
Council for Trade in Services

**INTERNATIONAL MOBILE ROAMING:
POSSIBLE IMPLICATIONS FOR GATS**

Note by the Secretariat¹

1. This Note has been prepared upon request of the Council for Trade in Services on 2 May 2011. The purpose of the Note is to provide information on international mobile roaming, to serve as background for dedicated discussions in the Council. It focuses on recent trends and issues which may have GATS implications and may be useful to Members to address in their discussions. References to certain provisions of the GATS, as possibly relevant to the issues raised, should not be considered in any way as an authoritative interpretation of these provisions by the Secretariat. The Note also refers briefly to studies and work done by other international organizations and experts on the subject. It does not attempt to replicate or summarize such work.² Copies of the Annex on Telecommunication and the Reference Paper on telecommunications regulatory principles are attached to this document for ease of reference.

I. INTRODUCTION

2. What is international roaming? International mobile roaming takes place when a consumer travels abroad with a mobile device and uses the home-territory mobile subscription while abroad. The roaming is made possible by operator-to-operator agreements between the home-territory and foreign or host-territory operator that set the commercial terms by which their respective customers can use mobile services while in one another's territory. The customer is billed for roaming activity only by the home-territory operator -- charges known as the retail roaming rates. The operators agree to the charges that will apply to reimburse one another for the roaming activities undertaken by the customer while in one another's markets. These are referred to as the wholesale roaming rates. Roaming typically permits full functionality for the mobile subscriber while abroad. The subscriber may place voice telephony calls, access data services, and use short messages services (sms) while abroad. These services can take place within the host territory of the roaming customer, between the customer and the home territory, or between the customer and a third country; services for which different retail charges often apply.

3. What is the problem with international roaming rates? Governments have been concerned for a number of years about certain perceived pricing anomalies in mobile services. Since the mobile

¹ This document has been prepared under the Secretariat's own responsibility and without prejudice to the positions of Members and to their rights and obligations under the WTO.

² See, for example, Sutherland, Ewan, International Mobile Roaming: An Update, April 2011, at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1786446, OECD, International Mobile Roaming Charging in the OECD Area, Dec. 2009, at <http://www.oecd.org/dataoecd/41/40/44381810.pdf>, OECD, International Mobile Roaming Services: Analysis and Policy Recommendations, March 2010, at "[http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP\(2009\)12/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP(2009)12/FINAL&docLanguage=En)", and ITU, International Mobile Roaming Regulation: An Incentive for Co-operation, March 2008, GSR Discussion Paper, at "http://www.itu.int/ITU-D/treg/Events/Seminars/GSR/GSR08/discussion_papers/international_roaming_web.pdf".

industry was generally considered to be competitive, regulators assumed that market forces would tend, over time, to ensure that prices respond favourably to competition and were reluctant to intervene. However, certain pockets of apparent price distortion seemed to remain relatively impervious to competition. International mobile roaming rates have been a prime example, with retail charges for an international roamer to make a call home costing up to 20 times more than for a local mobile user to call the roamer's home territory.³ Multiples for retail data roaming are even higher, with roaming costing as much as US\$10 for 1MB, the same price typically charged for 100MB of domestic wireless broadband.⁴ Some governments have recently become more active in addressing the issue of high roaming charges, as an area where market forces possibly are not functioning as they should, for the benefit of consumers and business users that travel abroad.

4. Recent regional and bilateral developments. In recent years, regional groups have begun to consider and conclude guidelines or arrangements to address roaming among their respective member governments. For example, the European Commission has instituted Directives on roaming across borders among the EU Member States. In April 2009, the Arab Regulators for Telecommunications (AREGNET) concluded a set of recommendations on international mobile roaming charges and, in early 2010, APEC-Tel discussed draft Guidelines on the Provision of Consumer Information on International Mobile Roaming. These and other initial efforts have often focused on achieving greater transparency in pricing for both voice and data roaming, to avoid so-called bill shock, and some have aimed at mandating lower wholesale, operator-to-operator rates on voice roaming calls. Meanwhile, governments continue to monitor trends in retail voice and data roaming charges. There has also recently begun to emerge bilateral arrangements between governments on mobile roaming, the details of which are not yet available.

5. As governments seek to develop workable solutions to the problem of high roaming charges, questions have arisen regarding the relationship of GATS obligations and disciplines to some of these efforts. It has been argued that international mobile roaming constitutes supply of mobile telecommunication services to which GATS rules would be relevant and might need to be examined.

