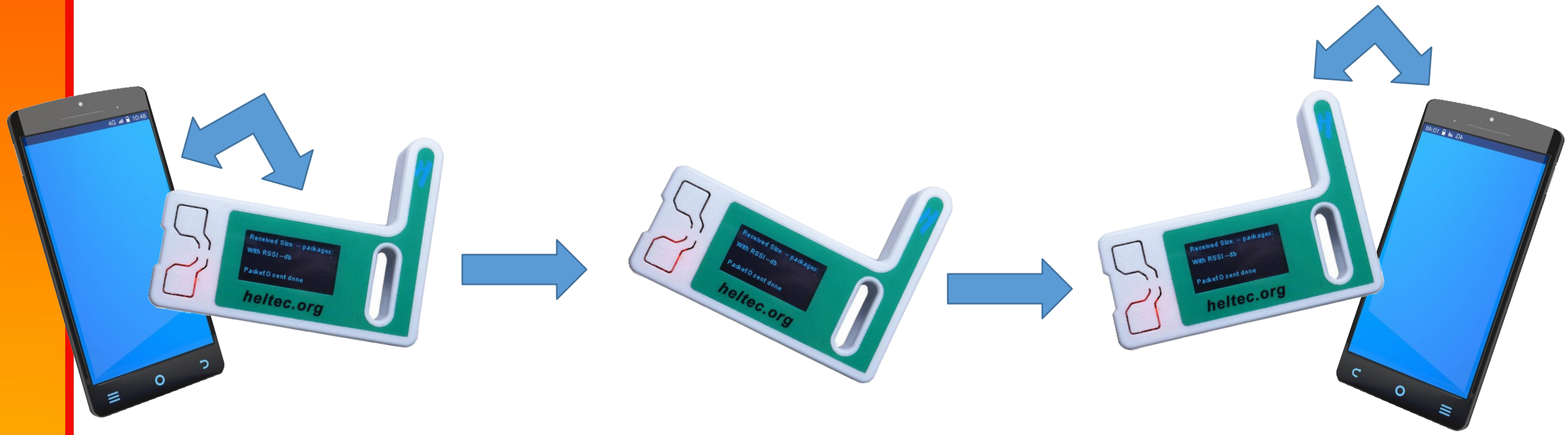
Meshtastic Workshop

Meshtastic is an alternative **communication network** providing resilient **mesh relay** routing, **low power** consumption, and **long-range** capability

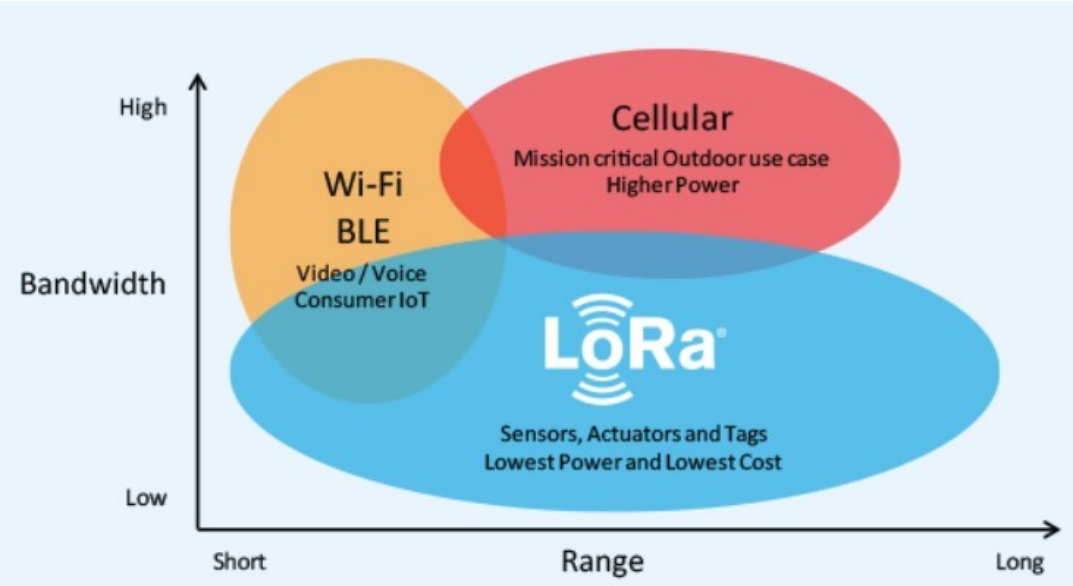
The **Importance** of **LoRa** and **Meshtastic** for Alternative Communication

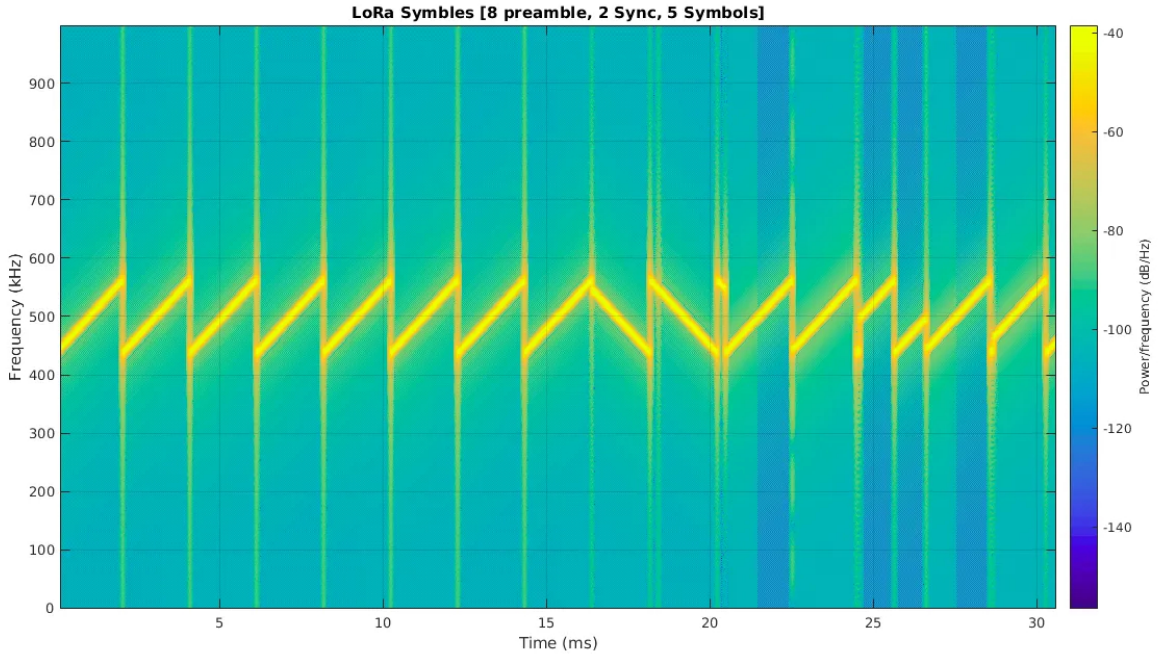


Meshtastic Workshop

Always **attach** the **antenna before** powering on a LoRa device to prevent damage.

