



ITU Asia-Pacific ICT Indicators Workshop

Manila, Philippines

14-16 March 2018

Session 7.1: Fixed-broadband, mobile-broadband and bundled telecommunication services indicators

ICT Data and Statistics Division
Telecommunication Development Bureau
International Telecommunication Union



Main ITU indicators from administrative sources

Fixed-broadband indicators

Definition of broadband

- For statistical purposes: *Minimum download speed of **256 kbit/s***

➔ Importance of **breakdown by speed**

➔ **Breakdown by technology** gives additional information on infrastructure

2017 EGTI
discussion
item

“transmission capacity that is faster than primary rate Integrated Services Digital Network (ISDN) at 1.5 or 2.0 Megabits per second (Mbits)”

– ITU-T Definition

Classification of broadband subscriptions

Fixed
broadband

- (1) xDSL
- (2) Cable modem
- (3) FTTH/FTTB
- (4) Other fixed wired

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- (5) Satellite broadband
 - (6) Fixed wireless broadband

Fixed
wired



Fixed
wireless

Active mobile
broadband

- (1) Data and voice
- (2) Data only



Fixed (wired)-broadband subscriptions

Fixed-broadband subscriptions refers to fixed subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or greater than, **256 kbit/s**. This includes **cable modem, DSL, fibre-to-the-home/building, other fixed (wired)-broadband subscriptions, satellite broadband** and **terrestrial fixed wireless broadband**.

This total is measured irrespective of the method of payment. It **excludes** subscriptions that have access to data communications (including the Internet) **via mobile-cellular networks**. It should **include fixed WiMAX** and any other **fixed wireless technologies**. It includes both residential subscriptions and subscriptions for organizations.

Fixed (wired)-broadband subscriptions

Main features:

- advertised ≥ 256 kbit/s



- wired



Breakdowns:

- by speed
 - ≥ 10 Mbit/s
 - 2 – <10 Mbit/s
 - 0.256 – <2 Mbit/s

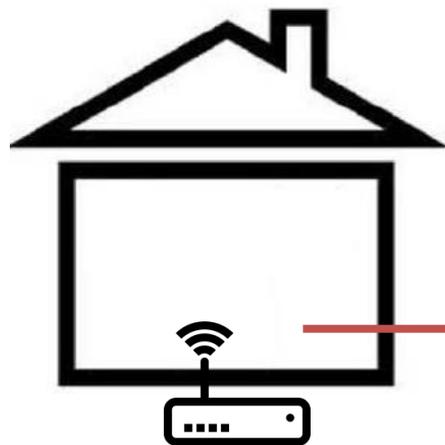
- by tech
 - DSL
 - cable
 - FTTH/B
 - Satellite/fixed wireless/other

Clarifications on WiFi networks



- The 2016 EGTI meeting clarified the following use cases of WiFi networks:

1) WiFi used on top of other fixed-broadband subscriptions to distribute the signal at home



fixed broadband connection
(ADSL, cable, fiber, etc.)

These connections are already counted as “**Fixed broadband subscriptions**” and should not be reported separately

Clarifications on WiFi networks



2) WiFi used as a last mile technology and associated with a specific monthly fixed-broadband contract



these connections should be reported as “**Fixed wireless broadband subscriptions**”

3) WiFi hotspots (public, private, free, paid)



Individual country experiences, but in most cases out of the scope of regulators’ data collections.
Will not be reflected in ITU supply-side indicators



Main ITU indicators from administrative sources

Mobile-broadband indicators



Active mobile broadband subscriptions

Active mobile-broadband subscriptions refers to the sum of **active handset-based** and **computer-based** (USB/dongles) mobile-broadband subscriptions to the public Internet.

It covers actual subscribers, not potential subscribers, even though the latter may have broadband-enabled handsets. Subscriptions must include a recurring subscription fee or pass a usage requirement – **users must have accessed the Internet in the last three months.**

It includes subscriptions to mobile-broadband networks that provide download speeds of at least 256 kbit/s (e.g. WCDMA, HSPA, CDMA2000 1x EV-DO, WiMAX IEEE 802.16e and LTE), and excludes subscriptions that only have access to GPRS, EDGE and CDMA 1xRTT.