II. RELATED GATS PROVISIONS

6. The GATS consists of a common body of framework Articles and Annexes, including one on telecommunications, and individual Schedules of Specific Commitments containing each Member's level of commitments on market access and national treatment for selected services and so-called additional commitments⁵, which in telecommunications often consists of the Reference Paper on regulatory principles. Some disciplines apply only to services for which commitments are undertaken, whereas others apply to all sectors regardless of whether specific commitments are taken. Some of the GATS obligations relevant to telecommunications, such as certain provisions of the Annex on Telecommunications and possible elements of the Reference Paper, would apply only with respect to Members who have undertaken relevant commitments in their schedules.⁶ Other obligations, such as the framework Articles on transparency and most-favoured-nation (MFN) treatment would apply to all Members, even those who have not schedules mobile services commitments.

³ OECD, International Mobile Roaming Charging in the OECD Area, DSTI/ICCP/CISP(2009)8/FINAL, Dec. 2009, p. 5 and pp. 64-65.

⁴ OECD, International Mobile Data Roaming, DSTI/ICCP/CISP(2010)12/FINAL 30 May 2011 and "Mobile Broadband: Pricing and Services", DSTI/ICCP/CISP(2008)6/FINAL, June 2009.

⁵ Market access is defined in GATS Article XVI, National treatment is defined in Article XVII, and additional commitments are provided for in Article XVIII.

⁶ The GATS Annex on Telecommunications is applicable to all WTO Members, while the Reference Paper is relevant to those Members that have included it in their Schedules as additional commitment.

7. Scope of the GATS. The GATS applies to "measures by Members"⁷ affecting trade in services taken at all levels of government. The GATS would not, therefore, apply directly to commercial activities of suppliers, such as roaming arrangements concluded among operators. However, certain provisions hold Members responsible for ensuring that suppliers conduct themselves in a certain manner. Such obligations include GATS Article VIII on monopoly and exclusive suppliers, the Annex on Telecommunications and the commitments on regulatory principles of the Reference Paper. As a result, these obligations, albeit on Members, nevertheless have relevance to the actions or activities of operators.

8. What modes of supply relate to roaming? The GATS defines trade in services as trade conducted through four modes of supply: mode 1, cross border supply; mode 2, consumption abroad; mode 3, commercial presence, and mode 4, the presence of natural persons supplying services.⁸ International mobile roaming would appear to represent a combination of the consumption abroad and cross-border supply of mobile services.⁹ When a mobile services consumer enters in the territory of another Member, the services of both the consumer's host-territory operator and home-territory operator are provided as the result of commercial arrangements between the two operators. By virtue of these arrangements, the home-territory operator secures access to the host operator's network and services for use by its customer while abroad. The home-territory operator charges retail roaming rates to the consumer and the host operator charges wholesale rates to the home-territory operator. Figure 1 illustrates the relationship between the consumer and the operators in terms of modes of supply.

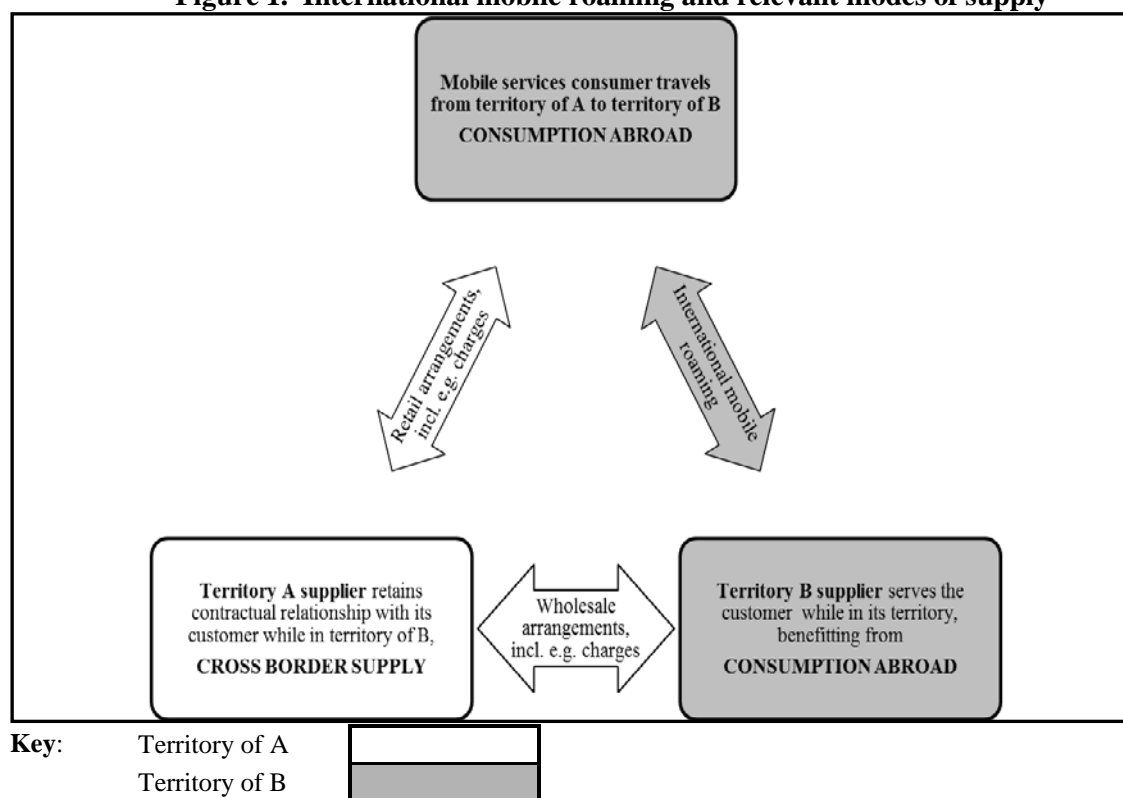
⁷ "Measure" is broadly defined in Article XXVIII(a) as "any measure by a Member, whether in the form of a law, regulation, rule, procedure, decision, administrative action, or any other form".