Understanding LoRa: Long Range, Low Power, Encrypted Communication for IoT and Beyond



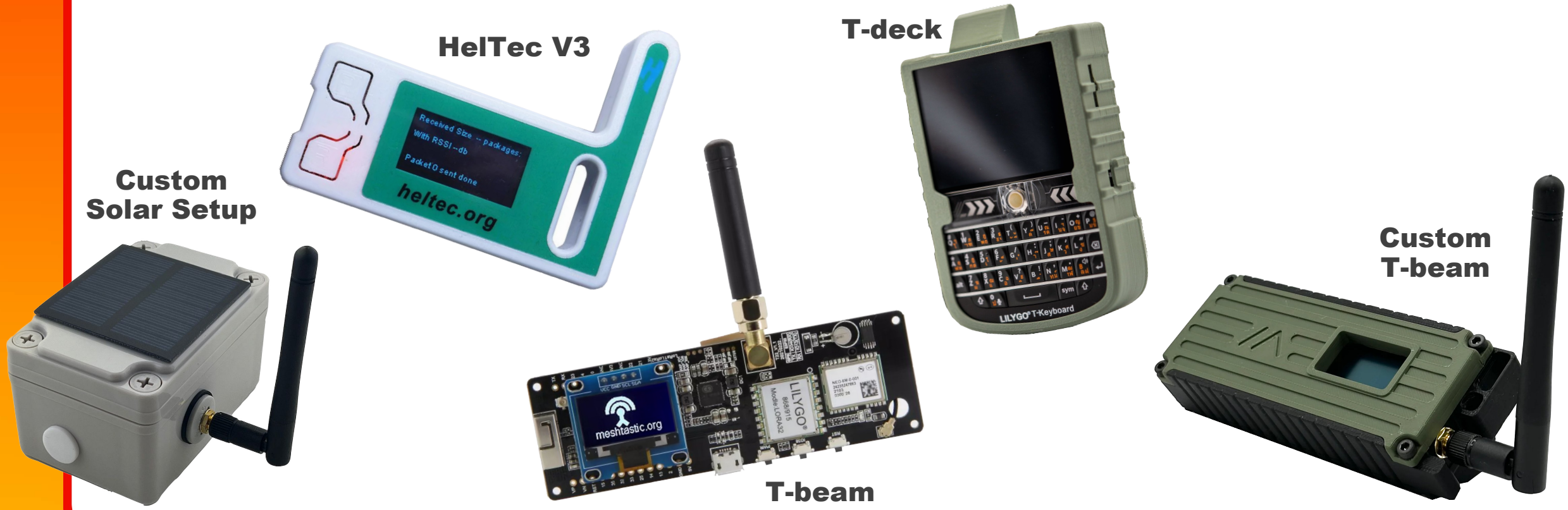


LoRa: A Key Technology for IoT and Secure Communication

Why Choose **LoRa** Over **Ham Radio's APRS** for Secure Communication?

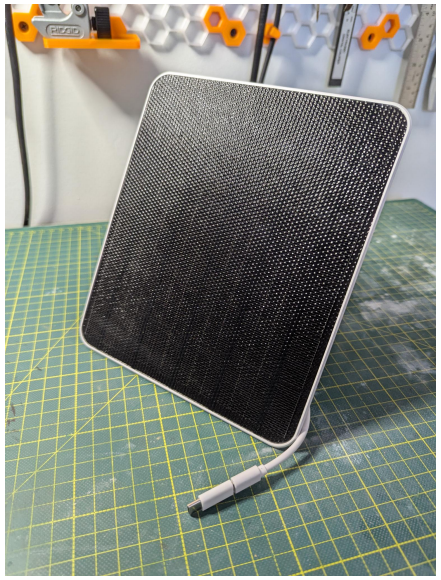
Introducing Meshtastic: The Open-Source Solution for Decentralized Communication

