

COMMISSION OF THE EUROPEAN COMMUNITIES

COM(91) 509 final

Brussels, 13 December 1991

Proposal for a

COUNCIL RECOMMENDATION

on the provision of harmonised ISDN access arrangements and a minimum set of ISDN functionalities in accordance with Open Network Provision (ONP) principles

(presented by the Commission)

EXPLANATORY MEMORANDUM

I. INTRODUCTION

The Telecommunications Council of December 1989 decided that the Community's telecommunications policy should combine in a balanced way harmonization and liberalisation.

Consequently, on June 28, 1990 the Council of Ministers for Telecommunications adopted a Directive on the establishment of the internal market for telecommunications services through the implementation of open network provision (ONP) and the Commission adopted a Directive on competition in the markets for telecommunication services.

The first Directive (known as the ONP framework Directive), considers the area of the Integrated Services Digital Network (ISDN) as a priority. The Directive received broad support in the European Parliament and in the Economic and Social Committee. The Directive asks for the implementation of harmonised technical interfaces and/or service features for ISDN and in this respect the Commission published in the Official Journal¹ on the 29.12.90 the list of ISDN standards suitable for ONP. The Directive also foresees as a priority the adoption of a Council Recommendation on the harmonised provision of ISDN in accordance with Open Network Provision (ONP) principles.

It is in this context that the Commission presents this proposal for a Recommendation to the Council of Ministers.

II. ISDN: ITS ROLE IN THE DEVELOPMENT OF VALUE ADDED SERVICES

ISDN is expected to become a predominant network infrastructure in Europe during the 1990's, and in anticipation of its full-scale implementation, the development of harmonised offerings is regarded as essential to provide an effective base on which value added services may develop. ISDN is a concept that was formalised by the CCITT during the 1980 Plenary Session and defined thus:

¹ OJ No C 327, 29.12.1990, p.19- List of standards reference- ISDN

" A network evolved from the telephony Integrated Digital Network (IDN) that provides end to end digital connectivity to support a wide range of services including voice and non-voice service to which users have access by a limited set of standard multipurpose user-network interfaces "

The ISDN will use the existing telephony infrastructure and provide a more effective solution for telephony and can therefore be regarded as a modernisation of the telephony network. However by the progressive addition of new functions, which will lead to provision of new services, ISDN has the potential to become a new network with the possibility of integrating various existing services and dedicated networks. This evolution will however only take place over a long period of time.

The ISDN is conceived as a ubiquitous transport mechanism but has developed initially on a national basis. The extension to a truly Community wide network is essential to meet the tight deadlines imposed by the 1992 Single Market on the availability of value added services necessary to support the Community's goal of free movement of goods, services, capital and people.

A number of steps have already been taken in the Community to allow this evolutionary process to take place in a coordinated manner. On 22 December 1986 a Council Recommendation (86/659/EEC)² was adopted for the coordinated introduction of ISDN within the Member States of the Community.

In 1988, within the framework of CEPT, agreement was reached on a plan to introduce a commercial European ISDN by 1993, on the basis of harmonised technical standards. The plan is outlined in a Memorandum of Understanding (MOU) signed by 26 Telecommunications Organisations (TOs) from 20 European countries, including all Community Member States. The MOU took into account the facts that the standards were still incomplete and that the implementation had made limited progress. It does not address issues of supply or usage conditions, but is a commitment by the signatories to offer a list of European ISDN services and supplementary

² OJ No L 382, 31.12.1986, p.36

services to be introduced by 1992 or December 1993 at the latest, based on European standards prepared by ETSI.

A Resolution³ adopted by the Council on 18 July 1989 on the further strengthening of the co-ordination now constitutes clear guidance for the measures required for a successful implementation of 'Euro-ISDN' by 1993.

ISDN will support a wide range of voice and non-voice applications via a common access point. A harmonised Community wide availability of access to ISDN will serve to support the market for Europe-wide value added services and encourage new entrants to that market.

III. THE CONSULTATIVE PROCESS

The concept of ONP conditions for open provision of ISDN was introduced by the Commission in the Communication on the Implementation of the Green Paper⁴. In its Council Resolution of 30 June 1988 the Council urged for the "rapid definition" of ONP conditions for ISDN.

