



International Roaming Indicators

Introduction

The following new indicators were agreed by the 11th Meeting of the ITU Expert Group on Telecommunication/ICT Indicators (EGTI) in September 2020 to provide additional details for the measurement of international roaming activity and traffic. The definitions and methodology are based on the [report of the EGTI Subgroup](#) on international roaming indicators.

Data is collected in the ITU World Telecommunication/ICT Indicators (WTI) Long Questionnaire series as of 2021.

NEW Indicator: Number of countries with which there is a country-level roaming agreement (i133crm)

Definition:

Refers to the total number of countries with which an agreement was signed securing a free or special roaming tariff approach in relation to existing national tariffs. (An example is the roaming like at home initiative in the EU.)

Country-level roaming agreements (CLRAs) are defined as roaming agreements that are imposed through trans-national regulatory decisions, hence, supersede all existing commercial roaming agreements between telecom firms operating on the countries involved. The importance of country-level roaming agreements is steadily growing (see Annex 1).

To this end, this indicator aims at informing the ITU whether there is in place an agreement between a country with one or more other countries securing a free or special roaming tariff approach in relation to existing national tariffs. An example is the RLAH (roaming like at home initiative in EU).

Method of collection:

The data can be collected from the national regulating authority (NRA) in the country or the relevant ministry.

Methodological issues:

If a country does not participate in CLRAs, the answer should be 0. Respondents should indicate in the comments section any relevant details on the number of CLRAs.

If the answer to this indicator is greater than 0, relevant information is expected on all subsequent indicators aiming at reporting information on traffic concerning CLRAs. By contrast, if the NRA does not participate in CLRAs, the subsequent CLRA indicators should be left blank.

Relevance:

The main point in collecting this indicator is to inform ITU on the CLRAs the country participates in each reporting year. The actual importance of these CLRAs is demonstrated by calculating the CLRA share in the respective roaming indicators.

NEW Indicator: Mobile-broadband Internet traffic (outside the country, roaming out on CLRAs), in Exabytes (i136mwoa)

Definition:

Mobile-broadband Internet traffic (outside the country, roaming out) refers to broadband traffic volumes originated by own customers in foreign networks in countries with which the focal country has a country-level roaming agreement (CLRA), from 3G networks or other more advanced mobile-networks, including 3G upgrades, evolutions or equivalent standards in terms of data transmission speeds. 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. Traffic should be reported in exabytes.

Methodological issues:

This indicator measures retail roaming data traffic from the set of countries with which CLRAs exists. Therefore, countries with only operator-level roaming agreement will be excluded.

Relationship with other indicators:

It is a sub-indicator of indicator *Mobile-broadband Internet traffic (outside the country, roaming out), in Exabytes (i136mwo)*, concerning only outbound roaming data traffic attributed exclusively to countries with which CLRA exist.

Example:

Retail roaming data traffic in Greece versus traffic from retail data services (GB)

	2015	2016	2017	2018	2019
Mobile broadband data traffic	36'056'409	47'087'271	97'876'012	147'573'359	271'578'920
Data traffic from roaming (=i136mwo)	31'560	178'585	776'137	2'174'174	4'061'761
Data traffic from roaming on CLRAs (=i136mwoa)			353'142	1'695'856	3'208'791

NEW Indicator: Roaming by home subscribers abroad (outbound roaming on CLRAs), in minutes (i1334wma)

Definition:

Roaming by home subscribers abroad (outbound roaming on CLRAs) refers to the total call minutes made and received by customers of the focal country in foreign networks (outbound roaming), i.e. retail international roaming minutes from own network subscribers roaming on foreign networks abroad in countries with which the focal country has country-level roaming agreement (CRLA). The indicator excludes minutes from users who are not subscribers to domestic mobile networks and are temporarily roaming on domestic mobile networks.

Clarifications and scope:

There are cases where operators bill their customers not based on their actual voice generated traffic but based on a slightly different pricing scheme, involving billing constructs such as minimum call duration, per minute charge to destinations, minimum call charge etc. In that case, there is a difference between the actual and the billed voice traffic. This indicator aims at collecting the billed voice traffic if different than the actual voice traffic. Apart from the difference mentioned above, there are no other differences in definition, method of collection and methodologically between the actual and billed voice traffic in minutes. It is expected that the billed roaming voice traffic to be equal or greater to actual roaming voice traffic.