Choosing the **Right** LoRa/Meshtastic **Device**

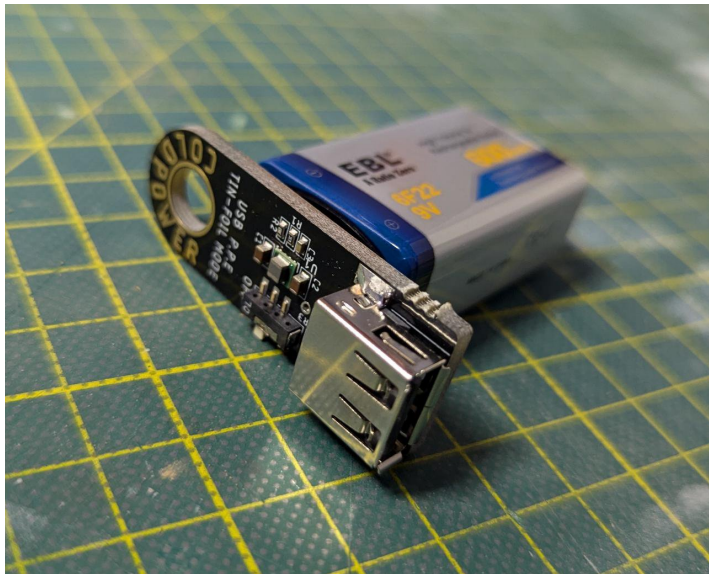


Setting Up Your Meshtastic Device: **Power**

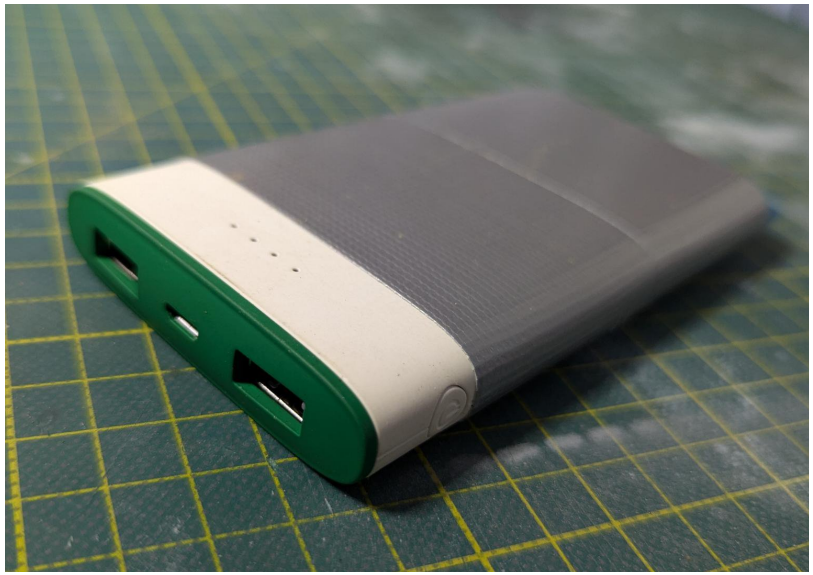
LiPo Battery



Small Solar Panel

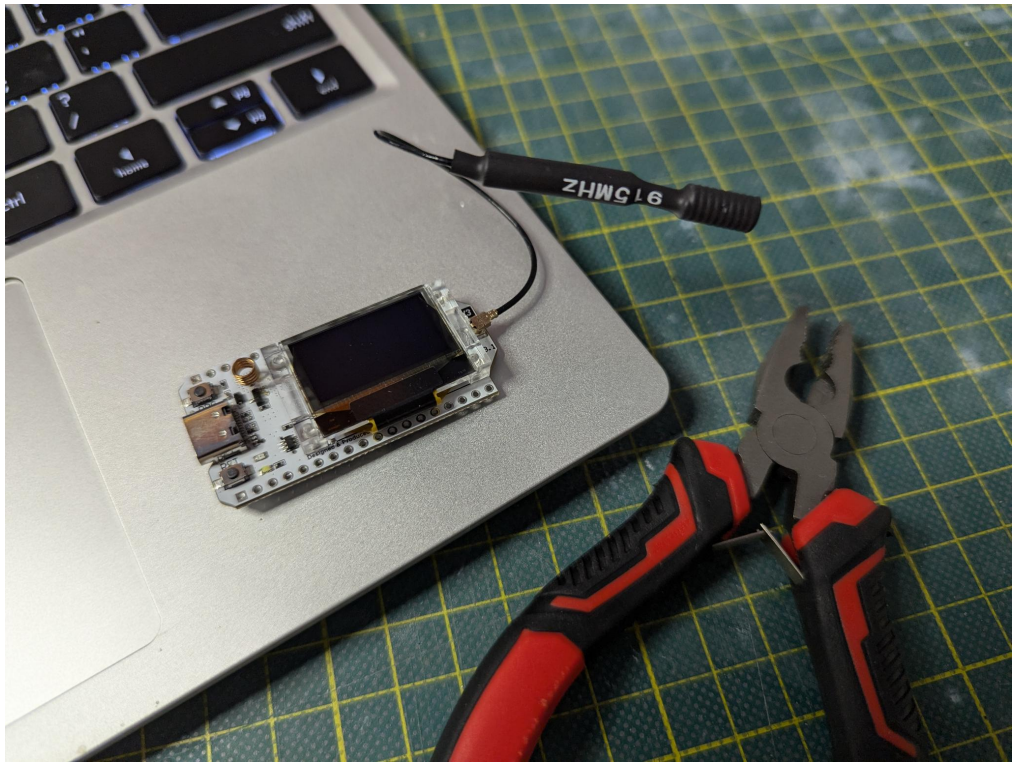


Coinkite ColdPower



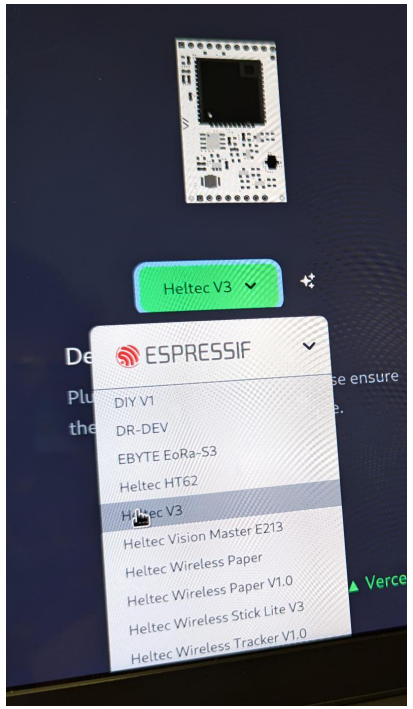
USB battery bank

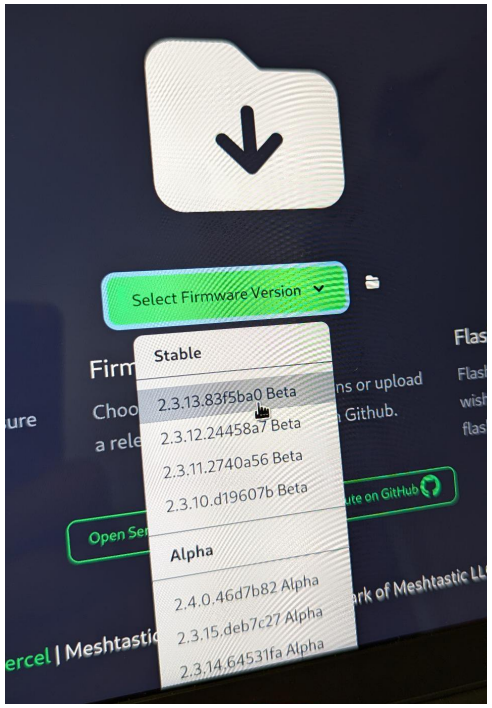
Setting Up Your Meshtastic Device: **Firmware Install**

