

WiMAX, an approximate acronym of *Worldwide Interoperability for Microwave Access*, is a [telecommunications](#) technology that provides for the wireless [transmission](#) of data using a variety of transmission modes, from [point-to-point](#) links to full mobile cellular-type access. The technology provides up to 70 Mb/sec symmetric broadband speed without the need for cables. The name "WiMAX" was created by the [WiMAX Forum](#), which was formed in June 2001 to promote conformity and interoperability of the standard. The forum describes WiMAX as "a standards-based technology enabling the delivery of [last mile](#) wireless broadband access as an alternative to cable and DSL"

The bandwidth and range of WiMAX make it suitable for the following potential applications:

- Connecting [Wi-Fi hotspots](#) to the Internet.
- Providing a wireless alternative to cable and [DSL](#) (Digital Subscriber Line) for "[last mile](#)" broadband access.
- Providing data and telecommunications services.
- Providing a source of Internet connectivity as part of a business continuity plan. That is, if a business has a fixed and a wireless Internet connection, especially from unrelated providers, they are unlikely to be affected by the same service outage.
- Providing portable connectivity.

Many companies are closely examining WiMAX for [last mile](#) connectivity. The resulting competition may bring lower pricing for both home and business customers or bring broadband access to places where it has been economically unavailable.

The [last mile](#) is the final leg of delivering connectivity from a communications provider to a customer. Usually referred to by the [telecommunications](#) and [cable television](#) industries, it is typically seen as an expensive challenge because "fanning out" wires and cables is a considerable physical undertaking. In countries employing the metric (as opposed to the imperial) measurement system, the phrase **last kilometre** is sometimes used. Because the last mile of a network to the user is also the first mile from the user to the world, "*first mile*" is sometimes used.

WiMAX Forum

The [WiMAX Forum®](#) is an industry-led, not-for-profit organization formed to certify and promote the compatibility and interoperability of broadband wireless products based upon the harmonized IEEE 802.16/ETSI HiperMAN standard. A WiMAX Forum goal is to accelerate the introduction of these systems into the marketplace. WiMAX Forum Certified™ products are fully interoperable and support broadband fixed, portable and mobile services. Along these lines, the WiMAX Forum works closely with service providers and regulators to ensure that WiMAX Forum Certified systems meet customer and government requirements.

The WiMAX Forum is a non profit organization formed to promote the adoption of WiMax compatible products and services. A major role for the organization is to certify the interoperability of WiMAX products. Those that pass conformance and interoperability testing achieve the "WiMAX Forum Certified" designation and can display this mark on their products and marketing materials. Some vendors claim that their equipment is "WiMAX-ready", "WiMAX-compliant", or "pre-WiMAX", if they are not officially WiMAX Forum Certified.

Another role of the WiMax Forum is to promote the spread of knowledge about WiMax. In order to do so, it has a certified training program that is currently offered in English and French. It also offers a series of member events and endorses some industry events.

A **Hot-spot**, or **Hot spot** or **HotSpot** is a venue that offers [internet access](#) over a [wireless LAN](#). It should not be confused with a [Hot-zone](#), which is a internet-sharing [wireless wide area network](#)

Wi-Fi is the trade name for the popular wireless technology used in [home networks](#), [mobile phones](#), [video games](#) and other electronic devices that require some form of [wireless networking](#) capability. In particular, it covers the various [IEEE 802.11](#) technologies (including [802.11n](#), [802.11b](#), [802.11g](#), and [802.11a](#)).

Wi-Fi technologies are supported by nearly every modern personal computer [operating system](#), most advanced [game consoles](#) and [laptops](#), and many [printers](#) and other [peripherals](#).

A **wireless LAN** or **WLAN** or **wireless local area network** is the linking of two or more computers or devices using [spread-spectrum](#) or [OFDM](#) modulation technology based to enable communication between devices in a limited area. This gives users the mobility to move around within a broad coverage area and still be connected to the network.

For the home user, wireless has become popular due to ease of installation, and location freedom with the gaining popularity of [laptops](#). Public businesses such as coffee shops or malls have begun to offer wireless access to their customers; some are even provided as a free service