Packet Commander v1.1

https://packetcommander.com

2025-07-14

1 Getting Started

1.1 Requirements

- iOS 18.2 or later
- Compatible iPhone or iPad
- Compatible radio or TNC (see Supported Devices)
- Valid amateur radio license

1.2 Installation

1. Visit the Apple App Store on your device

2. Search for “Packet Commander”
3. Tap **Get** or **Download**

1.3 Setup

1. Open the app
2. Enter your amateur radio callsign
3. Add a Node
4. Pair with a TNC
5. Connect

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2 Finding Nodes

Finding nodes to connect to can be challenging. There is no central directory due to the distributed nature of radio, and much of the knowledge is localized to specific regions.

Here are some resources to help you get started. Ask around, and enjoy the thrill of discovering new nodes and exploring the network.

2.1 Nationwide Amateur Radio Packet Directory

A nationwide, crowdsourced map and directory of AX.25 packet radio stations created by Prof. Chris Lance (WW2BSA) to support experimentation, learning, and connection in the amateur radio digital community.

2.2 East Coast

2.2.1 North Carolina Packet

NCPACKET is a grassroots group in North Carolina building a fun and educational amateur radio packet network (TARPN) for regional email,

chat, and social interaction entirely over ham radio while promoting digital radio, collaboration, and emergency preparedness.

2.2.2 The Virginia Packet Network (VAPN)

The Virginia Packet Network (VAPN) is a hybrid AX.25 and 802.11 amateur radio network serving northern Virginia, offering RF-only messaging in remote areas like Shenandoah National Park, with active VHF and HF nodes supporting resilient, off-grid communication.

2.2.3 The Main Packet Radio

The Maine Packet Network is dedicated to building a packet radio backbone that connects local networks and emergency comms teams across Maine, while also serving as a central hub for learning and resources for packet operators of all experience levels.

2.2.4 East Net Packet

EastNet Packet is a community of amateur radio operators focused on operating and expanding a digital packet radio network, welcoming all hams interested in digital modes and systems.

2.2.5 Delware Packet Network

The Delaware Packet Network (DEPN) promotes and supports the growth of community-based AX.25 packet networks across Delaware and nearby regions, offering guidance on setting up nodes, gateways, and digipeaters as part of a broader effort to rebuild the RF packet backbone in the U.S.

2.3 Terestrial Amateur Radio Packet Network

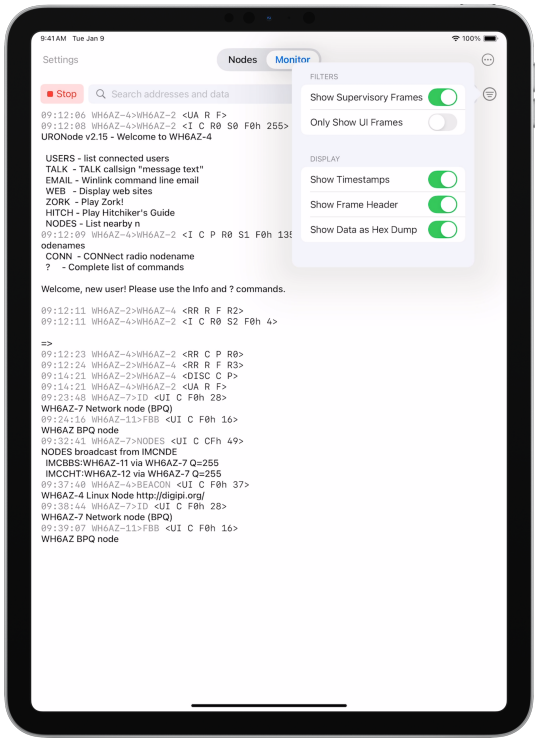
TARPN is a grassroots initiative helping amateur radio operators build over-the-air, Internet-free VHF/UHF packet networks using simple, hobbyist-friendly hardware.

2.4 The Packet Radio RF Forwarding Network (TPRFN)

The Packet Radio RF Forwarding Network (TPRFN) is a volunteer-driven, RF-only amateur radio network that links VHF/UHF packet systems and HF digital modes across the U.S. to provide dependable, Internet-free messaging and emergency communications support.