Preparatory work on the application of ONP principles to ISDN was undertaken by the Commission in conjunction with the ONP Committee.

In the spirit of the ONP Framework Directive the Commission and the ONP Committee arranged for the participation of representatives of European industrial organisations, trade associations, service providers, telecommunications users, and telecommunications in general. To that end, public comments on the above mentioned Analysis Report⁵ were invited by notice in the Official Journal dated 14 February

³ OJ No C 196, 01.08.1989, p.4

⁴ COM (88) 48 : Implementing the Green Paper on the Development of the Common Market for Telecommunications Services and Equipment

⁵ Analysis Report on the application of ONP to ISDN of December 1990

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1991⁶ and the ONP Committee started a consultative process which lasted from December 1990 to April 1991.

Subsequently, a draft of the proposal for a Recommendation was discussed with the ONP Committee.

The present proposal for a Council Recommendation takes into account the results of a) the analysis report, b) the comments received from interested parties in the course of the public comment process, and c) the comments received from the ONP Committee.

The main points arising from the consultation process were as follows:

- users require a wide range of access arrangements to the ISDN network, to allow them to enhance their use of telecommunications services in fulfilment of their business needs;
- there is a recognised need for a firm core set of ISDN offerings, to be available across the Community;
- there should be freedom for telecommunications operators and others to provide a rich set of harmonised additional features in response to market demand.

The proposed Recommendation also takes account of the general principles which have been laid down in the Directives on competition in the market of telecommunications services and in the ONP framework Directive.

IV. THE APPROACH ADOPTED

The proposal implements a concept of harmonization in the areas of standards, usage conditions, supply conditions and tariff principles.

The proposed Recommendation refers in its recitals to some of the general principles resulting from Community law. The operative part then specifies in detail how a minimum set of ISDN functionalities should be provided in a harmonised way in accordance with Open Network Provision principles.

⁶ OJ No C 38, 14.2.1991, p.12, Notice No 91/C38/21

The points of the Recommendation are briefly explained hereunder :

Provision of harmonised ISDN access arrangements and a minimum set of ISDN functionalities

Point 1 defines (in Annex I) harmonised ISDN access arrangements and a minimum set of ISDN functionalities to be made available throughout the Community. The point also encourages the harmonised provision of a set of additional functionalities (listed in Annex II).

Point 2 provides for the mechanism to update Annex I on the basis of changes in market demand and in technology. Changes in Annex I can be made by the Commission, in cooperation with the ONP-Committee. Such changes may incorporate the removal of or the addition of ISDN functionalities to the list.

Disclosure of information

Point 3 describes the information to be published in order to comply with the requirement that ONP conditions shall be transparent and published in an appropriate manner.

Supply Conditions

The supply conditions for ISDN service are addressed in **Point 4**. It recommends organisations to use a set of general supply conditions which contains at least a number of parameters which are of vital importance to users, e.g. the expected delivery period for initial provision of ISDN service, the duration of the contractual period and the expected repair time. It also refers to the refund policy and network performance targets.

Contracts

Point 5 expresses the requirement that users should be provided with a contract which specifies the service to be provided.

Quality of Service

Points 6 and 7 refer to quality of service and ask for the adoption of common indicators for the network performance aspects of quality of service, and corresponding measurements methods. Both are indicated in Annex IV.

Common ordering, billing and maintenance procedures

Point 8 expresses the requirement of users to be able to order ISDN service in a common fashion, and where requested, to be able to communicate with a single organisation for ordering, billing and maintenance purposes.

Through the implementation of a "green number /freephone" arrangement at a Community level it allows, on the one hand, for the establishment of permanent arrangements for reverse charging capabilities allowing Community wide service providers to bill their customers in a global bill. The "kiosk type arrangement" allows, on the other hand, for the possibility of a combined collection, in a global bill, of the cost of the value-added service and of the cost of the call, thus facilitating the provision of value-added services across the Community, specially by small and medium size service providers.

