COMMISSION OF THE EUROPEAN COMMUNITIES

COM(91) 208 final

Brussels, 7 June 1991

Proposal for a

COUNCIL RECOMMENDATION

on the harmonised provision of a minimum set of Packet-Switched Data Services in accordance with Open Network Provision (ONP) principles

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(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 packet switched data services (PSDSs) 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 harmonized technical interfaces and/or service features for PSDSs and in this respect the Commission published in the Official Journal[1] on the 29.12.90 the list of packet switched public data networks standards suitable for ONP. The Directive also foresees as a priority the adoption of a Council Recommendation on the harmonised provision of a minimum set of Packet Switched Data Services 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. THE ROLE OF PACKET SWITCHED PUBLIC DATA NETWORKS IN THE DEVELOPMENT OF EUROPEAN VALUE ADDED SERVICES

The late 70s saw the introduction of packet switched public data networks in several European countries.

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1 OJ No C 327, 29.12.1990, p.19- List of standards reference- Packet switched public data networks.

The introduction of these national networks followed different timetables and different commercial priorities however, and hence the availability of a fully harmonised and up to date international service was held up.

From an industrial and manufacturing point of view it was only after 1976 that the set of packet switched associated standards reached a mature enough stage to allow the development and marketing of commercially exploitable packet switching public systems, although the first packet switched public data networks were not commercially available before 1978/1979[2].

Administrations began to plan for, and implement national packet switched services against a range of target dates, and some administrations were therefore working with more mature CCITT recommendations than those that had launched public services earlier.

By 1984, when the new and revised CCITT recommendations (Red Book) became available, most European countries already had their packet switched public data networks up and running on the basis of different implementations of the 1980 versions of CCITT recommendations, and the first international gateway interconnections between networks had been established, based on bilateral arrangements without any administrative or management functions, for the provision of transborder services at European level.

All these factors led to national variations of the basic service, which has made full international interworking difficult to achieve.

The market for networks and services has clearly became application driven on an European scale, and incompatible products and services, as well as internal skills shortages are seen by the users as major constraints on data communications networks development over the next years.

The development and availability of international value added services to support the applications required by the users is largely dependent on PSDSs because without such an adequate transeuropean transport service, higher layer value added services

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2 In the context of its information market policy the Community initiated the establishment of a pan-european packet switched public data network (Euronet), which was in service from 1980 to 1984, when it was replaced by the nationally based packet switched public data networks.

will be difficult to offer to users on a Community wide scale.

Such services will flourish if, and only if, a high quality, reasonable priced, ubiquitous transport service is available.

Existing packet switched public data networks have developed into a major transport media for the operation of value-added-services throughout the Community. Suitably expanded and enhanced to adhere to European standards, they offer the most suitable mechanism to meet the tight deadlines imposed by the 1992 Single Market goal on the availability of value added services necessary to support European wide industry, trade and administration.

III. THE CONSULTATIVE PROCESS

The concept of ONP conditions for open provision of packet switched public data networks was introduced by the Commission in the Communication on the Implementation of the Green Paper[3]. In its Council Resolution of 30 June 1988 the Council urged for the "rapid definition" of ONP conditions for public data networks.

Since the Commission deemed it necessary that the analytical work on public data networks was taken up as soon as possible the Commission started to analyse the subject in parallel with its work on the ONP framework Directive. Preparatory work on the application of ONP principles to public data networks was therefore undertaken by the SOG-T (Senior Officials Group - Telecommunications) and its sub-group GAP (Groupe d'Analyse et de Prévision) as early as 1989.

In the spirit of the then pending framework Directive, the SOG-T arranged for the participation of representatives of European industrial organizations, trade associations, service providers, telecommunications users, and telecommunications in general. To that end, public comments on the proposals[4] of GAP were invited by notice in the Official Journal dated 6 April 1990[5] and two fora were organized in

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

4 Proposal by the "Analysis and Forecasting Group" (GAP) on Open Network Provision (ONP) for Public Data Networks Lines in the Community of 28 February 1990.

