

**Moultonborough Broadband
Service Provider Summary & Current Status**

Definitions

TERM DEFINED	Technology / Topology
Wireless- Cell	This service is offered by cell telephone providers as an adjunct to their mobile (cell phone) voice services. The connection to the subscriber is via the cell-tower RF infrastructure, providing coast-to-coast mobility for the service. RF modems built into the cell-site radios and subscriber cell-phones and tablets and hot-spot devices have been upgraded over time to provide higher speeds and higher bandwidths to the subscriber. Total bandwidth to subscribers homed to a cell-site is limited by the cell site's bandwidth connection which is typically a fiber loop. this service is generally more expensive, because there are charges on data volumes in the range of \$10-15 per gigabyte.
Wireless- Fixed	Service provider who uses a digital RF transceiver to serve a local area. Subscriber has an RF modem with a tuned antenna. Broadband is shared among all subscribers, meaning that total bandwidth at any point in time may cause congestion, experienced by subscriber as 'slow service'. The fixed wireless provider connects to a local fiber, cable or DSL provider for up haul to the internet.
Wireless-Satellite	This service is offered by operators of geosynchronous satellites revolving around the earth at approximately 22,300 miles high. At this altitude, they revolve at the same rate as the earth, appearing to be stationary to the subscriber. The uplink and downlink signals are impacted by weather between the satellite and the subscribers site. A satellite dish is required at the subscribers site along with an RF modem. The subscriber installs a satellite Router which can route voice/data services. The providers NOC (Network Operations Center) operates services. Roundtrip latency is approximately 500 -msec (1/2 -seconds). Bandwidth is shared by the service subscribers. Some systems use RF for 2-way communications via space. Some systems only receive from the satellite (downlink), and use dial up modems for up-link. Uplink bandwidth requirements are usually much less than download comms. Some of the newer services can provide downlink/uplink speeds of 'up to ' 10-15/1/3 Mbos depending on weather and co-subscriber usage.
186 communication	Who is 186-Comms? Located in Nashua NH, 186 Communications operates and maintains a fiber optic network serving local, national, and global broadband providers and enterprise customers. The core of our 1,000 mile Northeast network is operated from a 30,000 square foot facility and is fed by diverse connections, forming a high-capacity communications corridor designed and built to serve our customers.