



Commonwealth of Kentucky

SLIGP / FirstNet Project

Project Glossary R1.2



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AFIS	Automated Fingerprint Identification System
ALPR	Automatic License Plate Recognition
ANSI	American National Standards Institute
APCO	Association of Public-Safety Communications Officials
BB	Broadband
BER	Bit Error Rate
CAD	Computer Aided Design
CDP	Center for Disaster Preparedness
CJIC	Criminal Justice Information Center
CMAS	Commercial Mobile Alert System
DOT	Department of Transportation
EMA	Emergency Management Agency
EMT	Emergency Medical Technician
ePCR	Electronic Patient Care Report
EtCO2	End-Tidal Carbon Dioxide
FCC	Federal Communications Commission
FEC	Forward Error Correction
HSS	Home Subscriber Server
IAFIS	Integrated Automated Fingerprinting Identification System
ICS	Incident Command System
KWIEC	Kentucky Wireless Interoperability Executive Council
KyWINS	Kentucky Wireless Information Network Service
LMR	Land-Mobile Radio
LTE	Long Term Evolution
Mbps	Megabits per second
MIMO	Multiple Input Multiple Output
MME	Mobility Management Entity
MMS	Multimedia Messaging Service
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NCIC	National Crime Information Center
NFIRS	National Fire Incident Reporting System



NG	Next Generation
NG KIH	Next Generation Kentucky Information Highway
NPSBN	National Public Safety Broadband Network
NTIA	National Telecommunications and Information Administration
OEC	Office of Emergency Communications
OFDM	Orthogonal Frequency Division Multiplexing
PCRF	Policy Charging Rules Function
PGW	Packet Data Gateway
PLMN	Public Land Mobile Network
PS	Public Safety
PSAP	Public Safety Answering Point
PSWG	Public Safety Working Group
PTT	Push to talk
QAM	Quadrature Amplitude Modulation
QoS	Quality of Service
QPSK	Quadrature Phase Shift Keying
RAN	Radio Access Network
RF	Radio Frequency
RFP	Request for Proposal
SCIP	Statewide Communications Interoperability Plan
SGW	Serving Gateway
SLIGP	State and Local Implementation Grant Program
SMS	Short Message Service
SPOC	Single Point of Contact
SWIC	Statewide Interoperability Coordinator
UE	User Equipment
VPN	Virtual Private Network

3G – The “third generation,” or 3G of wireless-communication technology.

4G – The “fourth generation,” or 4G of wireless-communication technology.

Adoption – Users connecting to broadband for access to specific information/services.

Availability -- Population with **access** to broadband

Attribute – Data or information contained within a database field.

Available – *NTIA definition* - A broadband service provider does, or could, within a typical service interval (7 to 10 business days) without an extraordinary commitment of resources, provision two-way data transmission to and from the Internet with advertised speeds of at least 768 kilobits per second (kbps) downstream and at least 200 kbps upstream to the end user at the address.

Broadband – *NTIA definition* - Data transmission technology that provides two-way data transmission to and from the Internet with advertised speeds of at least 768 kilobits per second (kbps) downstream and at least 200 kbps upstream to end users, or providing sufficient capacity in a middle mile project to support the provision of broadband service to end users within the project area.

CDMA2000 - A family of 3G mobile technology standards, which use CDMA channel access, to send voice, data, and signaling data between mobile phones and cell sites.

CLEC – A telecommunications provider company competing with other, already established carriers (generally the incumbent local exchange carrier - ILEC).

COT – Commonwealth Office of Technology

DLEC - A telecommunications provider company specializing in DSL services by leasing lines from the ILEC and reselling them to Internet service providers (ISPs).

Downstream Speed - Speed of transmission from the Internet to the end user.

Downstream – The transfer speed by which data can be sent from a server to a client. Analogous to the more commonly used term, download speed.

Femtocell - A small cellular base station, typically designed for use in a home or small business. It connects to the service provider's network via broadband (such as DSL or cable); current designs typically support 2 to 4 active mobile phones, and 8 to 16 active mobile phones in larger "enterprise" settings. Femtocell is mostly a service to extend service coverage indoors, but may also be an alternative way to deliver the benefits of broadband through fixed-mobile convergence.

Fixed Wireless - A radio communication service between specified fixed points.

Fixed-location Technologies - All technologies other than terrestrial mobile wireless.

FTTH or FTTP - Fiber to the Home (Premises): A network access architecture in which optical fiber is deployed all the way to the customer's home (premises).

Facilities-Based Service - An entity is a "facilities-based" provider of broadband service connections to end user locations if any of the following conditions are met: (1) it owns the portion of the physical facility that terminates at the end user location; (2) it obtains unbundled network elements (UNEs), special access lines, or other leased facilities that terminate at the end user location and provisions/equips them as broadband; or (3) it provisions/equips a broadband wireless channel to the end user location over licensed or unlicensed spectrum.

