

TerminalPhone: Encrypted Voice Calls Over Tor in One Bash Script

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Walkie-talkie push-to-talk, 21 selectable ciphers, no servers or accounts

- 0** Servers, accounts, or phone numbers needed
- 21** Configurable ciphers, swap mid-call
- <20KB** 10-second voice clip on the wire over Tor

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[TerminalPhone](#) is a single Bash script that runs encrypted, anonymous voice calls over [Tor hidden services](#). No accounts, no phone numbers, no server to register with. Your `.onion` address is your identity. The model is walkie-talkie: hold space to record, release to send. Audio is compressed at 16kbps using the [Opus codec](#), encrypted by default with AES-256-CBC, base64-encoded, and pushed through Tor to the other party. A 10-second clip lands

under 20KB on the wire. You can pick from 21 ciphers ranked by strength, swap them mid-call, and exclude specific countries (Five Eyes presets included) from your Tor circuit. It runs on Linux, macOS, and Android via Termux.

Existing private call tools either depend on company-run servers and phone numbers like Signal, or ship as full apps you install and maintain. TerminalPhone is one file you can read in an afternoon and run from a terminal on a Pixel phone, a laptop, or a Raspberry Pi. For a journalist meeting a source, or an activist in a country that fingerprints VoIP traffic, the trust surface collapses to a shared secret and the Tor network. Optional [Snowflake](#) bridges keep it working where Tor itself is blocked.

The relay mode is the more interesting piece. A volunteer can host a zero-knowledge group bridge that forwards encrypted audio to N callers without ever holding the shared secret, so the operator literally cannot decrypt what passes through. Group calls without a trusted middleman, in a single Bash script.

Sources:

- [TerminalPhone repository \(GitLab\)](#)
- [TerminalPhone README and security model \(GitLab\)](#)
- [Tor onion services overview \(Tor Project\)](#)
- [Snowflake pluggable transport \(Tor Project\)](#)
- [Opus interactive audio codec](#)

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