5 OJ No C 88, 6.4.1990, p 3, Notice No 90/C88/03.

March and October 1989 for public discussion of the proposals.

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 GAP 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. At the same time it 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 PSDSs should be provided in a harmonised way in accordance with Open Network Provision principles.

The points of the Recommendation are briefly explained hereunder :

Provision of a minimum set of PSDSs

Point 1 defines a minimum harmonised set of PSDSs with harmonised technical characteristics which must be made available throughout the Community. The point also sets a timetable for the provision of these services, where not available. For this minimum set, reference is made to the list of packet switched public data networks standards suitable for ONP published in the Official Journal[6] (see table 1).

Point 2 provides for the mechanism to update this set which is described in Annex II on the basis of changes in market demand and in technology. Changes in Annex II can be made by the Commission, in cooperation with the ONP-Committee. Such changes

6 OJ No C 327, 29.12.1990, p.19 - List of standards reference- Packet switched public data networks.

may incorporate the removal of or the addition of PSDSs to the list.

List of standards reference

(90/C 327/12)

Pursuant to Article 5 (1) of Directive 90/387/EEC (1) 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 (2), 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.

1. Packet switched public data networks

Direct access	X.25 service	T/TE 08-01 (*) T/TE 08-02 (*) T/TE 08-03 (*) ETS T/TE 04-06 (**) ENV 41104 (FS T/31) (***)
Indirect access	X.28 service	T/TE 08-02 (*) T/TE 08-03 (*) ENV 41901 (***)
Indirect access	X.32 service	T/TE 08-02 (*) T/TE 08-03 (*) ETS T/TD 08-06 (**) ENV 41105 (FS T/32) (***)

(*) CEPT technical specification.

(**) Draft ETSI standard.

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

(1) 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 L 192, 24. 7. 1990, pp. 1-40).

(2) In order to refer to the precise status of each standard, the relevants 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 3a are included.

3. Note

Pursuant to Article 5 (2) of Directive 90/387/EEC compliance with the e 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.

Disclosure of information

Point 3 establishes the format in which the information is to be published in order to comply with the requirement that ONP conditions must be transparent and published in an appropriate manner.

Supply Conditions

The supply conditions for PSDSs are addressed in Point 4. It requires organizations 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 delivery period for a type of PSDS, the duration of the contractual period and the repair time. It also refers to the refund policy and the network performance targets.

Common ordering, billing and maintenance procedures

Point 5 expresses the requirement of users to be able to order PSDSs in a common fashion, and where requested, to be able to communicate with a single organization for ordering, billing and maintenance purposes.

Through the implementation of a "green number" 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, by the organisation supplying PSDSs, thus facilitating the provision of value-added services across the Community, specially by small and medium size service providers.

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 III.

Tariffing Principles

Points 8 and 9 refer to the basic principle of application independence which is to be applied for tariffs of PSDSs and identifies separate tariff elements which will normally be contained in the tariffs.

Notification

Points 10 and 11 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 organizations will conform with the provisions of the Recommendation.

User Support

Point 12 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 of work

Point 13 recommends that the Commission examines the progress of work in 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 July 1991, acting on a proposal from the Commission, of a recommendation on the supply of technical interfaces, conditions of usage and tariff principles applying to provision of packet switched data services complying with open network principles; at the same time this recommendation would in particular call on Member States to ensure at least one such service was provided on their territory.

The present Commission proposal for a Council Recommendation on the harmonised provision of a minimum set of Packet Switched Data Services in accordance with Open Network Provision (ONP) principles takes account of the harmonized general principles laid down in the ONP framework Directive and specifies which services

should be provided in all Member States in a harmonized 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.

