

## Push to Talk

Often described as a "walkie-talkie" service using mobile phones, Push to talk over Cellular (PoC) is a service that makes one-on-one and group conversations possible over a cellular network. Press the button once and everyone can hear you talk - release the button and hear others talking back to you.

### The Benefits of Push to Talk

- Direct speech connection is spontaneous and convenient
- Share information and experiences instantly, at any time
- Get and stay in touch with a group of people - whether they're pre-set, impromptu, or open chat groups
- Expanded range and roaming options over two-way radio

### How it Works

Phones with the PTT feature have a dedicated PTT button that is used to start a session. A session can involve from two to several participants. Only one person can talk at a time.

### Using PTT

To start a Push to talk conversation, you simply select a contact (in either phone number or special PoC address format) or a group from your list or the list of a friend. Then press and hold the special PTT button. When you hear a tone, you can start to talk. When you're done, you release the button and wait for a response.

It sounds similar to walkie-talkies because it is. Both use "half-duplex mode," which means that only one person can talk at a time, and then only by pressing a button. The speaker is transmitting packets of data to the listeners, who cannot stream data while they are receiving it. The difference is that walkie-talkies operate over radio frequencies while PTT conversations are sent over cellular networks, giving increased range and roaming capabilities.

### Push to Talk VS. Two-Way Radio

Features of PTT that are not offered in two-way radio communication include auto-answer, in which the caller is immediately connected to the recipient (as opposed to a phone call which the recipient must first answer before talking); invitation messages that work like voicemail alerts for users already involved in one PTT session to join another as soon as they are free; and conversation "managers" that determine who can talk at a certain time. Group calling can be conducted within set groups already established or created just before the session by sending invitations, or among individual PTT participants coming together in a "chat room" that can be either open or restricted.

## Networks and Delay

It's important to note that this definition deals specifically with Push to talk over Cellular (also known as PoC), which operates over GPRS networks specifically. This means that you could start a conversation, chat with a friend for five minutes, then say nothing for 20 minutes, and then chat again for another five minutes without re-initiating the session. The "talk bursts" are delivered in packets rather than in a continuous stream like a regular telephone call.

PTT sessions over GPRS networks generally have faster session set-up times than PTT sessions over CSD networks, which means they generally use radio resources more efficiently and therefore usually cost less. However instant communication is never guaranteed and delays can occur depending on your operator agreement and that of your conversation partner(s), anywhere from 0 to 6 seconds.