
**Council for Trade in Services
Special Session
Committee on Specific Commitments**

Original: English

COMMUNICATION FROM THE EUROPEAN COMMUNITIES

Classification in the Telecom Sector under the WTO-GATS Framework

The following communication, dated 9 February 2005, from the delegation of the European Communities, is being circulated to the Members of the Council for Trade in Services and the Members of the Committee on Specific Commitments.

Summary:

1. This Communication addresses the legal uncertainty created by the existing classification used in the telecom sector under the GATS. Classification is first and foremost the basis to identify all services which Members wish to open to competition (market access) and for which they wish to ensure non-discrimination (national treatment). But the classification used so far is based on business concepts and words that do not clearly match today's reality of the telecom sector: it creates legal uncertainties on the scope of commitments made so far, as well as on the scope of commitments under negotiation. This Communication proposes to use the more comprehensive classification of telecom services as found in the Annex on Telecommunication Services to the GATS. By classifying telecom services as the services of "transmission and reception of signals by any electromagnetic means" the legal uncertainty of the existing classification can be avoided. This Communication does not deal with content or regulatory issues. Rather, this Communication is based on the premise that telecommunications services do not cover economic activities or services which require telecommunications services for their transport or delivery and the supply of which is subject to specific commitments undertaken in other relevant sectors. This paper is also based on the view that the issue of regulations of telecommunications services (in the sense of application of regulatory principles such as those included in the reference paper) is a separate issue and should be addressed, if needed, separately in terms of additional commitments that Members have made or would wish to make.

2. Finally, all commitments made so far should not be reduced, and the proposal outlined in this paper can be easily implemented without affecting those commitments.

I. STATE OF PLAY

1. Definitions of the GATS relating to the scope of telecom sector

3. The GATS does not address the sector in its main text, but it defines Telecommunications services in its Annex on Telecommunications as follows: "Telecommunications means the

transmission and reception of signals by any electromagnetic means." There are only two other definitions in the GATS Annex on Telecommunications which describe parts of the telecom sector. They concern "public telecommunications services"¹, and "Intra-corporate communications."² These definitions are used for specific obligations under the GATS Annex on Telecommunications.

4. The Decision on negotiations on basic telecommunications services, which forms part of the annexes of the Uruguay Round agreements defines "basic telecommunications" as "all telecommunications transport networks and services."³ Thus in effect, basic telecommunications services, as defined by this Decision, cover virtually all telecommunications services, even though participants in the negotiation may have taken commitments on a limited number of them. Such a definition does not affect the scope of the telecom sector.

5. Thus overall, the GATS and its appendices only provide very general definitions for telecommunications services.

2. The Schedules of commitments

6. WTO Members adopted during the Uruguay Round a classification to provide a comprehensive basis covering all services sectors, enclosed in document MTN.GNS/W/120 of 10 July 1991, and hereafter referred to as W120. WTO Members intended to base commitments in the telecom sector, as for other services sectors, on W120. W120 includes the following 14 sub-sectors (a.-n.) and an "other" category (o):

- a. Voice telephone services 7521
- b. Packet-switched data transmission services 7523**
- c. Circuit-switched data transmission services 7523**
- d. Telex services 7523**
- e. Telegraph services 7522
- f. Facsimile services 7521**+7529**
- g. Private leased circuit services 7522**+7523**
- h. Electronic mail 7523**
- i. Voice mail 7523**
- j. On-line information and data base retrieval 7523**
- k. Electronic data interchange (EDI) 7523**
- l. Enhanced/value-added facsimile services, incl. store and forward, store and retrieve 7523**
- m. Code and protocol conversion (n.a.)
- n. On-line information and/or data processing (incl.transaction processing) 843**
- o. Other

¹ "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.

² "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.

³ Paragraph 1 of the Decision on negotiations on basic telecommunications services states: "Negotiations shall be entered into on a voluntary basis with a view to the progressive liberalization of trade in telecommunications transport networks and services (hereinafter referred to as "basic telecommunications") within the framework of the General Agreement on Trade in Services."

The (**) indicates that the service specified constitutes only a part of the total range of activities covered by the CPC concordance (e.g. voice mail is only a component of CPC item 7523).