Relationship with other indicators:

This is a sub-indicator of the indicator *Roaming by home subscribers abroad (outbound roaming), in minutes (i1334wm)*, and concerns only outbound actually billed roaming voice traffic attributed exclusively to CLRAs.

Example:

Retail roaming voice traffic in Greece versus traffic from retail voice services (in million minutes)

	2015	2016	2017	2018	2019
Voice traffic (actual minutes)	27'211	26'793	27'454	28'063	29'070
Voice traffic (billed minutes)	26'196	26'906	27'624	28'627	30'285
Voice traffic from roaming (actual minutes)	154	166	277	517	588
Voice traffic from roaming (billed minutes)	159	172	285	528	600
Voice traffic from roaming (actual minutes) on CLRAs			126	404	458
Voice traffic from roaming (billed minutes) on CLRAs			130	412	468

Annex 1

The EGTI subgroup report noted that there are numerous mentions regarding the importance of country-level roaming agreements in ITU's Handbook for the Collection of Administrative Data on Telecommunications/ ICT (Draft - 11 September 2019, Document 3), notably:

p.113: "note that in some areas of the world a specific regulatory regime exists by which the final user does not pay any extra amount of money when using voice or data service while abroad, at least for a given volume of usage, as when a regime as roam- like- at- home or a free roaming area exists. This implies that for specific consumption volumes of voice, messaging, or data while abroad the domestic operator charges the usual domestic tariff that the final subscriber contracted for the domestic country usage. For consumption levels over and above those defined as "standard use", additional (marginal) fees may be paid for each minute or MB consumed while abroad."

p.114: "In some areas of the world countries have agreed to eliminate roaming charges or to implement special regimes, as roam-like-at-home with the aim of reducing barriers to communication and mobile usage when citizens of one country travel or work in another nearby country".

p.139: "In some areas of the world "free roaming zones" are being introduced by which roaming rates are greatly reduced or even eliminated, as in the European Union with the "Roam Like at Home" regulation since 2017."

p. 140: "International roaming has received specific regulatory treatment in many areas of the world where regulations have been implemented, reducing the rates paid for this service and augmenting considerably the volumes of service demanded by the users."

p. 141: "Roaming regulation in the form of caps on retail (and wholesale) prices for voice and SMS in the European Union has been in place since 2007. In 2017 the roam-like-at- home regulation in the EU came into force, which lowered to domestic rates the previously high roaming rates for making calls. The result has been clear: much higher voice calls being demanded by domestic subscribers while on travel in the European Union".

p.142: "Free roaming areas are being introduced in different forms in many parts of the world"

p.145: "In many parts of the world "free- roaming areas" are being designed or implemented effectively, by which specific charges while on roaming have been eliminated or greatly reduced, as in the European Union, Gulf States, Mercosur countries and central Africa."

pp.146-147 & p. 148: "in many areas in the world countries are reaching agreements to establish "free roaming areas", by which roaming traffic is not to be charged specifically, at normally higher rates than domestic country rates, or charges are to be lowered substantially. It is important to know the consumption patterns, be it for data, voice or messages used, of foreign subscribers while at home in order to analyze the effects and consequences of establishing a free roaming area, or when this is not the case, to analyze the evolution, unit prices, traffic flows and capacity requirements of roaming users in order to design a proper regulatory environment."

Relationships with existing indicators:

The indicator *Number of countries with which there is a country-level roaming agreement (i133crm)* is not related to previously existing indicators.

	Indicator	Sub-indicator
Roaming traffic: data	Mobile broadband Internet traffic outside the country - data roaming out (i136mwo)	Mobile-broadband Internet traffic (outside the country, roaming out on CLRAs), in Exabytes (i136mwoa)
Roaming traffic: voice	Roaming by home subscribers abroad (outbound roaming), in minutes (i1334wm)	Roaming by home subscribers abroad (outbound roaming on CLRAs), in minutes (i1334wma)