3 Monitor

The Monitor provides a real-time view of packet traffic on your frequency. Tap **Start** to begin monitoring. When monitoring is active, you cannot establish a node connection.



3.1 Getting Started

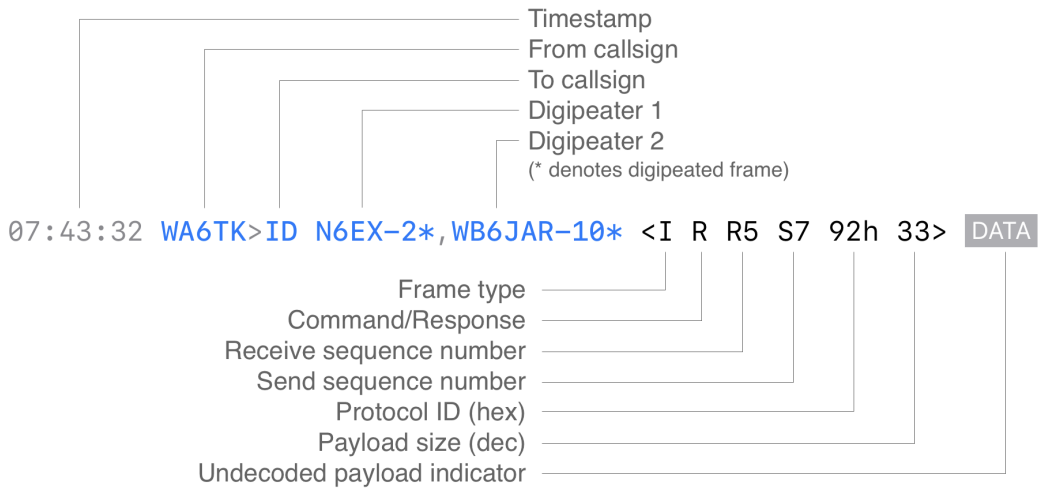
3.1.1 TNC Selection

Go to **Settings** and pair with a TNC to get started.

3.1.2 Frequency Selection

To change the monitoring frequency, tap on the displayed frequency value.

3.2 Understanding Frame Display



3.3 Monitor Actions

Access additional options by tapping ⋯ (the three-dot menu).

3.3.1 Adjusting Text Size

Select **Text Size** to increase or decrease the font size for better readability.

3.3.2 Saving Logs

To save the monitor log to a file: 1. Select **Save to File** 2. Navigate to your desired folder 3. Tap **"Move"** (iOS treats this as a move operation since you're moving the temporarily created log to a permanent location)

Note: Logs always contain the complete dump of captured packets. Filters do not affect the saved log content.

3.3.3 Clearing the Display

Use **Clear Monitor** to reset the monitor screen and start fresh.

3.4 Filtering Frames

Control which frames are displayed by tapping . When a filter is active and hiding certain frames, the filter icon appears filled .

3.4.1 Show Supervisory Frames

Toggle this option to show or hide supervisory frames. Supervisory frames in AX.25 are control frames that manage data flow and error recovery. They handle functions like: - Acknowledgments - Polling - Retransmission requests

These frames don’t carry user data—they only show how each station is managing the connection.

3.4.2 Only Show UI Frames

This toggle displays only UI (Unnumbered Information) frames while hiding everything else. UI frames are connectionless frames used for: - Broadcasting information - Simple one-way communication (like APRS or beacons) - Node presence advertisements and identification

When no other users are actively connecting to a node, UI frames are the best way to determine if a node is present and active.

3.4.3 Search Function

Filter frames by callsign or content by typing text in the search field. The search is case-insensitive and will show only frames that match your criteria.

3.5 Display Options

3.5.1 Show Timestamps

Toggle to show or hide timestamps for each frame.

3.5.2 Show Frame Header

Toggle to show or hide the summary information in frame headers.

3.5.3 Show Data as Hex Dump

When frame payloads can't be decoded as displayable ASCII characters, they're marked with a **DATA** indicator. This toggle switches between:

- **Off:** Simple DATA marker
- **On:** Full hex dump with partial ASCII representation of displayable characters

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4 Managing Nodes

4.1 Adding Nodes

1. Tap the plus ⊕ icon to add a new node.
2. Enter the node's callsign and frequency.
3. Add a friendly name for easy recognition.
4. Tap **Done** to save.

