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The Regulation of International Telecommunication Services: A New Approach

Adriana C.M. Nugter* and Jan M. Smits**

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I. Introduction

In the past the function of the international telecommunications network was limited to the provision of international telephone, telegraph, and telex services. The convergence of computer and telecommunication technology dramatically broadened this function to the provision of all kinds of datacommunication services, such as electronic banking and database services. At the same time, the traditional telecommunication providers\(^1\) are confronted with the rise of a whole class of new service providers,\(^2\) some of whom have even established their own private networks.\(^3\) We are living in a transitional period in which the use of analogue techniques\(^4\) of trans-

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1. Traditional telecommunication providers (often called “common carriers”) historically have had responsibility for telephone, telegraph, and telex. They include, for example, AT&T and Western Union in the United States, NTT in Japan, and British Telecom in the United Kingdom. Many of these providers were previously government agencies or public utilities, but have been privatized and forced to compete with the new service providers. Lucky, *Common-Carrier Data Communication*, in *Computer-Communication Networks* 142-44 (1973).

2. Examples of the new services included videotext, electronic mail, electronic fund transfer, and value-added networks. See J. Ettinger, *Communication Networks: Private Networks Within the Public Domain* ix-x, 225-50 (1985). Generally, these services emphasize digital data processing as opposed to the traditional service providers’ emphasis on voice transmission.

New service providers are often referred to as value-added network (VAN) suppliers or enhanced service suppliers. For this Article, however, we prefer the term new service providers. "Value-added services," "enhanced services" or, as we call them, "new services," are services that "enhance" or "add value to" the existing basic telecommunication services (supplied by the traditional telecommunication service providers). See also R. Bruce, J. Cunard & M. Director, *The Telecom Mosaic, Assembling the New International Structure* 41-182 (1988) (where the dichotomy in the regulatory approach to "basic" and "enhanced" services in a number of countries is compared).

3. A private network is a telecommunication network using essentially the same technology as a public network, but which limits access to specific customers or specific kinds of transmissions. Common carrier or public networks, in contrast, are intended to serve everyone. An example of a private network is the Society for Worldwide Interbank Financial Telecommunication (SWIFT), the network used by banks all over the world to transfer funds among themselves.

4. Analogue transmission is "[t]he use of one medium to directly represent a phenomenon or activity occurring in another medium: e.g., the use of electromagnetic waves
porting messages is gradually\(^5\) being replaced by fully integrated
digital techniques of transmission.\(^6\)

The International Telecommunication Union (ITU) traditionally
established the regulatory framework for international telecommuni-
cation services.\(^7\) Keenly aware of this changing telecommunication
environment, the Plenipotentiary Conference of the ITU stated in
1982 that "it is advisable to establish, to the extent necessary, a
[new] broad international regulatory framework for all existing and
foreseen new telecommunication services."\(^8\)

In drafting this new framework, one of the main controversies
has been whether the new providers of international telecommunica-
tion services should, just like the traditional Telecommunication
Administrations (TAs)\(^9\) and Recognized Private Operating Agencies
(RPOAs),\(^10\) fall within the regulatory scope of the ITU.\(^11\) The
answer to this question has been affirmative in most cases, not so much

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\(^5\) Although there is an increasing tendency to carry data traffic on high speed digital
circuits, the use of, for example, telephone circuits to carry data represented in analogue
form is still common. A modem is used to convert digital signals to and from the analogue
format.

\(^6\) Exchanges using [digital] technology are said to be integrated because it is possible
for them to handle all basic services (e.g., telephone, data, telex, videotext, and facsimile)
using the same exchanges and trunk network. J. GRAHAM, supra note 4, at 86. The
digital transmission technique, in contrast with the analogue technique, does not directly
convert data into another medium, but produces "a signal at discrete voltage levels as a
series of pulses, for example at two levels, representing the 1 or 0 condition associated
with binary numbers." Id. at 54.

\(^7\) See infra note 16 and accompanying text (for a brief description of the ITU).

\(^8\) International Telecommunication Union Convention, Nov. 6, 1982, Res. No. 10,
—- U.S.T. —-, T.I.A.S. No. ——, (entered into force, Jan. 1, 1984) reprinted in 1 G. WALLENSTEIN,
INTERNATIONAL TELECOMMUNICATIONS AGREEMENTS Part 3, at 238 (1986) [hereinafter ITU
Convention] (This statement was made in the context of a call for a World Administrative
Telegraph and Telephone Conference, to be convened immediately after the CCITT Plen-
nary Assembly in 1988, "to consider proposals for a new regulatory framework to cater for
the new situation in the field of new telecommunication services.").

\(^9\) A Telecommunication Administration is "any governmental department or service
responsible for discharging the obligations undertaken in the International Telecommunica-

\(^10\) A Private Operating Agency (POA) is "[a]ny individual or company or corporation,
other than a governmental establishment or agency, which operates a telecommunication
installation intended for an international telecommunication service or capable of causing
harmful interference with such a service." Id. Annex 2 (No. 2008). A Recognized Private
Operating Agency (RPOA) is:

Any private operating agency... which operates a public correspond-
dence or broadcasting service and upon which the obligations provided for
in Article 44 of the Convention are imposed by the Member in whose terri-
tory the head office of the agency is situated, or by the Member which has
authorized this operating agency to establish and operate a telecommunica-
tion service on its territory.

Id. Annex 2 (No. 2009).

\(^11\) See Nugent, An Overview of International Issues, in TELECOMMUNICATIONS 1987: CUR-
RENT DEVELOPMENTS IN POLICY AND REGULATION 151-52 (1987). The new service provi-
ders have not been automatically included within the ITU regulatory framework because
on theoretical or ideological grounds, but because of a general opinion that it is very difficult to differentiate between types of telecommunication services in a satisfactory way. For example, when a new service supplier provides a value-added service, it is hardly possible to differentiate between the message transportation service-element, which preempts the traditional telecommunication suppliers, and the value-added service-element of the service.

The importance of definitions in determining the regulatory scope of the ITU has been recognized by the International Institute of Communications:

The role of definitions—of boundary lines between services and regulatory classification—is increasingly important in telecommunication law and regulation around the world. Demarcating the border between "telecommunications" and "data processing" or "information services," between "basic" and "enhanced" services, is critical because these definitions stake out who may provide a service, and under what terms and conditions.12

We believe the supposed difficulty in drawing boundary lines between different telecommunication services can be overcome by converting the criteria for telecommunications services trade developed in European Community (EC) law to international telecommunication. Furthermore, we feel that the regulatory scope of the ITU should be confined only to the network infrastructure13 as a basic service and to a limited number of specific telecommunication services: telephone, telegraph, telex, and public switched data services.14 All other services15 should be tradeable in the free market without any regulatory interference from the ITU.

The following sections of this article will explain our view. Section II discusses the regulatory framework of the ITU and its current approach to the new telecommunication environment. Section III concentrates on the regulatory framework of telecommunication

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12 Quoted in R. BRUCE, J. CUNARD & M. DIRECTOR, FROM TELECOMMUNICATIONS TO ELECTRONIC SERVICES: A GLOBAL SPECTRUM OF DEFINITIONS, BOUNDARY LINES, AND STRUCTURES 21 (1986). The dichotomy between basic and enhanced services has been addressed in the U.S. by the FCC in numerous decisions and regulations. See also R. BRUCE, J. CUNARD & M. DIRECTOR, THE TELECOM MOSAIC, ASSEMBLING THE NEW INTERNATIONAL STRUCTURE 43-55, 183-270 (1988).

