

## BAM Attachment 1 - Glossary

Across the modeled technologies (and the related operational environments) there are a number of terms that are vital to hold in common when working with FCC BAM logic, inputs and outputs. Key terms include the following:

<u>Term/Phrase</u>	<u>Definition and Issues Relevant to FCC BAM</u>
Broadband	Generally used to refer to a high data rate internet access capability typically contrasted with dial-up access using a 56k modem. The general term of broadband includes a variety of speed tiers ranging from 768kbps and greater (768kbps, 1.5mbps, 3.0mbps, 6.0mbps etc.) BAM is designed to model revenue and costs in a discrete range of broadband speed tiers.
Middle Mile	High capacity transport connections between a service provider's network core and its second and last mile network. In the BAM the Middle Mile reaches the point of interconnection (which is a designated existing fiber location) with second and last mile network built for unserved areas. See schematic below.
Second Mile	Transport connections between the Middle Mile and Last Mile. In the BAM the Second Mile is the transport between Middle Mile connection and network nodes (e.g., DSLAMs, ONT's, and wireless base stations) providing Last Mile customer connections. See schematic below.
Last Mile	This is the link between the customer (end user) and the service provider's network node. Also referred to as a local loop, this connection can be fiber, copper, wireless, or coaxial. See schematic below.
ARPU	Average Revenue Per User – a measure / estimate of the average revenue from a subscriber relative to a defined unit of sale.
Latency	Refers to a short period of delay (usually measured in milliseconds) required for the conversion of analog and digital representations of the sound data.
Augmentation	Refers to an area for which broadband must be installed or increased to accommodate the defined broadband need. Also refers to the required incremental network modeled to provide service and the related capex and opex costs and revenues.
Greenfield	A term used to describe the situation where service is provided to an area where, to this point, there has been no such service.
Brownfield	A term used to describe the situation where service is provided to an area where related services exist but not in a sufficient capacity or feature set.
Census Block	The smallest geographic unit used by the United States Census Bureau for

	tabulation of 100-percent data (i.e., data collected from all houses, rather than a sample of houses). Within the BAM the census block is the most granular geography for which service availability is assessed.
Competition Effect	The impact one or more competitors have on market take rates and resulting incremental revenues realized in a broadband augmentation.
Market Area	A collection of census blocks that represent a larger relevant collection of households / subscribers and potential business customers. Market areas can be census block groups or census block tracts, are often defined by geopolitical boundaries (e.g., counties, states, trading areas), and can also be defined by carrier service areas (e.g., franchise areas, license areas, wire centers, study areas).
xDSL	Digital Subscriber Line – a generic name for a family of digital lines being provided by CLECs and local telephone companies for high speed data services including broadband internet access. [The “x” notation refers to an unspecified underlying technology (e.g., ADSL, VDSL, HSIA) and the attending speed realized.]
Opex	Operating expenses generally experienced by broadband providers including network related operating costs, sales and marketing costs and a wide range of administrative costs (including bad debt).
Capex	Capital expenditures representing the investments required to design and install communications facilities – including the related cost of money associated with capital investments.
1G	First generation wireless technology - analog introduced in early 1980s
2G	Second generation wireless technology – digital introduced in early 1990s
3G	Third generation wireless technology – digital broadband technology still being introduced in parts of the country. 3G allows the simultaneous use of voice, data, and video on a wireless network and includes technology standards such as GSM EDGE, UMTS, CDMA2000 and WiMAX.
4G	Fourth generation wireless technology based on Long Term Evolution (LTE) standards. 4G is an advanced digital broadband technology just emerging in domestic markets
FTTc	Fiber to the curb – a hybrid transmission system which involves fiber optic facilities to the curb and either twisted pair (copper) or coaxial cable to the premise
FTTh	Fiber to the home – a transmission system in which optical fiber is carried all the way to the customer premise / place of business

FTTn	Fiber to the neighborhood (or node) – a hybrid transmission system involving optical fiber from the carrier network to a neighborhood node. The final connection to the customer premise can be either twisted pair (copper), fiber or coaxial cable.
GIS	Geographic Information System – computer applications involving the storage and manipulation of maps and related data in electronic format
POP	Point of Presence – a physical location that allows an interexchange company (IXC) to connect to a local exchange company (LEC) within a LATA
POTS	Plain Old Telephone Service – the basic service supplying standard telephone single line service and access to the public switched network
QoS	Quality of Service – a measure of the quality of telephone service provided to a subscriber which embraces a wide range of specific definitions depending on the type of service provided
IP	Internet Protocol – a protocol describing software used on the internet that routes outgoing messages, recognizes incoming messages and keeps track of address for different nodes
VoIP	Voice Over Internet Protocol – a process of sending voice telephone signals over the internet which involves converting signals to digital format and the development of information packets when the initiating signal is analog
Capacity Threshold	A threshold demand level based on total demand at an existing fiber fed POI
Sharing Effect	Dealing with potential shared use of backhaul built by first carrier serving an unserved area.

Schematic of Last-Second-Middle Mile