Active mobile-broadband subscriptions

Main features:

- advertised ≥ 256 kbit/s



 GPRS and EDGE **excluded**

- active 
 1. Monthly fee paid for Internet access OR
 2. Accessed the Internet in the previous three months
- allows access to the open Internet

Examples of activity criteria

	Type of plan	Voice	Data	How counted
1	Standalone voice	Standard voice subscription	Pay as you go	If Internet used in the last 3 months, Standard
2	3G modem	No	Monthly subscription	Dedicated
3	Bundled voice and data	X minutes included	Y MB included	If Internet used in the last 3 months, Standard
4	Bundled voice and data	X minutes included	Unlimited	If Internet used in the last 3 months, Standard
5	Standalone voice plan + data add-on	Standard voice subscription	Data paid separately (Y MB/month)	Dedicated

Examples of activity criteria

	Type of plan	Voice	Data	How counted
6	3G modem	No	Prepaid	If Internet used in the last 3 months, Dedicated
7	Voice plan + data credits	Standard voice subscription	Pay per use once credits are filled	If Internet used in the last 3 months, Standard

% of the population covered by at least an 3G network

Percentage of the population covered by at least a 3G mobile network refers to the percentage of inhabitants that are within range of at least a 3G mobile-cellular signal, irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants that are covered by at least a 3G mobile-cellular signal by the total population and multiplying by 100. It excludes people covered only by GPRS, EDGE or CDMA 1xRTT.

**Total mobile
coverage**

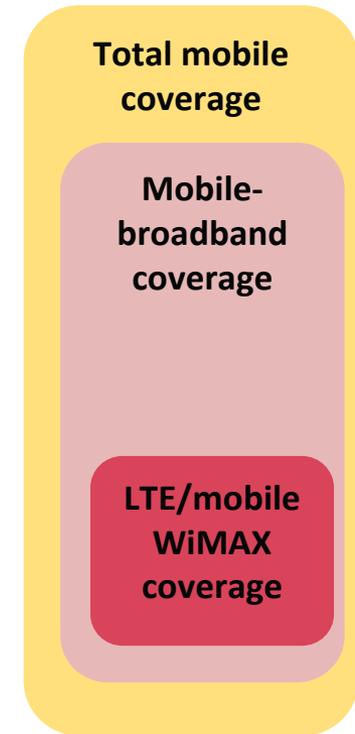
**Mobile-
broadband
coverage
(3G)**



% of the population covered by at least an LTE/WiMAX mobile network

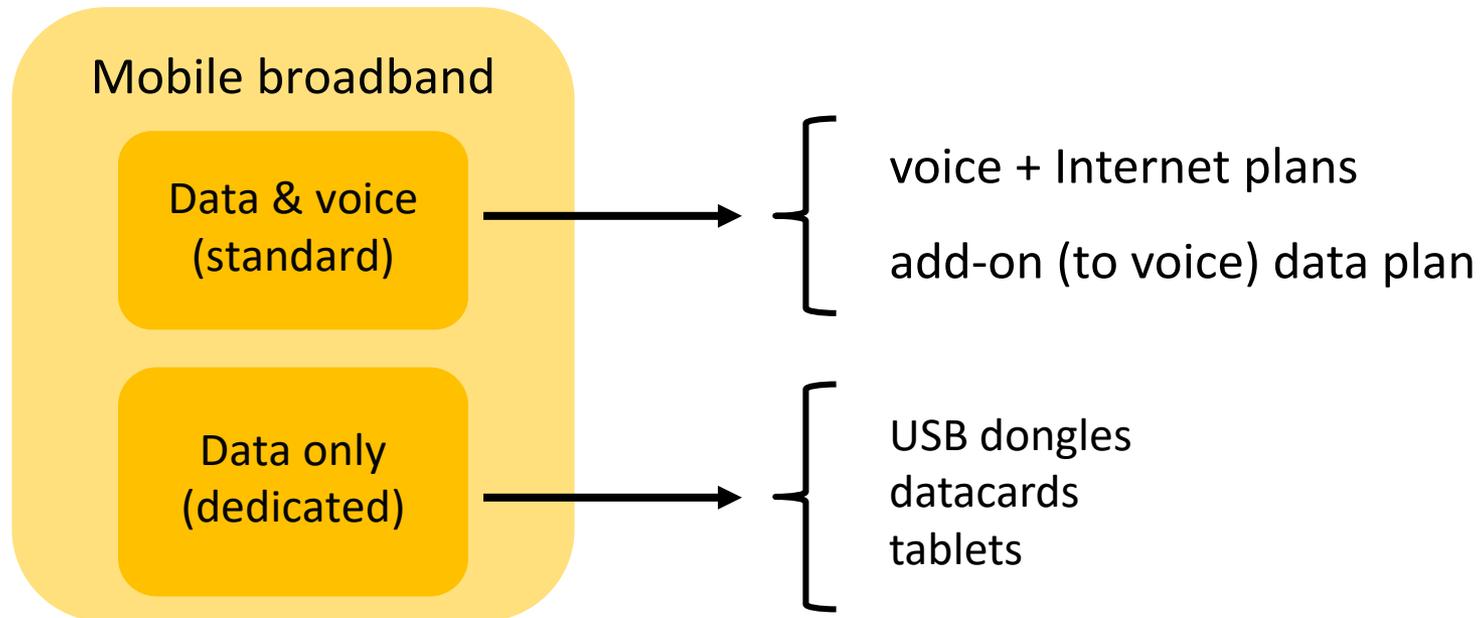
Percentage of inhabitants that live within range of LTE/LTE-Advanced, mobile WiMAX/WirelessMAN or other more advanced mobile-cellular networks, irrespective of whether or not they are subscribers.

