

Using meshmap.net and Community Maps

meshmap.net is the primary public Meshtastic network map. It shows only Meshtastic nodes that have enabled MQTT uplink to the public broker (mqtt.meshtastic.org) with position reporting - an opt-in subset, not all nodes on the mesh. MeshCore nodes are not shown there. It gives operators a quick view of community coverage without building their own infrastructure.

What meshmap.net Shows

- Node positions on an interactive map
- Node names, last seen timestamps, and hardware type
- Neighbor relationships - which nodes have heard each other directly
- Node telemetry where reported (battery, channel utilization)

Note: meshmap.net does **not** display per-link SNR/RSSI values. For per-hop signal quality, use Meshtastic's traceroute (which reports SNR per hop) on your own nodes.

Getting Your Node on the Map

Requirements to appear on meshmap.net:

1. Your node must have a GPS fix or fixed position configured
2. MQTT uplink must be enabled, pointing to mqtt.meshtastic.org (the default Meshtastic public broker)
3. Position reporting must be enabled (not position_precision = 0)

```
meshtastic --set mqtt.enabled true
meshtastic --set mqtt.address "mqtt.meshtastic.org"
meshtastic --ch-index 0 --ch-set uplink_enabled true
meshtastic --ch-index 0 --ch-set module_settings.position_precision 16
```

Note: `uplink_enabled` and `position_precision` are per-channel settings (set with `--ch-set`), not module-level `mqtt.*` keys. There is no `mqtt.uplink_enabled` key.

Nodes usually appear within a few minutes once a valid position is uplinked (the map data refreshes roughly every minute). Position is updated each time the node broadcasts a position packet.

Privacy Considerations

Your node's position is publicly visible on meshmap.net once MQTT uplink is enabled. Note that for `position_precision`, a **higher** number means MORE precise / a SMALLER obfuscation radius (less privacy), and a lower number means coarser / more privacy. Reducing `position_precision` rounds the broadcast location to a coarser grid. Consider:

- Use position precision to reduce location accuracy. Approximate radii: precision 32 = exact, 16 \approx 364 m, 14 \approx 1.5 km, 13 \approx 2.9 km, 12 \approx 5.8 km, 11 \approx 11.7 km, 10 \approx 23.3 km. For roughly 1 km of obfuscation use precision 14 (not 10); for \sim 10 km use precision 11. This shows the general area without revealing exact location.
- Fixed infrastructure repeaters: full precision is usually acceptable and helpful for community planning
- Personal/portable nodes: reduced precision (or disabling MQTT uplink) may be preferred

```
meshtastic --ch-index 0 --ch-set module_settings.position_precision 14
```

Alternative and Regional Maps

Beyond meshmap.net, several regional communities maintain their own maps:

- Custom Grafana + Leaflet maps fed by self-hosted MQTT brokers give communities more control over who appears and what data is shown
- Some communities use ATAK (Android Team Awareness Kit) with Meshtastic integration for a more sophisticated operational picture
- map.meshcore.io is the MeshCore node map, showing MeshCore nodes in regions with active MeshCore communities

Reading Neighbor Info for Coverage Analysis

The Neighbor Info module in Meshtastic (Config \rightarrow Modules \rightarrow Neighbor Info) broadcasts a list of directly-heard nodes to the mesh. When this data reaches meshmap.net, it draws link lines

between nodes that can hear each other. These link lines are the basis for understanding your network's topology:

- Isolated nodes with no link lines - check if repeaters are within range
- Nodes connected only through a single relay - identify single points of failure
- Dense link clusters - confirm your urban repeater placement is achieving coverage

Revision #3

Created 2026-05-03 05:51:14 UTC by Mesh America Admin

Updated 2026-06-09 22:26:52 UTC by Mesh America Admin