13 The network infrastructure includes all the basic facilities needed to route transmissions to their destinations; essentially, the traditional facilities of the common carriers.

14 These are data services such as videotext which use the public data network to transmit or channel to the appropriate destination.

15 See the new services referred to in supra note 2.
services within the EC and the criteria this EC framework offers to
distinguish between different telecommunication services. Section
IV "translates" these criteria to the regulatory activities of the ITU
and its member States with a view toward examining whether such a
translation can be of any help in overcoming the momentous
problems in differentiating between various telecommunication serv-
ices. From this, a practical concept for regulating international tele-
communication is generated. In section V some concluding remarks
complete our conceptual framework.

II. The Regulatory Framework of the ITU

A. Purpose of the ITU

The ITU, founded in 1865, is an intergovernmental organiza-
tion which, since 1947, acts as a special agency of the United Na-
tions. Today, the ITU numbers 166 countries among its members.
Its major purposes are:

* "to maintain and extend international cooperation... for the
improvement and rational use of telecommunications of all kinds;"

* "to promote and to offer technical assistance to developing
countries in the field of telecommunications;"

* "to promote the development of technical facilities and their
most efficient operation with a view to improving the efficiency of
telecommunications services, increasing their usefulness, and mak-
ing them, so far as possible, generally available to the public;"

* "to harmonize the actions of nations in the attainment of
those ends."¹⁶

B. Legal and Organizational Framework

The ITU's legal and organizational framework is laid out in
three sets of documents: the Convention, the Administrative Regu-
lations, and the Recommendations. The applicability of these docu-
ments is limited to the ITU Member-States and to designated TAs
and RPOAs of the ITU Member-States.

The Convention specifies the internal organization of the ITU
and sets forth general principles governing telecommunication. The
Plenipotentiary Conference,¹⁷ the supreme organ of the ITU, sup-
plements, deletes provisions, and enacts amendments to the Con-
vension at so-called Plenipotentiary Conferences.¹⁸

The Administrative Council coordinates the implementation of

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¹⁶ ITU Convention, supra note 8, art. 4(1) (Nos. 13-16).
¹⁷ Id. art. 6 (No. 45); I G. WALLENSTEIN, supra note 8, Part 1, at 35-36 (1986).
¹⁸ Radiotelegraph conferences date back to the early part of the twentieth century.
After World War II, the first series of modern-day ITU conferences were held in Atlantic
City, New Jersey. I G. WALLENSTEIN, supra note 8, Part 1, at 49.
the provisions of the Convention by ITU Member-States. The Plenipotentiary Conference elects members to the Administrative Council. Both the Administrative Council and the Plenipotentiary Conference are nonpermanent organs; the first assembles yearly, the latter whenever it is judged appropriate.  

The Administrative Regulations supplement the Convention and are framed at World Administrative Conferences. These Conferences discuss worldwide telecommunication issues and can revise the Administrative Regulations partially or completely. The Telegraph and Telephone Regulations are developed at the World Administrative Telegraph and Telephone Conferences (WATTCs), and the Radio Regulations and the Appendices to the Radio Regulations are developed at the World Administrative Radio Conferences (WARCs). Regional Administrative Conferences are also held to decide specific regional telecommunications matters. The World and Regional Administrative Conferences are nonpermanent organs of the ITU. The Administrative Council manages the implementation of the Conferences’ Administrative Regulations along with the provisions of the Convention.

International Consultative Committees (ICCs) formulate the Recommendations, the third set of documents. The Recommendations provide guidance on operational methods and techniques.

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19 Officially, the ITU Convention prescribes that a Plenipotentiary Conference shall be convened every fifth year. ITU Convention, supra note 8, art. 6(1) (No. 34). Nevertheless, none in the last 37 years have been held within five years of each other. The dates of these Plenipotentiary Conferences are Buenos Aires (1952), Geneva (1959), Montreux (1965), Malaga-Torremolinos (1973), Nairobi (1982), and Nice (1989).

20 The Administrative Regulations ‘‘regulate the use of telecommunication and [are] binding on all Members.’’ Id. art. 42(1) (No. 170). The adoption of these regulations is not done by the Plenipotentiary Conference, but by Conferences that ‘‘shall normally be convened to consider specific telecommunication matters.’’ Id. art. 7(2) (No. 51). This does not necessarily mean that these Regulations are more technical in nature; the Telegraph and Telephone Regulations, for example, contain a set of general principles, whereas the Radio Regulations deal with highly detailed technical matters. In fact, the present Telegraph and Telephone Regulations only incorporate abstract general provisions relating to general operational issues. The CCITT Recommendations specify the standards (technical rules) that are necessary to interconnect domestic telecommunication networks of various countries. The present Radio Regulations, in contrast to the Telegraph and Telephone Regulations, contain very detailed technical provisions.

21 ITU Convention, supra note 8, art 7(3) (Nos. 53-55).

22 Id.

23 Id.

24 The agenda of a regional administrative conference may provide only for specific telecommunication questions of a regional nature, including instructions to the International Frequency Registration Board regarding its activities in respect of the region concerned . . . [T]he decisions of such a conference must in all circumstances be in conformity with the provisions of the Administrative Regulations.

25 See id. art. 5 (Nos. 25-33).

26 Id. art. 8(4)(1) (No. 61).

27 Id. arts. 11(1),(2) (Nos. 83 & 84), 58(2)(1) (No. 326) & 75(1),(2) (Nos. 442 & 443).
(so-called "standards") to be used for the provision of international telecommunication services. Unlike the above-mentioned ITU organs, the ICCs are permanent organs.

One of these ICCs is the Comité Consultatif International de Téléphonie et de Télégraphie or International Telephone and Telegraph Consultative Committee (CCITT). It is the organ within the ITU that is primarily responsible for the regulation of the international telecommunication network. At the Nairobi Plenipotentiary, held in 1982, the task of the CCITT was formulated as follows:

The duties of the International Telegraph and Telephone Consultative Committee (CCITT) shall be to study and issue recommendations on technical, operating and tariff questions relating to telecommunication services, other than technical or operating questions relating specifically to radiocommunication which . . . come within the purview of the CCIR.