Numbering

Point 9 ensures that ISDN numbering is developed in conformity with overall international numbering policy, under the control of the national regulatory authority.

Usage Conditions

Point 10 expresses the requirement that usage conditions for ISDN are subjected scrutiny by the national regulatory authority.

Tariffing Principles

Points 11 and 12 refer to the basic ONP tariff principles and identifies separate tariff elements which will normally be contained in the tariffs.

Itemised Billing

Point 13 deals with the users' requirement to be able to check their bills, through the provision of an itemised bill.

Notification

Points 14 and 15 deal with the information which the national regulatory authority has to provide to enable the Commission to monitor the implementation of this Recommendation, notably which organisations will conform to the provisions of the Recommendation.

User Support

Point 16 refers to a procedure for user support if difficulties are encountered in relation to the objectives of this Recommendation, in particular in connection with the provisions on the general supply conditions and quality of service.

Progress on implementation

Point 17 recommends that the Commission examines the progress on implementing the Recommendations in consultation with the ONP Committee.

V. CONCLUSIONS

Directive 387/90/EEC calls in its Annex III.3 for the adoption by the Council by 1 January 1992, acting on a proposal from the Commission, of a Recommendation on the supply of technical interfaces, conditions of usage and tariff principles applying to ISDN, complying with open network principles.

The present Commission proposal for a Council Recommendation on *The provision of harmonised ISDN access arrangements and a minimum set of ISDN functionalities in accordance with Open Network Provision (ONP) principles* takes account of the harmonised general principles laid down in the ONP framework Directive and specifies how ISDN should be provided in all Member States in a harmonised way. It is flexible and open for future adaptation in line with market demand and technology progress. Thus, the proposal significantly improves the competitive conditions in the European telecommunications market.

The Council is therefore requested to adopt the attached proposal for a Recommendation.

TABLE 1
LIST OF ISDN STANDARDS SUITABLE FOR ONP
PUBLISHED IN THE OFFICIAL JOURNAL

Official Journal of the European Communities

No C 327/19

List of standards reference

(90/C 327/12)

Pursuant to Article 5 (1) of Directive 90/387/EEC (*) the Commission publishes a list of standards which constitutes a basis for harmonized access and/or service features in the context of open network provision.

Given the fact that many of these standards are not yet finally adopted (*), changes may occur. As a consequence these standards are now being published as an indicative list. Therefore this list may be amended by further publication in the *Official Journal of the European Communities* pursuant to Article 5 (4) of Directive 90/387/EEC.

2. Integrated services digital network

User network interface	Basic rate access	ETS 300 012 (**) ETS [CA] (300 102-1) (**) ETS [CB] (300 102-2) (**) ETS [CC] (300 125) (**) ETR T/S 46-39 (****)
User network interface	Primary rate access	ETS 300 011 (**) ETS [CA] (300 102-1) (**) ETS [CB] (300 102-2) (**) ETS [CC] (300 125) (**) ETR T/S 46-39 (****)
User network interface	Attachment requirement for basic rate access	ETS T/E 04-08 (**) ETS T/E 04-22 (**)
User network interface	Attachment requirement for primary rate access	ETS T/SE 04-24 (**)
User network interface	Attachment requirement for terminal adaptor	ETS 300 077 (**)

(*) Council Directive of 28 June 1990 of the establishment of the internal market for telecommunications services through the implementation of open network provision (OJ No L192, 24. 7. 1990, pp. 1-40).

(**) In order to refer to the precise status of each standard, the relevant standards body should be contacted. Where the three stage description process for ISDN services is used (ETSI ISM report ETR, 10. 8. 1990), stages 1, 2 and 3 are included.