It excludes people covered only by HSPA, UMTS, EV-DO and previous 3G technologies, and also excludes fixed WiMAX coverage.



Mobile broadband subcategories

Following the agreement in the 6th EGTI Meeting (September 2015, Geneva) mobile broadband subcategories were adjusted as follows:





Mobile broadband subcategories

i271mb_active - Data and voice mobile-broadband subscriptions (i271mw = i271mb_active+ i271md)

Data and voice mobile-broadband subscriptions refers to subscriptions to mobile-broadband services that allow access to the open Internet via HTTP and in which data services are contracted together with voice services (mobile voice and data plans) or as an add-on package to a voice plan. These are typically smartphone-based subscriptions with voice and data services used in the same terminal. Data and voice mobile-broadband subscriptions with specific recurring subscription fees for Internet access are included regardless of actual use. Prepaid and pay-per-use data and voice mobile-broadband subscriptions should only be counted if they have been used to access the Internet in the last three months. M2M subscriptions should be excluded.



Mobile broadband subcategories

i271md - Data-only mobile-broadband subscriptions **(i271mw = i271mb_active+ i271md)**

Data-only mobile-broadband subscriptions refers to subscriptions to mobile broadband services that allow access to the open Internet via HTTP and that **do not include voice services**, i.e. subscriptions that **offer mobile broadband as a standalone service**, such as mobile-broadband subscriptions for datacards, USB modem/dongle and tablets. Data-only mobile-broadband subscriptions with recurring subscription fees are included regardless of actual use. Prepaid and pay-per-use data-only mobile-broadband subscriptions should only be counted if they have been used to access the Internet in the last three months. M2M subscriptions should be excluded. It excludes data subscriptions that are contracted together with mobile voice services.



% of a population covered by a mobile-cellular network

Percentage of inhabitants within range of a mobile-cellular network, irrespective of **whether OR not they are subscribers or users.**

Calculation: Divide number of inhabitants within range of a mobile-cellular signal by the total population and multiply by 100.

Traffic

- Fixed telephone: domestic, international minutes
- Mobile cellular: domestic, international minutes and SMS
- Data traffic (**1st ITU collection 2013**):
 - Fixed (wired)- broadband Internet traffic (exabytes)
 - Mobile-broadband Internet traffic (inside country)
 - Mobile-broadband Internet traffic (outside, roaming out)

Measured at the end-user access point

Excl. walled-garden, wholesale traffic, IPTV/CATV

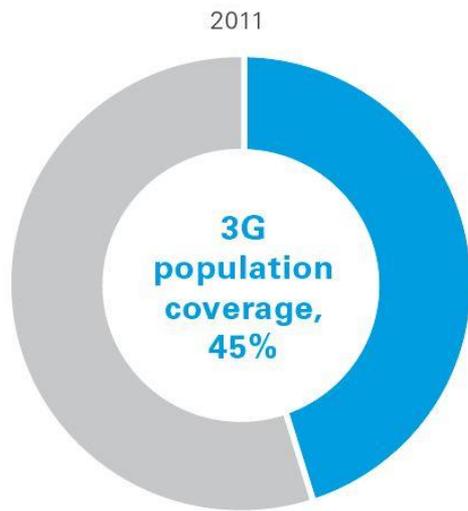
SDG indicator

SDG Goal	SDG Target	ICT indicator
 <p>Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</p>	<p><u>Target 9.c:</u> Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020</p>	<p>Percentage of the population covered by a mobile network, broken down by technology (ITU)</p>

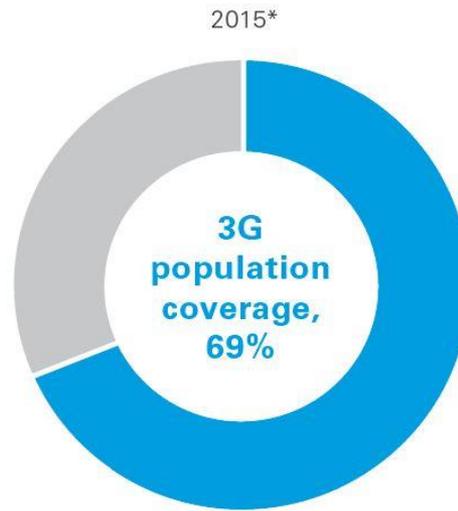
SDG indicator

Population covered by a 3G mobile network Target 9.c (universal access to ICT)

