

# ITU Telecommunication/ICT Indicators - Internet

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# Overview

- Main Internet Indicators:
  - Internet subscribers
  - *Estimated* Internet users
  - Public Wireless Local Area Network (PWLAN)
  - ISDN Subscribers
  - International Internet bandwidth

# Internet

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	<b>ITU code</b>	<b>Indicator</b>	<b>Definition</b>
<b>13</b>	4213	<b>Total (fixed) Internet subscribers</b>	$4213 = 4213\text{tfb} + 4213\text{d}$ The number of total Internet subscribers with fixed access, which includes dial-up, total fixed broadband subscribers, cable modem, DSL Internet subscribers, other broadband and leased line Internet subscribers. Only active subscribers that have used the system within a reasonable period of time should be included. This period (e.g., 3 months) should be indicated in a note.
	4213d	<b>Dial-up Internet subscribers</b>	Number of Dial-up Internet subscribers. Dial-up is a connection to the Internet via a modem and telephone line, which requires that the modem dial a phone number when Internet access is needed. Only active subscribers that have used the system within a reasonable period of time should be included. This period (e.g., 3 months) should be indicated in a note.
	4213tfb	<b>Total fixed broadband Internet subscribers</b>	$4213\text{tfb} = 4213\text{cab} + 4213\text{dsl} + 4213\text{ob} + 4213\text{l}$ Total broadband Internet subscribers refers to a subscriber who pays for high-speed access to the public Internet (a TCP/IP connection), at speeds equal to, or greater than, 256 kbit/s, in one or both directions. If countries use a different definition of broadband, this should be indicated in a note. This total is measured irrespective of the method of payment. It excludes subscribers with access to data communications (including the Internet) via mobile cellular networks.
	4213cab	<b>Cable modem Internet subscribers</b>	Internet subscribers using modems attached to cable television networks. Speed should be equal to, or greater than, 256 kbit/s, in one or both directions.

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	4213ds I	<b>DSL Internet subscribers</b>	Internet subscribers using Digital Subscriber Line (DSL) technology. DSL is a technology for bringing high-bandwidth information to homes and small businesses over ordinary copper telephone lines. Speed should be equal to, or greater than, 256 kbit/s, in one or both directions.
	4213ob	<b>Other fixed broadband Internet subscribers</b>	Internet subscribers using other fixed broadband technologies to access the Internet (other than DSL, cable modem and leased lines). This includes technologies such as satellite broadband Internet, Fibre-to-the-home Internet access, Ethernet LANs, fixed-wireless access, Wireless Local Area Network, WiMAX etc. Speeds should be equal to, or greater than, 256 kbit/s, in one or both directions. It would exclude those users of temporary broadband access (e.g., roaming between PWLAN hotspots), and those with Internet access via mobile cellular networks.
	4213I	<b>Leased line Internet subscribers</b>	Number of analogue leased line Internet subscribers. Speed should be equal to, or greater than, 256 kbit/s, in one or both directions.

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14	4212	<b>Estimated Internet users</b>	The estimated number of Internet users. A growing number of countries are measuring this through regular surveys. Surveys usually indicate a percentage of the population for a certain age group (e.g., 15-74 years old). The number of Internet users in this age group should be supplied and not the percentage of Internet users in this age group multiplied by the entire population. In situations where surveys are not available, an estimate can be derived based on the number of subscribers. The methodology used should be supplied, including reference to the frequency of use (e.g., in the last month).
14.1	4212f	<b>Percent female Internet users</b>	Share of females in the estimated number of Internet users. This is calculated by dividing the number of female Internet users by the total number of Internet users and multiplied by 100.
14.2	4212f%f	<b>Female Internet users as percent of female population</b>	Share of female Internet users in the total number of females. This is calculated by dividing the number of female Internet users by the total number of females and multiplied by 100.

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16	28	<b>ISDN subscribers</b>	The number of subscribers to the Integrated Services Digital Network (ISDN). This can be separated by basic rate interface service (i.e., 2B+D, ITU-T Rec. I.420) and primary rate.
	281	<b>Basic rate ISDN subscribers</b>	The number of subscribers to the basic rate interface service.
	282	<b>Primary rate ISDN subscribers</b>	The number of subscribers to the primary rate interface service.
16.3	28c	<b>ISDN voice channel equivalents</b>	B-channel equivalents converts the number of ISDN subscriber lines into their equivalent voice channels, and represents the sum of basic and primary rate equivalents. The number of basic rate subscribers is multiplied by two and the number of primary rate subscribers is multiplied by 23 or 30, depending on the standard implemented.

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17	4214	<b>International Internet bandwidth (Mbit/s)</b>	Total capacity of international Internet bandwidth in Mega Bits Per Second (Mbit/s). If capacity is asymmetric (i.e., more incoming than outgoing), the incoming capacity should be provided.
	4214og	<b>Outgoing</b>	Total outgoing capacity of international Internet bandwidth in Mega Bits Per Second.
	4214ic	<b>Incoming</b>	Total incoming capacity of international Internet bandwidth in Mega Bits Per Second.

# How to compile Internet subscribers data (1)

- AIM: To compile data to reflect country situation, for year ending 31 Dec.
- Steps:
  - List all operators offering Internet services
  - Determine the fiscal year (reference period)
  - Determine the technology used by each operator



# How to compile Internet subscribers data (2)

- Market share in terms of subscribers
- (If not provided by operator) statistics available in operators website?
  - Yes -> use the information
  - No -> use information from annual reports
- Compile the data for Internet services

# How to compile Internet subscribers data (3)

- Compile subscribers regarding the technology used (DSL, cable modem, dial-up, Leased Line).
- Sum up all broadband subscribers (all except dial-up)

# Calculation *female* estimated Internet users - Example

## In percentage!

- Dividing the number of female users: 25'000..
- By the total number of estimated Internet users: 50'000...
- = 0.5
- Multiplied by 100 = **50%**



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