

Is it true that Bitchat is mesh networking? For example: a phone sends to another phone 30 metres away, which then passes to another phone 30 metres away, just like Meshtastic?

AI Generated Badge

Yes, it is absolutely true that BitChat is a mesh networking app. It passes encrypted messages across a "human chain" of smartphones just like you described. [1, 2, 3, 4] However, while BitChat and Meshtastic share the exact same logical concept, they use entirely different wireless technologies to achieve it. [5, 6]

BitChat vs. Meshtastic: The Core Differences

Feature	BitChat	Meshtastic
Hardware Used	Just your standard smartphone.	Separate, specialized LoRA radio hardware (T-Beam, Heltec, etc.).

Feature	BitChat	Meshtastic
Signal Carrier	Bluetooth Low Energy (BLE).	LoRA (Long Range) Radio Frequencies (915MHz / 868MHz).
Single-Hop Range	Short (~30 metres).	Long (Several kilometers, up to 100km with line-of-sight).
Required Crowd Density	Very High. Needs a dense pack of humans to form a working chain.	Very Low. A few nodes placed on high rooftops can cover an entire city.

How the "30-Meter Jump" Works on BitChat

When you type a message and press send on BitChat, the app breaks the message into encrypted data packets. [4, 7]

1. The First Leap: Your phone broadcasts this packet over its built-in Bluetooth antenna. This signal radiates outward roughly 30 metres. [3, 7]
2. The Anonymous Relay: A stranger standing 28 metres away has the BitChat app running. Their phone's Bluetooth background scanner catches your packet. [3, 4, 7]
3. Blind Forwarding: Because it is encrypted using the [Noise Protocol Framework](#), the stranger's phone cannot read your message. However, the protocol recognizes that the target recipient is still farther away. The stranger's phone automatically rebroadcasts your packet. [3, 7, 8, 9, 10]
4. The Second Leap: The packet jumps another 30 metres from that stranger's phone to a third phone. [3]
5. The Final Destination: The chain continues for up to 7 total hops, giving your message a maximum theoretical reach of around 210 to 300 metres through a crowd. [3, 4]

What happens if the chain is broken?

If there is a 60-meter gap with no people between you and the recipient, the Bluetooth signal cannot bridge the distance. [4] To handle this, the BitChat protocol whitepaper outlines a Store-and-Forward architecture. If a phone receives a message but finds no nearby nodes to pass it to, it holds the packet in an internal cache. The moment a person walks past and enters their 30-meter Bluetooth radius, the message is automatically handed off and pushed forward down the line. [1, 4, 8, 11]

[1] <https://www.ditto.com> [2] <https://en.wikipedia.org> [3] <https://www.facebook.com> [4]
<https://medium.com> [5] <https://github.com> [6] <https://www.instagram.com> [7] <https://medium.com>
[8] <https://github.com> [9] <https://en.wikipedia.org> [10] <https://www.facebook.com> [11]
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