7. Contrary to most other services sectors under W120, there is no unequivocal link between that classification and the CPC classification, which lists telecom services in the following manner (see Annex 1 for the detailed definitions):

752	Telecommunications services
7521	Public telephone services
75211	Public local telephone services
75212	Public long distance telephone services
75213	Mobile telephone services
7522	Business network services
75221	Shared network services
75222	Dedicated network services
7523	Data and message transmission services
75231	Data network services
75232	Electronic message and information services
7524	Programme transmission services
75241	Television broadcast transmission services
75242	Radio broadcast transmission services
7525	75250 Interconnection services
7526	75260 Integrated telecommunications services
7529	Other telecommunications services
75291	Paging services
75292	Teleconferencing services
75299	Other telecommunications services n.e.c.
	Telecommunications services, not elsewhere classified. This class includes mobile maritime and air-to-ground communications services.

8. Most WTO Members have made commitments by using the W120 structure but there are significant disparities (see Annex 2 for more details): only a few who acceded to the WTO after the "basic telecom negotiations" systematically used W120 with its CPC references. While in many ways it corresponds to liberalisation calendars that vary according to the kinds of services, it is also signalling several problems in the classification *per se*.

II. PROBLEMS WITH THIS CLASSIFICATION: INCONSISTENCIES, BUSINESS IRRELEVANCE AND UNCERTAINTY

1. The W120 classification is confused and part of it is not up-to-date

9. It is probably fair to say that the classification in W120 for telecom was heavily influenced by the state of market liberalisation in many Members at the time, whereby public voice services (and often the circuit-switched data transmission services carried out over the same networks) were not liberalised, but other services were provided by alternative operators in a variety of competitive situations. This leads to some remarkable outcomes, e.g.:

- It is not technologically neutral (e.g. it differentiates between two ways of transmitting data: packet-switched and circuit-switched transmission);
- Some of those services hardly fit in today's business models: "code and protocol conversion" is not a service provided on its own from one company to another and is usually part of another service mentioned in W120 (e.g. data

transmission); "enhanced/value-added facsimile services" are not relevant any more; telex and telegraph are also not very much used any more.

- Some categories potentially overlap: it is for example difficult to explain why there are two separate lines for "On-line information and data base retrieval" and "electronic data interchange".
- The link with the CPC creates some confusion: first of all, many categories are linked to a CPC category with double asterisks to state that this covers only part of that category, but the ever unanswered question is which part? Also, the CPC lists interconnection services separately (CPC7525) from public voice or data services. Thus, do categories "a, b and c" cover activities of interconnection of a wholesale operator for voice, and data transmission? It would not make technical and economical sense to leave them out, but one must admit that the link with CPC creates confusion.
- the CPC itself is not up-to-date: for instance, it classifies mobile services in CPC75213 but covers there only voice and facsimile. In line with the state of telecom art at the beginning of the nineties, the CPC does not explicitly envisage mobile data services: it could have introduced a mobile data category under CPC7523, but it does not. That being said, some may also argue that the definitions under CPC7523 do not preclude the use of mobile networks as they do not refer explicitly to a fixed access. Can one then argue that categories b and c covering data transmission services under W120 cover mobile data transmission? The equivocal link with the CPC does not clarify this, even though the practice of WTO Members may shed some light. In fact, a few Members have mentioned mobile data services in their schedules (New Zealand, Papua New Guinea, Peru, Senegal, Trinidad & Tobago, United States) and sometimes referred to "CPC7523**" (e.g. New Zealand), always within category o. At the same time, some Members (e.g. Norway, Turkey) have classified "mobile services" under category o, without any CPC number, which could arguably cover mobile data services, at least more than in the case of schedules which explicitly talk about "mobile *telephone* services". Some Members (e.g. Sri Lanka) have also committed "data communications services" without any W120 or CPC reference, which arguably covers mobile data services.
- Finally, W120 introduces overlaps with the computer related services sector: n. on-line information and/or data refers to CPC843, which covers data base processing.

