COUNCIL RECOMMENDATION

of 5 June 1992

on the provision of harmonized integrated services digital network (ISDN) access arrangements and a minimum set of ISDN offerings in accordance with open network provision (ONP) principles

(92/383/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to Council Directive 90/387/EEC of 28 June 1990 on the establishment of the internal market for telecommunications services through the implementation of open network provision [1],

Having regard to the proposal from the Commission,

Whereas Directive 90/387/EEC considers, *inter alia,* the application of the principles of open network provision (ONP) to the integrated services digital network (ISDN);

Whereas the full establishment of a Community-wide market in telecommunications services will be promoted by the rapid introduction of ONP principles to ISDN, as provided for in Directive 90/387/EEC; whereas ONP conditions should ensure transparency and equal access and be based on objective criteria; whereas applying ONP principles to ISDN means harmonizing the conditions for open and efficient access to and use of ISDN;

Whereas recommendation 86/659/EEC [2] calls for the coordinated introduction of the ISDN in the European Community;

Whereas resolution 89/C 196/04 [3] calls for strengthening of the further coordination of the ISDN in the European Community up to 1992;

Whereas in 1989 several telecommunications organizations signed a memorandum of understanding (MoU) for the phased and harmonized implementation of European ISDN services; whereas within the framework of this MoU, a range of services has been recognized as commercially valid for ISDN and agreement has been reached on a minimum ISDN service offering to be introduced by 31 December 1993 at the latest; whereas other services will be introduced on the basis of harmonized standards according to market need;

Whereas ISDN can be considered a natural development of the telephone network; whereas it will allow, via a single access, using the existing subscriber line, the transmission of voice telephony, text, data and images in the form of a multitude of more efficient or new services;

Whereas Member States should notify to the Commission those organizations whose provision of ISDN offerings enables Member States to comply with the provisions of point 4 of Annex III to Directive 90/387/EEC; whereas other organizations may offer certain ISDN services in accordance with the recommendation;

Whereas, in accordance with Directive 90/387/EEC, voice telephony means the commercial provision for the public of the direct transport of real time speech via the public switched network or networks such that any user can use equipment connected to a network termination point to communicate with another user of equipment connected to another termination point;

Whereas Commission Directive 90/388/EEC [4] applies;

Whereas, in accordance with Directive 90/388/EEC, Member States may make the supply of certain services subject to a licensing or declaration procedure aimed at compliance with the essential requirements and in that case they shall ensure that the conditions for the granting of licenses are objective, non-discriminatory and transparent, that reasons are given for any refusal and that there is a procedure for appealing against any such refusal; whereas the Commission will carry out an overall assessment of the situation in the telecommunications sector, in connection with the aims of this Directive in 1992;

Whereas ISDN is a means to support both services provided under special or exclusive rights and services for which no such rights may be maintained;

Whereas, pursuant to the principle of non-discrimination, access to ISDN should be available and provided on request without discrimination to all users; whereas therefore, the terms and conditions which apply to telecommunication organizations using ISDN for the provision of services for which no special or exclusive rights may be maintained should be equivalent to the terms and conditions which apply to other users;

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[1] OJ No L 192, 24. 7. 1990, p. 1.
[2] OJ No L 382, 31. 12. 1986, p. 36.
[3] OJ No C 196, 1. 8. 1989, p. 4.
[4] OJ No L 192, 24. 7. 1990, p. 10.

Whereas cross-subsidization between services provided by telecommunications organizations (TOs) under special and exclusive rights and services for which no such rights may be maintained, provided by TOs, may be incompatible with Community competition rules;

Whereas Article 4 (4) (b) of Directive 90/387/EEC provides for a period for public comment on the reports on the detailed analysis on the application of ONP to specific areas; whereas public comments on the analysis report on the application of ONP to ISDN were invited by notice in the *Official Journal of the European Communities* [1];

Whereas it became evident from public comments that users are requiring a high degree of transparency in the provision of ISDN offerings; whereas users are requiring further access arrangements to be considered, such as M- and U-type interfaces;

Whereas the European Telecommunications Standards Institute (ETSI) is developing standards for ISDN; whereas the Commission has given a special study and investigation mandate to ETSI to study the technical implications of the specification of M- and U-type interfaces in ISDN; whereas the Commission will also carry out studies on the economic and market impact related to the provision of these interfaces;

