# 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. |