equivalent role; nearest analogs are the Store & Forward module, channels, and MQTT bridging
Community size	Smaller, more technical	Much larger

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