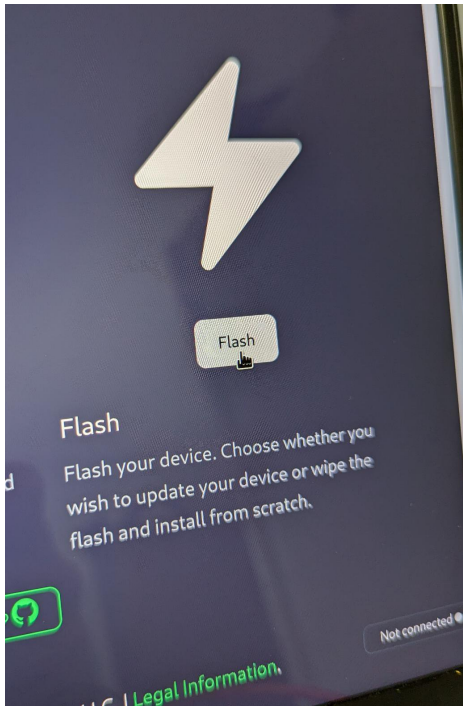


Connect to your computer via USB

Setting Up Your Meshtastic Device: **Firmware Install**

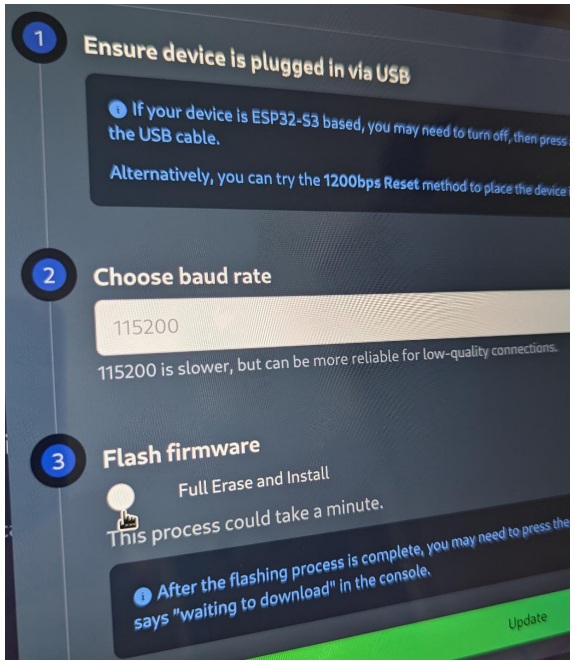


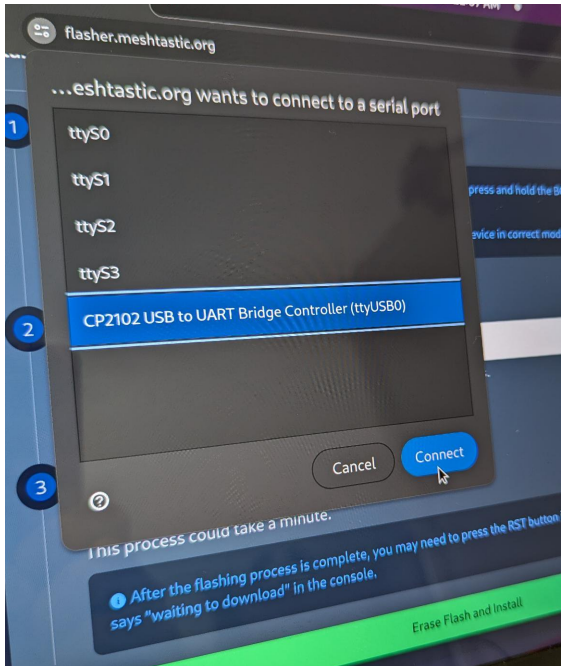


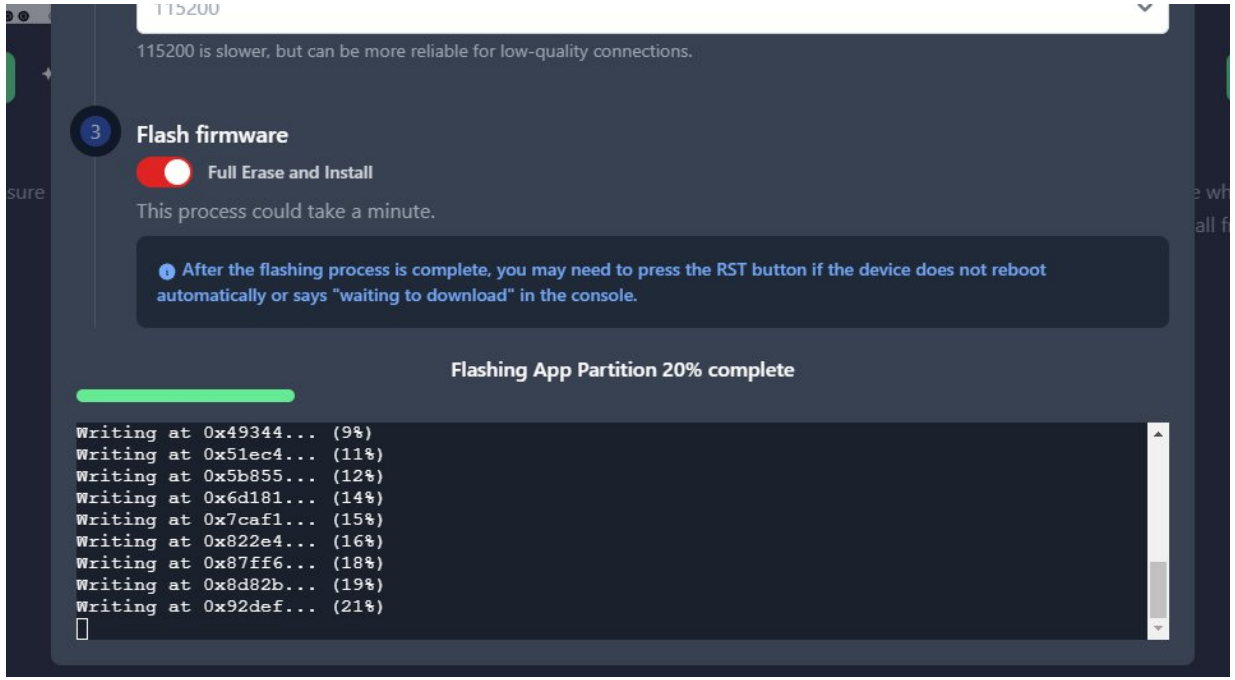


https://flasher.meshtastic.org/

Setting Up Your Meshtastic Device: **Firmware Install**

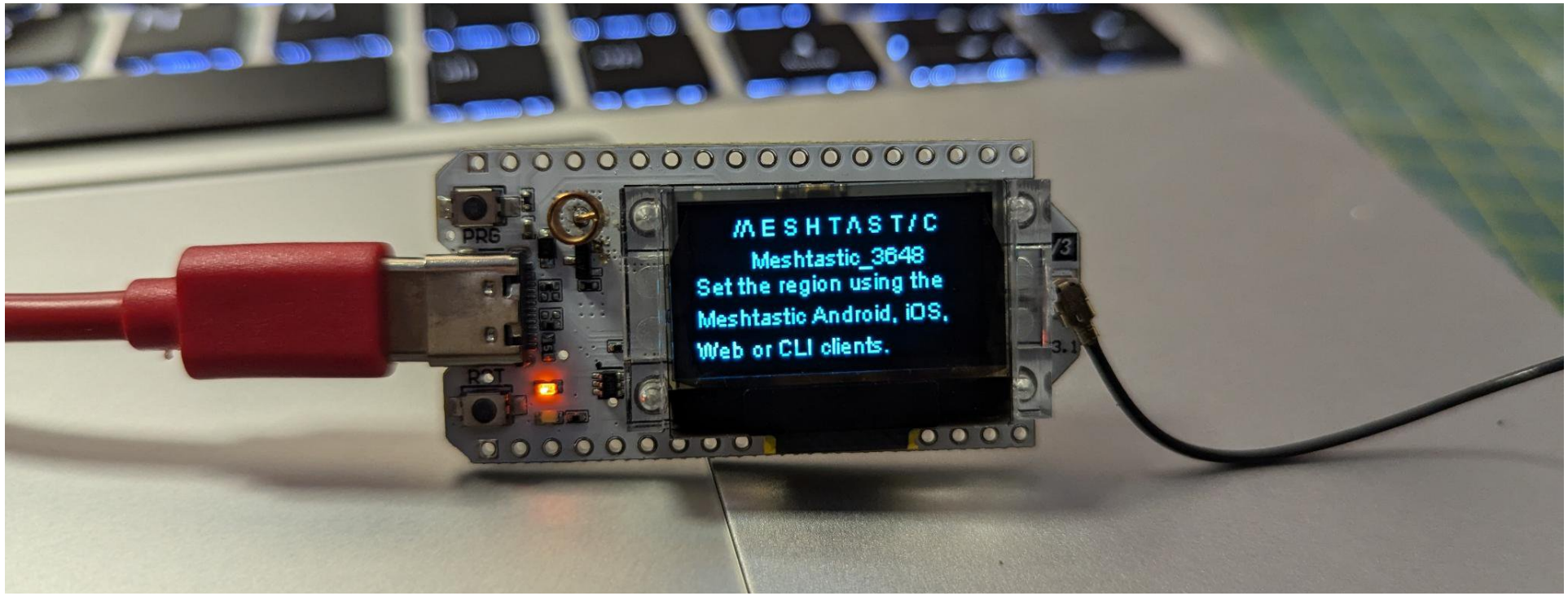






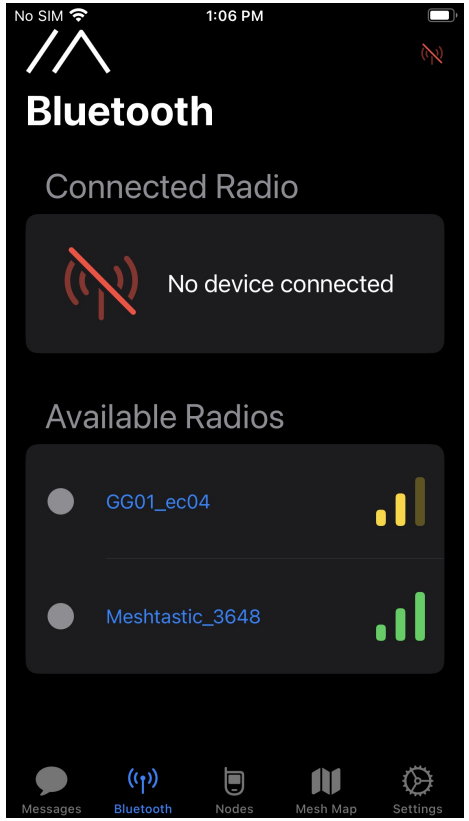
https://flasher.meshtastic.org/

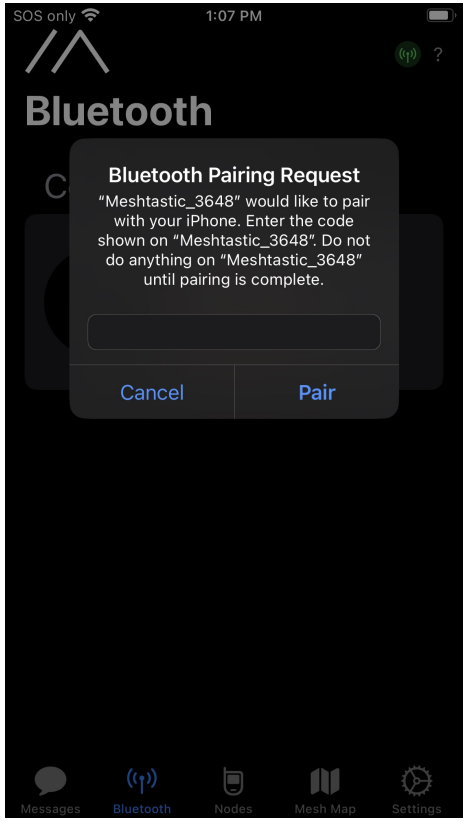
Setting Up Your Meshtastic Device: **Firmware Install**