The highest organ of the CCITT is the Plenary Assembly, which convenes every four years. At this Assembly a list of technical subjects relating to telecommunication is drawn up. These so-called "questions" are subsequently studied by the respective CCITT "Study Groups," which are composed of experts from different countries. When a Study Group reaches consensus on a certain question, a recommendation is formulated and submitted to the next Plenary Assembly for final approval. The Plenary Assembly can either send the recommendations for approval to their parent Administrative Conference or address the Recommendations to the Secretary-General as proposals for incorporation into the Admin-

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28 I G. Wallenstein, supra note 8, Part 1, at 38.
29 ITU Convention, supra note 8, art. 11(1),(2) (Nos. 83 & 84). The CCIR (Comité Consultative International de Radio, or International Radio Consultative Committee), operates in a similar fashion to the CCITT in radio and radio-frequency matters.
In fact, the present Telegraph and Telephone Regulations only incorporate general provisions, and the CCITT Recommendations only specify operational rules that are necessary to interconnect domestic telecommunication networks of various countries.
30 See ITU Convention, supra note 8, art. 58(1)(a) (No. 321).
31 Id. arts. 58(1) (No. 322), 58(2) (Nos. 326 & 327) & 69 (Nos. 403-406, 408).
32 The texts of the Recommendations are published by the ITU Secretariat in the CCITT Red Books.
33 "The Plenary Assemblies of the ICCs are authorized to: submit to Administrative Conferences proposals arising directly from their recommendations or from findings on questions under their study." ITU Convention, supra note 8, art. 75(1) (No. 442). A question is whether the recommendations of the ICCs form part of the treaty instruments of the ITU or not. Alfonso Noll made the following submission on this subject:
Without participating directly in the legislative activities themselves of the ITU’s treaty conferences, they nevertheless, in one way or another, contribute to, and are closely associated with, the preparation, the performance and the implementation of the work of these conferences, as stipulated in the various relevant provisions of the Convention.
Noll, The Institutional Framework of the ITU and Its Various Approaches With Regard to International Telecommunication Law and Treaty Conferences, in Speakers’ Papers, Special Session, World Telecommunication Forum 19, 36 (Apr. 18-19, 1985) [hereinafter Speakers’ Papers]. "It has . . . to be concluded that these relevant Recommendations of the CCITT’s [the French acronym for ICCs], as being referred to in the provisions of the respective Admin-
Participation in the work of the CCITT is open to the TAs and the RPOAs of the ITU Member-States. International organizations, regional telecommunication organizations, and scientific or industrial organizations which are engaged in telecommunication may also participate, but only in an advisory capacity.

The organizational framework of the ITU is summarized graphically as follows:

**C. Proposals for a New Framework**

**1. Introduction**

As previously mentioned, at its 1982 Nairobi Plenipotentiary Conference, the ITU agreed to establish a new international regulatory framework for all telecommunication services. R.E. Butler, the Secretary-General of the ITU, stated that the objective is "to draw up and approve, at government level, a basic framework of international telecommunications regulations applicable in the 1990s and the early part of the next century."
To that end, the 1982 Plenipotentiary Conference planned a WATTC to be held in Melbourne, December 1988, preceded by a Plenary Assembly of the CCITT.\textsuperscript{38} At this WATTC the current Telegraph and Telephone Regulations were to be replaced by International Telecommunication Regulations (ITRs).\textsuperscript{39} A specially established CCITT-Preparatory Committee (PC-WATTC) developed the draft ITRs for discussion.\textsuperscript{40}

As already noted,\textsuperscript{41} the scope and application of the current Telegraph and Telephone Regulations and CCITT-Recommendations are limited to the ITU Member-States and the designated TAs and RPOAs of the Member-States. The essence of the problem can be found in this limitation; international telecommunication services are not exclusively provided by TAs and RPOAs. Other providers\textsuperscript{42} already have entered this market and will continue to do so either by using the available public networks or by implementing new private ones.\textsuperscript{43} Thus the main question to be answered at the 1988-WATTC was whether these new providers of international telecommunication services should also come under the regulatory umbrella of the ITU’s new ITRs.\textsuperscript{44}

2. Proposed Solutions

The draft ITR, developed by the PC-WATTC, takes the position that all providers of international telecommunication services should be bound by the Regulations and Recommendations of the ITU:

Article 1(7) Members shall endeavor to ensure that any entity, established in their territory, using the international telecommunication network to provide an international telecommunication service:

\begin{itemize}
  \item[a)] is so authorised by the Member,
  \item[b)] complies with these Regulations, and
  \item[c)] to the extent considered appropriate by the Member, complies
\end{itemize}

\textsuperscript{38} ITU Convention, supra note 8, Res. No. 10. The Plenary Assembly was held November 14-25, 1988, in Melbourne, Australia. The Plenipotentiary Conference (WATTC-88) convened from November 28th through December 9th, 1988, also in Melbourne.

\textsuperscript{39} \textit{Id.} Indeed substantive changes occurred. \textit{See infra} text section II.C.3. ("Outcome of the WATTC-88").

\textsuperscript{40} The PC/WATTC met intermittently from 1985 through 1987. At its fourth meeting in Geneva, April 27th through May 1st, 1987, it adopted its final set of draft regulations.

\textsuperscript{41} \textit{See supra} notes 9 & 10 and accompanying text.

\textsuperscript{42} Some present examples are MCI International and Sprint, who provide services to PTTs of countries with which they have concluded agreements. An example of a specialized and value-added carrier, using leased circuits to provide database services, is TELENET. \textit{Cf.} Barnett, Botein & Noam, \textit{Law of International Telecommunication in the United States}, in 4 \textit{Law and Economics of International Telecommunications} 29-39 (1988). \textit{See also supra} notes 2 & 3 and accompanying text.

\textsuperscript{43} \textit{See supra} note 3 and accompanying text.

\textsuperscript{44} For a summary of the issues in this debate, see Nugent, \textit{WATTC-88: Global Harmonization, or Entirely New International Law?} in \textit{Telecommunications 1987: Current Developments In Policy and Regulation} 149 (1987).
Nevertheless, an overall agreement on this paragraph (and other related topics) was not reached before the start of the WATTC Conference. Article 1(7) is identified with efforts to support the position of the TAs and RPOAs, while opponents to it argue that users and other service providers will be adversely affected.

The Secretary General of the ITU organized an informal meeting in April 1988 in Geneva, where he proposed an alternative draft having no official status, but serving as an instrument for the ITU Member-States to reconsider their positions taken with regard to the official PC-WATTC Draft text. The alternative draft suggested replacing Article 1(7) with a new provision, Article 9, which reads as follows:

(1) Members may authorize their administrations, recognized private operating agencies, and subject to terms and conditions applicable under national law, any other organization or person, to enter into special mutual arrangements with administrations, recognized private operating agencies, or other organizations or persons so permitted by national law in another country, for the establishment of special networks, systems or applications, including the underlying means of telecommunication transport, to meet their own international communication needs or those of others who may use such networks, systems or applications.

(2) In making special mutual arrangements between administrations, recognized private operating agencies and other authorized organizations or persons, the parties concerned should take into account the relevant provisions of C.C.I.T.T. Recommendations.

This “Article 9 Approach” reasons that a blanket application of the ITR to new service providers cannot be justified. However, it still brings all international service providers under the ITU umbrella, but with a certain flexibility because these entities do not need to comply with the CCITT-Recommendations, but only to take them “into account.”

The main arguments in favor of such an approach are that applying the full weight of the ITR is not in the interest of the emerging new markets for telecommunications services, especially where

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45 Draft-ITR, art. 1(7) (copy on file with the authors and the office of the North Carolina Journal of International Law and Commercial Regulation).
46 Nugent, supra note 44, at 154-55.
47 Chief among these [negative] effects is the ITU dictation of a particular international telecommunications policy to all ITU members—a policy that relies on rigid regulation ... versus reliance on competition, flexible supervision, and enlightened entrepreneurialism. [The] Regulations will provide a shield and a weapon for [TAs] inclined to subject emerging alternative providers of innovative, network-based, value-added services to a whole panoply of regulatory requirements, review and inappropriate standardization.
48 Draft-ITR, supra note 45, art. 9.
49 This flexibility would be essential in view of the differences in operation of telecommunications from one country to another, not only in terms of serv-
these new service providers are not necessarily involved in providing services “generally available to the public.”

