

Advertisements and Discovery

MeshCore repeaters periodically broadcast **advertisements** - packets that announce the repeater's existence on the network. Other nodes use these advertisements to discover the repeater and include it in their routing decisions.

What an advertisement contains

- The repeater's identity (name and node ID)
- Geographic position (if configured - optional but useful for network mapping)
- Public encryption credentials used for routing - specifically, a public key identifying the repeater, which other nodes use to verify and route through it. This key is generated automatically; you do not configure it, and it is safe to broadcast.

Advertisement interval

The advertisement interval is configurable. The firmware supports a range of roughly 3 to 168 hours, with a default of 12 hours; set it with `set flood.advert.interval <hours>`. In observed community practice, deployments commonly use 6 - 12 hours for fixed infrastructure nodes. Longer intervals reduce radio traffic; shorter intervals help newly arrived nodes discover the repeater faster. Increasing frequency increases power consumption and adds traffic to the network with minimal benefit in a stable deployment.

Advertisement propagation: flood vs zero-hop

MeshCore advertisements use a binary propagation model - not a numeric hop count. You send either a flood advert or a zero-hop advert:

- **Zero-hop** (`advert.zerohop`): The advertisement is only visible to nodes within direct radio range. Useful for a local-only repeater.
- **Flood** (`advert`): The advertisement is propagated by other repeaters across the network, making the repeater discoverable to distant nodes. Use flood mode if you want your repeater to be visible across the wider network.

Setting a geographic position

Configuring your repeater's latitude and longitude allows it to appear on network maps and helps other operators understand coverage. Use your deployment location coordinates, not your home address. The position is included in flood advertisements and becomes visible to the wider network.

Revision #4

Created 2026-05-03 02:02:47 UTC by Mesh America Admin

Updated 2026-06-09 00:59:47 UTC by Mesh America Admin