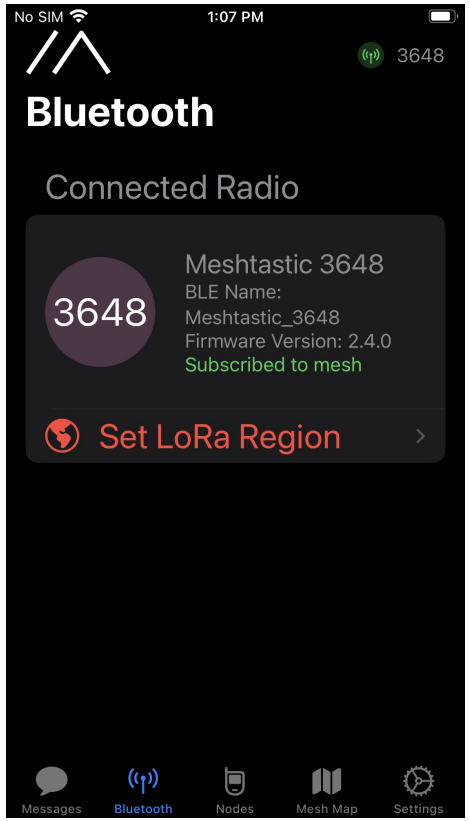


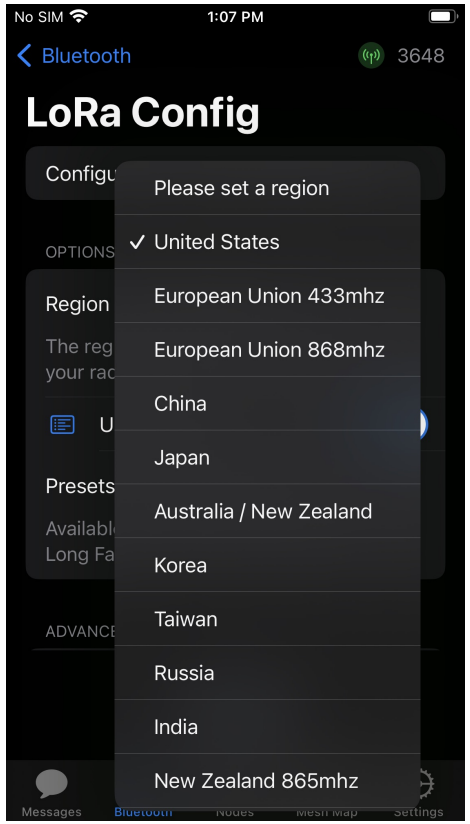
https://flasher.meshtastic.org/

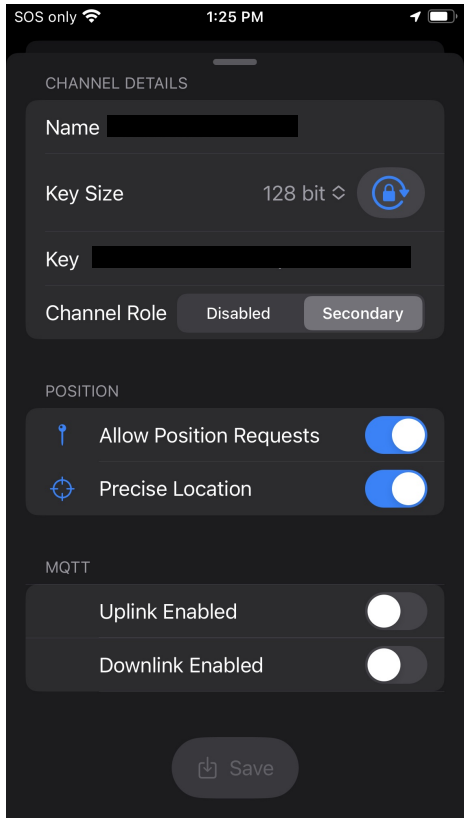
Setting Up Your Meshtastic Device: iPhone Software



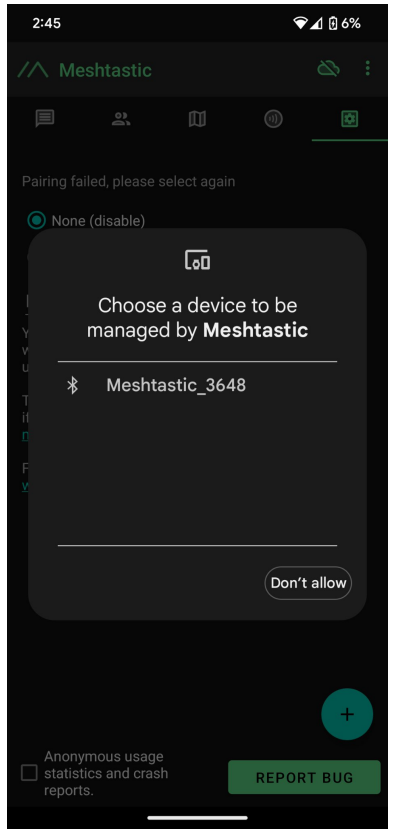


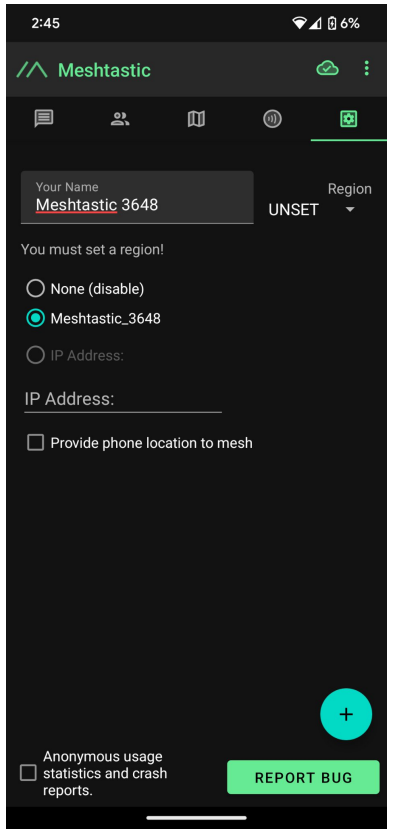


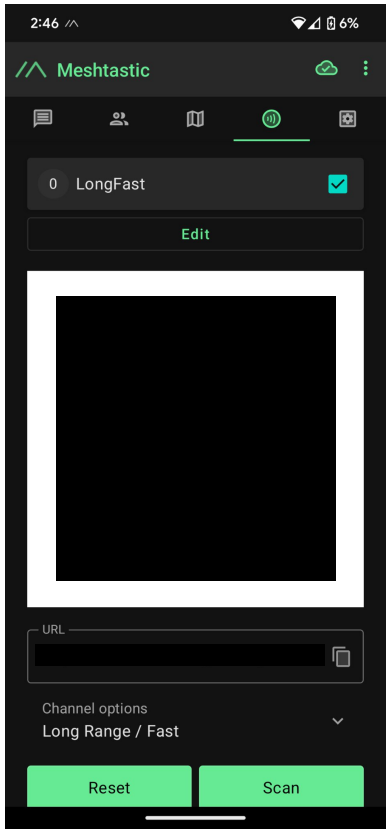


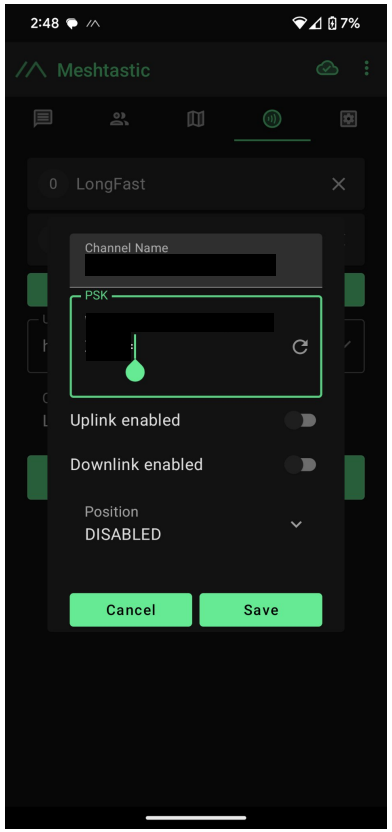


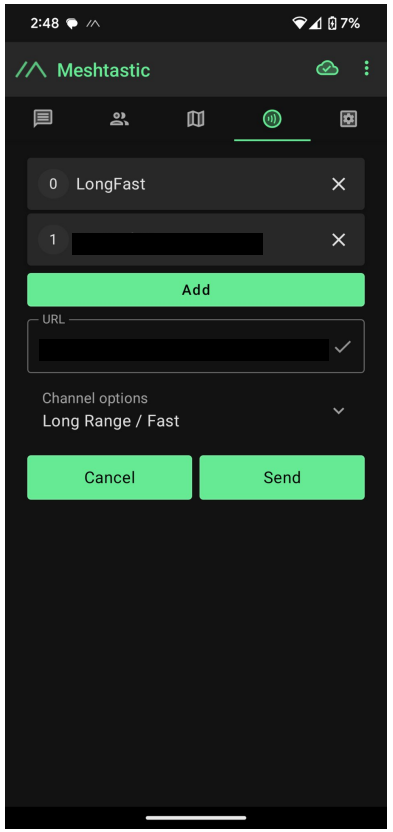
Setting Up Your Meshtastic Device: **Android Software**