4.2 Deleting a Node

1. Swipe the node row to the left to reveal action buttons.
2. Tap the trash 🗑 icon to delete the node.

4.3 Node Syncing via iCloud

Node information is automatically synced with iCloud. If you use Packet Commander on another device, any changes will be reflected there as well.

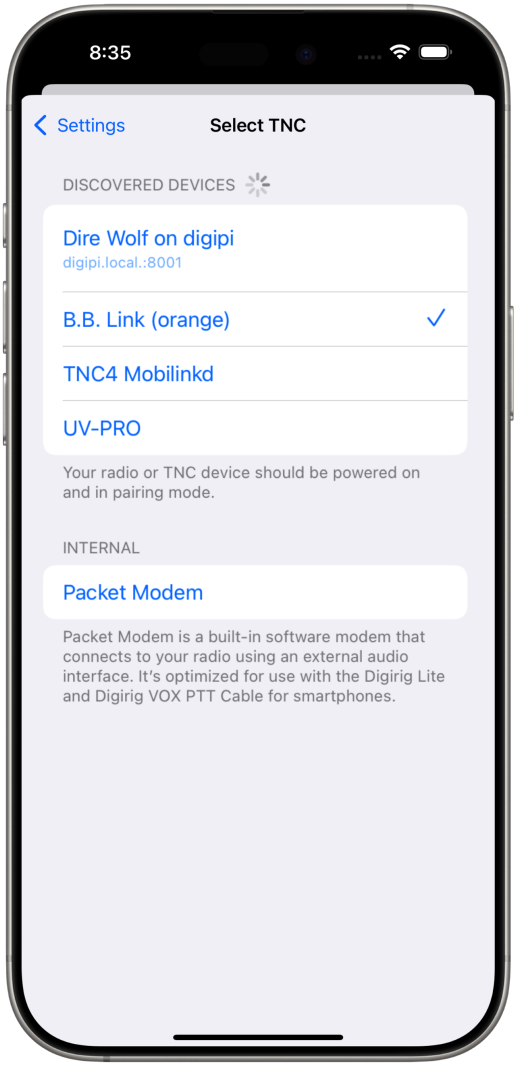
Note: If you're offline, changes are saved locally and will be synced the next time you're connected to the internet.

5 TNC Pairing

5.1 Pairing with a TNC

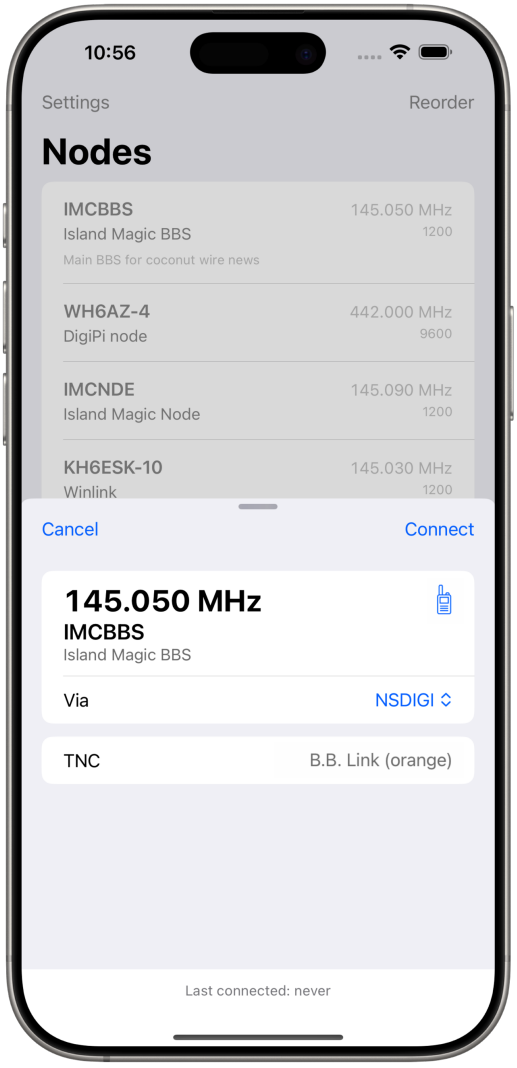
There’s no need to pair your radio or TNC through iOS Bluetooth settings. In most cases, doing so can actually cause connection issues. Instead, follow these steps:

1. In Packet Commander, go to **Settings > Select TNC**
2. Grant **Bluetooth** permission when prompted
3. Grant **Network** permission when prompted
4. Turn on your radio or TNC
5. Make sure your radio or TNC is in **discoverable** mode
6. When your device appears in the list, tap to select it
7. Accept any confirmation screens that may appear



Note: Make sure no other app is connected to your device. Fully quit any radio client or APRS app before attempting to access your device.

