

International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

D.607 R

(07/2021)

SERIES D: TARIFF AND ACCOUNTING PRINCIPLES
AND INTERNATIONAL TELECOMMUNICATION/ICT
ECONOMIC AND POLICY ISSUES

Recommendations for regional application –
Recommendations applicable to the African Region

One network area roaming

Recommendation ITU-T D.607 R

ITU-T



ITU-T D-SERIES RECOMMENDATIONS

**TARIFF AND ACCOUNTING PRINCIPLES AND INTERNATIONAL TELECOMMUNICATION/ICT
ECONOMIC AND POLICY ISSUES**

TERMS AND DEFINITIONS	D.0
GENERAL TARIFF PRINCIPLES	
Private leased telecommunication facilities	D.1–D.9
Tariff principles applying to data communication services over dedicated public data networks	D.10–D.39
Charging and accounting in the international public telegram service	D.40–D.44
Charging and accounting in the international teletext service	D.45–D.49
Principles applicable to GII-Internet	D.50–D.59
Charging and accounting in the international telex service	D.60–D.69
Charging and accounting in the international facsimile service	D.70–D.75
Charging and accounting in the international videotex service	D.76–D.79
Charging and accounting in the international phototelegraph service	D.80–D.89
Charging and accounting in the mobile services	D.90–D.99
Charging and accounting in the international telephone service	D.100–D.159
Drawing up and exchange of international telephone and telex accounts	D.160–D.179
International sound- and television-programme transmissions	D.180–D.184
Charging and accounting for international satellite services	D.185–D.189
Transmission of monthly international accounting information	D.190–D.191
Service and privilege telecommunications	D.192–D.195
Settlement of international telecommunication balances of accounts	D.196–D.209
Charging and accounting principles for international telecommunication services provided over the ISDN	D.210–D.260
Economic and policy factors relevant to the efficient provision of international telecommunication services	D.261–D.269
Charging and accounting principles for next generation networks (NGN)	D.270–D.279
Charging and accounting principles for universal personal telecommunication	D.280–D.284
Charging and accounting principles for intelligent network supported services	D.285–D.299
RECOMMENDATIONS FOR REGIONAL APPLICATION	
Recommendations applicable in Europe and the Mediterranean Basin	D.300–D.399
Recommendations applicable in Latin America	D.400–D.499
Recommendations applicable in Asia and Oceania	D.500–D.599
Recommendations applicable to the African Region	D.600–D.699
Recommendations applicable to the Arab Region	D.700–D.799
Recommendations applicable to the Eastern Europe, Central Asia and Transcaucasia Region	D.800–D.899
RECOMMENDATIONS FOR INTERNATIONAL TELECOMMUNICATION/ICT ECONOMIC AND POLICY ISSUES	
Charging and accounting/settlement mechanisms for international telecommunications services	D.1000–D.1019
Economic and policy factors relevant to the efficient provision of international telecommunication services	D.1020–D.1039
International Internet connectivity; and Tariff, Charging Issues of Settlements Agreement of Trans-multi-country Terrestrial Telecommunication	D.1040–D.1059
International mobile roaming issues	D.1060–D.1079
Alternative calling procedures and misappropriation and misuse of facilities and services	D.1080–D.1099
Economic and regulatory impact of the Internet, convergence (services or infrastructure) and new services	D.1100–D.1119
Definition of relevant markets, competition policy and identification of operators with significant market power (SMP)	D.1120–D.1139
Economic and policy aspects of big data and digital identity in international telecommunications services and networks	D.1140–D.1159
Economic and policy issues pertaining to Mobile Financial Services (MFS)	D.1160–D.1179

For further details, please refer to the list of ITU-T Recommendations.

Recommendation ITU-T D.607 R

One network area roaming

Summary

Recommendation ITU-T D.607 R, based on African regional experiences, aims to promote regional integration by bringing down the high cost of mobile roaming. It provides a framework and tools for facilitating and making affordable international telecommunication services to and from Africa's countries.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T D.607 R	2021-07-29	3	11.1002/1000/14367

Keywords

Regional roaming.