"Measures by Members affecting trade in services" are defined in Article XXVIII(c)(i) to include measures in respect of "the access to and use of, in connection with the supply of a service, services which are required by those Members to be offered to the public generally."

⁸ "Supply of a service" is broadly defined in Article XXVIII(b) as including "the production, distribution, marketing, sale and delivery of a service".

⁹ Cross border supply is defined in Article I:2(a) as the supply of a service "from the territory of one Member into the territory of any other Member". Consumption abroad is defined in Article I:2(b) as the supply of a service "in the territory of one Member to the service consumer of any other Member".

Figure 1. International mobile roaming and relevant modes of supply



9. Transparency obligations of GATS Articles and the Annex on Telecommunications. GATS transparency provisions may be relevant to certain aspects of international mobile roaming. GATS Article III requires Members to publish measures of general application affecting trade in services and relevant international agreements.¹⁰ Therefore, government laws, regulations or agreements relevant to mobile services should be made public.

10. In addition, transparency provisions of the Annex on Telecommunications oblige Members "to ensure that relevant information on conditions affecting access to and use of public telecommunications transport networks and services is publicly available, including: tariffs and other terms and conditions of service; ..."¹¹ Therefore, Members are required to ensure that the tariffs charged by relevant suppliers of telecommunications for access to and use of their networks or services are made public.¹² One of the issues identified in relation to mobile roaming is lack of transparency of tariffs or rates charged, particularly at the wholesale, operator-to-operator level. This could be viewed as the charge for "access to and use of" the host-territory mobile network and services by the home-territory operator of the consumer. Retail roaming charges may also be relevant to the extent that individual services suppliers or employees of a service supplier travel abroad and use their home-territory mobile subscription.

¹⁰ GATS Article III:1 states "Each Member shall publish promptly and, except in emergency situations, at the latest by the time of their entry into force, all relevant measures of general application which pertain to or affect the operation of this Agreement. International agreements pertaining to or affecting trade in services to which a Member is a signatory shall also be published."

¹¹ Annex on Telecommunications, Section 4.

¹² GATS Article III *bis* on the disclosure of confidential information may provide an exception to the transparency obligation in relevant circumstances. It states, "Nothing in this Agreement shall require any Member to provide confidential information, the disclosure of which would impede law enforcement, or otherwise be contrary to the public interest, or which would prejudice legitimate commercial interests of particular enterprises, public or private."

11. Access and use obligations of the Annex on Telecommunications. Access and use provisions of the Annex on Telecommunications and certain possibly relevant provisions of the Reference Paper (see below) apply to suppliers of public telecommunications transport networks and services (PTTNS).¹³ The Annex requires Members to "ensure that any service supplier of any other Member is accorded access to and use of public telecommunications transport networks and services on reasonable and non-discriminatory terms and conditions, for the supply of a service included in its Schedule".¹⁴ The Annex contains no requirement that the supplier of PTTNS hold any degree of market dominance and the notion of "access to and use of" networks and services is broad. Moreover, the Annex contains no requirement that a Member has undertaken commitments on the PTTNS with respect to which the disciplines are to be imposed. However, the benefits of Annex disciplines are intended to extend to suppliers of any service included in a Member's Schedule, whether telecommunications, banking, accountancy, or any other committed service.

