



ITU Regional ICT Indicators Workshop for Africa

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IDI 2018

Access Sub-index and indicators

ICT Data and Statistics Division
Telecommunication Development Bureau
International Telecommunication Union



Indicators in the IDI 2018 – Access sub-index

The five indicators in the Access sub-index are as follows:

From Household ICT surveys-

- Percentage of households with a computer
- Percentage of households with Internet access

From administrative data-

- International Internet bandwidth (bits/s) per Internet user
- Percentage of population covered by mobile networks
 - At least 3G
 - At least LTE / Wimax



Indicators in the IDI 2018 – Access sub-index

- Fixed broadband subscriptions by speed tiers as a percentage of total fixed broadband subscriptions
 - 256 kbits/s – 2 Mbits/s
 - 2 Mbits/s – 10 Mbits/s
 - Equal to or above 10 Mbits/s

Countries are encouraged to collect according to a finer breakdown:

- 256 kbit/s – 2 Mbit/s
- 2 Mbit/s – 10 Mbit/s
- 10 Mbit/s – 30 Mbit/s
- 30 Mbit/s – 100 Mbit/s
- ≥ 100 Mbit/s



Percentage of households with a computer

- A computer refers to a desktop computer, a laptop (portable) computer or a tablet (or similar handheld computer). It does not include equipment with some embedded computing abilities, such as smart TV sets, and devices with telephony as their primary function, such as smartphones.





Quiz

- What does the term computer include?
- What data related to this indicator is submitted?
- What classificatory variables can provide data to inform policies targeting households without a computer?



Percentage of households with Internet access

- This is the proportion of households with Internet access at home.
The Internet is a worldwide public computer network. Access can be via a fixed or mobile network.



Quiz

- As a supervisor, you did a micro-edit of a particular questionnaire and you found that the household has no Internet access but one of the household members in the use section reported “Home” as a place of use. Has a mistake occurred?
- Another household consist of 5 members. Each one of them without exception has a data plan on their smartphones. This is the only way in which the Internet can be accessed while at home. Does this household qualify as a household with Internet access?



Quiz

- Starting with IDI 2018, Percentage of households with Internet access at home refer only to broadband access.

True or False

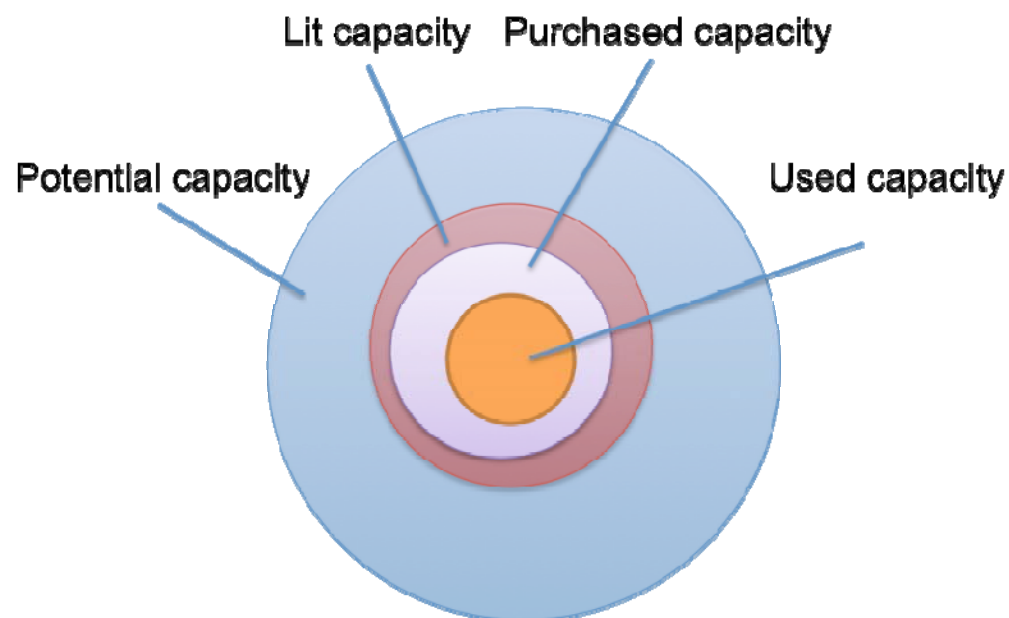
- Internet access at home refers only to fixed (wired) broadband access

True or False

- How is this indicator reported to the ITU?



International Internet bandwidth (bits/s) per Internet user



ITU collects data on two indicators:

1. Lit/equipped capacity

2. Used capacity



Quiz

- What is the difference between Lit capacity and Used capacity?
- Of these two, which would you expect to have a higher value?
- How is international Internet bandwidth normalised in the IDI?

Percentage of population covered by mobile networks

- i) **At least 3G**
- ii) **At least LTE / Wimax**

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.





Quiz

- How would you combine the overlapping coverage areas of service providers ?
- What would be an alternative for reporting purposes?





Quiz

Percentage of population covered by mobile network A
= 90%

Percentage of population covered by mobile network B
= 85%

Percentage of population covered by mobile network C
= 70%

Therefore Percentage of population covered by mobile
network in the country = 245%

TRUE or FALSE



Quiz

A service provider reports *Percentage of population covered by mobile networks*

– *At least 3G as 40%*

– *At least LTE / Wimax as 60%*

Comment.



Quiz

In a given country, the percentage of population covered by mobile networks are as follows:

- UMTS: 20%
- HSPA: 30%
- LTE/LTE-Advanced: 10%
- Mobile WiMAX: 10%

What should be the submissions for *Percentage of population covered by mobile networks*

- *At least 3G*
- *At least LTE / Wimax*



Fixed broadband subscriptions by speed tiers as a percentage of total fixed 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 broadband subscriptions by speed tiers as a percentage of total fixed broadband subscriptions

Broadband speed guide by FCC

General Usage	Minimum download speed (Mbps)
Streaming Online Radio	<0.5
VoIP Calls	<0.5
Social Media	1
General Browsing and Email	1
Student	5 - 25
Telecommuting	5 - 25
File Downloading	10



Fixed broadband subscriptions by speed tiers as a percentage of total fixed broadband subscriptions

Watching Video	Minimum download speed (Mbps)
Streaming Standard Definition Video	3 - 4
Streaming High Definition (HD) Video	5 - 8
Streaming Ultra HD 4K Video	25

Video Conferencing	Minimum download speed (Mbps)
Standard Personal Video Call (e.g., Skype)	1
HD Personal Video Call (e.g., Skype)	1.5
HD Video Teleconferencing	6



Fixed broadband subscriptions by speed tiers as a percentage of total fixed broadband subscriptions

Gaming	Minimum download speed (Mbps)
Game Console Connecting to the Internet	3
Online Multiplayer	4

<https://www.fcc.gov/reports-research/guides/broadband-speed-guide>





Fixed broadband subscriptions by speed tiers as a percentage of total fixed broadband subscriptions

- Where would you count subscriptions of speed 2Mbits/s
 - 256 kbits/s – 2 Mbits/s
 - 2 Mbits/s – 10 Mbits/s
 - Equal to or above 10 Mbits/s

Thank you



For more information
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