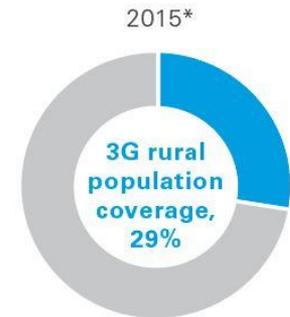
3G mobile-broadband coverage is extending rapidly and into the rural areas



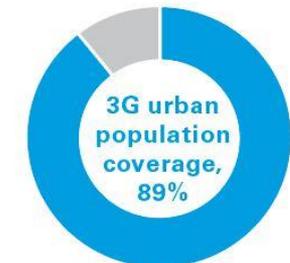
World population 7 billion



World population 7.4 billion



World rural population 3.4 billion



World urban population 4 billion

■ No 3G population coverage
■ 3G population coverage

SDG indicator

SDG Goal	SDG Target	ICT indicator
 <p>Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development</p>	<p>Target 17.6: Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovations, and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, particularly at the United Nations level, and through a global technology facilitation mechanism</p>	<p>Fixed Internet broadband subscriptions broken down by speed (ITU)</p>

SDG indicator

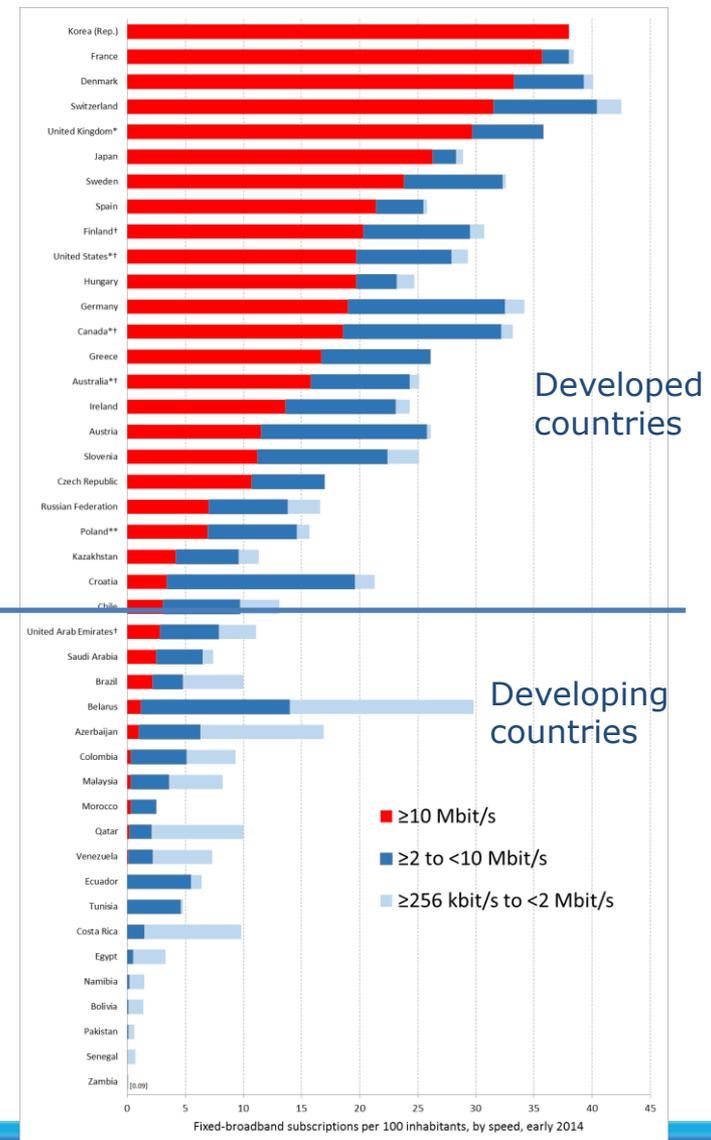


Broadband Internet by speed

Target 17.6 (access to technology)

Significant broadband speed divide between developed and developing countries.

Quality and speed of Internet access is essential to guarantee high development impact.



ITU indicators on bundles

New indicators, collected from 2016:

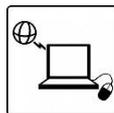


1. Subscriptions to fixed-broadband and fixed-telephone bundles



Subscriptions that include additional telecommunication services – such as triple play subscriptions including fixed telephony, fixed broadband and pay TV – should be excluded

2. Subscriptions to fixed-broadband, fixed-telephone and pay-TV bundles



Definition of bundle

- A bundle is a prepaid or postpaid subscription meeting all of the following criteria:
 1. A commercial offer that includes two or more of the following services: fixed telephone, mobile voice, fixed broadband, mobile broadband, pay TV
 2. marketed as a single offer, with a single invoice and with a single price for the set of services included in the bundle
 3. subscribed under conditions that cannot be obtained by adding single play offers together

Thank you



For more information
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