ISDN services	Circuit mode 64 kbps unrestricted bearer service	ETS 300 108 (**) ETS T/S 23-01 (**) ETS T/S 46-39 (**) ETS [CA] (300 102-1) (**) ETS [CB] (300 102-2) (**)
ISDN services	Circuit mode speech bearer service	ETS 300 109 (**) ETS T/S 23-01 (**) ETS T/S 46-39 (**) ETS [CA] (300 102-1) (**) ETS [CB] (300 102-2) (**) ETS 300 083 (**)
ISDN services	Circuit mode 3.1 khz audio bearer service	ETS 300 110 (**) ETS T/S 23-01 (**) ETS [CA] (300 102-1) (**) ETS [CB] (300 102-2) (**) ETS T/S 46-39 (**) ETS 300 084 (**)
ISDN services	Calling line identification presentation	ETS 300 089 (**) ETS 300 091 (**) ETS 300 092 (**)
ISDN services	Calling line identification restriction	ETS 300 090 (**) ETS 300 091 (**) ETS 300 093 (**)
ISDN services	Direct dialling in	ETS 300 062 (**) ETS 300 063 (**) ETS 300 064 (**)
ISDN services	Multiple subscriber number	ETS 300 050 (**) ETS 300 051 (**) ETS 300 052 (**)
ISDN services	Terminal portability	ETS 300 053 (**) ETS 300 054 (**) ETS 300 055 (**)
ISDN services	Freephone	T/NA1(89)12 (**) T/S 22-13 (**) T/S 46-33P (**)
ISDN services	Association of supplementary services to bearer services	ETR T/NA1(89)33 (****)
ISDN services	Interaction between supplementary services	ETS T/S 46-33Z (**)
ISDN services	End-to-end protocol for 3.1 khz telephony	ETS 300 087 (**)
ISDN services	Terminal and network interworking	DTR/NA-2007 (****) DTR/NA-2006 (****)
ISDN services	Packet mode bearer service D channel	ETS 300 049 (**) ETS T/S 23-03 (**) ETS 300 007 (**)

ISDN services	Packet mode bearer service B channel	ETS 300 048 (**) ETS T/S 23-03 (**) ETS 300 007 (**)
ISDN services	End-to-end-protocol for packet mode bearer service	ETS 300 007 (**)
ISDN services	Closed user group	ETS T/NA1(89)21 (**) ETS T/S 22-03 (**) ETS T/S 46-33H (**)
ISDN services	User to user signalling	ETS T/NA1(89)06 (**) ETS T/S 22-17 (**) ETS [CA] (section 7.1) (**)
Recommendations on 'Safety and protection'		ETS 300 047-1 bis 5 (**) ETS 300 046-1 bis 5 (**)
Mechanical interface		ENV 41001 (***) EN 28877 (****)

(*) CEPT technical specification.

(**) Draft ETSI standard.

(***) CEN/CENELEC prestandard. In the case of ENV 41104 and ENV 41105 only the network aspects are relevant.

(****) ETSI report. These reports do not form part of a standard, however they contain relevant information.

(*****) CEN/CENELEC European Standard.

3. Note

Pursuant to Article 5 (2) of Directive 90/387/EEC compliance with these standards will carry the presumption of conformance with the requirements of open network provision as far as covered by these standards and notwithstanding other requirements resulting from Directives 90/387/EEC and 90/388/EEC.

In accordance with Directive 90/387/EEC this list may be supplemented by further standards in order to comply with new access requirements resulting from user demand and technological development.

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on the provision of harmonised ISDN access arrangements and a minimum set of ISDN functionalities in accordance with Open Network Provision (ONP) principles

THE COUNCIL OF THE EUROPEAN COMMUNITIES

Having regard to Council Directive No. 90/387/EEC of 28 June 1990 on the establishment of the internal market for telecommunications services through the implementation of Open Network Provision (ONP),

Having regard to the proposal from the Commission¹⁰

Whereas Council Directive 90/387/EEC¹¹ considers, inter alia, the principles for the application of Open Network Provision (ONP) to 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 foreseen in Directive 90/387/EEC; whereas ONP conditions should ensure transparency, equality of access and be based on objective criteria; whereas applying ONP principles to ISDN means harmonising the conditions for open and efficient access to and use of ISDN;

Whereas Council Recommendation 86/659/EEC¹² calls for the coordinated introduction of the integrated services digital network (ISDN) in the European Community;

¹⁰ OJ No C

¹¹ OJ No L 192, 24.7.1990, p.1

¹² OJ No L 382, 31.12.1986, p.36

Whereas Council Resolution 89/C196/04¹³ calls for strengthening of the further coordination of the integrated services digital network (ISDN) in the European Community up to 1992;