10. Thus, W120 leads to much confusion and is antiquated in a number of respects. But that is not all.

2. Some services are not covered with certainty

11. First, by referring to only some CPC numbers (7521, 7522 partly and 7523), W120 may have left out some services that the CPC classification allocated in other categories. For instance, air-to-ground and maritime mobile services (e.g. satellite-based mobile services) are explicitly excluded from 7521 and included in 7529, which is not mentioned in W120, and accordingly in schedules. And in effect, many Members have listed satellite services in their schedules in the o-other category, but very few mention air-to-ground and maritime *mobile* services: that is the case for Dominica, Kenya

(which covers them "only for GMPCS MOU"), Mauritius, Poland, and Trinidad & Tobago, but most Members mentioning satellite services identify only satellite-based fixed services such as VSAT services in the o category (e.g. Bangladesh, Romania, Thailand) or "earth stations" (e.g. Bangladesh, Malaysia). Some mention more broadly fixed satellite services (e.g. Antigua & Barbuda, Dominica, Jamaica, Senegal) or more simply satellite services (e.g. Bulgaria, Côte d'Ivoire, Israel, South Africa) and in that case it may be argued that the notion of fixed refers to the satellite not the service. But overall, the question remains: are satellite-based mobile services forgotten in many schedules?

12. Also, CPC7529 includes teleconference services, and teleconference services are mentioned explicitly only in a few schedules (e.g. Bangladesh, Ghana, Indonesia, Jamaica, Thailand, Venezuela). But then does that mean that for example most countries which made full market access commitments for voice services intended not to cover teleconference services?

13. In addition, CPC7526 includes "integrated telecommunications services", meaning "to simultaneously or alternatively transmit voice, data and/or image". Does that mean that such integrated services are not covered by W120? One possibility is to regard these services as a combination of a, b and c for both voice and data services. It may however give rise to arguments as to whether "image" is covered by these categories of W120, when "images" is mentioned in the overall CPC752 category for the Telecom sector explicitly only in CPC7526, and implicitly in CPC75292 which talks about *video*conference services⁴. Indeed, while voice and data are systematically mentioned in a way or another by the classification and by the schedules, only very few schedules mention explicitly the transmission of "images": some do it at the head of the telecom section along with CPC7526 (the EC and some other European Members) or simply mention CPC7526 in category o (e.g. Antigua & Barbuda). But nowadays images occupy a more and more significant part of what is transmitted by telecom operators (e.g. photos over mobile networks, advertisement or documents over fixed internet access, etc). Does that mean that all other schedules do not cover the transmission of images? Or do most WTO Members consider that images are just packets of bits in the same way as data, and therefore do they consider that the notion of "data" also cover "images" for these purposes? Similar questions could be raised about the notion of "sound": the existing classification mentions voice but not sound, some schedules mention sound and the reality of business is that users download ring tones and many other forms of sounds. And here again similar arguments could be made (notably about existing coverage under the concept of data). This is important for businesses both now (see examples above) and for the future, as services which transmit some images or sound are claimed to have great potential in the future, over broadband networks.

III. A POSSIBLE WAY FORWARD

1. A proposed solution

14. The W120 is based on business concepts and words that do not clearly match today's reality of the telecom sector. The uncertainty arising there from is compounded by the fact that the existing classification introduces distinctions on the basis of the format or kind of what is transmitted (voice, data, image etc). Thus one needs to come back to what the activity of telecom operators today genuinely covers. There are of course a variety of business models and technologies used. Examples given above show that companies invent ever more ways to provide services and develop business models that were not envisaged in previous negotiations, with more to come: e.g. combination of mobile and fixed access, including rerouting of calls and conversion of voice into data messages. It means that WTO schedules on market access and national treatment will not be able to cope with evolution if the scope of coverage of the sector is not defined clearly. Thus, how best can the sector be characterised for these purposes?

⁴ Please note that the word image includes here both still and moving images.

15. This Communication addresses the transmission of some content (irrespective of whether the format of the content is voice, data, image or any other, i.e. content-neutral by electromagnetic means. Indeed, there is a growing consensus among legislators and regulators to consider telecommunications services in their simplest definition, which is the one in the GATS Annex on Telecommunications: "Telecommunications means the transmission and reception of signals by any electromagnetic means." Many national laws are based on this comprehensive definition of telecommunications services, and they apply the principles of competition and non-discrimination for all the services covered by that definition, except occasionally for certain services (usually public voice or facilities-based public voice services) which are subject to a transition to competition.