Proposal for a
COUNCIL RECOMMENDATION

on the harmonised provision of a minimum set of Packet-Switched Data Services in accordance with Open Network Provision (ONP) principles

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THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community,

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 (ONP),[1]

Having regard to the proposal from the Commission,[2]

Whereas Directive 90/387/EEC considers, inter alia, the principles for the application of Open Network Provision to the areas of packet- and circuit-switched data services;

Whereas Directive 90/387/EEC provides, in its Annex III, paragraph 3, for adoption of a Recommendation on the supply of technical interfaces, conditions of usage and tariff principles applying to provision of packet-switched data services complying with open network principles;

Whereas Packet-Switched Public Data Networks are the most common networks through which packet-switched data services are made available in all Member States;

Whereas Packet-Switched Public Data Networks have developed on a national basis and the availability in each Member State of Packet-Switched Public Data Networks with equivalent capabilities and providing full interconnectivity is important to meet the

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1 OJ No L 192, 24.7.1990, p.1.

2 OJ No C ...

requirements of pan-European data networking for value-added services provision;

Whereas Packet-Switched Data Services are used in every Member State to support value added services at a European-wide level;

Whereas Directive 90/387/EEC calls for the availability in each Member State of a harmonized packet-switched data service (PSDS);

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

Whereas in accordance with Directive 90/387/EEC, the conditions of Open Network Provision may not restrict access to and use of PSDSs except in application of essential requirements as defined in the said Directive; those restrictions must be objectively justified, must follow the principle of proportionality and must not be excessive in relation to the aim pursued;

Whereas in accordance with Article 3(5) of Directive 90/387/EEC the Commission will determine the rules for uniform application of the essential requirements;

Whereas usage conditions for PSDSs must be derived from essential requirements compatible with Community law, and are imposed through regulatory means, and not through technical restrictions;

Whereas in accordance with Commission Directive 90/388/EEC[3] Member States may make the supply of packet- or circuit switched data services subject to licensing or declaration procedures which are aimed at compliance with essential requirements, or trade regulations relating to conditions of permanence, availability and quality of service, or measures to safeguard the task of general economic interest which they have entrusted to a telecommunications organization for the provision of switched data services, if the performance of that task is likely to be obstructed by the activities of private service providers;

3 OJ No L 192, 24.7.1990, p.10.

Whereas in accordance with Directive 90/387/EEC, the Commission has published in the Official Journal[4] the list of packet-switched public data networks 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 PSDSs throughout the Community; any cooperation of the organizations 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 PSDSs, in accordance with this Recommendation;

Whereas in order to promote Europe-wide operation by service providers using PSDSs 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);

Whereas in order to promote the use of PSDSs 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 collected by the organisation supplying PSDSs ("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 packet-switching;

Whereas in accordance with Directive 90/387/EEC, tariffs should be based on objective criteria, taking into account that in a competitive environment tariffs will align with cost; they must be transparent and properly published, they must be sufficiently unbundled in accordance with the competition rules of the Treaty and they must be non-discriminatory

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4 OJ No C 327, 29.12.1990, p.19- List of standards reference- Packet -itched public data networks.

and guarantee equality of treatment;

Whereas a high level of data protection should be applied to PSDSs equivalent to the level of protection for other public digital telecommunications services; such requirements should be taken into account in the implementation of PSDSs;

Whereas other offerings, provided by organisations supplying PSDSs, in addition to those provided in accordance with the provisions of this Recommendation, should not impede the provision of the minimum set;

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 monitor the implementation of this Recommendation, Member States should provide the relevant information,

HEREBY RECOMMENDS:

1. That Member States ensure the provision of a minimum set of PSDSs with harmonised technical characteristics in accordance with Annex I, taking account of market demand.

2. That the Commission determine 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 information in respect of the PSDSs provided in accordance with point 1 on technical characteristics, general supply conditions, usage conditions, tariffs and the conditions for the attachment of terminal equipment is published in accordance with the presentation given in Annex II.

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

   - the typical delivery periods, which are the periods, counted from the date from which the user makes a firm request for the service in question, in which 80 percent of the demands for the PSDSs has been put through to the users.