* To access the Recommendation, type the URL <http://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID. For example, <http://handle.itu.int/11.1002/1000/11830-en>.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure, e.g., interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at <http://www.itu.int/ITU-T/ipr/>.

© ITU 2021

All rights reserved. No part of this publication may be reproduced, by any means whatsoever, without the prior written permission of ITU.

Table of Contents

	Page
1 Scope	1
2 References.....	1
3 Definitions	1
3.1 Terms defined elsewhere.....	1
3.2 Terms defined in this Recommendation.....	1
4 Abbreviations and acronyms	2
5 Conventions	2
6 Consumer protection and tariff transparency	2
7 Determining international mobile roaming costs or tariffs rates.....	2
8 Regional collaboration.....	3
9 Role of national regulatory authorities	3
Bibliography.....	4

Introduction

Recommendation ITU-T D.607 R, based on African regional experiences, aims to promote regional integration by bringing down the high cost of mobile roaming. It provides a framework and tools for facilitating and making affordable international telecommunication services to and from Africa's countries.

Regional- and sub-regional initiatives within Africa provide directions such as on basic principles for the implementation of "free roaming" services [b-ABIDJAN PROTOCOL], the Economic Community of Western African States (ECOWAS) regulation [b-REG.21.12/17] for roaming on public mobile communications networks, and a directive of the Southern African Development Community (SADC) [b-SADC ROAMING POLICY] on roaming services.

This Recommendation draws on the success of [ITU-T D.98] and [ITU-T D.97].

Recommendation ITU-T D.607 R

One network area roaming

1 Scope

This Recommendation draws on the success of [ITU-T D.98] and [ITU-T D.97]. It has been widely acknowledged that mobile networks and services have become indispensable to everyday life and to the economy as a whole. International mobile roaming (IMR) is vital to prosperity, to growth of regional trade and to encouraging mobility.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[ITU-T D.97] Recommendation ITU-T D.97 (2016), *Methodological principles for determining international mobile roaming rates*.

[ITU-T D.98] Recommendation ITU-T D.98 (2012), *Charging in international mobile roaming service*.

3 Definitions

3.1 Terms defined elsewhere

None.

3.2 Terms defined in this Recommendation

This Recommendation defines the following terms:

3.2.1 international mobile roaming (IMR): A service (voice, SMS/multimedia messaging service (MMS), data) that subscribers to post-paid or prepaid mobile services purchase from a mobile operator in their home country, that is, from the 'home operator'.

NOTE – It allows subscribers the convenience to continue to use their national mobile phone numbers to access voice, short message service (SMS) and data services while visiting another country, by accessing a mobile operator's network in the visited country; that is, accessing the network of the 'visited operator' with all arrangements made by their home operator.

3.2.2 international mobile roaming (IMR) retail rate: A price that the home operator charges its subscribers for usage of IMR services.

3.2.3 international mobile roaming (IMR) wholesale rate: A price that the visited operator charges the home operator for allowing the home operator's subscriber to roam on the visited operator's network, in some cases referred to as inter-operator tariffs (IOTs).

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

IMR	International Mobile Roaming
IOT	Inter-Operator Tariffs
MMS	Multimedia Messaging Service
MNO	Mobile Network Operator
NRA	National Regulatory Authority
SMS	Short Message Service

5 Conventions

None.

6 Consumer protection and tariff transparency

6.1 African Member States should take measures to thwart 'bill shock' for regional visitors from other member countries and set fair price limits on international mobile roaming (IMR) tariffs for voice/data/SMS, particularly as the traditional costs of roaming services can be a barrier to use.

6.2 Key measures taken by Member States of the region should include, but are not limited to, the establishment of tariff caps, ensuring quality of service and transparency measures.

7 Determining international mobile roaming costs or tariffs rates

For determining international mobile roaming costs or tariffs rates it is recommended to utilize the methodological principles as defined in [ITU-T D.97], and the principles and measures defined in [ITU-T D.98] for empowering consumers by lowering mobile roaming rates.