16. Thus, it would seem possible for WTO Members to make market access and national treatment commitments on the whole sector of telecommunications services by simply referring to it as "any service consisting of the transmission and reception of signals by any electromagnetic means". Such a definition based on the functions performed would cover unmistakably all telecom services. By putting such a definition in the first column of the schedule to identify the scope of services that are considered to fall within the sector in a functional manner, WTO Members would create greater legal certainty, and fall in line with the international consensus that regulators should not discriminate between different technologies in providing services, between different content being transmitted or between different business models.

2. Link with other services

17. Such an approach would impact neutrally upon different business models, ways of providing services, and technology. That being said, traditional telecom operators (in the sense of telecom operators at the time W120 was conceived) have entered into many business fields (acting as financial intermediaries, information providers, database managers etc.) that are no longer only transmission and reception activities. Notwithstanding this diversification of operators, the notion of telecommunications services does not cover services which require telecommunications services for their transport, in particular any economic activity consisting of the provision of content. There are indeed many services which are provided over telecommunications services: financial services (e-banking such as the provision of information on accounts or the issuance of transfer orders, securities brokerage, etc.), information services (providing news, location-based information, etc.), entertainment (video-on-demand services, games, etc.) etc. Those services can be equally provided by the service suppliers which provide the transmission service or by other service suppliers. A proposed specific wording in the schedule is given as an example in Annex 3 to underline that telecommunications services do not cover services which require telecommunications services for their transport and the supply of which is subject to specific commitments undertaken in other relevant sectors.

18. Computer-related services constitute one of the sectors for which the question of distinction from telecom services is the most acute. The solution proposed in this paper clarifies the link with computer services (data hosting, data processing).

19. First, the proposed classification does not change the fact that computer related services such as data hosting (including internet web hosting⁵ today) remain in the sector of computer related

⁵ Web-hosting is understood here as the offer of storage capacity on a server by one company A to another company B who would wish for instance to make information available about its activities (typical website of a company). That does not include the separate activity of accessing that information by individuals who probably use the services of another company C (Internet service provider) to access the Internet.

services (CPC844), independently of the fact that they may have been provided by "telecom operators."⁶

20. Second, the classification avoids confusion about data processing: the W120 classification raises a problem of overlap between the telecom and computer-related services sectors, by including "2.C.n - online information and/or data processing (CPC843**)" in the telecom sector. This sub-sector is part of CPC84 and therefore covered by computer services, but is not covered by the definition of telecommunications services of the GATS Annex on Telecommunications. Using this latter definition for commitments in the telecommunications sector would therefore avoid making commitments for the same activity in two different parts of the schedule, as can be the case when using the W120 classification. Those WTO Members that may have made commitments for 2.C.n and would choose to adopt the definition of telecommunications services of the GATS Annex on Telecommunications, would usually have no concrete changes to implement (due to the fact that commitments on computer related services are usually more liberal and include CPC843). In a few rare cases when they have not already made commitments on CPC843, they would simply have to transfer their commitments applying to 2.C.n to the CPC84-computer services section.

21. Third, the proposed new classification would clarify the scope of sub-sectors 2.C.h to 2.C.m. Services like voice mail and e-mail, and enhanced/value-added facsimile services, incl. store and forward, store and retrieve, fall under the proposed definition of telecommunications services, because the mere fact that in these services messages are stored for retrieval by the recipient does not alter the primary purpose of these services, which is the transmission and reception of information. On the other hand, with the development of technology and services, many services have evolved which involve transmission but which provide storage and processing as additional services of primary interest for the user. Such additional activities are not part of the service of transmission and reception of information; they require transmission services in order to be provided but they consist of computer related services *per se* (e.g., data hosting, data processing) providing a different service and a different functionality to the user. These activities cannot be covered by sub-sectors 2.C.h to 2.C.m since the terms of sub-sectors 2.C.h to 2.C.m remain within the ambit of services providing mainly a transmission and reception of information, as characterised by the definition of telecommunications in the WTO and the CPC codes referenced by these sub-sectors. These activities are captured in the WTO classification (W120) by the computer-related services sector (1.B, CPC84). Without changing this fact of the existing WTO classification, the proposed new classification would make it clearer that WTO commitments for enhanced services provided by operators today require commitments within the telecom sector for the services that ensure the transmission and reception, as well as commitments for the data processing and other additional services in the computer-related sector. For example, a simple e-mail service (with an inbox and an outbox, such as the standard Yahoo! Service available throughout the world) is a telecom service (transmission and reception of messages, with limited storage for retrieval by the recipient as explained above), but when it is combined with an archiving system or some other system for processing of messages under user control, then both a telecom service and a computer-related service are provided.