     Each period shall be established on the basis of the actual delivery periods of the PSDSs in question during a recent time interval of reasonable duration. The calculation must not include cases where late delivery periods were requested by users. For new types of PSDSs a target delivery period shall be published instead of the typical delivery period;

   - 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 for the PSDSs;

- the typical repair times , which are the periods, counted from the time when a failure message has been given to the responsible unit within the organizations supplying PSDSs up to the moment, in which 80 percent of the reported PSDSs have been repaired and notified back in operation to the user. For new types of PSDSs a target repair time period shall be published instead of the typical repair time. Where different classes of quality of repair are offered for the same PSDS, the different typical repair times shall be published.

- the refund policy,

- indicators for quality of service established in accordance with point 6.

5. That Member States, taking into account the work of CEPT[5] , note the value and promote the establishment, in conformity with the procedural and substantive rules of the Treaty and in consultation with users, of harmonised procedures for user access the PSDSs, in particular via the establishment of the following procedures:

   - a common ordering procedure, i.e. an ordering procedure for the procurement of intra-community PSDSs which ensures that there is commonality across the organizations supplying PSDSs in the information that has to be supplied by the user and the organization supplying PSDSs, 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 PSDSs supplied by more than one organization, can be completed between the user and a single organization supplying PSDSs;

   - a one-stop-billing procedure, i.e. a system whereby the payment transaction for intracommunity PSDSs supplied by more than one organization to a single user can be completed at one location between the user and a single organization supplying PSDSs, and

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5 One-stop shopping Service Specific Schedule for PSPDN, CAC Oct. 90.

- a one-stop-maintenance procedure, i.e. a system whereby the reporting of faults for intracommunity PSDSs supplied by more than one organization to a single user can be done at one location between the user and a single organization supplying PSDSs, which will take full responsibility for restoration of service.

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

- a capability where the called party pays for the calls (Green Number);

- 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 PSDSs (Kiosk type arrangements).

These procedures are to be promoted through market mechanisms, e.g. through a Memorandum of Understanding open to all organisations supplying PSDSs in accordance with this Recommendation.

6. That common indicators for the network performance aspects of the quality of service and common measurement methods be adopted, notably for those indicators in Annex III.

7. That the national regulatory authorities ensure the availability of periodic, statistical reports showing the performance in relation to the quality of service indicators, in accordance with point 6, at least for each calendar year, from 1 January 1993.

8. That tariffs be based on objective criteria and independent of the type of application implemented by the users of the PSDSs, where the same type of facilities are used.

9. That the tariffs for PSDSs normally contain the following elements :

-an initial Charge,

-a periodic Rental Charge,

-a usage charge, including normally a fixed per call charge based either on a minimum time and/or volume charge or a call set-up charge, a volume related charge based on the use of an integral number of segments[6] , and a duration related charge based on an interval of time sufficiently short to avoid discrimination against short type transactions.

Where other tariff elements are applied, these must be transparent and based on objective criteria.

10. That the national regulatory authorities notify the Commission before 31 December 1991 of the organizations which provide PSDSs in accordance with this Recommendation, and thereafter of any changes to this information.

11. That the national regulatory authorities ensure the availability of summary reports in particular with regard to the availability of PSDSs provided in accordance with point 1, the implementation of the general supply conditions under points 3 and 4 and the reports under point 7 at least for each calendar year and that the summary reports be sent to the Commission no later than 3 months after the end of the annual reporting period.

12. That the national regulatory authority ensure the establishment of an easy procedure for users of packet-switched data services to invoke with regard to any difficulties encountered in relation to the objectives of this Recommendation, in particular in connection with points 1,3,4,6 and 8;

6 A segment is up to 64 octets (or bytes) of user data where the octet is 8 bits.

13. That the Commission examine the progress of the work in implementing this Recommendation, in consultation with the ONP Committee, (in view of the fulfilment of the objectives of Directive 90/387/EEC and) on the basis of the summary reports provided under point 11.

