

# Ham Voicing

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## Introduction

Ham Voicing connects you to amateur-radio voice networks over the internet — so you can talk and listen from your phone, with or without a rig. You pick a reflector, room or node and key up, and your voice reaches real operators through the networks' gateways worldwide. It is a client for networks you already belong to: you bring your callsign (and, for some networks, credentials you obtain from that network).

## Networks in this build

Three networks are available: M17 (the open Codec2 network), EchoLink (with a full station-directory browser), and AllStarLink (early — connect and audio are still being verified). The AMBE networks (DMR, D-STAR, Fusion) and a gateway mode are on the way. Enable the networks you use in Settings; each has its own login fields.

## You must be licensed

Transmitting on these networks puts real RF on the air at distant gateways. You must hold a valid amateur radio licence and operate within your privileges. Ham Voicing is the client, not a licence.

## Getting Started

Open Settings and enter your callsign (required to operate), and optionally your Maidenhead grid and email. These are stored only on your device and auto-save as you type. In Settings → Networks, enable the networks you belong to and fill in each one's login. Then go to the Connect screen, pick a network and connect.

## A stable connection matters most

Voice over the internet is sensitive to dropped packets, so a steady Wi-Fi or mobile-data connection matters more than raw speed. If audio breaks up, a different network path often helps more than a faster one.

## The Connect Screen

One screen drives every network. The dropdown at the top lists only the networks you have enabled; pick one and it remembers your choice. Below are that network's session fields, a status line, and a Connect button. While you are connected the dropdown is locked so you cannot switch networks mid-contact.

## Push to talk

Ham Voicing is half-duplex: you either listen or transmit. Tap the round PTT button to key up (transmit) and tap it again to unkey (return to receive). A single level bar shows receive level (green) and, while you transmit, your microphone level (red).

## Audio routing

With no earphones, Ham Voicing is hands-free: received audio plays on the loudspeaker and you talk with the phone in front of you. Plug in earphones (wired or Bluetooth) and both receive and transmit move to them automatically.

## In the background

While connected you can switch to another app or lock the screen and keep hearing the channel. On Android an ongoing notification shows the connection is live; ending the connection removes it. On iOS, background audio is handled by the system.

## M17

M17 is the open voice network — it uses the free Codec2 voice codec and needs only your callsign (no password). It is the easiest, cleanest way to make your first contact.

## Connect

Enter the reflector host (for example `ref.example.org`), the port (usually 17000) and the module letter (a single letter such as A). Your callsign is taken from Settings. Tap Connect; the status shows when you are linked to the module, and the page shows the callsign of whoever is transmitting.

## EchoLink

EchoLink links repeaters, simplex links and conferences worldwide. It needs your own callsign and EchoLink password, and your callsign must be validated by EchoLink before you can connect. Enter the password in Settings → Networks; it is stored in your device's secure store.

## Browse the directory

When you connect, Ham Voicing logs in and lists the stations that are online. Search by callsign or location and filter by type (repeater, link, conference, user) and by continent. Tap a station to start a contact, or type a node directly into the quick-connect field.

## Working through a relay (CGNAT)

Many phones — especially on mobile data — sit behind carrier-grade NAT, where a normal direct connection cannot reach you. Choose the Relay connection type in Settings and Ham Voicing tunnels through EchoLink's own relay servers, exactly as the official app does, so it works on those networks.

## On this node

Once you are in a contact, the screen shows the node or conference you joined and lists the other callsigns heard on it, with the station currently talking highlighted. The list scrolls on its own when many stations are present. Tap Leave (on the right) to drop the contact but stay logged in to keep browsing.

## AllStarLink

AllStarLink connects nodes and hubs using the IAX2 protocol. Enter the node host, your node/login and secret in Settings → Networks, and the number you want to call. This client is early: connecting and audio are still being verified, so treat AllStar as experimental for now.

## Settings

### Your details

Enter your callsign, grid and email. They auto-save and are stored only on your device; identifier fields auto-capitalize and the email field capitalizes sensibly. These appear in the About page and in support messages.

### Networks

Enable the networks you use and enter each one's login. Passwords and secrets go to the device secure store (iOS Keychain / Android encrypted storage) and never leave the device. Each network has a test button that performs a real login to confirm your credentials and connectivity before you rely on them.

### Appearance and resets

Toggle dark mode, adjust the font size, and turn the weekly tips on or off. Two clearly separated buttons let you reset all app settings to defaults (this preserves your saved network logins) or delete your stored network credentials (this leaves your other settings alone).

## About & Support

### About

Shows the version, a feature summary, and links to this manual, the support form and the version history.

### Support

Sends a pre-filled message (with your callsign, email and app version) to the developer via your email app.

### Privacy

Ham Voicing uses your microphone to transmit when you key PTT, and sends your voice and callsign over the internet to the third-party voice networks you choose. Your callsign, grid, email and network credentials are stored only on your device — there is no Unixeer server, no account with us, no analytics and no ads. On the air, your transmissions are public amateur radio.

## **Operating Notes**

### **Etiquette**

Monitor a node, talkgroup or reflector before transmitting — many carry nets and ongoing contacts. Identify with your callsign at the start and end of a contact and at least every ten minutes, per your own regulations. Leave gaps between overs so the network can key distant repeaters and others can break in.

### **Coming soon**

The AMBE networks — DMR (DMR ID + network password), D-STAR and Fusion — plus a gateway mode that links your own radio to a network. Each will appear with its own connection and credential fields.