22. In a nutshell, the relation with other services in the WTO should be clearly governed by the principle that services that provide transmission and reception of signals by electromagnetic means are covered by the telecom sector, and the rest, including any additional function that is not

⁶ That is true for services provided by "telecom operators" whether they involve content provided by business partners or individual end-users. For instance, "blogs" are online comments posted by individuals about events, personal life, etc. Individuals can add photos, videos, and other kinds of documents. "Blogs" also usually include space for comments by other individuals and statistics about visitors etc. "Blogs" services thus involve essentially computer-related services: these are services of hosting of those messages, documents and comments (a database service classified in CPC844), and services consisting of computing the number of visitors of a blog (this is a data processing service CPC843).

intrinsically linked to the transmission and reception, should find its place elsewhere, whether or not it is the same entity providing both services⁷. For example, an ISP may offer at the same time Internet access (a telecom service), an extensive number of information services (weather, news, sports etc., which are content services), as well as some database services (by hosting the data for the information services), which are computer-related services.

3. Flexibility

23. Such an approach still leaves enough flexibility for WTO Members to accommodate particular situations.

24. First and foremost, such an approach does not require any change in internal regulatory frameworks. National laws usually define telecommunications as per the GATS Annex on Telecommunications and apply the principles of competition and non-discrimination for all the services covered by that definition, except sometimes as regards competition for certain services (usually public voice or facilities-based public voice services) which are subject to a transition to competition. Such a classification does not prevent those who wish to maintain an exclusive right for some services to continue to indicate explicitly the scope of these exclusive rights in the market access column of their schedule.

25. Also, those Members not wishing to commit certain services could list in the first column of the schedule (definition) those services that they do not wish to commit. For instance, those who would like to exclude broadcasting transmission services (services consisting of the transmission of broadcast TV programmes to the public) may simply add the words in the first column "Services of broadcasting transmission of TV programmes to the public are not included". In addition to the exclusion of certain specific services, Members may wish to exclude certain types of services, e.g. they could state in the first column: "local services are not included" or "facilities-based services are excluded". There can also be exclusion of certain specific networks or technologies, e.g. Members could state in the first column: "cable TV networks are excluded" or "fixed wireless local loops are not included". There is no limit *a priori* to the type of exclusion that Members may wish to make. It is for Members to propose them and negotiate them as under any classification.

26. And finally, such a scheduling approach would not require any modification of internal regulatory categories such as those categories used for licensing systems. If a Member has different categories of licences it can continue to implement them or even modify them freely, so long as it maintains competition and does not discriminate between operators as per its commitments on market access and national treatment.

4. What about existing texts on scheduling in the telecom sector?

27. Schedules of commitments in the telecom sector have been made according to the two notes of the "basic telecom negotiations": these are the "Note for Scheduling Basic Telecom Services Commitments" (S/GBT/W/2/Rev.1) and "Market Access Limitations on Spectrum Availability" (S/GBT/W/3). Commitments made under the Fourth Protocol to the GATS have to be read in the light of those notes, which have been included in the report of the negotiations. Members who acceded to the WTO afterwards also explicitly base their schedules on the principles of these notes. These notes are important and are included in the Scheduling Guidelines (S/L/92).

⁷ That means in particular that existing commitments may very well not cover sufficiently existing services provided by what people consider as "telecom operators" if there are commitments only in the telecom sector and other relevant sectors.

28. The first one basically states that any service committed can be supplied for local, long-distance and international transmission, on a public or non-public basis, on a facilities-basis or on a resale-basis, and with any technology (copper, cable, fibre optic, wireless, satellite, etc.), whether the user is mobile or not. This means in particular that existing commitments cover new and previously unexpected technologies now waiting for commercial launch (powerline transmission). The definition proposed in this paper implicitly encompasses all technologies and all forms and ranges of transmission services supplies. However, it would do no harm to restate this principle. In addition, an explicit statement of this principle may become relevant where some exceptions are introduced by Members, to confirm that services committed can be supplied for local, long-distance and international transmission, on a public or non-public basis, on a facilities-basis or on a resale-basis, and with any technology (copper, cable, fibre optic, wireless, satellite etc.), whether the user is mobile or not.