Whereas Community policy in relation to the coordinated introduction of ISDN is given in recommendation 86/659/EEC and resolution 89/C 196/04; whereas a broad range of services to be provided are defined in the abovementioned documents;

Whereas ISDN networks have developed on a national basis and the availability in each Member State of an ISDN with equivalent capabilities and providing full interconnectivity is important to meet the requirements of pan-European provision of telecommunications services;

Whereas users have stressed the value of the availability in all Member States of a minimum set of harmonized offerings;

Whereas Member States should encourage their telecommunications organizations to provide ISDN offerings in addition to the minimum set, both in response to market demand;

Whereas, however, such additional offerings should in no way impede the provision of the minimum set;

Whereas interoperability between ISDN and existing public network services should be ensured, in particular with the public voice telephony service and the public packet switched data service?

Whereas adequate and efficient interoperability between ISDN networks is essential for the provision of Community-wide services;

Whereas Directive 90/387/EEC provides, in point 1 of Annex III, for the adoption of a specific directive on voice telephony;

Whereas ISDN provides for the opportunity to offer voice telephony in an efficient way; whereas, therefore, the provision of voice telephony service by means of ISDN should meet the relevant requirements of ONP applied to voice telephony;

Whereas Directive 90/387/EEC provides, in point 3 of Annex III, for the adoption of a recommendation on the supply of technical interfaces, conditions of usage and tariff principles applying to the provision of packet-switched data services (PSDSs) complying with open network principles; whereas the Council has adopted a recommendation on the harmonized provision of a minimum set of PSDSs in accordance with ONP principles [2];

Whereas ISDN may be used to provide packet-switched data services (PSDSs); whereas, therefore, the provision of data services by means of ISDN should in principle meet the relevant requirements of ONP applied to PSDSs;

Whereas, in accordance with Directive 90/387/EEC, the Commission has published in the *Official Journal of the European Communities* [3] the list of ISDN standards suitable for ONP; whereas this list may be amended by further publication;

Whereas common ordering procedures, one-stop-ordering and one-stop billing and maintenance are desirable in order to encourage the use of ISDN and the development of competition in the provision of value-added services throughout the Community and have been requested by users; whereas any cooperation between organizations in that respect is subject to compliance with Community competition law; whereas, in particular, such procedures should not result in any price fixing or market sharing; whereas these procedures are to be established through commercial arrangements, e.g. through memoranda of understanding;

Whereas the implementation of one-stop-ordering and one-stop-billing procedures by telecommunications organizations must not prevent offers by service providers other than telecommunications organizations;

Whereas, in order to promote European-wide operation by service providers using ISDN, it is desirable to allow for a system where the called party pays for the calls on the basis of the number called, allowing the offering of free of charge calls to the subscriber accessing the service offered by the provider ('green number/freephone');

(1) OJ No C 38, 14. 2. 1991, p. 12. (Notice No 91/C 38/21).

(2) See page 1 of this Official Journal.

(3) OJ No C 327, 29. 12. 1990, p. 19. List of standards reference — ISDN.

Whereas, in order to promote the use of ISDN by small- and medium-size providers of value-added services, it is desirable that billing arrangements which facilitate such operations across the Community are established; whereas such billing arrangements should allow for a system where the cost of the value-added service and the cost of the call are combined in a single bill ('kiosk type arrangement');

Whereas it is important in this context that appropriate allocation of harmonized numbering capacity is made to allow the establishment of such service arrangements across the Community; whereas such allocation should be made in accordance with the principles of transparency and equal treatment; whereas numbering issues at a national and European level, including the area of ISDN, will play a major role in the future worldwide telecommunications environment;

Whereas quality of service — including delivery time and repair time — as perceived by the users is an essential aspect of the service provided; whereas information for users should allow for a comparison between achieved performance and typical or target values;

Whereas the quality of service indicators, as identified in other ONP measures, will apply where appropriate to services provided by means of ISDN;

Whereas, in accordance with Community law and in particular Directive 90/387/EEC, usage conditions for ISDN should be compatible with Community law and should be imposed through regulatory means and not through technical restrictions;

