

Specialized Roles

Specialized roles optimize node behavior for specific use cases: tracking, sensing, and tactical operations. Each role adjusts transmission priority and sleep/retransmit behavior to match its intended function; telemetry cadence is configured separately in the Telemetry module.

Tracker

Behavior: Transmits high-priority location updates. Position packets from Tracker nodes are given higher relay priority, which improves but does not guarantee delivery under congestion.

Use for: Personnel or vehicle tracking where real-time position data is critical. Common in search-and-rescue, outdoor event management, and field team coordination.

Lost and Found

Behavior: Broadcasts its location as a text message to the default channel at regular intervals, allowing a lost asset or person to be located when the broadcast is received.

Use for: Asset tags, pet trackers, equipment that is rarely moved but may need to be located. Lost and Found uses Regular power (it is not a low-power role).

Sensor

Behavior: Sends sensor readings at defined intervals and deep-sleeps between reports to minimize power consumption. Optimized for battery-powered environmental monitors.

Use for: Temperature/humidity sensors, weather stations, soil moisture monitors, or any application where the node sends data periodically and does not need to be interactive between readings.

Configure the sensor reporting interval in the Telemetry module settings to match your battery budget.

TAK (Android Team Awareness Kit)

Behavior: Optimized for integration with ATAK (Android Team Awareness Kit) tactical software. Formats and prioritizes packets for compatibility with TAK workflows.

Use for: Public safety, military, or emergency management teams using ATAK for situational awareness. Requires ATAK installed on the controlling device.

TAK Tracker

Behavior: High-priority position tracking variant for ATAK. Combines the position prioritization of Tracker with TAK-specific packet formatting.

Use for: Individual team members in a TAK-based deployment where real-time position is critical to the tactical picture.

Roles at a Glance

Role	Category	Key Behavior
Client	Personal	Default. Rebroadcasts via managed flooding; visible in the node list.
Client Mute	Personal	Never relays. For dense/congested areas.
Client Hidden	Personal	Broadcasts only as needed; not shown in the nodes list; for stealth/low-power deployments.
Tracker	Specialized	High-priority location updates.
Lost and Found	Specialized	Periodic location broadcast to the default channel (Regular power).
Sensor	Specialized	Sensor readings + deep sleep between reports.
TAK	Tactical	ATAK-optimized messaging.
TAK Tracker	Tactical	Priority tactical position for ATAK.
Router	Infrastructure	Always rebroadcasts once with prioritized routing; best on elevated/strategic sites; visible in the nodes list.
Router Late	Infrastructure	Backup relay; waits for others first.

Role	Category	Key Behavior
Repeater	Infrastructure	Silent relay; no node list presence. Deprecated as of firmware 2.7.11 - use Router for new infrastructure.

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