29. The second note states that limitations on spectrum available for telecom services can restrict the number of operators without being considered a market access restriction. This issue cannot be addressed by a definition or classification of the telecom sector, but still needs to be addressed.

30. These notes do not solve the problems of coverage of the existing classification, *as they apply to sectors committed*, thus they do not ensure coverage of what is not within the sector committed due to deficiencies in the classification. That being said, it would be useful at the end of these negotiations to confirm their continued application to new commitments, whatever the classification used.

5. Link with regulatory issues

31. A number of WTO Members have committed to the Reference Paper as additional commitments. While some apply it to the whole telecom sector, many apply it only to the services they have committed in the Fourth Protocol to the GATS. The issue for those latter Members of whether to apply the Reference Paper to the whole telecom sector or not, as suggested in some proposals for negotiation (e.g. S/CSS/W/119), should be considered separately from the issue of the scope of the sector for the scheduling of market access and national treatment commitments, which is the focus of this note. If Members agree on a revised classification, it can be used for scheduling market access and national treatment commitments, ensuring liberalisation and removal of discriminations for all telecom services. As regards additional commitments, the schedules can maintain the same level of commitments so far by simply stating, in the column of additional commitments, that the Reference Paper applies to the list of services committed when they were committed, and list those services there, as in the initial schedule.

6. Implementation

32. Those who would wish to use the approach proposed above will find in Annex 3 an example of a schedule that is modified to follow the classification proposed.

33. Of course, all WTO Members are free to continue to use the existing W120 to schedule commitments. Applying the solution proposed in this paper can be done only on a voluntary basis. In any event, Members should ensure that they keep at least the same level of commitments.

ANNEX 1

CPC CLASSIFICATION OF TELECOM SERVICES

752 Telecommunications services

7521 Public telephone services

75211 Public local telephone services

Switching and transmission services necessary to establish and maintain communications within a local calling area. This service is primarily designed (used) to establish voice communications, but may serve other applications such as text communication (facsimile or teletex) and is generally provided for a flat monthly fee independently of the number of calls made by the subscriber.

Exclusions: Private line services and rental services of terminal equipment are classified in class 7522 (Business network services) and 7541 (Equipment rental services), respectively.

75212 Public long distance telephone services

Switching and transmission services necessary to establish and maintain communications between local calling areas. This service is primarily designed (used) to establish voice communications, but may serve other applications such as text communication (facsimile or teletex) and may be provided on a toll or flat rate basis. This service provides the customer with access to the supplier's and connecting carrier's entire telephone network or, in some instances, to a limited number of exchange areas (WATS service).

75213 Mobile telephone services

Radio telephone services which, by means of transportable equipment, give both-way access to the public telephone network or other mobile telephones. Some versions of this service, with proper terminal equipment, may be used to transmit facsimiles as well as voice communications.

Exclusion: Air-to-ground and maritime mobile communications services are classified in subclass 75299 (Other telecommunications services n.e.c.).

7522 Business network services

75221 Shared network services

Network services necessary to establish telephone communications between selected (point-to-point or multi-point) locations (terminals) via a public (shared) network. This type of service is primarily used to establish long distance voice communications but some versions can also accommodate facsimile and data transmission. It is provided on a pay-as-you-use basis at discount rates over regular long distance telephone charges.

75222 Dedicated network services

Network services necessary to establish telephone communications between selected (point-to-point or multi-point) locations (terminals) via private line(s). This type of service is primarily used to establish voice communications between distant PBX's (tie line), between a distant location and a PBX (off premises extension), between a PBX and a distant exchange area (foreign exchange) or between designated telephone sets, but may also accommodate data transmission. It is provided on a lease basis.

7523 Data and message transmission services

75231 Data network services

Network services necessary to transmit data between equipment using the same or different protocols. This service can be provided via a public or dedicated data network (i.e. via a network dedicated to the customer's use).

75232 Electronic message and information services

Network and related services (hardware and software) necessary to send and receive electronic messages (telegraph and telex/TWX services) and/or to access and manipulate information in databases (so-called value-added network services).

