

Glossary

Term	Description
3GPP (3rd Generation Partnership Project)	A project for developing third-generation (3G) mobile phone system standards that is currently developing international standards for LTE, LTE-Advanced, and next-generation 5G.
5G New RAT (5G New Radio Access Technology)	New wireless communications technology for realizing 5G, the next-generation mobile phone system.
AOC (Active Optical Cable)	Cable that combines optical fiber and an electrical signal connector with an embedded optical-electric converter.
Connectivity	A general term signifying connections between and among mobile devices, etc. and other equipment and devices. This term is used to distinguish such modes as Wi-Fi, Bluetooth, NFC (Near Field Communication), and other communications modes, from cellular communications. Recently, connectivity has been extended to include automobiles, digital cameras, home appliances, game devices, and healthcare devices.
CPRI (Common Public Radio Interface)	The publicly available specification for the key internal interface of radio base stations between the Radio Equipment Control (REC) and the Radio Equipment (RE). CPRI is the name of the industry cooperation defining the specification.
C-RAN (Cloud Radio Access Network)	C-RAN is one of the radio access network architectures. Each base station is equipped only with a Remote Radio Head. Base-Band Units for many cells are centralized as "Central Station" and it processes signals.
eCPRI/RoE	eCPRI refers to CPRI specifications from CPRI Corporation (the Industry Initiative for a Common Public Radio Interface). RoE (Radio over Ethernet) is a mobile front haul specification currently being studied by the Institute of Electrical and Electronic Engineers (IEEE). Both are focused on the Ethernet accommodation of radio signals.
Ethernet	World's most-widespread LAN (Local Area Network) standard.
IoT (Internet of Things)	IoT will not only allow computers and other communications devices to interact but also will give communications functions to manufacturing equipment in factories, appliances, and virtually all other things in the world around us. This will give these "things" interactive communications functions when connected with the Internet and will facilitate automatic control and remote measurement.
LTE (Long-Term Evolution)	High-speed mobile service that enables data communication at 5 to 10 times the speed of 3G mobile phone and telecommunications services.
LTE-Advanced	Fourth-generation (4G) mobile communications standard approved by the International Telecommunication Union (ITU). The goal is to run faster than LTE, which is becoming popular globally, using new technology such as carrier aggregation. The 3rd Generation Partnership Project (3GPP), which aims for greater functionality via high speeds, is currently setting the international standard.
MIMO (Multiple-Input and Multiple-Output)	A wireless communications technology that uses multiple antennas at the transmitter and receiver to transmit and receive data at the same frequency axis. Capable of increasing communications speeds, a key technology of LTE Advanced.
NB-IoT (Narrow Band-IoT)	IoT communications system that uses mobile phone networks and being standardized by 3GPP.
NFV (Network Functions Virtualization)	NFV offers a new way to design, deploy, and manage networking services by decoupling.
NSA-NR/SA-NR (Non-Standalone New Radio / Standalone New Radio)	5G standardization specification being developed by 3GPP. NSA-NR: Operating format through interworking of existing LTE and 5G. SA-NR: Operating format with 5G on a standalone basis.
OSS (Operation Support System)	Systems necessary for operating the businesses of telecommunications operators that offer mobile phone and other communications services
OTA (Over The Air)	Methods for testing wireless systems without the use of radio frequency (RF) cables
OTN (Optical Transport Network)	Transfer technology compatible with WDM transmission networks that houses various client signals like SHD and Ethernet and transmits data with a high degree of reliability.
PAM4: Pulse Amplitude Modulation 4)	A method to improve transmission capacity through four value amplitude modulation.
PCI-E (Peripheral Component Interconnect Express)	PCI is an expansion bus interface protocol used to insert an expansion card into a computer. PCI-E is a higher order protocol of PCI with a data rate up to 30 times faster than PCI.
Radio Frequency (RF) Measurement	Measurement of frequencies (among electromagnetic and electrical signals) that can use wireless signal transmission
SDH (Synchronous Digital Hierarchy)	International standards for synchronous digital hierarchy multiplex transmitter and demultiplexing method.
SDN (Software-Defined Network)	SDN is a way to manage networks that separates the control plane from the forwarding plane. SDN is a complementary approach to network functions virtualization (NFV) for network management. While they both manage networks, both rely on different methods.
WDM (Wavelength Division Multiplexing)	Optical communications technology called Wavelength Division Multiplexing for large capacity signals.
Small Cells	A type of station for mobile communications, used typically to supplement the coverage of regular ground stations. Small cell stations have lower output power and are used to cover smaller areas. Small cells supplement macro cells with high output power, and are used to provide coverage to areas such as mountainous regions and buildings that macro cell signals cannot reach. Installations include the interiors of buildings that signals cannot penetrate.
Beam Forming	Technology that uses antennas that have multiple elements for controlling dynamically the strength of waves in certain locations.
Mobile edge computing	Used to reduce delay by bringing previously distant (cloud) application servers closer to the edge of the mobile network and end user.