12. The Annex may relate to both wholesale and retail arrangements for international mobile roaming. Operator-to-operator roaming arrangements could be considered to be the arrangements by which mobile operators extend access to and use of one another's networks and services. Further, retail roaming arrangements with the consumer could be considered to represent access to and use of PTTNS for self-employed service suppliers or representatives of service suppliers that engage in mobile roaming for the supply of committed services while abroad. If so, the Annex would require Members to ensure that the terms and conditions, including rates, with respect to access to and use of mobile networks and services are reasonable and non-discriminatory.¹⁵ The relationship between the Annex, a Member's access and use obligations, and scheduled commitments of the Member is illustrated in Table 1, below.

Table 1. How commitments relate to access and use provisions of the Annex

Type of international mobile roaming arrangement	Disciplines applied to:		Beneficiaries of the disciplines:	
	Services/suppliers	Scheduled commitments necessary	Services/suppliers	Scheduled commitments necessary
Wholesale	Suppliers of PTTNS	No	Suppliers of mobile services	Yes
Retail	Suppliers of PTTNS	No	Suppliers of any other services	Yes

13. Reference Paper provisions. Certain provisions of the Reference Paper might be relevant to international mobile roaming charges. Such provisions could include those on competitive safeguards

¹³ Annex on Telecommunications, Sections 3(a) and 3(b) define PTTNS as follows:

"Public telecommunications transport service' means any telecommunications transport service required, explicitly or in effect, by a Member to be offered to the public generally. Such services may include, *inter alia*, telegraph, telephone, telex, and data transmission typically involving the real-time transmission of customer-supplied information between two or more points without any end-to-end change in the form or content of the customer's information", and

"Public telecommunications transport network' means the public telecommunications infrastructure which permits telecommunications between and among defined network termination points."

¹⁴ Annex on Telecommunications, Section 5(a).

¹⁵ The panel in U.S.-Mexico dispute on telecommunications services found that beneficiaries of the Annex obligations may include suppliers of scheduled telecommunications services and that "terms and conditions" may include rates.

and interconnection guarantees. However, these provisions generally relate to situations of dominance or abuse of market power by suppliers of telecommunications. The Reference Paper defines a "major supplier" as one "which has the ability to materially affect the terms of participation (having regard to price and supply) in the relevant market for basic telecommunications services as a result of: (a) control over essential facilities; or (b) use of its position in the market."¹⁶ Moreover, if applicable, the provisions of the Reference Paper would appear to relate to wholesale international roaming, rather than to retail international roaming arrangements. This is because the scope of the Reference Paper, as well as the text of the provisions, appears to indicate that both the entities to which the disciplines apply and the beneficiaries of those disciplines are suppliers of basic telecommunications, rather than end-users.

14. The competitive safeguards provisions of the Reference Paper oblige Members who have attached it to their Schedules to "maintain appropriate" measures "for the purpose of preventing suppliers who, alone or together, are a major supplier from engaging in or continuing anti-competitive practices."¹⁷ Some examples of anticompetitive practices are provided in the Reference Paper¹⁸, but the notion of what may constitute anticompetitive practices by suppliers is otherwise left open-ended.¹⁹ Although the mobile industry is generally considered competitive, mobile operators may have positions of dominance in some countries. It is also possible that operators that may not possess a dominant position, overall, might have the ability to affect price or supply with regard to particular facilities, services or relevant market segments.

15. Interconnection provisions of the Reference Paper apply to the "linking with suppliers providing public telecommunications transport networks or services in order to allow the users of one supplier to communicate with users of another supplier and to access services provided by another supplier, where specific commitments are undertaken."²⁰ Members that adhere to the Reference Paper are obliged to ensure that interconnection is provided²¹:

"under non-discriminatory terms, conditions (including technical standards and specifications) and rates and of a quality no less favourable than that provided for its own like services or for like services of non-affiliated service suppliers or for its subsidiaries or other affiliates;"

"in a timely fashion, on terms, conditions (including technical standards and specifications) and cost-oriented rates that are transparent, reasonable, having regard to economic feasibility, and sufficiently unbundled so that the supplier need not pay for network components or facilities that it does not require for the service to be provided;"

16. It is not clear whether or not or in what circumstances international mobile roaming would be a form of interconnection or "linking" between the home-territory and host-territory operators. Commercially and technically, the specifics of how particular roaming arrangements are set up may vary and have been subject to change over time as more sophisticated technologies have become available.

¹⁶ Reference Paper template, "Definitions" section.

¹⁷ Reference Paper template, Section 1.1.

¹⁸ Reference Paper template, Section 1.2.