A proposal has also been made by the European Community to retain a modified Article 1(7), limiting it to services generally available to the public, and also to use Article 9, but omit its reference to the telecommunication infrastructure. This proposal is called the “Article 1(7) Approach.” Under this plan the ITR will cover new service providers, including those with private networks, in the same way it covers TAs and RPOAs, without the flexibility offered by the Article 9 Approach. Subjecting service providers such as banks or insurance companies to charging and accounting procedures is not appropriate. Those in favor of this approach, however, argue that since clear distinctions cannot be made, it is safer to apply the ITR to all entities. Another important argument is that it is not fair to subject the TAs and RPOAs, which are obliged to fulfill public service objectives, to the ITR while other entities supplying the same services are not subject to the ITR.

Both the Article 9 and the Article 1(7) approaches are inadequate because they do not draw the necessary lines of demarcation between the different sorts of international telecommunication services. Adherents of both views are aware of this problem, but do not have proposals to overcome it.

3. The Outcome of WATTC-88

The preliminary discussions before the start of WATTC-88 make it impossible to predict its outcome. No one knows which approach will prevail. However, it is clear that the outcome will be subject to further discussions at the World Administrative Telephones and Telegraph Conference (WATTC) 89, which will convene in 1989.
proach will prove to be the most persuasive. At the moment, it is still too early to fully interpret the significance of the new ITR. We have discerned, however, four issues as resolved by WATTC-88, and incorporated in the ITR, which, with some reservation, we believe to be important.

First, the ITR distinguishes between the provision and operation of international telecommunication services offered to the public and the underlying international telecommunication network infrastructure. It defines “the public” as “the population, including governmental and legal bodies.”

Second, the ITU restrains its regulatory scope when the provided services are not services generally available to the public, but services established to meet specialized telecommunication needs. ITU-Members can allow their TAs, RPOAs, or other entities to enter into special mutual arrangements with other Members or any telecommunication service provider, in order to “meet specialized international telecommunication needs within and/or between the territories of the Members concerned, and including, as necessary, those financial, technical, or operating conditions to be observed,” under the condition that “technical harm to the operation of the telecommunication facilities of third countries” is avoided.

Third, new service providers as well as TAs and RPOAs are not obliged to comply with the CCITT-Recommendations, but are asked to conform to relevant CCITT-Recommendations to the “greatest extent practicable.”

Fourth, TAs, RPOAs, and new service providers are not limited in the telecommunication services they may provide. They are only limited by the national law of the Member-State.

As a preliminary conclusion, the ITR agreed upon has turned out to be a mixture of the discussions described in the foregoing section II.C.2. It encompasses all international telecommunication services, while recognizing that a distinction has to be made between the provision of the network infrastructure, services generally avail-

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56 Id. art. 1.2.
57 Id. art. 9.1.
58 Id.
59 See, e.g., id. arts. 3(4), 4(2), 4(3).
60 Cf. id. art. 17(a) (regarding “the right of any Member . . . to require that [TAs, RPOAs, and new service providers] . . . , which operate in its territory and provide an international telecommunication service to the public, be authorized by that Member.”). Any telecommunication service may be provided by the traditional telecommunication service providers and the new service providers, although depending on the national law of the Member-State the latter may not be able to provide a reserved telecommunication service.
able to the public, and services that are established to meet specialized telecommunication needs. Clearly, the ITU is still dedicated to the facilitation of interconnections between domestic telecommunication networks and does not seek to regulate trading practices of telecommunication services providers. Nevertheless, no clear boundary lines have been developed.

III. European Approach to International Telecommunication Services

A. Introduction

The legal framework of telecommunication within the EC is defined by the EC Treaty and the EC Court of Justice rulings on this treaty. This section investigates whether they provide a possible method to distinguish between the international telecommunication services.

B. Exceptions to the Freedom to Provide Services

It is generally recognized that international telecommunication services within the EC fall within the scope of Articles 59 through 248 of the EC Treaty, which refer to the freedom to provide services.

For this section liberal use has been made of the as-yet-unpublished paper of Joachim Scherer, European Telecommunication Law: the Framework of the Treaty, presented at the CELIM conference on Freedom of Data Flows and EEC Law, held April 2-3, 1987 in Brussels (hereinafter Scherer) (papers delivered at the conference will appear in 2 COMPUTER/LAW SERIES OF KLUWER LAW AND TAXATION, to be published in 1989; copies of Professor Scherer’s paper are on file with the authors and the office of the NORTH CAROLINA JOURNAL OF INTERNATIONAL LAW AND COMMERCIAL REGULATION). Instead of making this section unreadable with footnotes, citations are provided only where especially appropriate.

Apart from this, it is worth mentioning that these rulings will regulate the implementation of the future ITR in the EC. This is because the ITR’s application by the EC Member-States is subject to Community law. The EC Member-States, therefore, have made a reservation to the applicability of the ITR which subsumes their ITR obligations to their EC Treaty obligations. This topic is beyond the scope of this article, however.

There is no doubt that the provision of telecommunications networks may constitute a “service” within the meaning of Art. 59, 60. Whereas the provision of telecommunications networks within a Member State is not subject to Art. 59 et seq. of the Treaty, the provision of telecommunications networks which spread beyond the territory of one Member State fulfills all the requirements of a “service” under Art. 59, 60: Establishing and operating the telecommunications facilities—i.e. providing the hardware and the software to fulfill at least certain transmission and switching functions—is neither an activity covered by Art. 30 et seq. nor by Article 52 et seq. of the Treaty. Consequently, Article 59 et seq. are applicable. Scherer, supra note 61.

A telecommunications service is—according to an almost circular definition delivered by the CCITT—that which is offered by an administration or a Recognized Private Operating Agency to its customers in order to satisfy a specific telecommunication requirement. This definition, vague as it may be, suffices for purposes of the European law. Because telecommunications services, which are offered via telecommunications networks, do not concern the transportation or exchange of goods, they must be considered as ‘services’ within the meaning of Art. 59, 60 of the Treaty.
ices within the EC, irrespective of the nationality of the provider.\textsuperscript{64}

The freedom to provide services can only be restricted by Articles \textsuperscript{55,56} and the public interest exception,\textsuperscript{67} and Article 90(2).\textsuperscript{68}

These exceptions are worth closer study because they represent the margin within which the EC Member-States can regulate the provision of international telecommunication services by national law without having to take into account Community rules.

I. Articles 55 and 56

Articles 55 and 56 state that exceptions to the freedom to provide services are allowed when they concern “activities which in that State are connected, even occasionally, with the exercise of official authority,”\textsuperscript{69} or when they concern “public policy” or “public security.”\textsuperscript{70}

If a Member-State rightfully argues that the construction and provision of telecommunication networks and services should be treated as “activities which are connected with the exercise of official authority,” the basic rule\textsuperscript{71} of Article 59 will not apply, even if it frustrates the goal of creating a common (telecommunication) market.

The viability of such reasoning will be tested in the EC Court of Justice, which employs a case-by-case approach when defining “the exercise of official authority.”\textsuperscript{72} It is to be expected that the on-go-

\textsuperscript{64} European Economic Community Treaty, Jan. 1, 1958, art. 59, 298 U.N.T.S. 11, 40.