7.1 African Member States, taking into account all initiatives in the African region, should consider competition at the regional level for reducing mobile roaming charges for users.

7.2 When necessary, Member States should take a proactive role to establish competitive and more affordable roaming rates in the African region.

7.3 Both prepaid and post-paid customers should be considered by African Member States for reducing roaming charges within Africa.

7.4 When tackling high roaming rates (retail or wholesale), through regulation, Member States might consider one of the principles outlined below.

- a) **Benchmarking:** based on the comparison of relevant retail rates or wholesale rates/costs considering international best practices and experiences (where such benchmarking is available).
- b) **Retail minus:** IMR wholesale rates are estimated from references to relevant retail prices, subtracting a percentage.
- c) **Cost oriented:** calculating the wholesale cost of IMR by identifying relevant IMR provisioning costs including any reasonable rate of return at a level, which promotes investment and innovation. Care must be taken to ensure that artificial and non-related costs are not included in such analysis.

7.5 African Member States are further encouraged to establish these underlying costs in consultation with the mobile operators, in a spirit of transparency and respect for the operators' commercial confidentiality.

7.6 African Member States are encouraged to consider utilizing existing infrastructure, where available, for reducing regional connectivity charges.

8 Regional collaboration

8.1 African Member States should first collectively negotiate regional accords to pursue IMR agreements within a trade area.

8.2 African Member States should act in concert via their regulators in order to:

- eliminate excessive charges for sending and receiving roaming services within the associated countries;
- remove excise taxes and surcharges on incoming regional voice traffic while establishing wholesale and retail price caps on inbound and outbound traffic, be it voice, data or short message service (SMS) messages;
- require mobile network operators (MNOs) to renegotiate with their roaming partners to reduce wholesale tariffs.

8.3 African Member States may consider, on a legal basis, a treaty or regional agreement, to lead the countries in the trade area in a common direction on IMR.

8.4 African Member States should remove, if it exists, the international incoming surtax.

9 Role of national regulatory authorities

9.1 In order to achieve lower mobile rates, African Member States should ensure that their national regulatory authorities (NRAs) have the necessary powers and mandates to obtain relevant roaming data from domestic operators (such as wholesale and retail prices) in order to set IMR rates with the purpose of facilitating more competitive and affordable roaming services.

9.2 African Member States should ensure NRAs are empowered to collect traffic statistics to facilitate regular monitoring and evaluation of regional roaming implementation.

9.3 African Member States are encouraged to improve mechanisms for identifying and handling cases of fraud and misuse (usage abuse) at the national level.

9.4 African Member States are encouraged to set up national committees with operators to follow up, exchange information and resolve any problems that may arise.

Bibliography

- [b-ABIDJAN PROTOCOL] Abidjan Protocol (2016), *On Basic Principles for the Implementation of "free roaming"*.
- [b-REG.21.12/17] ECOWAS (2017), *Regulation On roaming on public mobile communications networks in the ECOWAS region*.
- [b-SADC ROAMING POLICY] SADC/CM/2015/3A (2015), *Policy SADC/CM/2015/3A of SADC Ministers Responsible for Postal, Telecommunications and ICT services, Meeting of 26 June 2015 Concerning the implementation of the regional directives on roaming services, Southern African Development Community, Walvis Bay, Namibia*.

SERIES OF ITU-T RECOMMENDATIONS

Series A	Organization of the work of ITU-T
Series D	Tariff and accounting principles and international telecommunication/ICT economic and policy issues
Series E	Overall network operation, telephone service, service operation and human factors
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	Audiovisual and multimedia systems
Series I	Integrated services digital network
Series J	Cable networks and transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Environment and ICTs, climate change, e-waste, energy efficiency; construction, installation and protection of cables and other elements of outside plant
Series M	Telecommunication management, including TMN and network maintenance
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Telephone transmission quality, telephone installations, local line networks
Series Q	Switching and signalling, and associated measurements and tests
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminals for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks, open system communications and security
Series Y	Global information infrastructure, Internet protocol aspects, next-generation networks, Internet of Things and smart cities
Series Z	Languages and general software aspects for telecommunication systems