Whereas in 1989 several telecommunications organisations signed a Memorandum of Understanding (MoU) for the phased and harmonised implementation of European ISDN services; whereas within the framework of this MoU, a range of services has been recognised 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 harmonised standards according to market need;

Whereas ISDN can be considered¹⁴ as a natural evolution of the telephone network; 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 Commission Directive 90/388/EEC¹⁵ applies;

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 in accordance with Directive 90/388/EEC Member States which make the supply of such services subject to a licensing or declaration procedure aimed at compliance with the essential requirements shall ensure that the conditions for the granting of licences 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 relation with the aims of this Directive in 1992;

¹³ OJ No C 196, 1.8.1989, p.4

¹⁴ COM (90) 123 final, p.3

¹⁵ OJ No L 192, 24.7.1990, p.10

Whereas ISDN is a means to support both competitive services and services provided under special or exclusive rights;

Whereas in application of the principle of non-discrimination, access to ISDN should be available and provided on request without discrimination to all users; therefore the terms and conditions which apply to telecommunication organisations when using ISDN for the provision of competitive services should be equivalent to the terms and conditions which apply to other users;

Whereas cross-subsidisation between services provided by telecommunications organisations (TOs) under special and exclusive rights and competitive services provided by TOs may be incompatible with Community competition rules;

Whereas Directive 90/387/EEC foresees in its Article 4.4. b) a public comment period 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 Journal¹⁶;

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

Whereas ETSI is developing standards for ISDN; whereas the Commission will issue 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/C196/04; whereas a broad range of services to be provided are defined in the above mentioned documents;

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

¹⁶ OJ No C 38, 14.2.1991, p.12, Notice No 91/C38/21

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

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

Whereas, however, such additional offerings should not impede in any way 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 foresees in its Annex III, par.1 the adoption of a Directive on voice telephony;

Whereas ISDN provides the opportunity to offer voice telephony in an efficient way; 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 foresees in its Annex III, par.3, the adoption of a Recommendation on the supply of technical interfaces, conditions of usage and tariff principles applying to the packet switched data services complying with open network principles; whereas the Commission has adopted a proposal for a Council Recommendation¹⁷ on the harmonised provision of a minimum set of packet switched data services in accordance with ONP principles;

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

¹⁷ COM (91) 208 final, 7.6.1991

Whereas in accordance with Directive 90/387/EEC, the Commission has published in the Official Journal¹⁸ the list of ISDN standards suitable for ONP; this list may be amended by further publication;

Whereas common ordering procedures, one-stop-ordering and one-stop billing and maintenance are essential to promote the use of ISDN throughout the Community; any cooperation of the organisations in that respect is subject to compliance with Community Competition law. In particular, such procedures should not result in any price fixing or market sharing. These procedures are to be promoted through market mechanisms, e.g. through Memoranda of Understanding between the organisations supplying ISDN services, in accordance with the provisions of this Recommendation;

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");

Whereas in order to promote the use of ISDN by small and medium size providers of value-added services it is desirable to establish billing arrangements which facilitate such operations across the Community; 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 harmonised numbering capacity is made to allow the establishment of such service arrangements across the Community; such allocation should be made in accordance with the principles of transparency and equality of treatment;

Whereas quality of service as perceived by the users is an essential aspect of the service provided; whereas the quality of service indicators, as identified in other ONP proposals, for example those for voice telephony and packet switched data services, apply when provided by means of ISDN;

Whereas in accordance with Directive 90/387/EEC, the conditions of Open Network Provision may not restrict access to and use of ISDN except in application of essential requirements as defined in the said Directive; those restrictions should be objectively

¹⁸ OJ No C 327, 29.12.1990, p.19- List of standards reference- ISDN

justified, should follow the principle of proportionality and should not be excessive in relation to the aim pursued;

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

Whereas 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, 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 regulation 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 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 should in principle be cost-oriented and based on objective criteria; they should be transparent and properly published, they should be sufficiently unbundled in accordance with the competition rules of the Treaty and they should be non-discriminatory and guarantee equality of treatment;