\textsuperscript{65} European Economic Community Treaty, supra note 64, art. 55, at 39.

\textsuperscript{66} Id. art. 56.

\textsuperscript{67} See infra text at section III.B.2.

\textsuperscript{68} European Economic Community Treaty, supra note 64, art. 90(2), at 50.

\textsuperscript{69} Id. art. 55, at 39.

\textsuperscript{70} Id. art. 56(1).

\textsuperscript{71} Within the framework of the provisions set out below, restrictions on the free supply of services within the Community shall be progressively abolished in the course of the transitional period in respect of nationals of Member States who are established in a State of the Community other than that of the person to whom the services are supplied.

The Council, acting by means of a unanimous vote on a proposal of the Commission, may extend the benefit of the provisions of this Chapter to cover services supplied by nationals of any third country who are established within the Community.

ing separation of regulatory and operational functions within several European Postal, Telegraph and Telephone (PTT) authorities will clarify the scope of Article 55 further.\textsuperscript{73}

For the Article 56 exception to apply, a Member-State must show that restrictions of the freedom to provide cross-border telecommunications services are necessary in order to “prevent a clear and present danger” to either public policy or public security.\textsuperscript{74} This will not frequently be the case.

The exceptions embodied in Articles 55 and 56, therefore, will not apply very often. They do not represent a powerful threat to a common EC approach to telecommunications services because these articles leave little legal space for national authorities to implement their own policies.

2. The Public Interest Exception

The public interest exception is a creation of the EC Court of Justice. In its \textit{Procureur du Roi v. Debauve} decision,\textsuperscript{75} the Court stated that the particular nature of certain services may justify having restrictions imposed upon (potential) service providers if and when such restrictions are justified by the general interest, and applicable on a nondiscriminatory basis to all persons and undertakings\textsuperscript{76} in the Member-State concerned.\textsuperscript{77} An additional condition, enunciated in the earlier \textit{Ex parte Sacchi} decision, is that the imposed restriction be of a noneconomic nature.\textsuperscript{78} Strictly argued, this condition goes without saying, because otherwise the EC Treaty’s explicit and overall commitment to the establishment of a common market would be superceded.

Even though the Court has narrowed the public interest clause to noneconomic goals, the provision of universal telecommunication services arguably falls within the scope of the public interest exception.\textsuperscript{79} Yet, as other cases have shown, for a restriction on the freedom to provide services to be justified, it must constitute the least

\textsuperscript{73} This will occur by defining the boundary line between “the exercise of official authority” and activities which can not be categorized as such.
\textsuperscript{74} See P. Kapteyn & P. Verloren van Themaat, \textit{supra} note 64, at 275.
\textsuperscript{76} “Undertaking” is a generic term used for any organization of a predominantly business nature. It is synonymous with the words “enterprise” and “company.”
\textsuperscript{79} This argument can be made because the provision of, for example, telephone services, is often seen as a public service, \textit{i.e}., a service the government should take care of in that it is provided to all people under the same conditions, without any access problems, at the lowest possible rate.
possible restrictive alternative, which shall be "objectively justified" and not excessive in relation to the aim pursued.

3. Article 90(2)
   a. Introduction

   Article 90(1) states that Member-States are not allowed to take any special measures regarding public undertakings contradictory to the aims set forth in the EC Treaty. Article 90(2) excepts certain "public undertakings" from this general rule. The aim of this provision is to reconcile possible conflicts between Member-States' national public interest goals and the Community's goal of creating a common market. The provision states:

   Undertakings entrusted with the operation of services of a general economic interest or having the character of a revenue-producing monopoly shall be subject to the rules contained in this Treaty, in particular to the rules on competition, in so far as the application of such rules does not obstruct the performance, in law or in fact, of the particular tasks assigned to them. The development of trade must not be affected to such an extent as would be contrary to the interests of the Community.

   Some argue that because Article 222 allows a Member-State to freely establish its own public sector (and thus public undertakings), the competition rules, including Article 90(2) are not applicable to public undertakings. Article 222 states that the EC Treaty is not to "prejudice the rules in Member States governing the system of prop-

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82 A "public undertaking" is a corporation established to perform a public function, frequently commercial but not necessarily so. It is normally a statutory corporation, i.e., established by Act of Parliament. Examples of "public goods or public services" provided by public undertakings are gas and water services. For a discussion of public undertakings under Article 90, see P. Kapteyn & P. Verloren van Themaat, supra note 64, at 271-73.
83 Member States shall, in respect of public enterprises and enterprises to which they grant special or exclusive rights, neither enact nor maintain in force any measure contrary to the rules contained in this Treaty, in particular, to those rules provided for in Article 7 and in Articles 85 to 94 inclusive. European Economic Community Treaty, supra note 64, art. 90(1), at 50. N.B.: the word "enterprise" used in the above translation of the Treaty means "undertaking" or "company." See supra note 82.
84 These exceptions apply to undertakings entrusted with the operation of services of general economic interest or having the character of a revenue-producing monopoly." P. Kapteyn & P. Verloren van Themaat, supra note 64, at 272. "[E]ven in cases where the exception is applicable, the development of trade must in no circumstances be affected to such an extent as would be contrary to the interests of the Community." Id.
86 European Economic Community Treaty, supra note 64, art. 90(2), at 50.
erty ownership." Network facilities are, of course, property and thus their ownership should not be prejudiced.

Nevertheless, it follows from the holding in *Italian Republic v. Commission of the European Communities (British Telecom)* that although Article 222 refers to property positions, this reference does not touch upon the applicability of the competition rules of Articles 85 through 90 as they refer to economic behavior, and not to property. The Member-State is subject, *inter alia*, to the competition rules of the EC Treaty. The allowance given in Article 90(1) for Member-States to grant the exclusive right for the exploitation of a network upon a “public undertaking” is therefore independent of whether or not this undertaking is also the owner of the network. Thus, the public undertaking, under this reasoning, is subject to the competition rules of the EC Treaty.

Correlations, however, exist between property ownership under Article 222 and economic behavior under Articles 85 through 90 of the EC Treaty:

A Member State’s “system of property ownership” has repercussions upon the scope of permissible economic activities. . . . If a Member State defines the extent, the elements, and the interface of its national telecommunications network, these rules of (public) property ownership may have repercussions upon the scope of permissible economic activities of telecommunications services providers. In sum, Art. 222 enables the Member States to determine—within the limits of the evolving European fundamental right to property ownership—the scope of permissible economic behaviour and, consequently, the scope of Art. 90 of the Treaty.

Therefore, to judge the regulatory margin that Article 90(2) leaves to Member-States, four questions must be answered.

(1) What are the criteria for considering a national telecommunication network and service provider to be a “public undertaking”?

(2) What are the criteria for considering the provision of telecommunication services to be “services of general economic interest”?

(3) What are the criteria for considering an undertaking to be “entrusted” with the operation of the telecommunication service?