6 Connecting

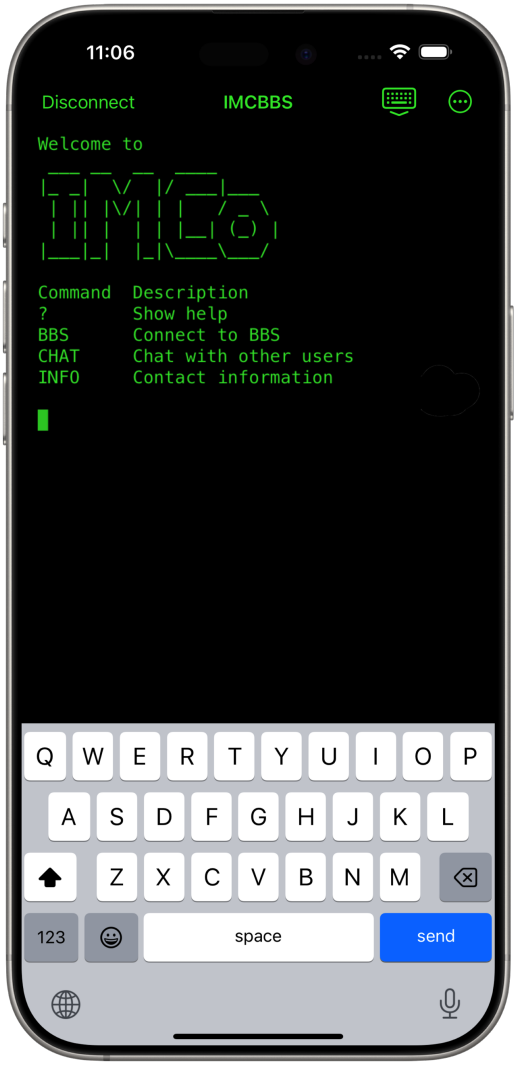


6.1 Connecting

1. On the main screen, tap a node entry to open the connection sheet.
2. Verify that the node details are correct.
3. If your radio supports frequency control, the app will set the frequency automatically. Look for the HT icon to confirm frequency-setting support. If not, manually tune your radio to the node's frequency.

4. Tap **Connect** to initiate the connection.

7 Terminal



7.1 File Transfer

Packet Commander supports the **YAPP protocol** for sending and receiving files over packet radio. To send a file, tap the top-right ⋯ menu, select **Send File...**, and use the file picker to choose your file.

To receive a file, simply issue the **YAPP filename** command to start the transfer.

Tip: Double-tap a file name in the terminal to quickly select and copy it.

7.2 Auto Capitalization

Packet Commander can automatically capitalize the first letter of sentences as you type. This makes messages easier to read and more polished. The feature is **on by default**. To toggle it, **long press** the keyboard icon.

Most packet node commands are not case-sensitive, so capitalization shouldn't cause issues—but if you run into problems, try turning this setting off.

7.3 Theme

Customize the terminal to your liking. Choose from several **retro-inspired color themes**, each designed for readability and a touch of nostalgia. You can also adjust the font size for comfort or screen space.

Go to **Settings > Terminal Appearance** to select your theme and font preferences.

7.4 Special Characters

Packet radio nodes typically support only the **ISO-8859-1** character set (also known as Latin-1). Special symbols like curly quotes, emojis, or non-Latin characters aren't supported. If you paste text containing unsupported characters, they will be filtered out automatically.