7524 Programme transmission services

75241 Television broadcast transmission services

Network services necessary for the transmission of television signals, independently of the type of technology (network) employed. This subclass does not include satellite-to-cable services where the provider sells T.V. signals via satellite to cable companies (as opposed to selling use of satellite facilities) nor does it include DTH (direct-to-home) satellite services where the provider sells television programme packages directly to households located in remote areas.

75242 Radio broadcast transmission services

Network services necessary for the transmission of audio signals such as radio broadcasting, wired music and loudspeaker service.

7525 75250 Interconnection services

Network services by one carrier to another when a communication originating in a carrier's territory must travel through another carrier's network to reach its destination.

7526 75260 Integrated telecommunications services

Private point-to-point or multipoint network services which enable the users to simultaneously or alternatively transmit voice, data and/or image. This type of service offers high bandwidth capacity and flexible, customer controlled network reconfiguration to accommodate changing traffic patterns.

7529 Other telecommunications services

75291 Paging services

The summoning of a person to the telephone through the use of an electronic pager. This subclass includes tone, voice and digital display paging services.

75292 Teleconferencing services

Network and related services necessary to hold a one-way or two-way fully interactive video conference.

75299 Other telecommunications services n.e.c.

Telecommunications services, not elsewhere classified. This class includes mobile maritime and air-to-ground communications services.

ANNEX 2
CLASSIFICATION OF THE TELECOM SECTOR IN
SCHEDULES OF COMMITMENTS SO FAR

The few facts hereafter show the disparities in the use of W120 and CPC and some inconsistencies created by the use of W120 and CPC in existing GATS schedules covering the telecom sector:

- Only a few who acceded to the WTO after the "basic telecom negotiations" have systematically used W120 with its CPC references, all others do not.
- Most Members which made commitments for categories h to n (usually in the Uruguay Round) used the expressions of those categories but not CPC numbers and, in many cases, not even the letters h, i, etc.
- Many Members (e.g. Bangladesh, Belize, Chile, Czech Republic, Dominica, Ghana, Grenada, Guatemala etc.) quote CPC numbers for categories a to g (usually committed after the Uruguay Round) but many others do not (e.g. Australia, Bolivia, Canada, China, Côte d'Ivoire, Croatia, El Salvador, EC, Hong Kong, China, Hungary, etc.). Among those who do not use CPC numbers, a few (e.g. Australia, EC) list at the top of the telecom section a list of CPC numbers to define their overall scope of commitments.
- Some Members use the same letters a, b, c, etc. of W120 but the sub-categories do not correspond to those of W120 (e.g. Pakistan which follows W120 only for a, b, and c).
- Some Members use their own expressions for some categories (e.g. Thailand for "database access services" to cover category j).
- Some Members have not used W120 at all: Gambia based its commitments on the CPC, Argentina used the CPC partly and an own list of services (mainly mobile, trunking and leased circuit services); also some Members use their own expressions for the whole list of services they commit (e.g. Brunei Darussalam, Colombia, Malaysia, Singapore, Sri Lanka, Uganda).
- The "o. other" category has usually been used to list services that were already liberalised contrary to the fixed network services, or services which had a calendar of liberalisation different from that of the fixed network services: mobile services, satellite services, etc. On the other hand, Members who had already liberalised all services did not mention specifically those services under category o.
- Many Members have made specific references to some technologies and allocated them in very varied ways to the W120 categories (as they followed the structure of W120). For instance, Morocco and Tunisia registered "Frame relay" under a separate "o.-other" category. The most frequent case concerns Internet-based services: a number of Members mention specifically this technology, sometimes using detailed expressions (such as "internet and internet access services" for Antigua & Barbuda, Bangladesh, Barbados, Ghana, Grenada, Kenya, Suriname, or "Data services TCPIP (internet) for Uganda) or more simply "internet services" (Belize, Oman). Most put it in the "o.-other" subcategory (Antigua & Barbuda, Bangladesh, Barbados, Ghana, Grenada, Kenya, Suriname, Uganda) others in "g. Private leased

circuit services" (Oman), or in "b. Packet switched data" (Pakistan) or look at it from a pure technological point of view (e.g. Uganda, which mentions "a. basic voice services, including over value-added networks such as internet"); finally, some Members use CPC references for "internet services" (CPC75260 for Antigua & Barbuda).