Feature – In a geographic information system (GIS), a geographical feature is expressed as a geometrical shape (points, lines, and polygons).

FTP – Acronym for File Transfer Protocol (FTP). It allows you to transfer files between two computers on the Internet.

GIS - Acronym for Geographic Information System. An integrated collection of computer software and data used to view and manage information about geographic places, analyze spatial relationships, and model spatial processes. A GIS provides a framework for gathering and organizing spatial data and related information so that it can be displayed and analyzed.

GSM (Global System for Mobile Communications) - A standard set developed by the European Telecommunications Standards Institute (ETSI) to describe technologies for second generation (2G) digital cellular networks.

Internet Access Service - Service that provides end users access to the Internet.

ISP's - Internet Service Providers – Companies/organizations providing Internet access service.

ILEC – Incumbent Local Exchange Carrier -- A local telephone company in the United States that was in existence at the time of the breakup of AT&T into the Regional Bell Operating Companies (RBOCs), also known as the "Baby Bells."

iVoIP - Interconnected Voice Over Internet Protocol: A service that enables real time, two-way voice communications; requires a broadband connection from the user's location; requires Internet-protocol compatible customer premises equipment; and permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.

Last-Mile - "Last-mile" connection points consist of facilities used to provide broadband service between end-user (including residences, businesses, community anchor institutions, etc.) equipment and the appropriate access point, router or first significant aggregation point in the broadband network. Some examples include:

- For broadband service provided by incumbent local exchange carriers (ILEC), connections between end users and the central office or remote terminal.
- For cable modem service, connections between end users and the cable headend or fiber node.
- for wireless broadband service, connections between the wireless end-user device or customer premises equipment (CPE) and the wireless tower or base station
- For WiFi broadband service, connections between end users and the WiFi access point.
- The analogous portion of the facilities of other providers of broadband services.

The first points of aggregation in this context are therefore the central office, remote terminal, cable headend, wireless tower or base station, or similar points of aggregation.

Long Term Evolution (referred to as LTE) - A standard for wireless communication of high-speed data for mobile phones and data terminals. It is based on two network technologies, increasing the capacity and speed using new modulation techniques*. The standard was developed by the 3GPP (3rd Generation Partnership Project). * GSM/EDGE and UMTS/HSPA

Macrocell - A cell in a mobile phone network that provides radio coverage served by a high power cellular base station (tower). Macrocells provide coverage larger than microcell. The antennas for macrocells are mounted on ground-based masts, rooftops and other existing structures, at a height that provides a clear view over the surrounding buildings and terrain. Macrocell base stations have power outputs of typically tens of watts. It is the widest range of cell sizes and are found in rural areas or along highways.

Microcell - A cell in a mobile phone network served by a low power cellular base station (tower), covering a limited area such as a mall, a hotel, or a transportation hub. Their range is less than two kilometers wide.

Mobile Wireless Service - A radio communication service between mobile and fixed stations, or between mobile stations.

Mobile Wireless Provider - Provider of mobile wireless service (see above).

Metadata - Information that describes the content, quality, condition, origin, and other characteristics of data or other pieces of information. Metadata for spatial data may describe and document its subject matter; how, when, where, and by whom the data was collected; availability and distribution information; its projection, scale, resolution, and accuracy; and its reliability with regard to some standard. Metadata consists of properties and documentation. Properties are derived from the data source (for example, the coordinate system and projection of the data), while documentation is entered by a person (for example, keywords used to describe the data).

Middle-mile and Backbone Interconnection Points - Middle-mile and backbone interconnection points typically enable relatively fast data rates, are built to handle substantial capacities, and may be service-quality assured. Examples might include:

- points of interconnection enabling communications between an incumbent local exchange carrier central office and the Internet
- between a cable aggregation point (headend) and the Internet
- between a wireless base station and the provider's core network elements that connect to other networks including the internet

NTIA - The National Telecommunications and Information Administration (U.S. Department of Commerce) .

OBOD – Commonwealth of Kentucky's Office of Broadband Outreach and Development, established in October 2010 by the Governor, works to identify un-served and underserved areas of affordable broadband and facilitates understanding and partnerships to work towards providing critical infrastructure and capabilities to Kentucky.

Picocell - A small cellular base station covering a small area, such as in-building (offices, shopping malls, train stations, stock exchanges, etc.), or more recently in-aircraft. Picocells are typically used to extend coverage to indoor areas where outdoor signals do not reach well, or to add network capacity in areas with very dense phone usage, such as train stations. Also used to provide coverage and capacity in areas difficult or expensive to reach using the more traditional Macrocell.