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

Whereas in conformity with the principle of separation of regulatory and operational functions and in application of the principle of subsidiarity, the national regulatory authority of each Member State should play an important role in the implementation of this Recommendation;

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

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

HEREBY RECOMMENDS:

1. That, in line with general Community policy on ISDN, and taking into account market demand, Member States should:
 - a) ensure that the telecommunications organisations notified in accordance with point 14 below provide an integrated services digital network (ISDN) with harmonised access arrangements and a minimum set of functionalities 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 organisations to publish target dates for the availability of these features;
 - b) encourage the harmonised provision of additional functionalities as identified in Annex II. This additional provision should be in accordance with international standardisation and in response to market demand, but should not endanger nor delay the provision of the minimum set referred to in subparagraph a) above.
2. That the Commission determines the modifications necessary to adapt Annex I to new technical developments and to changes in market demand in accordance with Article 9 of Directive 90/387/EEC.
3. That Member States ensure that, in respect of the ISDN offerings provided in accordance with point 1), information on technical characteristics, general supply conditions, contractual conditions, usage conditions, tariffs, licensing and/or declaration conditions, and conditions for the attachment of terminal equipment is published in accordance with the presentation given in Annex III.
Changes in existing offerings should be published as soon as possible and not later

than 2 months before the implementation, unless the national regulatory authority agrees otherwise.

4. That the general supply conditions referred to in point 3 include at least:
 - the expected delivery period, defined as the period starting when a user's order is given to the organisation supplying ISDN services and finishing when the service requested is made available to the user.
 - the expected repair time, defined as the period starting when a failure message is given to a designated point within the organisation supplying ISDN service and finishing when service is restored to the user.
 - the contractual periods

The contractual periods which include the periods which are in general laid down for the contracts and the minimum contractual periods which the user is obliged to accept.

 - the refund policy,
 - target values for the quality of service indicators identified in point 6.
5. That Member States ensure that users have a right to a contract which specifies the elements of the ISDN service to be provided.
6. That, at least for the bearer services identified in Annex 1, common indicators and common measurement methods are adopted for the network performance aspects of the quality of service, notably for those indicators in Annex IV, by 1 January 1995.
7. That from 1 January 1993, national regulatory authorities ensure the availability of annual, statistics showing achieved performance in relation to:

- delivery periods,
- repair times,
- the quality of service indicators, identified in Annex IV.

8. That Member States facilitate and encourage the establishment, in conformity with the procedural and substantive rules of the Treaty and in consultation with users, of the following harmonised procedures:

- a common ordering procedure, i.e. an ordering procedure for the procurement of intra-community ISDN service which ensures that there is similarity across the organisations supplying ISDN service, in the information that has to be supplied by the user and the organisation supplying ISDN service, and in the format in which the information is presented;
- a one stop ordering procedure, i.e. a system whereby all transactions involving a user, required for the procurement of intra-community ISDN service supplied by more than one organisation, can be completed between the user and a single organisation supplying ISDN service;
- a one-stop-billing procedure, i.e. a system whereby the payment transaction for intracommunity ISDN service supplied by more than one organisation to a single user can be completed at one location between the user and a single organisation supplying ISDN service, and
- a one-stop-maintenance procedure, i.e. a system whereby the reporting of faults for intracommunity ISDN service supplied by more than one organisation to a single user can be done at one location between the user and a single organisation supplying ISDN service, which will take full responsibility for restoration of service.

These procedures should include the establishment of Community - wide service arrangements allowing for:

- Green number /freephone, ie a capability where the called party pays for the calls;
- Kiosk billing arrangements, ie a capability where the cost of the value-added service and the cost of the call are combined in a single bill collected by the organisation supplying ISDN service, or other arrangements equally effective for users.

These procedures are to be established through market mechanisms, e.g. through Memoranda of Understanding open to all organisations supplying ISDN service in accordance with the provisions of this Recommendation.