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88 European Economic Community Treaty, supra note 64, art. 222, at 88.
91 Scherer, supra note 61.
(4) When does the EC Treaty "obstruct" the operation of services with a general economic interest?

b. Public Undertaking

For Articles 85 through 90 (the competition rules) to apply, the entity that provides telecommunication services must be qualified as an "undertaking."92 For the exception of Article 90(2) to apply, the "undertaking" must qualify as a "public undertaking." Many Member-States deny that their national PTT can be interpreted as an "undertaking" or even as a "public undertaking."93 Two factors are decisive in qualifying a government activity as a (public) undertaking:

(1) the existence of organizational or procedural ties to the Member-State; and

(2) the qualification of the activities of the entity as activities of an undertaking acting in the marketplace.

Article 90(1) of the EC Treaty, which allows a Member-State to grant the exploitation of some telecommunication services to a public undertaking, presupposes the existence of organizational or procedural ties between the government and the undertaking. These ties can be of various kinds: contractual agreements, statutory ties, state ownership, and so on. The current TAs and RPOAs can be defined, respectively, as public undertakings and undertakings, within the meaning of Article 90(1).94

Once procedural or organizational ties are identified, the activities of the entity must be examined to determine whether the entity is an undertaking or part of government. In British Telecom95 the EC Court of Justice implied that whether an entity has regulatory powers is a necessary test, but is not sufficient to qualify an entity as part of government. The Court found British Telecom’s ability to issue regulations ("schemes") irrelevant, because these schemes did no more than lay down tariffs and conditions for the services offered and were determined by British Telecom itself without any parliamentary interference.96 The Court considered British Telecom’s activities to be of a business nature since they consisted of providing telecommu-

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92 European Economic Community Treaty, supra note 64, arts. 85-90, at 47-50.
93 By making this denial, of course, such countries seek to circumvent the applicability of the competition rules of the EC Treaty to government organizations.
94 See supra notes 9 & 10 for the definitions of TAs and RPOAs, and see supra note 83 for the wording of Article 90(1).
95 British Telecom, supra note 87, 1985 Eur. Comm. Ct. J. Rep. 873, 885, [1983-1985 Transfer Binder] Common Mkt. Rep. (CCH) ¶ 14,168, at 16,018 (where the nationalized industry is engaged in a business activity subject to Article 86 and its regulatory powers are "strictly limited to laying down provisions relating to the scale of charges and other terms and conditions under which it provides services for uses" (emphasis added) that industry will be subject to the provisions of Article 86 in regard to rule-making activities).
nication services for a fee. Reversing this reasoning, one may argue that a telecommunication entity, governed by regulations on usage, is subject to parliamentary or governmental interference and cannot be qualified as a public undertaking.

Nevertheless, in *Radio Luxembourg* the Court ruled that, in regard to Article 86, the Treaty “must be interpreted as applying to an undertaking holding a dominant position on a particular market, even where that position is due not to the activity of the undertaking itself but to the fact that by reason of provisions laid down by law there can be no competition or only very limited competition on that market.” This judgment indicates that legislative influence on a public undertaking does not necessarily lead to the inapplicability of Articles 85 through 90.

Due to the dynamics of a democratic society, entities which fulfill governmental tasks today as public undertakings may become (private) undertakings tomorrow (and vice versa). Therefore, the legal consequence of partially or wholly privatizing some of the traditional activities of TAs in Europe is that Articles 85 through 90 of the EC Treaty are applicable to every organizationally or procedurally separated telecommunication entity which provides telecommunication services.

c. Services of a General Economic Interest

When a national provider of telecommunication services is qualified as a public undertaking and enjoys the exclusive right to provide a telecommunication network and the services based upon it, the issue becomes whether such a provider is an undertaking entrusted with the operation of “services of a general economic interest” within the meaning of Article 90(2).

In *British Telecom* the Court ruled that the Member-State that entrusted the undertaking with the question of services of a general economic interest does not have the discretion to determine the ap-

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97 *Id.* The court’s ruling means, of course, that British Telecom is an undertaking.


100 Due to the dynamics of a democratic society, societal perceptions of telecommunication services can change. Consequently, the regulatory framework of their tasks can change also.

The analysis of these entities is further complicated by the mixed economy character of most European countries, a situation which confounds the traditional dichotomy seen in European legal doctrine between governmental tasks and activities of a business nature. C.f. A. DERINGER, *DAS WETTBEWERBSRECHT DER EUROPÄISCHEN WIRTSCHAFTSGEMEINSCHAFT, KOMMENTAR ZU DEN EWG-WETTBEWERBSREGELN* art. 90, ¶¶ 26 & 27 (1961); I. PERNICE, *KOMMENTAR ZUM EWG-VERTRAG* art. 90, ¶ 11 (1983).
plication of Article 90(2). On the contrary, under Article 90(3) the EC Commission, under the Court’s supervision, exercises control over the application of this article.

The criteria for determining services to be of a general economic interest are of both a substantive and procedural nature. Substantively, the general economic interest is more important than the specific economic interest of the undertaking concerned. General economic goals, therefore, “have to determine the entrepreneurial decisions; the undertaking’s interest in profit-maximization must be subordinated to the general economic interest.” Procedurally, general economic interests are created by or on the basis of legislative decisions. As stated in the Bayerische Vereinsbank decision, the legislators—more generally speaking, a measure adopted by public authorities—define and delineate the public interest objectives of public undertakings. Joachim Scherer has stated the issue as follows:

Consequently, whether or not the provision of telecommunications networks and services is a “service of general economic interest” depends upon regulatory decisions of the Member States, subject to Community law scrutiny. The Member-States will have to define and redefine their “general economic interests” with respect to telecommunications networks and services. Arguably, the provision of a nation-wide telecommunications network infrastructure which is linked to international telecommunications facilities is a “service of general economic interest.” Whether or not the same applies to the provision of local networks and for the provision of telecommunications services remains to be discussed.

d. “Entrusted With”

As already mentioned, Article 90(2) requires that the undertaking must be “entrusted with” the operation of the services in question. The EC Court ruled that this provision requires a governmental act by the competent authorities. Any de jure monopoly of a network provider must ultimately be based on a legislative enactment.

102 Id.
104 Scherer, supra note 61.
107 Scherer, supra note 61.
e. Obstruction

The final test is whether the rules of the EC Treaty obstruct “the performance . . . of the particular tasks” assigned to a telecommunication provider. The Court’s decision in British Telecom implies that the margin of this exception cannot be compared to the public interest exception developed by the Court under Article 56. The public interest exception applies only to public interest considerations of a noneconomic nature. Nevertheless, the British Telecom court stated that the “performance . . . of the particular tasks” assigned to a public undertaking can also be obstructed by economic behavior.

The particular task assigned to a telecommunication network provider is the construction and operation of a telecommunication network. Arguably, the performance of this particular task can be obstructed if the providers’ exclusive right to provide networks is abolished. This obstruction may lead to “skimming of the cream” by competing network providers and, ultimately, to an obstruction of the provision of universal network services by rendering the provision of a nation-wide, modern telecommunication network impossible. The network provider in question, however, must clearly demonstrate the danger that the provision of network services will be obstructed.