¹⁹ In examining Reference Paper Section 1.2, the panel in U.S.-Mexico dispute on telecommunications services concluded that the examples of anticompetitive practices listed therein did not constitute a complete list of such practices, but rather illustrative examples of such practices. .

²⁰ Reference Paper template, Section 2.1.

²¹ Reference Paper template, Sections 2.2(a) and (b).

17. Most-Favoured-Nation treatment and non-discrimination. The obligation to extend Most-Favoured-Nation treatment (MFN) means, in essence, that Members should not discriminate among the services and services suppliers of other Members. The obligation of GATS Article II applies to all Members with respect to all services and service suppliers, whether or not scheduled commitments exist and relates to measures taken "by Members". It states,

"With respect to any measure covered by this Agreement, each Member shall accord immediately and unconditionally to services and service suppliers of any other Member treatment no less favourable than that it accords to like services and service suppliers of any other country."²²

18. It may be relevant to consider, however, how GATS provisions on economic integration (Article V) may relate to possible regional or bilateral solutions. These provisions specify that the GATS "does not prevent any of its Members from being a party to or entering into an agreement liberalizing trade in services between or among the parties to such an agreement, provided that such an agreement: (a) has substantial sectoral coverage²³, and (b) provides for the absence or elimination of substantially all discrimination, in the sense of Article XVII, between or among the parties, in the sectors covered.... ". As a result, it may be possible that Article V may provide cover for MFN departures as a result of bilateral or regional arrangements to regulate roaming concluded within the context of a broader economic integration agreement. However, there may also be questions regarding the compatibility with MFN of a free-standing, government-to-government agreement on roaming that would grant favourable treatment, e.g. lowering roaming charges, not available to suppliers of other Members. Such an agreement might not satisfy the requirements of Article V in that they would address only one service/sector and only certain modes of supply.

19. It may also be noted that the extension of non-discrimination, in the form of a Member's responsibility over behaviour of suppliers can be found in non-discrimination provisions, noted above, of the Annex on Telecommunications²⁴ and Reference Paper. It can also be found in GATS provisions on monopolies and exclusive service suppliers. The relevant provision states,

"Each Member shall ensure that any monopoly supplier of a service in its territory does not, in the supply of the monopoly service in the relevant market, act in a manner inconsistent with that Member's obligations under Article II and specific commitments."²⁵

20. Commitments in Schedules. GATS Schedules of Specific commitments contain each Member's undertakings on market access and national treatment, by sector and modes of supply, and any additional commitments, if any, e.g. the Reference Paper on regulatory principles for telecommunications. At present, 109 WTO Member governments have commitments on one or more telecommunications service. Ninety-eight Member governments have commitments on mobile services. Most of the commitments on mobile services cover both voice and data services. Eighty-seven Member governments have included the Reference Paper, in whole or in part, in their Schedules.

²² GATS Article II:1.

²³ This condition is understood in terms of number of sectors, volume of trade affected and modes of supply. In order to meet this condition, agreements should not provide for the *a priori* exclusion of any mode of supply. [This is the text of the footnote to Article V.]

²⁴ Footnote 2 to paragraph 5(a) of the Annex on Telecommunications states "The term 'non-discriminatory' is understood to refer to most-favoured-nation and national treatment as defined in the Agreement, as well as to reflect sector-specific usage of the term to mean 'terms and conditions no less favourable than those accorded to any other user of like public telecommunications transport networks or services under like circumstances'."

²⁵ GATS Article VIII:1.

III. WORK BY OTHER INTERGOVERNMENTAL ORGANIZATIONS

21. Intergovernmental organizations such as the International Telecommunication Union (ITU) and the Organization for Economic Co-operation and Development (OECD) have reviewed problems associated with the high cost of international mobile roaming. Most recently, the OECD Working Party on Communications and Infrastructure Services and Policy (WPCISP) considered in its June 2011 meeting a draft recommendation to the OECD Council on international mobile roaming.²⁶ At its March 2011 meeting ITU-T Study Group 3, which is responsible for economic and policy issues, studied a draft new ITU-T Recommendation on Charging in International Mobile Roaming Service, on the basis of a review of issues conducted over the past two years by a Rapporteur Group on that issue. Work on that draft will continue.²⁷ Neither the ITU nor the OECD drafts are public documents at this time, although members of the respective organizations may consult them. Generally, the proposed recommendations address such issues as consumer awareness, transparency, publication of rates, as well as options for governments to consider, which, although encouraging market based solutions where workable, might include wholesale and/or retail price regulation. The OECD Secretariat, in particular, has been requested by members of the WPCISP and of the Trade Committee, who was consulted by WPCISP, to collaborate with the WTO on its recommendations.²⁸

IV. CONCLUDING OBSERVATIONS

22. It could be argued that WTO Members are required by the Annex on Telecommunications to ensure that suppliers of committed mobile services (at the wholesale level) or other services (retail level) are extended reasonable and non-discriminatory access to and use of mobile PTTNS. Moreover, all Members, regardless of commitments inscribed in schedules, may be required by MFN obligations to ensure that their laws regulations or regional arrangements concerning international roaming, if any, do not discriminate, i.e. treat mobile services and service suppliers of some Members less favourably than mobile services and service suppliers of other Members.