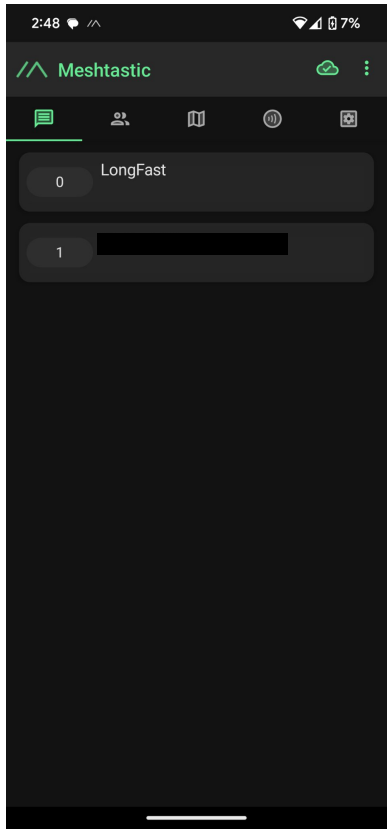












Join Us On The Mesh!

BTC Conference Meshtastic Channels

0 Primary Channel

1 B V Citadel

2 btc.chat

3 ecash.chat

4 p2p.market

5 /politics

6 events.news

7 nostr&npubs

Understanding Meshtastic Concepts: **A Multi-Layer Approach**

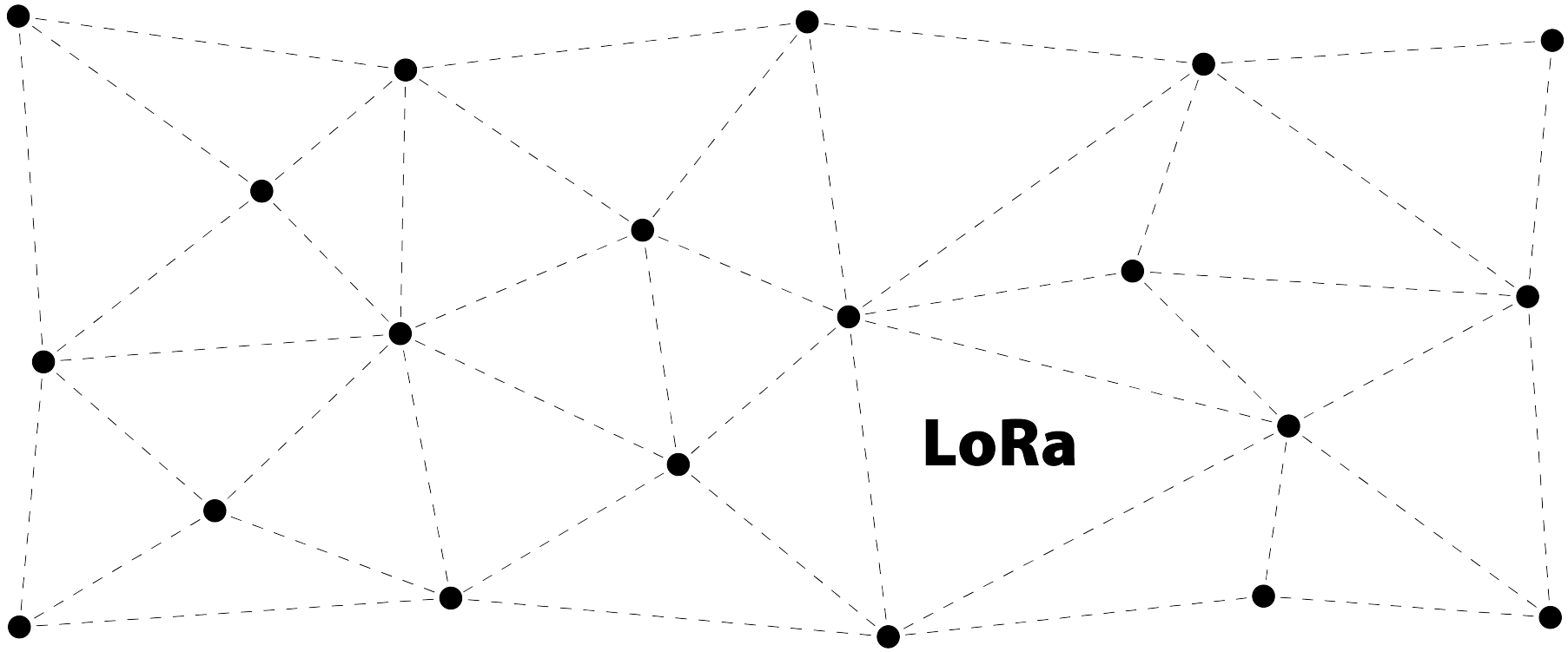
Naive Flooding for Multi-Hop Messaging

