Meshtastic Android App Overview

The Meshtastic Android app is the primary interface for configuring and using Meshtastic devices. It is the most feature-complete of the Meshtastic client apps and receives updates most frequently.

Installation and Requirements

- **Google Play Store** - Search "Meshtastic". Official app by Meshtastic LLC.
- **Minimum Android version** - Android 8.0 (Oreo). Devices on older Android versions cannot run the current app.
- **Bluetooth** - Required for local BLE connection to your node
- **Location permissions** - Required for mapping features; the app can use your phone's GPS to display your position on the mesh map

Connecting to a Node

1. Enable Bluetooth on your phone
2. Power on your Meshtastic device
3. Open the app - it should automatically scan for nearby Meshtastic devices
4. Tap your device in the "Connect a Radio" list
5. For first connection: devices with a screen display a random 6-digit pairing PIN to enter; screenless devices use the fixed default PIN 123456

Alternative connections (for ESP32 boards):

- **WiFi** - If your node is in WiFi client mode, the app can connect via TCP at the node's IP address
- **USB Serial** - Some Android phones support OTG USB connection; the app supports serial connection if your phone has OTG capability

Key App Screens

Messages

Shows conversation threads. "Primary Channel" is the default public channel. Additional configured channels appear as separate tabs. Direct message threads appear separately. The app shows sent/received/acknowledged status for each message.

Nodes

Lists every node your device has heard of - directly or relayed through the mesh - as stored in the device's node database (NodeDB). It is not bounded by a "configured hop count" setting; hop distance is shown per node. Note that some roles are not advertised: REPEATER and CLIENT_HIDDEN nodes do not send NodeInfo and so do not appear in the list. For each node shown: node name, short name, last heard timestamp, signal quality (SNR/RSSI), battery level, and distance/bearing from your location. Tap a node to see detailed info or initiate a direct message.

Map

Displays node positions on a map. Your node appears as a solid icon; other nodes appear with their short names. Tap a node on the map to see its details. The map works offline if you've previously loaded the tiles for that area (tiles are cached on first use).

Radio Config

Device configuration organized into sections: Device, Position, Power, Network, Display, LoRa, Bluetooth, and Security. Changes are pushed to the connected node immediately when saved. The app's **Security** section maps to the firmware's `security.*` config namespace (for example `security.serial_enabled`, `security.is_managed`, and the admin-channel settings), not the `device.*` namespace.

Useful App Features

- **Channel QR code sharing** - Share your channel configuration as a QR code that other users can scan to join
- **Export Config** - Save your node's full configuration to a file for backup or migration
- **Node DB** - View and manage the list of known nodes; remove stale entries with "Remove Node"
- **Waypoints** - Share location pins with the mesh; useful for marking hazards, meeting points, or SAR targets
- **Range Test** - Activate the Range Test module directly from the app

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