- 9 That Member States ensure that:
- (a) ISDN numbering plans are controlled by the national regulatory authority and developed in conformity with overall international policy and harmonised Community arrangements;
 - (b) the management of ISDN numbering plans is carried out in a way that provides a fair, equitable and timely allocation of numbers for all telecommunications service providers.
10. That Member States ensure that usage conditions for ISDN are subject to scrutiny by the national regulatory authority.
11. That Member States ensure that tariffs are based on objective criteria, and are in principle oriented towards cost. Each ISDN functionality should be tarified on an individual basis. Offerings should be sufficiently unbundled, in conformity with Community law. In addition, the tariff considerations of Council Recommendation 86/659/EEC¹⁹ should apply.
12. That Member States ensure that the tariff structure for ISDN service normally contains the following elements:
- an initial charge for connection to the ISDN network, depending on the type of access and bearer services provided;

¹⁹ OJ L382 31.12.1986 p.36

-an initial charge depending on the supplementary services and teleservices provided;

-a periodic subscription charge, varying according to the type of access and range of ISDN functionalities provided;

-usage charges, which normally include a call duration charge and supplementary services usage charges. These charges may depend on time and/or day.

If other tariff elements are applied, these should be approved by the national regulatory authority and should be transparent and based on objective criteria.

13. That national regulatory authorities ensure that targets are set and published for the provision of itemised billing, subject to technical feasibility, in order to allow users to check their bills. The level of detail given in itemised bills should be subject to law relating to the protection of personal data and privacy.

14. That national regulatory authorities notify the Commission before 1 July 1992 of the organisations which provide ISDN service in accordance with the provisions of this Recommendation, and thereafter of any changes to this information.

15. That national regulatory authorities send to the Commission annual summary reports covering:

- the availability of ISDN service, including level of penetration, provided in accordance with point 1,

- the implementation of the general supply conditions under points 3 and 4, and

- the reports under point 7.

These summary reports should be sent to the Commission no later than 5 months after the end of the calendar year. The Commission will transmit these summary reports to the ONP committee.

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16. That national regulatory authorities ensure the establishment of easy procedures for users of the ISDN service to invoke with regard to any difficulties encountered in relation to the provisions of this Recommendation.

 17. That the Commission, in consultation with the ONP Committee, examines the initial results of the implementation of this Recommendation on the basis of the summary reports provided under point 15.

Done at Brussels,

For the Council

The President

ANNEX I

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

This annex describes the harmonised ISDN access arrangements and the minimum set of ISDN functionalities²⁰ which are to be made available in all Member States by the dates shown.

The ISDN functionalities are structured according to CCITT distinctions of Bearer Services, Supplementary services, and Teleservices.

I. ACCESS ARRANGEMENTS***I.1 ACCESS ARRANGEMENTS TO BE AVAILABLE BY 1 JANUARY 1994***

Access arrangements concern 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.

²⁰ Appropriate associations between access arrangements and ISDN functionalities are given in CCITT Recommendation 1.250

Note. These access arrangements are covered by the ISDN Memorandum of Understanding (MoU), and the date for implementation is in accordance with the commitment given by the signatories of the MoU.

I.2 CONSIDERATION OF FURTHER ACCESS ARRANGEMENTS

Future access arrangements 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 assesment. At that stage, consideration will be given to including these access arrangements into the minimum set in accordance with the procedure given in Point 2 of this Recommendation.

II.BEARER SERVICES

II.1 BEARER SERVICES TO BE AVAILABLE BY 1 JANUARY 1994

Circuit mode 64 kbit/s unrestricted bearer service;

Circuit mode 3.1 kHz audio bearer service.

Note. These bearer services are covered by the ISDN MoU, and the date for implementation is in accordance with the commitment given by the signatories of the MoU.

II.2 OTHER BEARER SERVICES TO BE AVAILABLE

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

Circuit mode 2x64 kbit/s unrestricted bearer
service

[see note 1]

Packet mode bearer service
provided over the B and/or D channels

[see notes 1,2]

Note 1. These bearer services are covered by the ISDN MoU.