Whereas, without prejudice to Article 3 of Directive 90/388/EEC, restrictions on the use of ISDN may be based only on infringement of special or exclusive rights compatible with Community law, or on the conditions generally applicable to the connection of terminal equipment as laid down in Directive 91/263/EEC [1], or on essential requirements, in particular on the basis of data protection; whereas Member States may restrict use of ISDN to the extent necessary to ensure compliance with regulations on the protection of data, including protection of personal data, the confidentiality of information transmitted or stored, as well as the protection of privacy compatible with Community law; whereas those restrictions should be objectively justified, follow the principle of proportionality and not be excessive in relation to the aim pursued; whereas open access to ISDN via the proposed access arrangements should not jeopardize ISDN network integrity and security requirements;

Whereas, in accordance with Directive 90/387/EEC, tariffs must be based on objective criteria and, especially in the case of services and areas subject to special or exclusive rights, must in principle be cost-oriented; whereas they must be transparent and properly published, sufficiently unbundled in accordance with the competition rules of the Treaty and non-discriminatory and must guarantee equal treatment;

Whereas the availability of itemized billing will enable ISDN users to check their bills;

Whereas, in accordance with the principle of separation of regulatory and operational functions and pursuant to the principle of subsidiarity, the national regulatory authority of each Member State should play an important role in the application of this recommendation;

Whereas, to enable the Commission to monitor effectively the application of this recommendation, it is necessary that Member States provide the relevant information requested by the Commission;

Whereas implementation of harmonized ONP conditions for access to and use of ISDN are dependent on the state of network development and market demand in Member States;

Whereas the Committee referred to in Articles 9 and 10 of Directive 90/387/EEC should play an important role in the application of this recommendation.

HEREBY RECOMMENDS:

1. That, in line with previous Council measures on integrated services digital network (ISDN), and taking into account market demand, Member States:

   (a) ensure that, on their territory, the telecommunications organizations notified in accordance with point 15 provide an ISDN with harmonized access arrangements and a minimum set of offerings in accordance with Annex I, together with adequate and efficient interoperability between ISDNs in order to allow for Community-wide operation. Where no dates are indicated in Annex I, Member States should encourage telecommunications organizations to publish target dates for the availability of these features;

   (b) encourage the harmonized provision by the same organizations of additional offerings as identified in Annex II. This additional provision should be in accordance with international standardization and in response to market demand but should not endanger or delay the provision of the minimum set referred to in subparagraph (a).

2. That modifications necessary to adapt Annex I to new technical developments and to changes in market demand be determined by the Commission in accordance with the procedure laid down in Article 10 of Directive 90/387/EEC, taking into account the state of development of the national networks.

[1] OJ No L 128, 23. 5. 1991, p. 1.

3. That Member States take the necessary steps so that, in respect of the ISDN offerings provided in accordance with point 1, information is published on technical characteristics, supply conditions, contractual conditions, usage conditions, tariffs, licensing and/or declaration conditions and conditions for the attachment of terminal equipment, in accordance with the presentation given in Annex III.

   Information on changes in existing offerings should be published as soon as possible and not later than two months before the implementation, unless the national regulatory authority agrees otherwise.

4. That the supply conditions referred to in point 3 include at least:

   — information concerning the ordering procedure,

   — typical delivery periods, which are the periods, counted from the date when the user has made a firm request for an ISDN offering, in which 80 % of all requests for each type of ISDN offerings have been put through to the users. Each period will be established on the basis of the actual delivery periods of ISDN offerings during a recent time interval of reasonable duration. The calculation must not include cases where late delivery periods were requested by users.

     Until actual data are available, a target delivery period shall be published in place of the typical delivery period,

   — typical repair times, which are the periods, counted from the time when a failure message has been given to the responsible unit within the organization supplying ISDN up to the moment in which 80 % of all ISDN offerings of the same type have been re-established and, in appropriate cases, notified as back in operation to the users.

     Until actual data are available, a target repair time shall be published instead of the typical repair time.

     Where different classes of quality of repair are offered for the same type of ISDN offerings, the different typical repair times shall be published:

   — contractual periods, which include the periods generally provided for in the case of contracts and the minimum contractual periods which the user is obliged to accept for each type of ISDN offering,

   — any refund procedure,

   — target values for the indicators of quality of service identified in point 6.

