Voice over IP (VoIP) refers to the set of technologies providing voice communications over TCP/IP networks. Of course, the biggest TCP/IP network is the Internet itself, and the ultimate goal of the VoIP industry has always been to find a way to use the Internet for ordinary phone calls.

Early VoIP efforts faced several challenges, including quality of service issues, hardware issues, and a general lack of bandwidth. If you’ve been reading the Internet ads recently, though, you’ll have noticed that these issues have largely been addressed. Internet phone services are quickly becoming popular around the world.

It is easy enough to get two computers to communicate. The other part of the problem is getting a VoIP-enabled computer phone to talk to an ordinary landline. To reach the conventional phone network, you’ll need to subscribe to an Internet phone service. Rates vary, depending on your location and the services you need. But in any case, whether the voice comes from a phone booth in Alaska or a computer workstation in the next room, a call to your computer phone arrives as Voice over IP.

Linux is always quick to integrate new technologies, and the VoIP revolution is no exception. Several practical tools are available right now to help you join the age of the Internet phone. We’ll report on some of those tools in this month’s Voice over IP cover story.

We start with a look at the Asterisk phone server system. Asterisk lets you set up a home phone server, so all the phones in your house can share a single Internet connection. The Asterisk server application offers a single configuration point and provides many of the advanced features found in proprietary office phone systems.

We’ll also show you Linphone and Kphone, a pair of simple and versatile VoIP phone applications. And we’ll end with a look at how to configure the hugely popular Skype phone client in Linux. If you’re ready to take the plunge into the world of VoIP, or even if you just want to experiment, read on for this month’s look at voice communications in Linux.