23. It is fair to say that due to the bi-directional, joint-supply aspects of international mobile roaming, and because certain routes may constitute the bulk of roaming traffic for many Members' residents and operators, bilateral or regional arrangements have a practical appeal. Moreover, some governments may find non-discriminatory, unilateral lowering of retail or wholesale roaming rates difficult because requiring their own operators to lower rates would benefit foreign mobile consumers entering their territory, but provide no benefits to their own consumers when traveling abroad.

24. As a result, initial efforts to address high international roaming charges can pose a dilemma for Members. On the one hand, lowering rates that are perceived as unreasonable may likely bring them into conformity with "reasonable" terms and conditions for access and use required by the Annex on Telecommunications. On the other hand, bilateral and regional arrangements among governments on international roaming to mutually reduce rates would not normally require operators to offer such reductions to third parties. Such arrangements could therefore risk placing the governments at odds with the GATS MFN obligation as well as non-discrimination provisions of the Annex on Telecommunications. It is possible that where such rate reductions are obtained within the context of an economic integration agreement, Article V of the GATS might provide cover.

²⁶ DSTI/ICCP/CISP(2011)1, 16 May 2011.

²⁷ TD 24 Rev.2 (WP 2/3) -E.

²⁸ OECD is not currently an observer to the Council for Trade in Services (CTS) and therefore can only attend sessions on the basis of an ad-hoc invitation from the CTS.

ATTACHMENTS

ANNEX ON TELECOMMUNICATIONS

1. *Objectives*

Recognizing the specificities of the telecommunications services sector and, in particular, its dual role as a distinct sector of economic activity and as the underlying transport means for other economic activities, the Members have agreed to the following Annex with the objective of elaborating upon the provisions of the Agreement with respect to measures affecting access to and use of public telecommunications transport networks and services. Accordingly, this Annex provides notes and supplementary provisions to the Agreement.

2. *Scope*

(a) This Annex shall apply to all measures of a Member that affect access to and use of public telecommunications transport networks and services.¹

(b) This Annex shall not apply to measures affecting the cable or broadcast distribution of radio or television programming.

(c) Nothing in this Annex shall be construed:

- (i) to require a Member to authorize a service supplier of any other Member to establish, construct, acquire, lease, operate, or supply telecommunications transport networks or services, other than as provided for in its Schedule; or
- (ii) to require a Member (or to require a Member to oblige service suppliers under its jurisdiction) to establish, construct, acquire, lease, operate or supply telecommunications transport networks or services not offered to the public generally.

3. *Definitions*

For the purposes of this Annex:

(a) "Telecommunications" means the transmission and reception of signals by any electromagnetic means.

(b) "Public telecommunications transport service" means any telecommunications transport service required, explicitly or in effect, by a Member to be offered to the public generally. Such services may include, *inter alia*, telegraph, telephone, telex, and data transmission typically involving the real-time transmission of customer-supplied information between two or more points without any end-to-end change in the form or content of the customer's information.

¹ This paragraph is understood to mean that each Member shall ensure that the obligations of this Annex are applied with respect to suppliers of public telecommunications transport networks and services by whatever measures are necessary.

(c) "Public telecommunications transport network" means the public telecommunications infrastructure which permits telecommunications between and among defined network termination points.

(d) "Intra-corporate communications" means telecommunications through which a company communicates within the company or with or among its subsidiaries, branches and, subject to a Member's domestic laws and regulations, affiliates. For these purposes, "subsidiaries", "branches" and, where applicable, "affiliates" shall be as defined by each Member. "Intra-corporate communications" in this Annex excludes commercial or non-commercial services that are supplied to companies that are not related subsidiaries, branches or affiliates, or that are offered to customers or potential customers.

(e) Any reference to a paragraph or subparagraph of this Annex includes all subdivisions thereof.

4. *Transparency*

In the application of Article III of the Agreement, each Member shall ensure that relevant information on conditions affecting access to and use of public telecommunications transport networks and services is publicly available, including: tariffs and other terms and conditions of service; specifications of technical interfaces with such networks and services; information on bodies responsible for the preparation and adoption of standards affecting such access and use; conditions applying to attachment of terminal or other equipment; and notifications, registration or licensing requirements, if any.