The particular task assigned to a telecommunication service provider may consist of the provision of universal services, that is services which are provided with general coverage of a given territory to all users on approximately the same terms. Again, it is assumed that the performance of this task may be obstructed if competing service providers “skim the cream.” The British Telecom decision, as well as previous rulings, show that the Court will scrutinize such assen-

109 See supra note 86 and accompanying text for the wording of Article 90(2).
110 The Court favorably referred to the Commission’s decision, which “noted that British Telecom, as a statutory corporation, was an economic entity carrying on activities of an economic nature and was, as such, an undertaking within the meaning of Article 86.” British Telecom, supra note 87, 1985 Eur. Comm. Ct. J. Rep. 891-92, [1983-1985 Transfer Binder] Common Mkt. Rep. (CCH) ¶ 14,168, at 16,021 (emphasis added). See also Scherer, supra note 61.
111 See supra note 78 and accompanying text.
113 The Court stated that the Italian government “totally failed to demonstrate . . . unfavorable” economic effects to British Telecom by the Commission’s decision to prohibit British Telecom’s curbs on competing service providers. Id. It must be kept in mind, however, that British Telecom arose in a very unusual procedural setting. The Italian government, under Article 173 of the Treaty, brought an action for a declaration that a Commission decision relating to a proceeding against British Telecom under Article 86 of the Treaty was void. Id., 1985 Eur. Comm. Ct. J. Rep. 881, [1983-1985 Transfer Binder] Common Mkt. Rep. (CCH) ¶ 14,168, at 16,015. See also Scherer, supra note 61.
tions of obstruction very carefully.

C. EC Green Paper on Telecommunication Services

The EC Green Paper on telecommunication services provides for a substantial opening of the telecommunication services market.\(^{115}\) A number of reserved services\(^{116}\) that are considered essential to ensure current public service goals and objectives (at this stage: telephone and telex services) are excluded. At the same time, providers of international services have the right to cross the EC Member-States' national borders.\(^{117}\)

On the other hand, the EC proposes to continue exclusivity or special rights for telecommunication administrations (public and private carriers) to supply and operate the network infrastructure.\(^{118}\) This proposal is a recognition of the telecommunication administrations' central role in establishing future generations of infrastructures. An essential approach in the EC policy concerning the opening up of the telecommunication market is the clear separation of regulatory and operational functions of the telecommunications administrations.\(^{119}\)

The EC has been able to draw flexible boundaries between the network infrastructure, reserved telecommunication services, and all other telecommunication services. As a point of departure, all services can be defined services within the meaning of Article 59 of the EC Treaty. Under Article 90(2) both infrastructure and reserved services, however, can be excepted from the EC Treaty provisions. All other services are left to the market mechanism. The framework we propose to regulate the international telecommunication service market goes along these same lines. But, contrary to the EC Green Paper, we believe that the reserved services should include not only telephone and telex services, but also telegraph and public switched data-network services, for reasons to be explained in the following sections.


\(^{116}\) Telephony and telex are traditional reserved services. \textit{Id.} § 4.1.3, at 66.

\(^{117}\) \textit{Id.} § 4.1.3, at 64-65; see \textit{id. Changes in Role of Telecommunications}, at Figure 9.

\(^{118}\) \textit{Id.} § 4.3.2(3), at 73.
IV. Conceptual Framework to Regulate International Telecommunication Services

A. Introduction

The EC telecommunication law, as described above, distinguishes between three categories of service providers and subjects them to different rules:

(1) service providers who act as a public undertaking and are not subject to the competition rules of the EC Treaty;
(2) service providers who act as a public undertaking and are subject to the competition rules; and
(3) service providers who fall under the scope of Article 59 et seq. without any restriction.

Along these same lines we want to distinguish between:

(1) TAs and RPOAs providing for the international network infrastructure;
(2) TAs and RPOAs providing, as we call them, Reserved Telecommunication Services (RTS)\(^{120}\); and
(3) TAs, RPOAs, and other service providers supplying all Other Telecommunications Services (OTS).

In the following subsections we define and elaborate on these distinctions.

B. Definitions

1. Network Infrastructure

The network infrastructure consists of the facilities necessary for the instant relay and transport of the message, including the switching equipment necessary to connect any network user with any other user and incorporate a clearly defined interface from which the network operator\(^{121}\) has to accept the message.

2. Reserved Telecommunication Services

For a telecommunication service to be treated as a Reserved Telecommunication Service:

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\(^{120}\) The term Reserved Telecommunication Services was first used by the EC in its Green Paper on Telecommunication Services. Green Paper, supra note 115, § 4.1.3, at 66. However, the Green Paper included only telephone and telex in its definition of the term. We extend it to comprise also telegraph and public switched data network services. See infra section IV.B.2.

\(^{121}\) A “network operator” is “[a] person or program responsible for controlling the operation of all or part of a network.” J. Rosenberg, Dictionary of Computers, Data Processing and Telecommunications 342 (1984). A “network operator” is “an organization responsible for the operation of a network; e.g., a common carrier providing a service to users by providing circuits and switching equipment to carry messages over a network.” J. Graham, supra note 4, at 112.
(1) it has to be available to all users on a nondiscriminatory basis within a given territory; and
(2) the provision of the RTS must be thought necessary for the general economic interest of the concerned nation.

The RTS, using the above criteria, is limited to telegraph services, voice-telephone services, telex services, and public switched data-network services. The RTS, as defined here, corresponds to the services generally available to the public, as distinguished by the ITU.

3. Other Telecommunication Services

OTS are any other telecommunication services that can be supplied over a telecommunication network infrastructure which are not RTS. An OTS corresponds with the ITU's telecommunication service for special communication needs.

C. Providers of the Different Services

1. Providers of the Network Infrastructure

The operators of the network infrastructure should only be TAs or RPOAs, which are obliged by domestic law to guarantee the access of all users to the network infrastructure in a given territory on a nondiscriminatory basis. This requirement is contradictory to the outcome of WATTC-88, where all service providers are allowed to provide whatever service they want.

Almost all countries limit the number of network facility providers. Some of the reasons for this are the following:

* Economies of Scale. Having only one or a few entities who are responsible for the construction, operation, and maintenance of the physical network is economically efficient.

* National Security. The government can more easily address

\[122\] The term "OTS" is our own invention. For some examples of what we call OTSs see the new services described supra in note 2. In the context of our interpretation of how telecommunication services should be classified, all possible services, except the Network Infrastructure and the RTS can be classified as being OTSs.

\[123\] Even in the United States, with its authorized separate network infrastructure providers, no real separate supply of network infrastructure facilities exist.

Within the past ten years, additional firms—including International Relay, Telenet, Graphnet, and Consortium Communications International—have entered the international record market. [In the U.S. there has been a separation between the telephone (voice) market and the telex/telegraph (record) market — authors.] While these companies hold authorizations to provide international service, they actually use other carriers' facilities.

Barnett, Botein & Noam, Regulation of Common Carriers, in LAW OF INTERNATIONAL TELECOMMUNICATIONS IN THE UNITED STATES (Law and Economics of International Telecommunications No. 4, 1988). International record carriers "provide overseas/international telecommunications services, other than voice communications (e.g., teletypewriter, facsimile, and data)." J. ROSENBERG, supra note 121, at 258.
one or a limited number of network operators than it can a great many.

* General Interest. One or a limited number of network suppliers makes it easier to guarantee the provision of a universal service on a nondiscriminatory basis to all users.

Often, the operation of the network is considered to be a natural monopoly. Nevertheless, what really counts, in our opinion, is that the provision of a network infrastructure is a "service of a general economic interest" as defined in Article 90(2) of the EC Treaty. Therefore, the TAs and RPOAs that operate the network should be treated equally, both at the national and international level, similar to the public undertakings not subject to the competition rules of Article 90(2) in EC law.

