

Making sense of mobile technologies

Confused about what works where and how fast? Our chart lays it out.

Wireless technology	Primary application(s)	Pros	Cons	Status
Wi-Fi	Hot-spot public Internet access. In-home mobility with shared broadband Internet access.	LAN-like speeds. Widespread industry backing. Embedded NICs shipping today in laptops.	Hot-spot supply chain members struggling to build profitable business model. Fragmented coverage footprints.	802.11b standards are mature. Hot-spot network footprints still relatively small. Home wireless AP/routers becoming widely deployed.
2.5G/3G	Mobile voice. Dial-up-speed mobile Internet connectivity. Integrated voice, data, messaging services.	Broadest coverage available for a single mobile network service.	Multiple standards in various stages of deployment. Limited data rates.	2.5G deployed in 5,000 to 8,000 U.S. cities today, depending on carrier. 3G's fate in question, particularly in the U.S.
Bluetooth	Short-range connectivity of mobile handsets to laptops and PDAs for data service access, peer-to-peer file sharing, gaming.	Streamlines cost and complexity of making device-to-device connections. Low cost, low power.	1M bit/sec speeds. Distance limited to about 30 feet. User concerns about interference with Wi-Fi.	Recently received Windows XP development support. Approximately 10 million chipsets shipped in 2001.
Ultrawide band (UWB)	Short-range peer-to-peer applications, video distribution, videoconferencing.	Up to 500M bit/sec speeds.	Distance limited to about 30 feet.	Approved by FCC for commercial use in February 2002. Not out of the labs yet.
Satellite	Broadband Internet access.	Ubiquitous coverage.	CPE is expensive.	Mature.
Paging	Mobile messaging.	Ubiquitous coverage. Links to cellular networks. Eliminate need to purchase separate cellular and paging services.	Limited applications.	Mature.
Broadband Wireless Access	Fixed wireless broadband "last mile" Internet access. Backhaul alternative to T-carrier, fiber-based technologies.	Alternative to broadband wired infrastructure.	Lack of standards. Fragmented services from many single-city operators.	Second-generation non line-of-sight equipment in tests by nationwide license-holders.