

CALLING ON THE ROAD

Mobile Communication in America, 1948–83

Two-way voice communications in automobiles developed in two major phases that culminated in the invention of the handheld cellphone.



Mobile telephone test call in St. Louis, Missouri, the first U.S. city to receive service. *AT&T Archives and History Center*

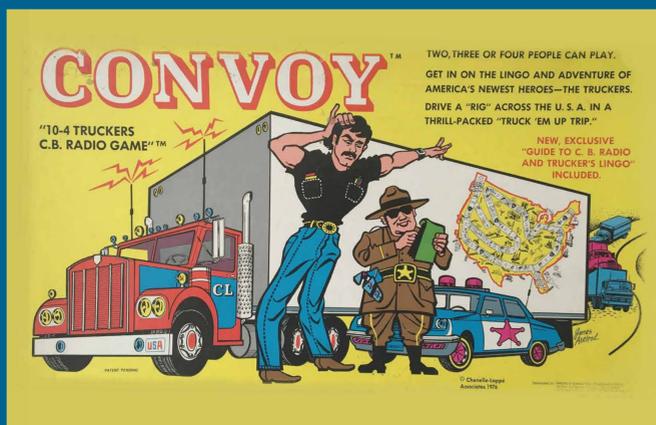
Early Mobile Telephony

The invention of FM mobile radio during WWII aided the development of commercial mobile telephony in automobiles. By 1948, AT&T and its manufacturing subsidiary, Western Electric, had introduced wireless networks to almost 100 U.S. cities and highway corridors. Customers included utilities, truck fleet operators and reporters, who tolerated 80lb of power-hungry vacuum-tube equipment in their vehicles. But capacity was limited by single, central transmitters and the bandwidth requirements of voice transmission. In the mid-1960s, narrower channels and automatic trunking and switching improved the service, but users still endured long waits to place calls.



Businesswoman, late 1980s. Most cellular phones were carphones until the mid-1990s. *AT&T Archives and History Center*

• CB radio-themed game, 1976. *Boardgamegeek.com*



The CB Radio Craze

While the FCC deliberated over cellular frequency allocations and licenses in the 1970s, "Citizens Band" AM radio enabled people to talk with anyone nearby listening on the same channel. Cheaper, smaller electronics helped its popularity peak a generation after being introduced in the late 1940s. Following the 1973 oil crisis, truckers helped each other over CB to find cheap diesel fuel and avoid the speed traps that enforced a nationwide 55-mph limit. Lax licensing and regulation created an interactive, wireless culture on the road and in many homes.

• This CB-inspired movie came second to Star Wars in 1977 ticket sales. *Heritage Auctions/Universal Pictures*

Dawn of the Cellular Era

AT&T Bell Labs researchers developed a practical cellular mobile telephone system in the late 1960s after the FCC opened up underused UHF TV spectrum. AT&T regarded cellular as a better form of telephone service for moving vehicles that would fall under its national Bell System monopoly. Fearing for its business in point-to-point vehicular communications, Motorola—AT&T's equipment supplier—developed a hand-held cellphone in 1973. It lobbied the FCC, which settled upon two licenses per market in 1981. Two years later, AT&T's subsidiary Illinois Bell opened a cellular system in Chicago and Motorola opened one in Washington and Baltimore.

A journalist calls his editors from a Motorola DynaTAC cellphone, 1987. ©Bob Daemmrich