Done at Brussels,

For the Council

The President

ANNEX I

DEFINITION OF A COMMUNITY WIDE MINIMUM SET OF PACKET SWITCHED DATA SERVICES WITH HARMONISED TECHNICAL CHARACTERISTICS IN ACCORDANCE WITH POINT 1 AND TIMETABLE FOR THEIR AVAILABILITY

A GENERAL CONSIDERATIONS

The Recommendation aims at the harmonised provision of a minimum set of PSDSs in accordance with Open Network Provision principles to users in order to facilitate the development of European wide services.

These services should:

i)be made available on an adequately unbundled basis in order to give users maximum flexibility.

ii)be structured in the following way (on a service basis):

ONP Core Offering

- access/ feature set(s) which must be offered by all networks;
- user selects (one) set in order to have the basic service
- set to be tariffed as a bundle.

ONP User Options

- feature offered by all networks on an individual basis;
- feature which may be selected by user;
- may in specific cases substitute Core offerings features.

iii)take into account technological development and the growth in availability of features not considered in the proposed service.

B STANDARDS TO BE APPLICABLE

The standards applicable for this minimum set of PSDSs with harmonised technical characteristics are in particular those in the indicative list of packet switched public data networks standards suitable for ONP published in the Official Journal[1], accordingly to the procedure in Article 5 (1) of Directive 90/387/EEC.

C TECHNICAL CHARACTERISATION OF EACH SERVICE AND TIMETABLE FOR IMPLEMENTATION

C.1. OFFERINGS TO BE PROVIDED AT THE LATEST BY 31 DECEMBER 1991

SERVICE	OFFERING
X.25	CORE OFFERING access link data rates : 2400, 4800, 9600 bit/s support of DTEs conforming with CEPT T/TE 08-01[1], CEPT T/TE 08-03[2] and in conformance with ETS T/TE 04-06[3] layer 3 for VC, (1 logical channel) USER OPTIONS additional logical channels at least to a total of 32 for 9600 bit/s options indicated[4] in CEPT T/TE 08-02[5] as E or EA

[1] OJ No C 327, 29.12.1990, p.19- List of standards reference- Packet switched public data networks

C.1. (CONT.)

X.28[6] dial-in only	CORE OFFERING access link data rate 300 bit/s (V.21 modem) 1200 bit/s (V.22 modem) X.28 standard terminal profiles Support of DTEs conforming with CEPT T/TE 08-02[5], CEPT T/TE 08-03[2] and ENV 41901[7] USER OPTIONS NUI additional standardised profiles selection[8] reverse charging[8]
X.32 UNIDENTIFIED SERVICE	CORE OFFERING for national use at least one of the two sets : 1) 2400 bit/s (V.22 bis or V.32 modem) 2) 4800, 9600 bit/s (V.32 modem) 1 or more logical channels reverse charging VC operation Support of DTEs conforming with CEPT T/TE 08-02[5], CEPT T/TE 08-03[2] and ETS T/TD 08-06[9]
X.32 IDENTIFIED SERVICE dial-in only	CORE OFFERING data rates and modems as per unidentified case identification by NUI or XID support of DTEs as per unidentified case 1 or more logical channel, VC operation

C.2. OFFERINGS TO BE PROVIDED AT THE LATEST BY 31 JUNE 1992

SERVICE	OFFERING
X.25	CORE OFFERING access link data rate 48000 bit/s or 64000 bit/s USER OPTIONS additional logical channels at least to a total of 128 for 48000 or 64000 bit/s Hunt Group Call redirection within a network with the same DNIC Extended interrupt CCITT specified DTE facilities Intra-community use of CUG facilities Called Line Address modified notifications

C.3. OFFERINGS TO BE PROVIDED AT THE LATEST BY 31 DECEMBER 1992

SERVICE	OFFERING
X.25	USER OPTIONS Intra-community use of reverse charging facilities
X.28 dial-in only	CORE OFFERING access link data rate : 2400 bit/s (V.22 bis modem) USER OPTIONS Intra-community use of reverse charging facilities
X.32 UNIDENTIFIED SERVICE	CORE OFFERING Intra-community use of the service

