A public land mobile network (PLMN) is any [wireless](http://searchmobilecomputing.techtarget.com/definition/wireless) communications system intended for use by terrestrial subscribers in vehicles or on foot. Such a system can stand alone, but often it is interconnected with a fixed system such as the public switched telephone network ([PSTN](http://searchnetworking.techtarget.com/definition/PSTN)). The most familiar example of a PLMN end user is a person with a [cell phone](http://searchmobilecomputing.techtarget.com/definition/cellular-telephone). However, mobile and portable Internet use is also becoming common.

Top of Form

Bottom of Form

The ideal PLMN provides mobile and portable users with a level of service comparable to that of subscribers in a fixed network. This can be a special challenge in regions where the terrain is irregular, where base station sites are hard to find and maintain, and in urban environments where there are numerous obstructions such as buildings, and myriad sources of radio-frequency (RF) radiation that can cause [noise](http://whatis.techtarget.com/definition/noise) and interference. Most systems today use digital technology rather than the older analog methods. This transition has resulted in improved communications coverage and reliability, but as anyone who regularly uses a cellular telephone knows, perfection has yet to be achieved.

A PLMN requires special security measures because a wireless system is inherently more susceptible to eavesdropping and unauthorized use than a hard-wired system. Smart cards containing user data, [encryption](http://searchsecurity.techtarget.com/definition/encryption)/decryption, and [biometric verification](http://searchsecurity.techtarget.com/definition/biometric-verification) schemes can minimize this problem.