Note 2. When ISDN is used for the provision of packet switched data services, Member States should ensure that, in principle, users have equivalent functionality to users of the dedicated packet network, as defined in the proposal for a Council Recommendation²¹ on the harmonised provision of a minimum set of packet switched data services in accordance with ONP principles.

III SUPPLEMENTARY SERVICES

III.1 SUPPLEMENTARY SERVICES TO BE AVAILABLE BY 1 JANUARY 1994

Calling Line Identification Presentation (CLIP)

+

Calling Line Identification Restriction (CLIR);

[see notes 1,2]

Direct Dialling In (DDI);

[see note 1]

²¹ COM (91) 208 final, 7.6.91

Multiple Subscriber Number (MSN); [see note 1]

Terminal Portability (TP). [see note 1]

Note 1. These supplementary services are covered by the ISDN MoU, and the date for implementation is in accordance with the commitment given by the signatories of the MoU.

Note 2. CLIP and CLIR are to be provided subject to the requirements of law relating to data protection and privacy.

III.2 OTHER SUPPLEMENTARY SERVICES TO BE AVAILABLE

Call transfer services [see notes 1,2];

Call forwarding services [see notes 1,2];

Reverse charging;

Freephone [see note 1];

Kiosk billing or equivalent features;

Closed user group [see note 1];

User to user signalling [see note 1];

Malicious call identification [see notes 1,2].

network management services

Note 1. These supplementary services are covered by the

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ISDN MoU.

Note 2. Call transfer services and Malicious call identification are to be provided subject to the requirements of law relating to data protection and privacy.

IV TELESERVICES

IV.1 TELESERVICES TO BE AVAILABLE BY 1 JANUARY 1994

Telephony, 3.1 kHz.

Note. This teleservice is covered by the ISDN MoU.

V STANDARDS TO BE UTILISED

In accordance with the procedure in Article 5 (1) of Directive 90/387/EEC, relevant ISDN standards will be referenced in the Official Journal.

The initial indicative list of ISDN standards suitable for ONP already published in the *Official Journal*²² will be amended/updated by further publication in the *Official Journal* in accordance with Art. 5.4 of Directive 90/387/EEC.

²² OJ No C 327, 29.12.1990, p.19- List of standards reference- ISDN

ANNEX II

**ADDITIONAL FUNCTIONALITIES WHICH MAY BE IMPLEMENTED, IN
ACCORDANCE WITH PROGRESS IN INTERNATIONAL STANDARDISATION**

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).

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

ANNEX III

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

The information referred to in Point 3 of the Recommendation 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 the Council Directive 83/189/EEC²³ laying down a procedure for the provision of information in the field of technical standards and regulations. Clear reference should be made to the standards implemented.

B GENERAL SUPPLY CONDITIONS

The general 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

²³ OJ No L 109, 26.4.1983, p.8

F LICENSING AND/OR DECLARATION CONDITIONS FOR USE OF ISDN SERVICE, WHERE APPLICABLE

This should include a clear description of any licensing conditions which have to be met by the user or by his customers.

G CONDITIONS FOR THE ATTACHMENT OF TERMINAL EQUIPMENT

Conditions approved by the national regulatory authority, subject to the provisions of Council Directive 91/263/EEC²⁴.

²⁴ OJ No L 128, 23.5.1991, p.1

ANNEX IV

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

Common indicators for the network performance aspects of the quality of service of ISDN bearer services and common measurement methods should be adopted in order to allow for the determination of a representative sample of the performance of user's access to the ISDN service as well as the end-to-end statistical performance achieved by the network as a whole. These statistics should permit comparison with the established target values for network performance, to be published under Point 3 of the Recommendation.

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 time between the temporary inability of a service to be provided persisting for more than a given time duration characterised by a change beyond given limits in a least one parameter essential for the service.

Bit error ratio, 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 that elapses between the initial offering of a unit of user data to an ISDN network by a transmitting terminal equipment and the

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complete delivery of that unit to the receiving terminal equipment (a unit of user data may be a bit, byte, packet,...)

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 in the proposal for a Council Recommendation²⁵ on the harmonised provision of a minimum set of packet switched data services in accordance with ONP principles.

²⁵ COM (91) 208 final, 7.6.1991

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