The ITU Member-States should have the regulatory power to decide for themselves what entities shall be authorized to act as a network operator, while the ITU continues to be the international center where the necessary technical and operational requirements of access to the international network infrastructure are framed in cooperation with all Member-States.

2. Providers of the RTS

A limited number of TAs and RPOAs should be appointed to provide RTS. Nevertheless, if a TA or RPOA is also the operator of the network infrastructure, both functions should be legally separated.

The EC public undertaking subject to the competition rules should be used as an example. In order to prevent market dominance and to control cross-subsidizing, a limited form of competition between the providers of the RTS should be allowed.

Countries should limit the provision of RTS to TAs and RPOAs because of the need to guarantee equal access to certain telecommunication services to all people. Developing countries, many of whom do not have an equally spread infrastructure, have the additional advantage of being able to finance the upgrading of the network more easily out of the earnings derived from the provision of the RTS. With this funding they can determine their own pace of development.

The listing of RTS in section IV.B.2. in the text above is an exhaustive account given the technology of today. Nevertheless this listing of limitations does not prevent countries from further limiting the RTS when the criteria no longer apply to a certain RTS in their

124 Cross subsidizing occurs when profits from remunerative monopoly telecommunication traffic is used to subsidize below-cost tariffs on telecommunication services subject to competitive entry. Cf. Snow, *The International Telecommunications Satellite Organization (INTELSAT)*, in 2 LAW AND ECONOMICS OF INTERNATIONAL TELECOMMUNICATIONS 30 (1987).
New services, to be developed in the future, should be matched with these criteria to see whether they should be treated as an RTS or not. National law should define the RTS in a given territory and the TA or RPOA which is allowed to provide these RTS.

3. Providers of Other Telecommunication Services

The providers of OTS do not have a public function, comparable with the network infrastructure operator or the provider of RTS. These services may be provided by any entity to any potential user over the available network infrastructures. Access to the network infrastructure should only be limited for safety reasons or noncompliance with basic standard interface provisions.

These types of service providers should be allowed to operate in a free and competitive market, corresponding to the freedom to provide services as laid down in Articles 59 through 248 of the EC Treaty. If any international regulation is necessary, the competent authorities have to be found in the GATT, or in another bilateral or multilateral trading agreement. The ITU, in our opinion, is not the proper international forum.

D. The Practical Implementation of the Framework

The conceptual framework as described in the above sections needs to be implemented at both the national and international level.

1. Domestic Level

In most countries one entity exists which constructs, owns, operates, and maintains both the network infrastructure and the RTS. The same entity tries to control the access of the providers of OTS to the telecommunication market.

The steps to take when implementing our framework domestically are simple:

(1) The operator of the network infrastructure has to be sepa-

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125 This is possible, for example, when there are enough RTS-providers to provide a certain RTS in a fully competitive market. In such circumstances it is also possible to guarantee that the particular RTS will be available to the general public on a non-discriminatory basis. See the criteria for an RTS in supra section IV.B.2.

126 As described above, one of the aims of the ITU is to make telecommunication services generally available to the public. As we have demonstrated, only the Network Infrastructure and an exhaustive list of RTSs can be said to fall under this regime. All other services should be traded on a free and competitive market. If any disputes arise regarding the tradeability of such OTSs the GATT could possibly be the competent authority to settle them.

127 The conceptual framework, however, will also suffice if it is implemented only at the domestic level, because the ITR framework provides sufficient flexibility to accommodate multilateral and bilateral arrangements between Member-States concerning the provision of specialized telecommunication services.
rated from the provider of the RTS. As long as the functional separation is legally assured, however, the operator and the provider do not need to be separated into two independent bodies.

(2) The network operator and the provider of RTS shall be appointed by national law to be a TA or RPOA or both, according to ITU-rules and to domestic legislation.

(3) The national legislator shall define which services shall be regarded as an RTS. Governments should continually watch the development of new services and review the already existing RTS and OTS, to decide whether they continue to be defined as an RTS or an OTS.

(4) OTS-providers shall be admitted to operate on the domestic markets in a free and competitive way, while national law has to take care that they comply with basic standard interface procedures as defined within the ITU and domestic legislation.

2. International Level

The implementation of the framework at the international level is also not too sweeping. First, the assignment of an entity with the status of a TA or an RPOA is left to the domestic legislator.128 This assignment is in accordance with the preamble of the ITU stating that it recognizes "the sovereign right of each country to regulate its telecommunication."129

Second, the list of RTS has to be implemented in one of the regulatory documents of the ITU framework. A CCITT Recommendation would promote efficiency and prevent a politicization of the list. The applicability of the list has to be reviewed periodically. The Recommendation, as already mentioned, shall contain no more than the following RTS: (1) telegraph services; (2) voice-telephone services; (3) telex services; and (4) public switched data-network services. The Recommendation also shall contain procedural measures to enable the implementation. This implementation can be achieved in the following way: each country will have to declare to the so-authorized ITU-organ (for example the CCITT or the General-Secretariat), which telecommunication services out of the list it wants to be regulated as an RTS and operated by a TA or RPOA. The ITU publishes all the declarations made to inform the other Member-States. These declarations, in turn, can inform potential service suppliers about which telecommunication services are reserved in which country.

128 See ITU Convention, supra note 8, Annex 2, for the definitions of an TA and an RPOA (at Nos. 2002 and 2009, respectively).
129 Id. Preamble (No. 1).
V. Conclusion

In itself our conceptual framework does not present a revolutionary approach, and it certainly should not be looked upon as such. It, however, will facilitate the transition from the old analogue transmission epoch to a fully integrated broadband telecommunication network.

It will not be possible to have all countries implement a totally integrated digital network at the same time. This implementation will create legal (and other) difficulties. Therefore, a legal concept that will satisfy the regulatory needs of this transitional period is needed. We derived our concept from the EC Treaty and the EC Court's rulings on the EC Treaty and our concept holds the key for a satisfactory transition. How the international telecommunication environment will have to be regulated after this period can not yet be foreseen.

When using the concepts derived from EC law, one must take into account that the EC Treaty is a very powerful international legal instrument with its allocation of supra-national powers to the organs of the EC. Such supra-national powers will probably never be handed to whatever international organization regulates the international telecommunication environment. Nevertheless, the EC concept proves to be very useful.

Our framework has the advantage that it does not demand a total redefinition at the national level of the current regulations nor does it constitute a completely different approach at the international level to ITU-provisions. Other advantages are that it:

1. is purposive;
2. technically-oriented instead of politically-oriented;
3. principally aimed at domestic regulation;
4. allows for an unrestricted market entrance of OTS providers;
5. leaves the original raison d'être of the ITU intact—the facilitation of the interconnection of respective domestic networks;
6. allows for a mechanism to judge if a telecommunication service has to be treated as an RTS or as an OTS; and
7. it lays the responsibility of providing the network infrastructure principally in the hands of a government-controlled entity.

The above elaborated concept will guarantee an easily accessible telecommunication network infrastructure and as such make it possible to satisfy the social and economic needs of all potential users, including the general public and the providers of RTS and OTS.

\(^{130}\) There could be other difficulties of a political or economic nature resulting from, for example, the large differences in the technical growth and use of telecommunication facilities between developing and industrialized countries.