1. Harmonization of the dedicated packet-mode access to a packet switched public data network (PSPDNs) for OSI

2. General Interworking and service aspects of packet switched data networks

3. Approval requirements for data terminal equipment to connect to packet switched public data networks using CCITT Recommendation X.25 (1984)

4. Except : Call redirection within a network with the same DNIC
International use of CUG facilities
International use of reverse charging facilities
Hunt Group
Called line address modified notification
Extended interrupt
CCITT specified DTE facilities

5. Interworking aspects of packet switched public data networks

6. The X.28 messages are not intended for automatic DTE operation and as a consequence may be nationally dependent. The progressive implementation of X.3 (1988) and X.28 (1988) will allow to set a X.3 parameter to determine whether CCITT standardized or national messages shall be used at the interface.

7. Information System Interconnection.
X.29-mode procedures between a packet mode DTE or a PAD and a PAD via a public or private X.25 packet switched data network or ISO 8208 packet level entity and ISO 7776 link level entity. X.3 character-mode access via a public or private PAD attached to an X.25 packet switched network or ISO 8208 packet level entity and ISO 7776 link level entity. X.28 character-mode access via a telephonic circuit or data circuit to a PAD.

8. for national use

9. Harmonization of switched access to PSPDN for OSI end systems

ANNEX II

PUBLICATION PRESENTATION FOR THE INFORMATION TO BE PROVIDED IN RESPECT OF PACKET SWITCHED DATA SERVICES IN ACCORDANCE WITH POINT 3

The information referred to in Point 3 of the Recommendation shall 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/EEC[2] laying down a procedure for the provision of information in the field of technical standards and regulations. Clear reference shall be made to the standards implemented.

B GENERAL SUPPLY CONDITIONS

The general supply conditions shall include at least the elements identified in Point 4.

C USAGE CONDITIONS

The conditions resulting from the application of essential requirements.

D TARIFFS

The tariffs will normally include the Initial Charge, the Periodic Rental Charge and the Usage Charge (including, normally, a per call charge, a volume related charge and a duration related charge). Clear indication of other charges, e.g. charges related to quality of service, or bulk provision, should be available.

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2 OJ No L 109, 26.4.1983, p.8

E LICENSING AND/ OR DECLARATION CONDITIONS FOR USE OF PSDSs, WHERE APPLICABLE

F CONDITIONS FOR THE ATTACHMENT OF TERMINAL EQUIPMENT

ANNEX III

INDICATORS FOR THE NETWORK PERFORMANCE ASPECTS OF THE QUALITY OF SERVICE OF PSDSs

Common indicators for the network performance aspects of the quality of service of PSDSs and common measurement methods should be adopted in order to allow for the determination of a representative sample of the performance of user's direct access to the PSDSs as well as the end-to-end statistical performance achieved by the network as a whole.

Such indicators for the network performance aspects of the quality of service of PSDSs and measurement methods should be based on the ongoing work in CEPT, and notably on Recommendations T/CAC 2[3], T/CAC 3[4], T/CAC 4[5].

For each of the above performance criteria, indicators should be chosen which are representative of the service:

Availability	Unsuccessful Network Congestion (NC) calls ratio (UNCR),
	Service availability,
Dependability	Mean time between NC disconnections (MTNC),
Speed of service	Transmitted throughput (TTP),
	Received throughput (RTP),

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3 Indicators for the network performance aspects of the quality of service of international packet switched services

4 Monitoring of network performance aspects of quality of international packet switched service using internally derived indicators

5 Monitoring of network performance aspects of quality of international packet switched service using externally derived indicators

Round trip delay (RTD),

Call set-up delay (CSD).

Results of network performance measurements should be made publicly available, so that users of PSDSs can be informed about the achieved levels of performance for national and European services.These statistics should permit comparison with the established target values for network performance, to be published under Point 3 of the Recommendation.

Round trip delay (RTD),

Call set-up delay (CSD).

Results of network performance measurements should be made publicly available, so that users of PSDSs can be informed about the achieved levels of performance for national and European services.These statistics should permit comparison with the established target values for network performance, to be published under Point 3 of the Recommendation.

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