



ITU Regional ICT Indicators Workshop for Africa

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Use sub-index and indicators

ICT Data and Statistics Division
Telecommunication Development Bureau
International Telecommunication Union



Indicators in the 2018 Use sub-index

The 5 indicators in the Use sub-index are as follows:

From Household ICT surveys-

- Percentage of individuals using the Internet
- Percentage of individuals who own a mobile phone

From administrative data-

- Active mobile-broadband subscriptions per 100 inhabitants
- Mobile broadband Internet traffic per mobile broadband subscription
- Fixed broadband Internet traffic per fixed broadband subscription

HH7: Percentage of individuals using the Internet



- This is the proportion of individuals who used the Internet from any location in the last three months.
- Internet user uptake is a key indicator tracked by policy-makers and analysts as an indication of a country's progress towards becoming an information society.
- Classificatory variables for individuals using the Internet –such as age, sex, education level or labour force status – can help identify digital divides in individuals using the Internet.

HH18: Percentage of individuals who own a mobile phone



- An individual owns a mobile cellular phone if he/she has a mobile cellular phone device with at least one active SIM card for personal use.
- It includes mobile cellular phones supplied by employers that can be used for personal reasons (to make personal calls, access the internet, etc.) and those who have a mobile phone for personal use that is not registered under his/her name.
- It excludes individuals who have only active SIM card(s) and not a mobile phone device.

HH18:Percentage of individuals who own a mobile phone



- The percentage of individuals who own a mobile phone measures the level of uptake of mobile cellular technology not as a factor of connected SIM cards but of mobile phone ownership, and hence leaves out the incidence of multi-SIM usage and M2M connections that inflates the size of the mobile base; and it can more accurately inform policy makers on digital divides in terms of gender and socio-economic factors

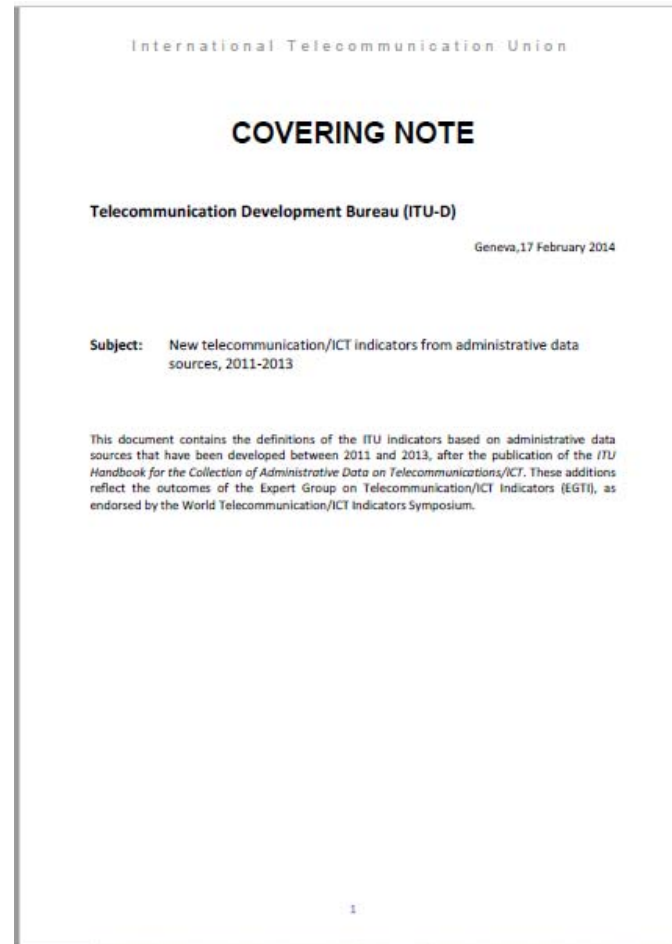


Active mobile-broadband subscriptions

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.

Mobile broadband Internet traffic per mobile broadband subscription



Mobile broadband Internet traffic per mobile broadband subscription



- *Mobile-broadband Internet traffic (within the country)* refers to broadband traffic volumes originated within the country from 3G networks or other more advanced mobile networks, including 3G upgrades, evolutions or equivalent standards in terms of data transmission speeds.
- Traffic data should be collected and aggregated at the country level for all 3G or more advanced mobile networks within the country. Download and upload traffic should be added up and reported together. Traffic should be measured at the end-user access point.
- Wholesale and walled-garden traffic should be excluded. The traffic should be reported in exabytes.



Fixed broadband Internet traffic per fixed broadband subscription

- *Fixed (wired)-broadband Internet traffic (exabytes)* refers to traffic generated by fixed-broadband subscribers, measured at the end-user access point. It should be measured by adding up download and upload traffic.
- Wholesale traffic, walled garden traffic and IPTV and cable-TV traffic should be excluded.



Quiz

In a household interview, who among the following are counted as owning a mobile phone?

- A. A father who buys and uses his own phone
- B. A daughter who received a phone as a birthday present
- C. A mother who uses a phone provided by her company



Quiz

- What do you mean by “active” ?
- How do you verify the “active” status of subscriptions in your countries?
- Total active mobile broadband subscriptions = 3,000,000
Number of inhabitants = 4,000,000
What is the active mobile broadband subscriptions per 100 inhabitants?

Bits and bytes

Unit	Value	Size
bit (b)	0 or 1	1/8 of a byte
byte (B)	8 bits	1 byte
kilobyte (KB)	1000^1 bytes	1,000 bytes
megabyte (MB)	1000^2 bytes	1,000,000 bytes
gigabyte (GB)	1000^3 bytes	1,000,000,000 bytes
terabyte (TB)	1000^4 bytes	1,000,000,000,000 bytes
petabyte (PB)	1000^5 bytes	1,000,000,000,000,000 bytes
exabyte (EB)	1000^6 bytes	1,000,000,000,000,000,000 bytes
zettabyte (ZB)	1000^7 bytes	1,000,000,000,000,000,000,000 bytes
yottabyte (YB)	1000^8 bytes	1,000,000,000,000,000,000,000,000 bytes

Can also use online conversion calculators but check by recalculating.

Mobile broadband Internet traffic per mobile broadband subscription



- Mobile broadband Internet traffic is 32,000 exabytes. Number of mobile broadband subscriptions = 2,000,000 What is the mobile broadband internet traffic per mobile broadband subscription?
- *NB: fictitious numbers used for convenience*

Quiz

- If mobile broadband Internet traffic adds up to 5,286,000 Gigabytes, how should this be reported?
- What if it was 49,802,881 Terabytes?



Thank you



For more information
<http://www.itu.int/ict>

and

indicators@itu.int