

Annex: Glossary, a companion word list for Framework: Tech, layers and (un)bundling

This Annex contains a Glossary with the definition of a number of concepts/terms used in the OSI modules. Items are listed in alphabetical order. The Glossary is a complementary tool for readers and do not substitute any part of the modules. More complex concepts are explained in the first part of module 1: Framework: tech, layers and (un)bundling.

You find the framework here:

<https://docs.google.com/document/d/1-9hXabsol94MeRi3D60r6CpUc62y3oe2dmkH9FSEVbl/edit#>

Additional modules dealing with more specific topics can be built on this introductory/initial module. We have created three initial modules:

1. 5G Technologies: https://docs.google.com/document/d/1tO2HGoGjxIO6vx5hHhl_o9clol3C_sN6yh0zYITlib/edit?usp=sharing
2. Net neutrality: <https://docs.google.com/document/d/1CUrh5WayWRWuUEIKqkqF9UMEuUFw1G9BkcUzIcoQnc/edit?usp=sharing>
3. Smartphone apps: https://docs.google.com/document/d/1Uo6iT3NjA4ONczWag-OipL-BjnLsmjMQH9l_vTDlco/edit

Glossary

A

Access network: A network of base stations, typically belonging to an MNO or an MVNE.

Access point: A radio device in a wifi network. Typically a WiFi or WLAN router. It transmits and receives data through airwaves and may perform authentication for client devices (any WiFi enabled device, such as phones, laptops, sensors, etc.).

ADSL: Asymmetric Digital Subscriber Line (ADSL) is a technology for high-speed Internet access. It uses existing copper telephone lines to send and receive data at speeds that far exceed conventional dial-up modems, while still allowing users to talk on the phone while they surf. ADSL is typically not as fast as cable Internet access.

API: Application Programming Interface. An abstraction of some functionality in a computer system that makes it easier to call.

B

Backhaul: The part of a network infrastructure which lets data be transported between networks. Two local fibre rings may be connected by a regional backhaul network, and country backhaul may in turn be connected by a global backhaul in the shape of trans-oceanic cables (for instance).

Base station: A radio mast in a mobile network. It transmits and receives data through airwaves, and performs network functions such as ensuring that only authorized client devices (mobile phones, or perhaps sensors) gain access to the transmission/reception features.

C

Core network: The part of a mobile network that manages subscribers, cross-correlation of authorized client devices, traffic management (ensuring that transmissions are done efficiently and correctly).

D

DOCSIS: Data Over Cable Service Interface Specification. DOCSIS standard made it possible to transmit internet traffic over traditional television cables. It made it possible not only for previous telephony companies, but also for previous cable companies, to start providing internet services to end-consumers.

Dynamic spectrum sharing: A way for wireless devices to transmit and receive information in the same spectrum bands (on the airwaves), typically used to denote those wireless devices that are intended for use in frequency bands that are not traditionally unlicensed (such as those used for WLAN/WiFi) but rather in licensed bands where there is a main user (the licensee) and secondary users (who are unlicensed). Different techniques exist for dynamic spectrum sharing, including techniques that allow for more spectrum to be used efficiently in the absence of licenses.

F

Firmware: Is a specific class of computer software that provides the low-level control for the device's specific hardware. Almost all electronic devices beyond the very simplest contain some firmware.

Fronthaul: In 5G, the part of a network which lets data be transported from the base station to the midhaul.

I

IMT: International Mobile Telecommunications. A set of guidelines published by the ITU on a decennial basis, setting goals and targets for future wireless technologies. IMT-2000 corresponds roughly with 3G, IMT-2010 corresponds roughly with 4G and IMT-2020 corresponds roughly with 5G. The IMT-20XX requirements also help guide the global spectrum allocation discussions at ITU-R, which is especially relevant for wireless communications that rely on licensed spectrum.

L

Latency: The time it takes for a data packet to travel from its source to its destination (and back). High latency will make a connection appear slow, even if its throughput is high.

M

Midhaul: In 5G, the part of a network which lets data be transported from the fronthaul to the backhaul.

MNO: Mobile Network Operator. An economic actor who provides access network (base stations), core network (traffic management and authentication) and access services to end-consumers.

MVNE: Mobile Virtual Network Enabler. An economic actor who provides access network (base stations) for an MVNO.

MVNO: Mobile virtual network operator. An economic actor who provides core network (traffic management and authentication) and/or access services to end-consumers.

T

Through-put: the amount of data packets that can be transmitted at any one time. Low through-put will make a connection appear slow, even if latency is low.

W

WLAN: Wireless Local Area Network. A wireless network which is local, often marketed as "WiFi" in practice. Technologies can be certified as "WiFi" if they fill a set of requirements determined by the WiFi Alliance, and which are selected from the WLAN standard IEEE 802.11.

Z

Zero-rating: Is the practice of providing Internet access without financial cost under certain conditions, such as by only permitting access to certain websites or by subsidizing the service with advertising.