5. That the supply of ISDN offerings be based on a contract specifying the elements of the ISDN offerings to be provided.

6. That, by 1 January 1995, at least for the bearer services identified in Annex I, common indicators and common measurement methods be adopted for the network performance aspects of the quality of service, by organizations supplying ISDN offerings in accordance with this recommendation, notably for those indicators in Annex IV.

7. That the common indicators and measurement methods referred to in point 6 be based on appropriate standards adopted by ETSI allowing for the determination of a representative sample of the performance of the ISDN offerings as well as the statistical end-to-end performance achieved by the network as a whole.

8. That national regulatory authorities take the necessary steps so that annual statistical information showing achieved performance in the following areas is made publicly available:

   — delivery periods,

   — repair times,

   — quality of service indicators, where possible those identified in Annex IV.

   The first annual period should run from 1 January to 31 December 1994.

9. That Member States encourage the establishment, in accordance with the procedural and substantive rules of competition of the Treaty and in consultation with users, of harmonized procedures for user access to ISDN, in particular via the establishment of the following procedures:

   — a common ordering procedure for ISDN throughout the Community, i.e. an ordering procedure for the procurement of intra-Community ISDN offerings which ensures that there is commonality across the organizations supplying ISDN offerings, in both the information which has to be supplied by the user and the organization supplying ISDN offerings and the format in which the information is presented,

   — a one-stop-ordering procedure for ISDN, to be applied where requested by the user, i.e. a system whereby all transactions involving a user, required for the procurement of intra-Community ISDN offerings supplied by more than one organization to a single user, can be completed at one location between the user and a single organization supplying ISDN offerings,

   — a one-stop-billing procedure for ISDN, to be applied where requested by the user, i.e. a system whereby the billing and payment transaction for intra-Community ISDN offerings supplied by more than one organization to a single user can be completed at one location between the user and a single organization supplying ISDN offerings, and

— a one-stop-maintenance procedure for ISDN, to be applied where requested by the user, i.e. a system whereby the reporting of faults for intra-Community ISDN offerings supplied by more than one organization to a single user can be done at one location between the user and a single organization supplying ISDN offerings, which will coordinate the restoration of services.

It is envisaged that, taking into account technical feasibility and commercial viability, these procedures should include Community-wide charging and billing procedures, allowing for the capability where:

— the called party pays for the calls (green number/freephone),

— the cost of the value-added service and the cost of the call are combined in a single bill collected by the organization supplying ISDN offerings, or other arrangements equally effective for users ('kiosk type arrangements').

These harmonized procedures are to be established through commercial arrangements, e.g. through memoranda of understanding.

10. That ISDN numbering plans be controlled by the national regulatory authority, in order to provide for fair competition. In particular, procedures for the allocation of individual numbers for specific services should be transparent, equitable and timely.

11. That Member States take the necessary steps so that usage conditions for ISDN are subject to scrutiny by the national regulatory authority.

12. That tariffs be transparent, based on objective criteria, independent of the type of application implemented by users where the same type of offerings is used and in principle oriented towards cost. Each ISDN offering should in principle be tariffed on an individual basis. Offerings should be sufficiently unbundled, in accordance with Community law. In addition, the tariff principles of recommendation 86/659/EEC should be taken into due account.

13. That tariffs for ISDN offerings normally contain the following elements:

— an initial connection charge,

— a periodic rental charge,

— a usage charge.

Where other tariff elements are applied, these should be approved by the national regulatory authority and must be in accordance with point 12.

14. That under the contol of national regulatory authorities targets are set and published for the provision of itemized billings as a facility available on users' request, subject to technical feasibility. The level of detail given in itemized bills may be subject to relevant law relating to the protection of personal data and privacy.

15. That Member States notify to the Commission before 31 December 1992 those organizations whose provisions of ISDN enables Member States to comply with the provisions of Annex III, point 4, of Directive 90/387/EEC and thereafter any changes to this information.

16. That national regulatory authorities prepare annual summary reports covering the availability of ISDN offerings, including level of penetration, provided in accordance with point 1. These summary reports should be sent to the Commission no later than five months after the end of the calendar year, this requirement being reviewed by the Commission in consultation with the ONP Committee in accordance with Article 9 of Directive 90/387/EEC during 1995. The Commission will transmit these summary reports to the ONP Committee.