Power Line - Internet access service delivered over electric power transmission lines.

Provider - A supplier or source of broadband service (sometimes called a "carrier").

Satellite Communications - A telecommunications service provided via one or more satellite relays and their associated uplinks and downlinks.

sDSL - Symmetric Digital Subscriber Line: DSL technology that provides equal bandwidth for both uploads and downloads.

Speed Tiers - Sub-groupings defined by ranges of upstream speeds and downstream speeds.

Service Area – The region that encompasses all potential customers in which a Provider can legally provide service to.

Subscription -- The number of households with at least one of the following Internet access services with broadband: DSL, cable modem, fiber optics, mobile broadband plan for a computer or a cell phone, satellite, or "some other service."

Telecommunications Act of 1996 - The first major overhaul of United States telecommunications law in nearly 62 years, amending the Communications Act of 1934. Signed by President Bill Clinton, it was a major stepping stone towards the future of telecommunications, and the first time the Internet was included in broadcasting and spectrum allotment.

Universal Coverage – A defined standard for complete broadband availability

Universal Service Fund – Originally created by the Federal Communications Commission (FCC) in 1997 to meet Congressional universal service goals as mandated by the Telecommunications Act of 1996.

Upstream - The transfer speed by which data can be sent from a client to a server. Important for end users that need to send data to the internet via an application such as a Web Server. Analogous to the more commonly used term, upload speed.

Upstream Speed - Speed of transmission from the end user to the Internet.

Utilization refers to the third stage in the broadband development process. The first stage is providing a community, household or organization with access (availability) to the Internet. The second stage is adoption or the process whereby a person or organization starts to actually use the Internet. The third stage is utilization whereby a person or organization uses their Internet connection to create value. Many people and organizations have access and have adopted the Internet, but are relatively ineffective in how they use and derive benefits from the Internet. The field of analysis labeled “utilization” explores patterns of Internet use and how these patterns can be enhanced.

W-CDMA (Wideband Code Division Multiple Access) - An air interface standard found in 3G mobile telecommunications networks.

Wi-Fi Hotspot: - Wireless Fidelity: Generic term referring to any type of IEEE 802.11 wireless network. A hotspot is a small geographic area in which users can gain access to a Wi-Fi network which in turn connects to the Internet.

Wireless Service - Telephone, Internet, data, and other services provided to customers through the transmission of signals over networks of radio towers.

Wireless Service Provider - Provider of wireless service (see above).

Wireless Telecommunications - Any means of electronic data transfer using electromagnetic means, most commonly radio waves.

WiMAX (Worldwide Interoperability for Microwave Access) - A communication technology for wirelessly delivering high-speed Internet service to large geographical areas. It is a part of a “fourth generation,” or 4G, of wireless-communication technology,

WISP - Wireless ISP - A company that provides end users with wireless access to the Internet, most commonly by using radio spectrum designated for unlicensed use.

WLAN - Wireless local area network - A WLAN uses radio waves to connect user devices to a local area network (LAN), thereby extending an existing wired LAN

Other Acronyms --

ADD Area Development Districts

ARRA American Recovery & Reinvestment Act
 ASAP Automated Standard Application for Payments
 BB Broadband
 BSC Base Station Controller
 BTOP Broadband Technology Opportunities Program
 CAI Community Anchor Institutions
 EA Environmental Assessment
 FONSI Finding of No Significant Impact
 FCC Federal Communications Commission
 GEO Governor's Executive Office
 GIM General Information Memoranda
 GIT Grant Implementation Team
 GOL Grants Online
 GSNS Gateway Support Node
 GPRS General Packet Radio Service
 IRP Interoperable Radio Program
 LCR Location Construction Request
 MA Military Authority
 MPLS Multi-protocol Label Switching
 MSC Mobile Switching Center
 NTIA National Telecommunications and Information Administration
 NOAA National Oceanic and Atmospheric Administration
 NOFA Notice of Funding Availability
 NRAO National Radio Astronomy Observatory
 OEMS Office of Emergency Medical System
 PAM Post Award Monitoring System
 PI/PD Principal Investigator/Project Director
 RUS Rural Utility Service (U.S. Dept. of Agriculture)
 SAC Special Awards Conditions
 SACM Special Awards Conditions Memoranda

Community Anchor Institution & Stakeholder Acronyms --

County Courthouses CHOUSES
 Correctional Centers CORR
 Div Juvenile Services/Youth Reporting Centers DJS
 K12 Schools K12
 Libraries LIB
 Tele-Medicine TMED
 Planning & Development Councils PDEV
 9-1-1 Centers PSAP
 Regional Jails RJA
 Kentucky State Police KSP
 Towers TWRS