I n t e r n a t i o n a l   T e l e c o m m u n i c a t i o n   U n i o n

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

D.156

Amendment 1

(05/2010)

SERIES D: GENERAL TARIFF PRINCIPLES

General tariff principles – Charging and accounting in the international telephone service

---

Network externalities

Amendment 1: New Annex A – Practical implementation of Recommendation ITU-T D.156

Recommendation ITU-T D.156 (2008) – Amendment 1

ITU-T

ITU-T D-SERIES RECOMMENDATIONS

GENERAL TARIFF PRINCIPLES

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

Recommendation ITU-T D.156

Network externalities

Amendment 1

New Annex A – Practical implementation of Recommendation ITU-T D.156

Summary

Annex A to Recommendation ITU-T D.156 concerns the practical implementation of Recommendation ITU-T D.156.

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T D.156	2008-10-30	3
1.1	ITU-T D.156 (2008) Amend.1	2010-05-21	3

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/.

CONTENTS

Recommendation ITU-T D.156

Network externalities

Amendment 1

New Annex A – Practical implementation of Recommendation ITU-T D.156

(This annex forms an integral part of this Recommendation)

1 Does the externality premium constitute a cost element that should be added to the other cost elements included in Recommendations ITU-T D.93 and ITU-T D.140?

The externality premium is not a cost element but is rather the financial expression and the evaluation of an economic benefit (network externality) enjoyed by an economic agent, in this case the subscribers to a telecommunication network. The premium is additional to the service cost and must be seen as an element involved in service pricing in the same way that the profit margin is added to the service cost to obtain the price.

2 To which networks does the network externality premium apply?

The externality premium is the financial expression and the evaluation of an economic benefit enjoyed by an economic agent as a consequence of the benefits created by the expansion of a network that presents a strong potential for expansion in terms of subscribers. The premium would only apply to networks which have a potential for expansion in terms of subscribers[1].

3 How will it be guaranteed that the externality premium will be paid and then used for network development?

Payment of the externality premium and its use for network expansion in terms of subscribers will be guaranteed by the parties to the relationship and may be overseen by national regulators as appropriate:

1) Payment of the premium is recorded by the regulators following its payment and receipt by the two operators in the relationship.
2) At the beginning of each year, the operator receiving the premium must draw up a plan for expanding its network in terms of subscribers using those funds. The plan must be sure to specify the investment needed for the proposed expansion and the corresponding financial assessments. A copy of the plan is submitted to the regulator and to the other party.
3) Execution of the plan is verified by the regulator, which reports the results of its verification to the national operators and to the foreign operators paying the premium. The latter operators have the right to send a verification mission to the regulator.

Charging of the premium must be effected at the beginning of each period.

National regulators may take actions as appropriate should the expansion fail to take place. For example, the regulator could submit an expansion programme by way of the operator's regulatory obligation, and that operator would at the same time be barred from receipt of the externality premium for a period of three years. In the interests of transparency, regulatory bodies may publish

[1] South Africa stated that network externalities, in principle, are not only applicable for the expansion of networks in terms of subscriber numbers, but also for the retention of marginal subscribers.

the levels of externality premiums and the amounts involved in expansion activities financed from the premium, together with any other statistical data called for by ITU.

4 Who receives externality premiums?

The externality premium is received by a developing country operator whose network shows potential for expansion in terms of subscriber numbers. Such a network is a source of value for mature – and in many cases saturated – networks. The level of the premium is proportional to the volume of traffic originating in a developed country and terminated on the developing country operator's network.

It is important to note that payment of the premium will take place only where there is a genuine network externality.

5 What is the procedure for collecting the externality premium and controlling the use to which it is put?

The collection procedure will be the same as is used for the accounting rate.

The means of control will be the audits carried out by regulatory bodies, which may also take the following steps:

1) Submission, at the beginning of the financial period, of a network expansion in terms of subscribers to be financed from externality premiums.
2) Verification by the regulator of adherence to the financial estimate for the expansion and of consistency between the use of the funds and the premium received or to be received.
3) Evaluation of the expansion work done, or to be done, under financing from the externality premium.
4) In the event of non-consistency, the regulator may impose an obligation to expand or a reduction in the amount to be paid by the paying party in subsequent exchanges.
5) Failure to abide by the relevant provisions may result in action by the regulator as appropriate, for example suspension of payment of the premium for a period of three years.

6 How to define developed countries and developing countries?

This definition has already been made by UNDP.

7 What mechanism can be used to prevent the funding of original licence obligations and universal service obligations with funds received from payment of the externality premium?

This mechanism will form part of the control function to be exercised by the regulatory body in the country of the operator receiving the externality premium. The regulatory obligations associated with licences and universal service are set out in each operator's terms of reference and are subject to ongoing verification by the regulator, which ensures that regulatory obligations in regard to coverage are fully complied with and that externality premiums received by its operators have actually been used for network expansion in terms of subscribers. The regulator may also draw up and publish a verification report, thereby ensuring transparency in implementation of the network externality premium.

8 What mechanism can be used to prevent the conclusion of discriminatory agreements between the main telecommunication companies in the developed countries and their subsidiaries in the developing countries, as well as abuses in the calculation of the premium in bilateral agreements?

Just as the regulatory bodies seek to ensure adherence to transparency, non-discrimination and equity in interconnection agreements, which constitute bilateral agreements between operators, they may also seek to ensure that those same principles are upheld when it comes to calculation of the network externality premium and its payment to operators. To this end, the same level of premium is paid, per minute of terminated call, to each recipient operator within a given national territory.

9 Do the provisions of Recommendation ITU-T D.156 violate provisions of WTO agreements?

No. The WTO provisions apply only to actions of governments who are members of WTO. The operative part of Recommendation ITU-T D.156 is addressed to operators, not to governments. As a consequence, this Recommendation cannot violate provisions of the WTO agreements.

Further, individual decisions taken by operators in developed countries in accordance with Recommendation ITU-T D.156 could not be considered to be discriminatory measures in the sense of WTO provisions, because the decisions in question are within the economic freedom of operators and do not fall within the mandate of WTO provisions, which forbid discriminatory actions on the part of the WTO Member States and oblige the said States to ensure that their major suppliers offer interconnection on a non-discriminatory basis.

It cannot be said that an operator's decision to pay an externality premium to a given operator in order to finance a likely increase in its revenue would be a discriminatory measure, because clearly the operator who is paying would likely be ready to pay the same premium to any other operator whose network could experience strong growth in terms of subscriber numbers.

SERIES OF ITU-T RECOMMENDATIONS

Series A	Organization of the work of ITU-T
Series D	**General tariff principles**
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	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	Terminals and subjective and objective assessment methods
Series Q	Switching and signalling
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 and next-generation networks
Series Z	Languages and general software aspects for telecommunication systems

Printed in Switzerland
Geneva, 2010