The execution of this requirement fulfils corresponding requirements of recommendation 86/659/EEC.

17. That national regulatory authorities keep available, and submit to the Commission on request, data on the application of the supply conditions under points 3 and 4 and the statistical information under point 8.

18. That national regulatory authorities establish simple procedures for users of the ISDN offerings to invoke with regard to any difficulties encountered in relation to the application of this recommendation.

19. That the Commission, in consultation with the ONP Committee, examine the results of the application of this recommendation, in view of the fulfilment of the objectives of Directive 90/387/EEC, on the basis of the summary reports provided under point 16.

Done at Luxembourg, 5 June 1992.

For the Council

The President

Joaquim FERREIRA DO AMARAL

ANNEX I

DEFINITION OF THE HARMONIZED ISDN ACCESS ARRANGEMENTS AND THE MINIMUM SET OF ISDN OFFERINGS IN ACCORDANCE WITH POINT 1, AND RECOMMENDED TIMETABLE FOR THEIR AVAILABILITY

GENERAL CONSIDERATIONS

This Annex describes the harmonized ISDN access arrangements and the minimum set of ISDN offerings which are to be made available in all Member States.

The ISDN offerings are structured in two parts: Part A contains the minimum set of offerings which are to be made available in all Member States by 1 January 1994; Part B contains those offerings which are to be made available in all Member States according to published target dates.

The CCITT distinctions of bearer services, supplementary services and teleservices [1] are used. The bearer services and supplementary services in Part A are those indicated as the minimum service offering in the ISDN memorandum of understanding (MoU) of June 1991, and the date for implementation is in accordance with the commitment given by the signatories of the MoU.

Implementation of these offerings should take account of relevant legislation concerning data protection and privacy.

STANDARDS TO BE UTILIZED

In accordance with the procedure in Article 5 (1) of Directive 90/387/EEC, reference to relevant ISDN standards will be published in the *Official Journal of the European Communities*.

The initial indicative list of ISDN standards suitable for ONP already published in the *Official Journal of the European Communities* will be amended/updated by further publication in the *Official Journal of the European Communities*.

PART A.

Offerings to be made available in all Member States by 1 January 1994

A.1 *Access arrangements*

Access arrangements concerning the interfaces at CCITT defined reference points.

Basic rate access (2B + D) at the S/T reference point

Primary rate access (30B + D) at the S/T reference point

A.2. *Bearer service*

Circuit mode 64 kbit/s unrestricted bearer service

Circuit mode 3.1 kHz audio bearer service

A.3. *Supplementary services*

Calling line identification presentation (CLIP)

Calling line identification restriction (CLIR)

Direct dialling in (DDI)

Multiple subscriber number (MSN)

Terminal portability (TP)

A.4. *Teleservices*

Telephony (3.1 kHz bandwidth).

[1] Appropriate associations between access arrangements, bearer services and supplementary services are given in CCITT Recommendation I.250.

PART B.

Offerings to be provided in all Member States, according to published target dates and the availability of international standards

Dates for the implementation of these offerings will depend on market demand in each Member States. In accordance with point 1 (a), telecommunications organizations are to be encouraged to publish targets for the availability of each of these offerings.

B.1. *Access arrangements*

Future access arrangements to be included in the minimum set are subject to further study by ETSI and the Commission.

The situation will be reviewed at the latest by 31 December 1992, after completion of a study and investigation mandate given to ETSI on the technical implications of the M- and U-type interfaces, and completion of an economic and market assessment. Consideration should be given to the inclusion of these access arrangements into the minimum set in accordance with the procedure given in point 2 of this recommendation.

B.2. *Bearer services*

Circuit mode 64 kbit/s unrestricted bearer service on reserved or permanent mode

Packet mode bearer service provided over the B and/or D channels (see Note 1)

B.3. *Other services*

Call transfer services

Call forwarding services

Closed user group

User to user signalling

Malicious call identification

Reverse charging

Green number (freephone) for voice and non-voice applications

Kiosk billing or equivalent features, for voice and non-voice applications.