Reliable Zero Hop Messaging

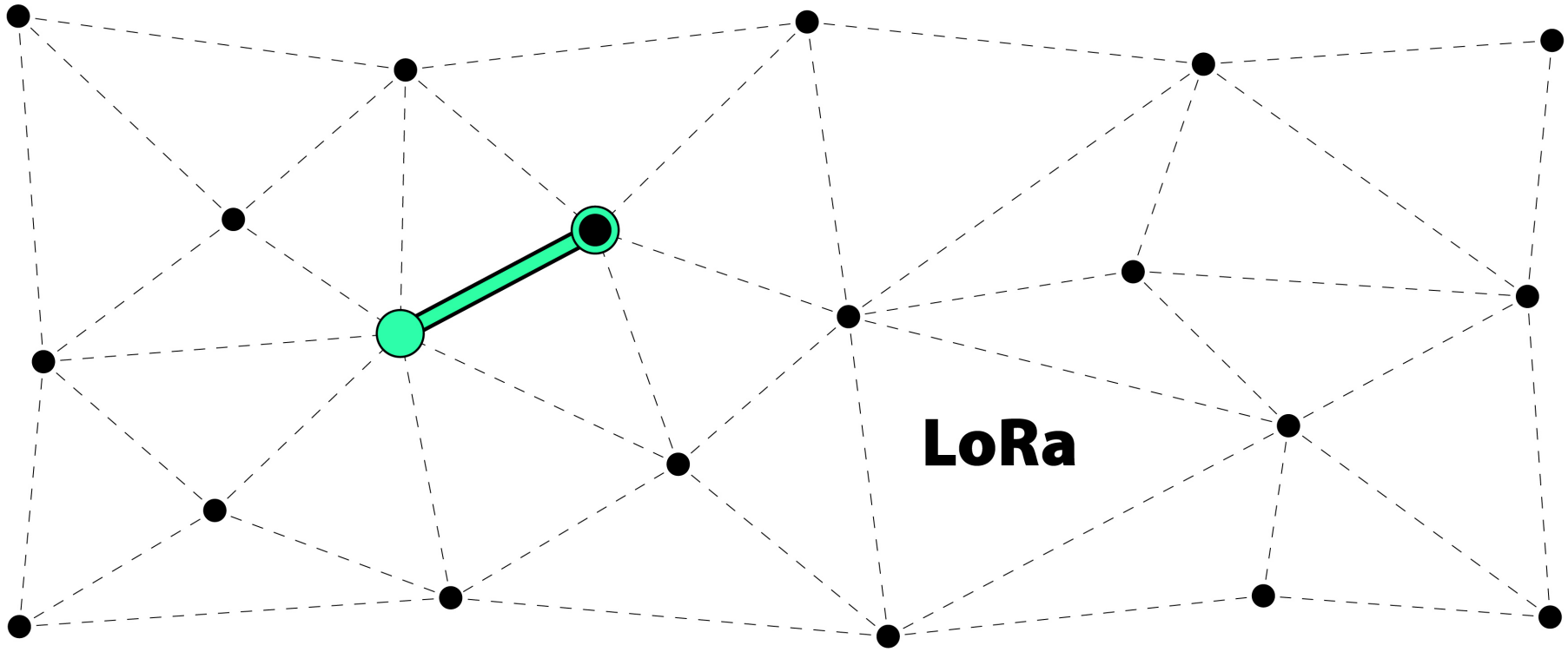
Unreliable Zero Hop Messaging

LoRa Radio

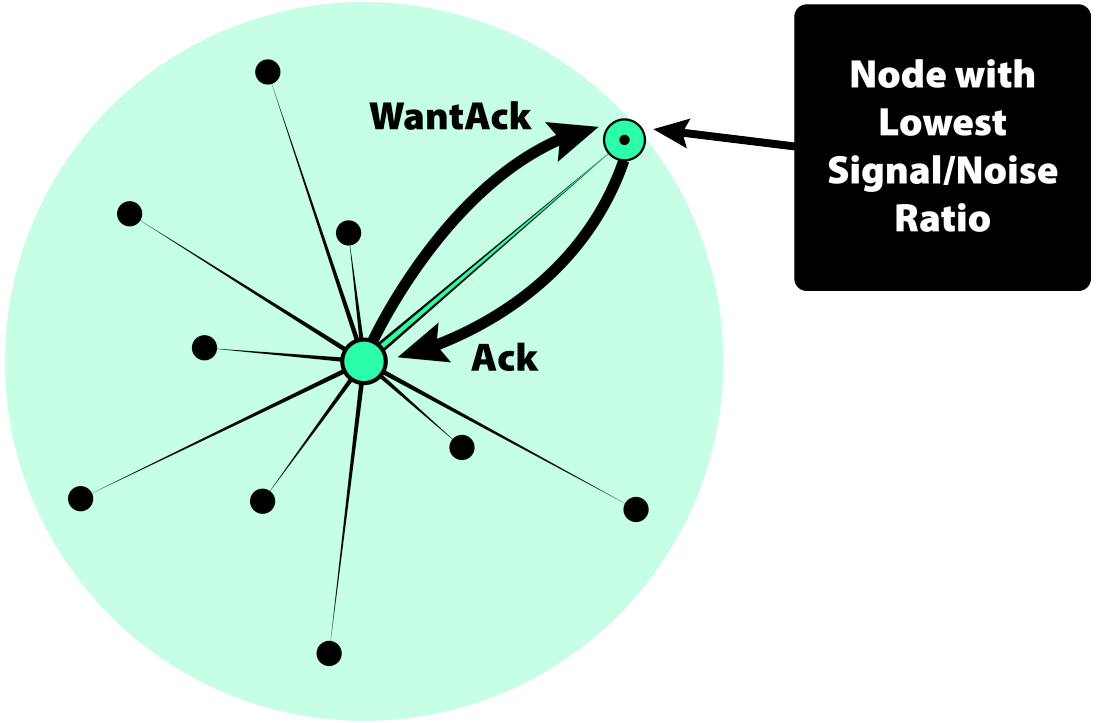
Layer 0: LoRa Radio - The Foundation of Meshtastic Communication



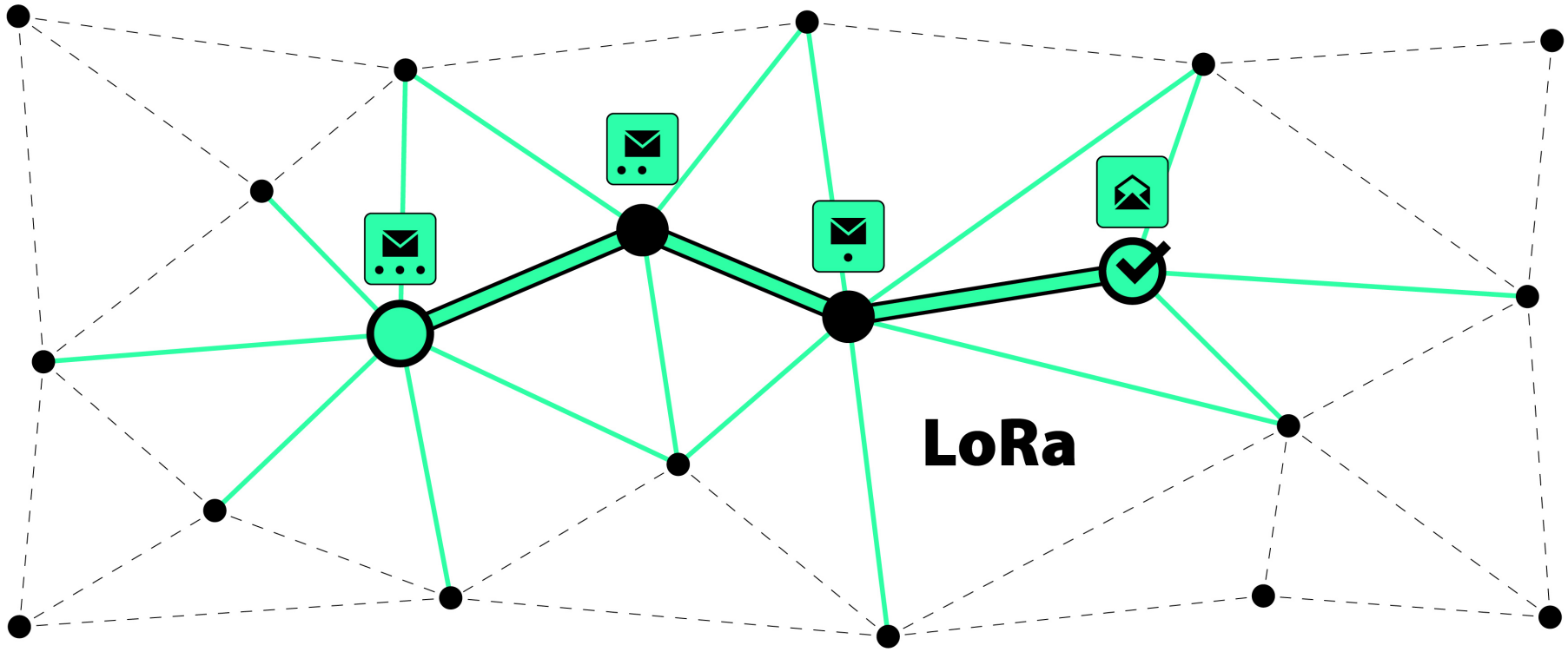
Layer 1: Unreliable Zero Hop Messaging - Conventional Packet Transmission