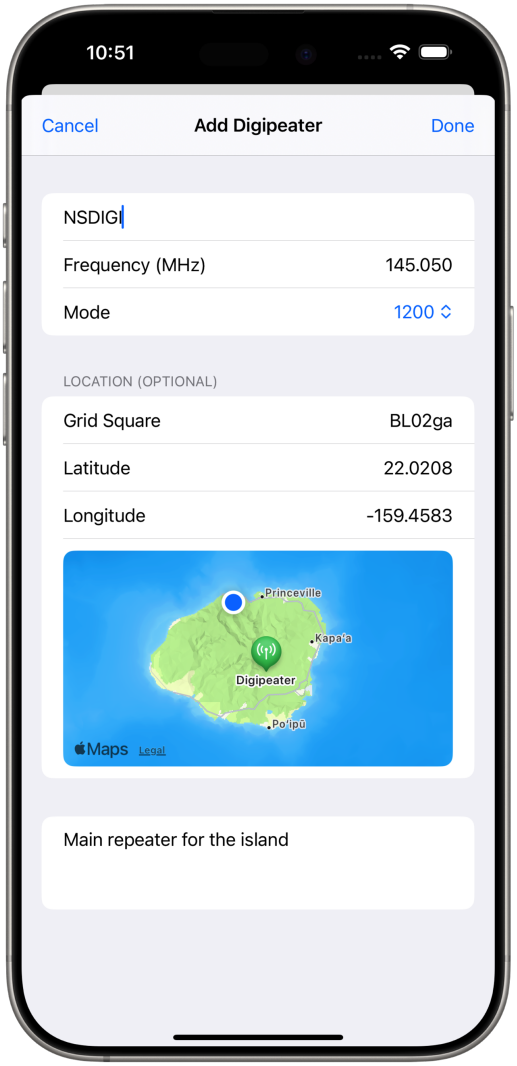
8 Digipeaters

8.1 Adding Digipeaters

1. Go to **Settings > Digipeaters**
2. Enter the digipeater's callsign and frequency

Once added, up to two digipeaters can be selected on the connection screen. Only digipeaters that match the frequency and baud rate of the selected node will be available.

Note: To be useful, a digipeater must support **AX.25 connected mode** and operate on the **same frequency** as the node you're trying to reach. APRS digipeaters operate differently and cannot be used for this purpose.



8.2 Digipeater Syncing via iCloud

Digipeater information is automatically synced with iCloud. If you use Packet Commander on another device, any changes will appear there as well.

Note: If you're offline, changes are saved locally and will sync the next time you're connected to the internet.

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9 App Purchase

The app is free to try. The trial gives you 5 connection sessions to explore everything Packet Commander can do and make sure it works with your gear. After that, you need to purchase the app to keep connecting. A yearly subscription and a one-time purchase options are available.

10 Requesting a Refund for the One-time Purchase

Packet Commander strives to provide you with the best packet radio terminal available on iOS. If you are not satisfied, you can request a refund from the Apple App Store by following these steps:

1. Open the App Store app on your iOS device and tap on your profile picture in the upper right corner.
2. Tap on **Purchased** and select the app for which you want a refund.
3. Tap on the **Report a Problem** button and select **I'd like to request a refund** from the options provided.
4. Fill out the form with the relevant information and provide a reason for the refund request.
5. Submit the form and wait for a response from Apple.

Alternatively, you can also request a refund through your web browser by going to reportaproblem.apple.com and following the on-screen instructions.

If you're still having problems, reach out to aloha@islandmagic.co and we'll help you out.

11 FAQ

11.0.1 Will Packet Commander work with my iPhone?

See the list of supported iPhones.

11.0.2 Can I use Packet Commander on more than one device?

Yes. You can use the same license on any device that is signed in with your Apple ID.

11.0.3 Will there ever be an Android version?

No.

11.0.4 Is my “XYZ” radio supported?

Only if it exposes a TNC over Bluetooth Low Energy (BLE) in a way that complies with the BLE KISS TNC specification. Otherwise, it is not compatible.

11.0.5 Why can’t the Kenwood TH-D74 or TH-D75 pair directly via Bluetooth?

The Kenwood TH-D74/D75 uses the Bluetooth Serial Port Profile (SPP) to expose its internal KISS TNC. Unfortunately, Apple does not allow iOS apps to use SPP; it only permits Bluetooth Low Energy (BLE). This creates an incompatibility.

To work around this, the B.B. Link adapter was created. It acts as a bridge, converting SPP to BLE so that your Kenwood radio can communicate with Packet Commander.