Note 1

When ISDN is used for the provision of packet-switched data services, users should, where feasible, have equivalent functionality to users of the dedicated packet network, as defined in Council recommendation 92/382/EEC [1] on the harmonized provisions of a minimum set of packet switched data services in accordance with ONP principles.

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[1] See page 1 of this Official Journal.

ANNEX II

ADDITIONAL OFFERINGS WHICH MAY BE IMPLEMENTED, IN ACCORDANCE WITH PROGRESS IN INTERNATIONAL STANDARDIZATION

I. **Supplementary services**

Advice of charge (AOC) services

Number identification services (COLP, COLR)

Call waiting (CW)

Completion of calls to busy subscribers (CCBS)

Conference services

Sub-addressing (SUB)

Three party service (3PTY)

II. **Network management services** [1]

Note: These supplementary services are covered by the ISDN MoU.

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[1] The Commission has given ETSI a mandate to study network management standards.

ANNEX III

PUBLICATION PRESENTATION FOR THE INFORMATION TO BE PROVIDED IN RESPECT OF ISDN OFFERINGS IN ACCORDANCE WITH POINT 3

The information referred to in point 3 should follow the presentation given below.

A. **Technical characteristics**

The technical characteristics include the physical and electrical characteristics as well as the detailed technical and performance specifications which apply at the network termination point, without prejudice to Council Directive 83/189/EEC of 28 March 1983 laying down a procedure for the provision of information in the field of technical standards and regulations [1]. Clear reference shall be made to the standards implemented.

B. **Supply conditions**

The supply conditions include at least the elements identified in point 4.

C. **Contractual conditions or terms of subscription**

D. **Usage conditions**

The conditions resulting from the application of essential requirements and from the exercise of exclusive or special rights.

E. **Tariffs**

In accordance with point 13, tariffs will normally include an initial connection charge, a periodic rental charge and a usage charge.

(a) The initial charge for connection to the ISDN network may depend on the type of access and offerings.

(b) The periodic subscription charge will vary according to the type of access and range of ISDN capabilities provided.

(c) The usage charges will normally include a call duration charge and supplementary services usage charges and may also include a call-set-up charge and, in the case of packet mode bearer services, there may also be a volume related usage charge. These charges may depend on time and/or day.

Clear indication of other charges, e.g. charges related to different levels of quality of service, or bulk provision, should be available.

F. **Licensing and/or declaration conditions for use of ISDN service, where applicable**

This should include information on any licensing conditions which have to be met by the user or by its customer.

G. **Conditions for the attachment of terminal equipment**

Conditions approved by the national regulatory authority, in accordance with the provisions of Directive 91/263/EEC.

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[1] OJ No L 109, 26. 4. 1983, p. 8.

ANNEX IV

INDICATORS FOR THE NETWORK PERFORMANCE ASPECTS OF THE QUALITY OF SERVICE OF ISDN BEARER SERVICES (1)

IV.1. Indicators for all bearer services

Availability of access, defined as the average, for all connections of a given type, of the number of hours in a reasonable period for which service was available to a user, divided by the total number of hours in the period.

Mean time between interruptions, defined as the average time duration between the end of one interruption and the beginning of the next. An interruption is defined as the temporary inability of a service to be provided persisting for more than a given time duration characterized by a change beyond given limits in at least one parameter essential for the service.

Bit error ratio, defined as the ratio of the number of bit errors to the total number of bits transmitted in a given time interval (for non-speech bearer service).

IV.2. Indicators for circuit mode switched bearer services

Connection processing delay, as defined in CCITT recommendation I.352.

Network transit delay, defined as the time which elapses between the initial offering of a unit of user data to an ISDN network by a transmitting terminal equipment and the complete delivery of that unit to the receiving terminal equipment (a unit of user data may be a bit, byte, packet, etc.).

Average figures for national calls and for intra-Community calls should be considered.

Unsuccessful calls ratio, defined as the ratio of unsuccessful calls to the total number of calls in a specified time period.

IV.3. Indicators for packet-mode bearer services

The indicators for packet-mode bearer services should in principle be the same as those featuring in the proposal for a recommendation 92/382/EEC on the harmonized provision of a minimum set of packet-switched data services in accordance with ONP principles.

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(1) The Commission has given ETSI a mandate to develop standards covering definitions for the above quality of service indicators and appropriate measurement methods.