- For mobile: a number of countries (Guatemala, Croatia, Georgia, Estonia, etc.) have committed voice services (CPC7521), and again separately mobile services under the category "o. other" with a specific reference to CPC75213, which normally is already covered under CPC7521.
- Some Members (e.g. Latvia, Pakistan, Antigua & Barbuda) mention Trunk radio systems, without any CPC number.

ANNEX 3
EXAMPLE OF A SCHEDULE UNDER THE NEW APPROACH

A typical schedule consolidating commitments made in 1994 (Uruguay Round) and 1997 (Fourth Protocol to the GATS) on the basis of W120 looks like:

Sector	Market Access	National Treatment	Additional commitments
2.C Telecommunications			
a) Voice telephone services (CPC7521)	1) Monopoly for long-distance and international voice services until 1 January 2005.	1) None	Member X undertakes the obligations contained in the reference paper attached hereto
b) Packet-switched data transmission services (CPC7523**)	2) None	2) None	
c) Circuit-switched data transmission services (CPC7523**)	3) Monopoly for long-distance and international voice services until 1 January 2005.	3) None	
d) Telex services (CPC7523**)	4) Unbound, except as indicated in horizontal commitments	4) Unbound, except as indicated in horizontal commitments	
e) Telegraph services (CPC7522)			
f) Facsimile services (CPC7521**+7529**)			
g) Private leased circuit services (CPC7522**+7523**)			
o) other			
h) Electronic mail (CPC7523**)	1) None	1) None	
i) Voice mail (CPC7523**)	2) None	2) None	
j) On-line information and database retrieval (CPC7523**)	3) None	3) None	
k) Electronic data interchange (EDI) (CPC7523**)	4) Unbound, except as indicated in horizontal commitments	4) Unbound, except as indicated in horizontal commitments	
l) Enhanced/value-added facsimile services, including store and forward, store and retrieve (CPC7523**)			
m) Code and protocol conversion			
n) On-line information and/or data processing (incl. Transaction processing) (CPC843**)			

When using the new approach of scheduling commitments, this schedule would become (without changing the scope of services subject to additional commitments):

Sector	Market Access	National Treatment	Additional commitments
<p>2.C Telecommunications</p> <p>All services consisting of the transmission and reception of signals by any electromagnetic means. (*)</p> <p>Services of broadcasting transmission of TV and radio programmes to the public are not included.</p> <p>Telecommunications services do not cover the economic activity consisting of the provision of content services which require telecommunications services for their transport.</p>	<p>1) Monopoly for long-distance and international voice services until 1 January 2005.</p> <p>2) None</p> <p>3) Monopoly for long-distance and international voice services until 1 January 2005.</p> <p>4) Unbound, except as indicated in horizontal commitments</p>	<p>1) None</p> <p>2) None</p> <p>3) None</p> <p>4) Unbound, except as indicated in horizontal commitments</p>	<p>Member X undertakes the obligations contained in the reference paper attached hereto for the following services:</p> <p>a) Voice telephone services (CPC7521)</p> <p>b) Packet-switched data transmission services (CPC7523**)</p> <p>c) Circuit-switched data transmission services (CPC7523**)</p> <p>d) Telex services (CPC7523**)</p> <p>e) Telegraph services (CPC7522)</p> <p>f) Facsimile services (CPC7521**+7529**)</p> <p>g) Private leased circuit services (CPC7522**+7523**)</p> <p>o) other</p>

[*Optional footnote:* * This includes notably, but not only, W120-2C - h) Electronic mail (CPC7523**), i) Voice mail (CPC7523**), j) On-line information and database retrieval(CPC7523**), k) Electronic data interchange (EDI) (CPC7523**), l) Enhanced/value-added facsimile services, including store and forward, store and retrieve(CPC7523**) and m) Code and protocol conversion.

These commitments cover services like voice mail and e-mail, and enhanced/value-added facsimile services, incl. store and forward, store and retrieve.]

This ensures a legally certain and comprehensive coverage of all telecom services.

In the case of most Members which acceded to the WTO after 1997, additional commitments apply to all services, thus there is no need to list any service in the fourth column.