

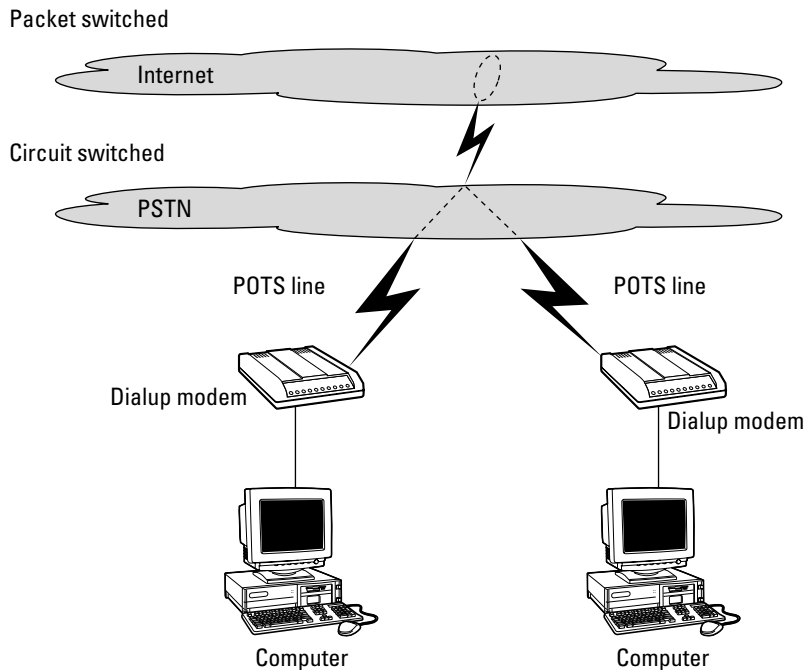
The following sections examine, in some detail, the various CSIs available, along with how VoIP works in relation to those CSIs.

## The PSTN CSI

The public switched telephone network (PSTN) is the oldest CSI, actually beginning with the work of Alexander Graham Bell in the late 1800s. I won't go into too much detail about this CSI's history because I cover it in Chapter 2.

Over the years, carriers have been installing, expanding, improving, and interconnecting various parts of the PSTN. Compared to all other carrier service infrastructures, the PSTN is the largest.

It was under the PSTN CSI, on a POTS transport, that VoIP first started — and it wasn't pretty. The inherent bandwidth limitations and circuit-switched protocols required by POTS impose clear limitations when it comes to the packet-switched requirements of VoIP. These limits were discovered by accident in the first VoIP call made by a pair of Internet hobbyists in 1995. Figure 4-3 illustrates how the PSTN was related to the Internet and the first VoIP call.



**Figure 4-3:**  
The first  
VoIP call  
utilized the  
Internet  
through  
the PSTN.