5. *Access to and use of Public Telecommunications Transport Networks and Services*

(a) Each Member shall ensure that any service supplier of any other Member is accorded access to and use of public telecommunications transport networks and services on reasonable and non-discriminatory terms and conditions, for the supply of a service included in its Schedule. This obligation shall be applied, *inter alia*, through paragraphs (b) through (f).²

(b) Each Member shall ensure that service suppliers of any other Member have access to and use of any public telecommunications transport network or service offered within or across the border of that Member, including private leased circuits, and to this end shall ensure, subject to paragraphs (e) and (f), that such suppliers are permitted:

- (i) to purchase or lease and attach terminal or other equipment which interfaces with the network and which is necessary to supply a supplier's services;
- (ii) to interconnect private leased or owned circuits with public telecommunications transport networks and services or with circuits leased or owned by another service supplier; and
- (iii) to use operating protocols of the service supplier's choice in the supply of any service, other than as necessary to ensure the availability of telecommunications transport networks and services to the public generally.

² The term "non-discriminatory" is understood to refer to most-favoured-nation and national treatment as defined in the Agreement, as well as to reflect sector-specific usage of the term to mean "terms and conditions no less favourable than those accorded to any other user of like public telecommunications transport networks or services under like circumstances".

(c) Each Member shall ensure that service suppliers of any other Member may use public telecommunications transport networks and services for the movement of information within and across borders, including for intra-corporate communications of such service suppliers, and for access to information contained in data bases or otherwise stored in machine-readable form in the territory of any Member. Any new or amended measures of a Member significantly affecting such use shall be notified and shall be subject to consultation, in accordance with relevant provisions of the Agreement.

(d) Notwithstanding the preceding paragraph, a Member may take such measures as are necessary to ensure the security and confidentiality of messages, subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on trade in services.

(e) Each Member shall ensure that no condition is imposed on access to and use of public telecommunications transport networks and services other than as necessary:

- (i) to safeguard the public service responsibilities of suppliers of public telecommunications transport networks and services, in particular their ability to make their networks or services available to the public generally;
- (ii) to protect the technical integrity of public telecommunications transport networks or services; or
- (iii) to ensure that service suppliers of any other Member do not supply services unless permitted pursuant to commitments in the Member's Schedule.

(f) Provided that they satisfy the criteria set out in paragraph (e), conditions for access to and use of public telecommunications transport networks and services may include:

- (ii) restrictions on resale or shared use of such services;
- (iii) a requirement to use specified technical interfaces, including interface protocols, for inter-connection with such networks and services;
- (iv) requirements, where necessary, for the inter-operability of such services and to encourage the achievement of the goals set out in paragraph 7(a);
- (v) type approval of terminal or other equipment which interfaces with the network and technical requirements relating to the attachment of such equipment to such networks;
- (vi) restrictions on inter-connection of private leased or owned circuits with such networks or services or with circuits leased or owned by another service supplier; or
- (vii) notification, registration and licensing.

(g) Notwithstanding the preceding paragraphs of this section, a developing country Member may, consistent with its level of development, place reasonable conditions on access to and use of public telecommunications transport networks and services necessary to strengthen its domestic telecommunications infrastructure and service capacity and to increase its participation in international trade in telecommunications services. Such conditions shall be specified in the Member's Schedule.

6. *Technical Cooperation*

(a) Members recognize that an efficient, advanced telecommunications infrastructure in countries, particularly developing countries, is essential to the expansion of their trade in services. To this end, Members endorse and encourage the participation, to the fullest extent practicable, of developed and developing countries and their suppliers of public telecommunications transport networks and services and other entities in the development programmes of international and regional organizations, including the International Telecommunication Union, the United Nations Development Programme, and the International Bank for Reconstruction and Development.

(b) Members shall encourage and support telecommunications cooperation among developing countries at the international, regional and sub-regional levels.

(c) In cooperation with relevant international organizations, Members shall make available, where practicable, to developing countries information with respect to telecommunications services and developments in telecommunications and information technology to assist in strengthening their domestic telecommunications services sector.

(d) Members shall give special consideration to opportunities for the least-developed countries to encourage foreign suppliers of telecommunications services to assist in the transfer of technology, training and other activities that support the development of their telecommunications infrastructure and expansion of their telecommunications services trade.

7. *Relation to International Organizations and Agreements*

(a) Members recognize the importance of international standards for global compatibility and inter-operability of telecommunication networks and services and undertake to promote such standards through the work of relevant international bodies, including the International Telecommunication Union and the International Organization for Standardization.

