

We will design and implement a wired ethernet communication device allowing users to communicate voice over a LAN connection. Although similar to VoIP, this device will use proprietary protocols in favor of commercialized standards to simplify implementation to an acceptable complexity level. In addition, we plan to use an open source ethernet controller to handle transmitting data packets in order to simplify the implementation.

One member of our team will interface with this ethernet controller, developing our proprietary protocol for communicating between phones. The other member of our team will implement an audio codec optimized for speech (such as LPC) for encoding and decoding audio data to reduce the transmission bit-rate.