

Glossary Of Key Terms

Below is a list of key terms related to fixed wireless and WiMAX.

Access Point (AP) – A radio that is a component of a base station. The radio is mounted on the roof of the Base Station and broadcasts signals to customer locations within the line of sight.

Advanced Encryption Standard (AES) – The Advanced Encryption Standard (AES) is an encryption algorithm for securing sensitive but unclassified material by U.S. government agencies and is the de facto encryption standard for commercial transactions in the private sector. The algorithm supports three key sizes: 128, 192 and 256 bits.

Bandwidth – This is a measure of the amount of information or data that can be sent over a network connection in a given period of time. Bandwidth is usually measured in bits per second.

Base Stations – Similar to a cell tower broadcasting signals to a cell phone, an Airband base station broadcasts and receives signals to and from radios (subscriber units) that are on the roofs of customer locations. Each base station has a three- to five-mile radius of coverage.

DS3 – A high-speed line capable of transmitting data up to 44.7 Mbps (44,700,000) in both directions.

Dual Path Service Delivery (DPSD) – To provide customers with additional protection from downtime, Airband's network automatically "fails over" customers' service to the backup circuit.

Ethernet – A type of high-speed network for inter-connecting computing devices.

Fixed Wireless Network – Fixed wireless refers to the over-the-air transmission of data to and from systems and end-user equipment that are stationary, rather than mobile. Operators of fixed wireless networks such as Airband can offer broadband services without having to deploy a wireline infrastructure.

GigE Speeds – GigE and GbE are both used as abbreviations for "Gigabit Ethernet" - a term describing various technologies for transmitting Ethernet data at a nominal speed of one gigabit per second (1 Gbps = 1,000 Mbps = one billion bits per second). That is about 667 times as fast as a T-1 connection.

Last-Mile Access/Networks – A telecommunications network that serves to carry signals to and from a home or business. Or rather, it's the infrastructure at the neighborhood level that connects the short distance between the home/business location and the nearest on-ramp point to the Internet or other core networks.

Managed Firewall – A managed service, where the monitoring, support and maintenance of the firewall is done by a service provider, such as Airband. This alleviates the need for a company to have the resources and expertise to set up and manage their own firewall.

Mbps – Mega (1 million) bits per second.

Path Diversity – Having multiple routes to reach a destination. Path diversity is often used to describe a company relying on two different networks (e.g. wireless and wireline) to transmit data to or from a location.

Redundant Wireless Backhaul – Network traffic that is "hauled" back from the base stations to Airband's collocation facilities and onto the Internet. Airband leverages multiple wireless connections from each base station to the company's collocation facility so the link is redundant, and therefore, is more reliable.

Remote Data Protection – Backing up critical data to remote facilities through a managed service, rather than to local tape drives and tape libraries.



Scalability – A networking term used to describe a network’s ability to either handle growing amounts of data. For example, scalability can refer to the capability of a network to increase total throughput under an increased load.

Subscriber Unit (SU) – A radio that is mounted on the roof of the customer location and is within line-of- sight of the base station access point.

T1 – A high-speed line capable of transmitting data up to 1.544 Mbps (1,544,000) in both directions.

Virtual Private Network (VPN) – A network scheme in which portions of a network are connected via the Internet, but information sent across the Internet is encrypted. The result is a "virtual network" which is also part of a larger network entity. This allows users to privately share information over a public infrastructure. VPNs are often used to connect offices.

Voice Over IP (VoIP) – A technology used for transmitting voice, such as ordinary telephone calls, over packet-switched data networks, such as the Internet. VoIP is also called IP telephony. Specifically, Airband provides VoIP services over its wireless network.

Wholly Owned Network – A term that describes a network provider (such as Airband) that owns its own infrastructure (whether it’s wireline or wireless), and is not reselling or leasing another provider’s network.

Wide Area Network (WAN) – A long-distance communications network that covers a wide, geographic area, such as a state or country. Network service providers deploy WANs to service large regional areas or the entire nation. Large enterprises have their own private WANs to link remote offices, or they use the Internet for connectivity.

Wi-Fi – The standard that is widely used for wireless local area networks in homes and coffee shops. Wi-Fi offers only a short-range signal for Internet users within a few hundred yards, and is not designed to deliver the bandwidth or quality of service necessary to support a large number of users with voice or video.

Worldwide Interoperability For Microwave Access (WiMAX) – A standards-based technology that overcomes the limitations of legacy wired and wireless networks (such as Wi-Fi) to cost effectively deliver a unified stream of voice, data and video at high bandwidth levels over longer distances (up to 30 miles). This wireless broadband access standard provides the missing link for the "last mile" connection in metropolitan area networks where DSL, cable and other broadband access methods are unavailable or too expensive.

WiMAX Forum – An industry association established in mid-2001 for the purpose of coordinating testing and ensuring the certification of interoperability of WiMAX equipment. The forum shoulders the responsibility of promoting the adoption of broadband wireless gear beyond the adoption of a technical standard by working to remove barriers to broadband wireless adoption. To this end, the Forum maintains working groups formed to address specific elements including regulatory, certification, technical, marketing, service provider, networks and applications.

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