(b) Members recognize the role played by intergovernmental and non-governmental organizations and agreements in ensuring the efficient operation of domestic and global telecommunications services, in particular the International Telecommunication Union. Members shall make appropriate arrangements, where relevant, for consultation with such organizations on matters arising from the implementation of this Annex.

REFERENCE PAPER^[1]

Scope

The following are definitions and principles on the regulatory framework for the basic telecommunications services.

Definitions

Users mean service consumers and service suppliers.

Essential facilities mean facilities of a public telecommunications transport network or service that

- (a) are exclusively or predominantly provided by a single or limited number of suppliers; and
- (b) cannot feasibly be economically or technically substituted in order to provide a service.

A major supplier is a supplier which has the ability to materially affect the terms of participation (having regard to price and supply) in the relevant market for basic telecommunications services as a result of:

- (a) control over essential facilities; or
- (b) use of its position in the market.

1. Competitive safeguards

1.1 Prevention of anti-competitive practices in telecommunications

Appropriate measures shall be maintained for the purpose of preventing suppliers who, alone or together, are a major supplier from engaging in or continuing anti-competitive practices.

1.2 Safeguards

The anti-competitive practices referred to above shall include in particular:

- (a) engaging in anti-competitive cross-subsidization;
- (b) using information obtained from competitors with anti-competitive results; and

¹ This text represents the standard Reference Paper template elaborated during the negotiations on basic telecommunications (1994-1997). Actual additional commitments by Members on telecommunications regulatory disciplines may include all or part of this text, may contain modifications of its provisions, or may contain related provisions drafted in language of the Member's choosing. Most of the 87 Members that have undertaken the Reference Paper have done so with few, if any, modifications. **This footnote is added for information, and is not contained in job no. 2104.**

- (c) not making available to other services suppliers on a timely basis technical information about essential facilities and commercially relevant information which are necessary for them to provide services.

2. Interconnection

2.1 This section applies to linking with suppliers providing public telecommunications transport networks or services in order to allow the users of one supplier to communicate with users of another supplier and to access services provided by another supplier, where specific commitments are undertaken.

2.2 Interconnection to be ensured

Interconnection with a major supplier will be ensured at any technically feasible point in the network. Such interconnection is provided.

- (a) under non-discriminatory terms, conditions (including technical standards and specifications) and rates and of a quality no less favourable than that provided for its own like services or for like services of non-affiliated service suppliers or for its subsidiaries or other affiliates;
- (b) in a timely fashion, on terms, conditions (including technical standards and specifications) and cost-oriented rates that are transparent, reasonable, having regard to economic feasibility, and sufficiently unbundled so that the supplier need not pay for network components or facilities that it does not require for the service to be provided; and
- (c) upon request, at points in addition to the network termination points offered to the majority of users, subject to charges that reflect the cost of construction of necessary additional facilities.

2.3 Public availability of the procedures for interconnection negotiations

The procedures applicable for interconnection to a major supplier will be made publicly available.

2.4 Transparency of interconnection arrangements

It is ensured that a major supplier will make publicly available either its interconnection agreements or a reference interconnection offer.

2.5 Interconnection: dispute settlement

A service supplier requesting interconnection with a major supplier will have recourse, either:

- (a) at any time or
- (b) after a reasonable period of time which has been made publicly known

to an independent domestic body, which may be a regulatory body as referred to in paragraph 5 below, to resolve disputes regarding appropriate terms, conditions and rates for interconnection within a reasonable period of time, to the extent that these have not been established previously.

3. Universal service

Any Member has the right to define the kind of universal service obligation it wishes to maintain. Such obligations will not be regarded as anti-competitive *per se*, provided they are administered in a transparent, non-discriminatory and competitively neutral manner and are not more burdensome than necessary for the kind of universal service defined by the Member.

4. Public availability of licensing criteria

Where a licence is required, the following will be made publicly available:

- (a) all the licensing criteria and the period of time normally required to reach a decision concerning an application for a licence and
- (b) the terms and conditions of individual licences.

The reasons for the denial of a licence will be made known to the applicant upon request.

5. Independent regulators

The regulatory body is separate from, and not accountable to, any supplier of basic telecommunications services. The decisions of and the procedures used by regulators shall be impartial with respect to all market participants.

6. Allocation and use of scarce resources

Any procedures for the allocation and use of scarce resources, including frequencies, numbers and rights of way, will be carried out in an objective, timely, transparent and non-discriminatory manner. The current state of allocated frequency bands will be made publicly available, but detailed identification of frequencies allocated for specific government uses is not required.