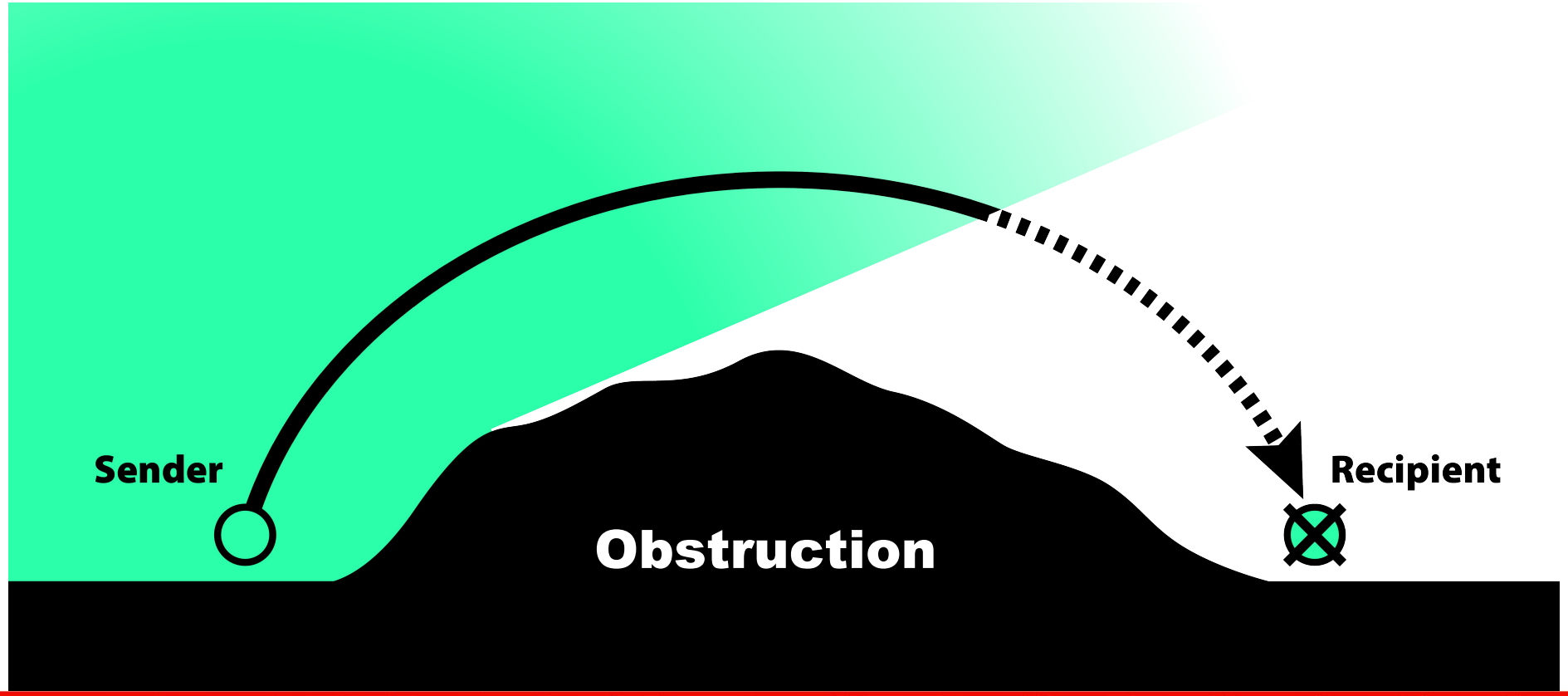
Layer 2: Reliable Zero Hop Messaging - Ensuring Message Delivery



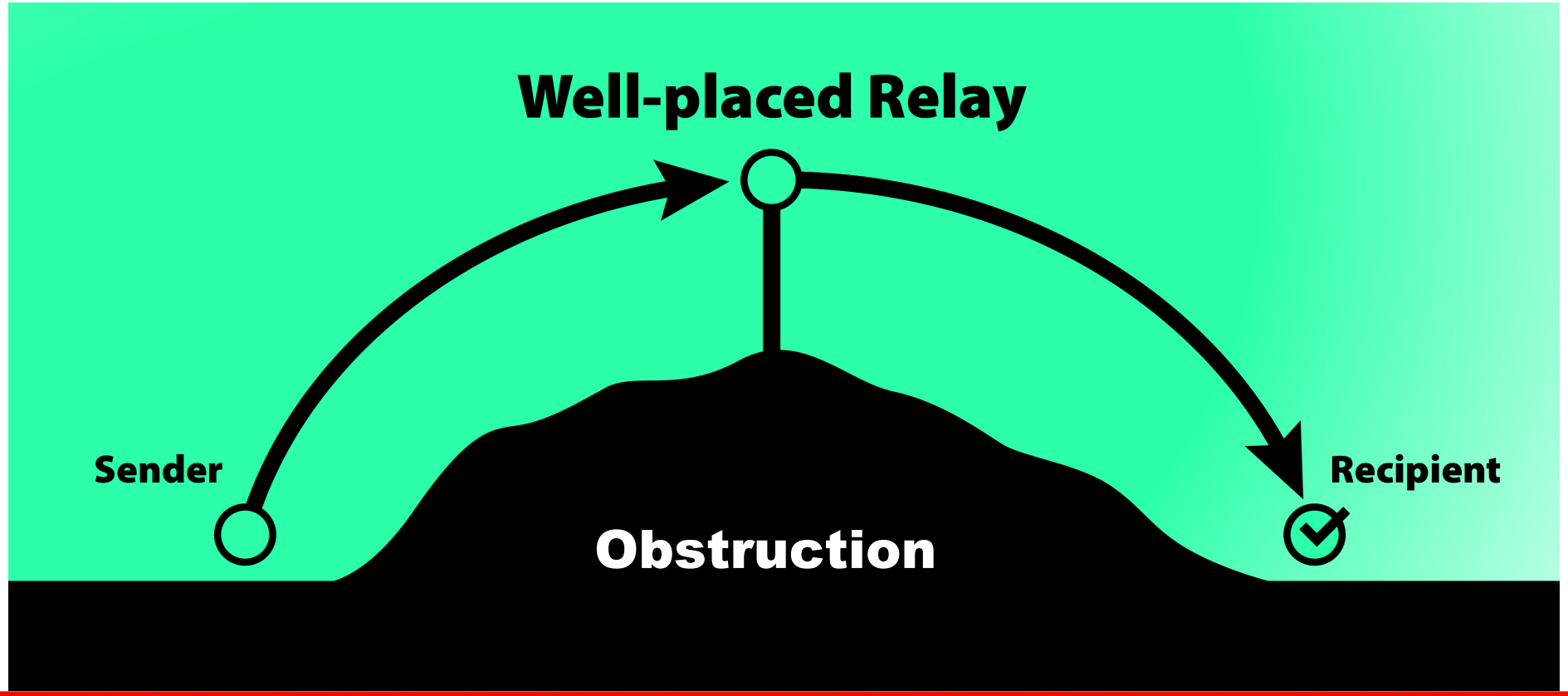
Layer 3: (Naive) Flooding for Multi-Hop Messaging - Extending Message Range



Optimizing Network and Landscape **Topology** for **Reliable Coverage**



Optimizing Network and Landscape **Topology** for **Reliable Coverage**

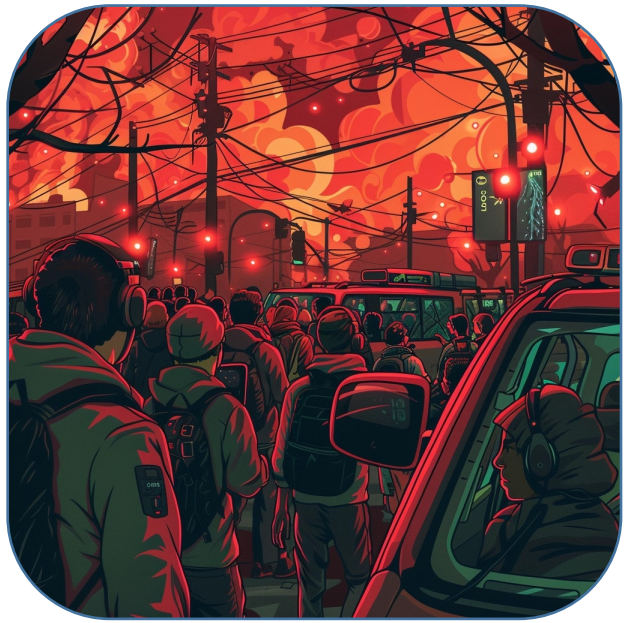


Security Considerations for Meshtastic Users

Practical Use Cases for Meshtastic and LoRa

Rural Area Connectivity

Outdoor Adventures



Disaster Response

Shout out to

The Comms Channel

https://www.youtube.com/@The_Comms_Channel

bitcoin2024

#artist #designer

Hi! I'm

Adam Malin

thePR0M3TH3AN

npub15jnttpymeytm80hatjqcvhhqhzrhx6gxp8pq0wn93rhnu8s9h9dsha32lx

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Key Takeaways

Meshtastic and LoRa: Decentralized, off-grid chat app with phone and LoRa radio.

Encryption: Uses encryption for secure messaging. Channel keys ensure privacy.

Network Topology: Clear lines of sight and strategic placement of nodes enhance reliability.

Practical Use Cases: Ideal for emergency communication, and community or mobile networks in remote areas.

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QUESTIONS?

MESHTASTIC

Thank You!

BTC Conference Meshtastic Channels

0 Primary Channel
1 B V Citadel
2 btc.chat
3 ecash.chat
4 p2p.market
5 /politics
6 events.news
7 nostr&npubs

Open Source Presentation

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