

**COMMISSION OF THE EUROPEAN COMMUNITIES**

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Proposal for a

**COUNCIL RESOLUTION  
ON THE PROMOTION OF EUROPE-WIDE COOPERATION  
ON NUMBERING OF TELECOMMUNICATIONS SERVICES  
INCLUDING THE INTRODUCTION OF A EUROPEAN AREA CODE FOR  
TELEPHONY SERVICES WITH EUROPE-WIDE APPLICATIONS**

(presented by the Commission)

## EXPLANATORY MEMORANDUM

### I. INTRODUCTION

**Numbers are the key for access to and use of telecommunications services.** As such, numbering arrangements are extremely important to service providers, network operators, equipment suppliers and users alike:

- the ease of use of telephony-based services is largely dictated by how familiar and easily understood numbering and dialling arrangements are;
- the design of numbering schemes affects the design of networks and equipment which support telecommunications services, since numbering information is used to perform essential functions such as route selection, charging and call barring;
- service providers must have allocations of numbers to allow customers to access their services. This is particularly important for the introduction of new and competitively-provided services.

Numbering scheme administrators, who act at the national level, must therefore take a balanced view of the needs of various parties in making their decisions on numbering arrangements and allocations. This is particularly important because the supply of numbers is limited.

Numbering schemes place practical limits on the lengths of numbers and, in order to attach meaning to certain combinations of digits (for example the geographic meaning of telephony area codes or the code 800 to mean freephone), impose structures which prevent full use of all possible number combinations. As a result, numbering space is limited.

With continuing demand, numbers are becoming scarce. This situation already exists in a number of Member States. Furthermore, a majority of Member States consider it likely that competition and service innovation will eventually lead to an increase in demand for numbers which will not be met under current national numbering arrangements.

In general, this is happening because numbering schemes have been historically designed for the supply of basic fixed telephone service using unsophisticated equipment. Today's environment differs in all respects. Numbering schemes cannot, however, simply be altered as new requirements emerge, since major numbering changes involve great expense and disruption to industry and users. Developments must be anticipated and planned into numbering scheme design.

It is therefore essential that, in today's environment, the development of numbering schemes and allocation of numbers is carefully managed to ensure that the development of telecommunications services and equipment is not constrained by numbering limitations.

The Community has, in the past, taken limited steps towards facilitating pan-European use of numbers. In 1991, Council adopted a decision on the introduction of a common Europe-wide emergency call number.

The Council adopted further, in May 1992, a decision on the Europe-wide introduction of a common international call access number.

The draft proposal for the application of Open Network Provision (ONP) to voice telephony calls for further progress with regard to pan-European numbering.

In order to facilitate such progress, it is now necessary to establish the framework of cooperation to work out the technical details and seek an easy way forward for further progress, which minimises disturbance of existing national numbering schemes. This is the purpose of the proposed Resolution.

## **II. THE NEED FOR THE CREATION OF A EUROPE-WIDE FRAMEWORK OF COOPERATION ON NUMBERING**

Easy-to-use cross-border telecommunications services are increasingly vital for the effective functioning and integration of the Community. This is recognised by the Community, which has called for the development of trans-European networks, the creation of Europe-wide services according to market requirements and appropriate social needs<sup>1</sup>, and harmonized conditions for open and efficient access to and use of public telecommunications services<sup>2</sup>.

Rapid immediate progress is in particular needed for services such as:

1. Europe-wide subscriber telephony numbers.
2. Flexible routing service  
providing the ability to flexibly route calls to different answering points e.g. according to country of call origination, time of day etc.
3. Europe-wide green/freephone call service  
particularly making use of flexible routing
4. Europe-wide kiosk billing service  
including flexibility for private service operators to choose the charge for a call, up to a maximum set by the national regulatory authority.
5. Europe-wide shared cost call service
6. Europe-wide mobile services

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<sup>1</sup> 88/C257/01; OJ C257/01, 04.10.88

<sup>2</sup> 90/387/EEC; OJ L192/1, 24.07.90

Unfortunately, as a consequence of structuring the global numbering plan so that development is referenced to the national level, administrations have taken, and are continuing to take, mainly nationally orientated decisions on the numbering and dialling arrangements for services. The result is that procedures for access to parallel services are often completely different in each Member State. In addition, numbers have, at best, a national scope; numbers with a Community-wide scope do not exist.

This creates particular difficulties for travellers and pan-European advertisers, and also for the provision and use of Europe-wide services. For example, services such as freephone and kiosk billing, which are designed to promote customer contact, rely on the ability to advertise a single number which can be dialled in the same way over a wide area. Since Member States currently use different codes to identify these services nationally and do not coordinate their number allocations, a single Europe-wide freephone or kiosk billing number presents great difficulties.

As numbers are the key to such services, it is essential that pan-European numbering needs are considered together with national needs. For example, in the United States freephone services alone account now for some 5% of total telephone revenues. It is a key service of the future "intelligent" network environment. In Europe, different freephone numbers are used and a pan-European service does not exist. In consequence, total of revenue has been extremely limited.

To address these needs and properly support the provision and use of services at the European level, Europe-wide cooperation is essential.

This is particularly important with the foreseen emergence of new network capabilities and expectations for growth and innovation in telephony services. Dialled information will increasingly be used in new ways - choosing carriers, notifying location, setting subscriber options, invoking supplementary services etc. - which stand to make new demands on numbering schemes. Advanced numbering capabilities, such as number portability and personal mobility via personal numbering under UPT (Universal Personal Telecommunications) will be required across Europe.

The opportunities for improving coherence across national numbering schemes can be expected to sharply reduce as national numbering spaces are further developed in response to such demands, since the picture across Member States' numbering schemes will become more and more fragmented. Such a situation would be in conflict with the greater need for user-friendliness as telecommunications use becomes more sophisticated.

It is therefore evident that much stronger cooperation is needed between Member States from the present time onwards to properly address all numbering concerns in the Community. Since users, service providers, network operators and equipment suppliers are all affected by numbering decisions, this should take place in strict compliance with the principle of separation of regulatory and operational responsibilities and under the strict supervision of the National Regulatory Authorities, ensuring the taking into account of the opinions and interests of all parties.

In order to ensure Europe-wide coherence the Commission therefore proposes that planning of numbering schemes in the Community should be coordinated through a Europe-wide framework of cooperation. This envisages the setting up of a European Numbering Office (ENO) based on similar arrangements as have been made for frequencies (i.e. where the European Radiocommunications Committee/European Radiocommunications Office, ERC/ERO have been set up).

Such a framework would provide a forum to consider the long term needs for numbering in the Community. It would, in addition, facilitate the attainment of common European positions in relation to global numbering developments.

### III. INTRODUCTION OF A EUROPEAN AREA CODE AS A RAPID WAY FORWARD TOWARDS SATISFYING NUMBERING REQUIREMENTS FOR EUROPE-WIDE SERVICES

The major numbering aims at the European level are to support the provision of and growth in services with Europe-wide applications, and to make these as easy to use as possible.

The main route to achieving these will be through convergence of the numbering and dialling arrangements used by Member States. An important task of the European Numbering Office is accordingly seen to be carrying out research in support of this process.

An ultimate objective for telephony could be a unified numbering scheme for the Community based on a single-digit country code, as currently for the North American area comprising the United States, Canada, and the Caribbean area, identified by the country code "1", and replacing current national country codes<sup>3</sup>. Such a scheme could, if required, provide:

- uniform number structures,
- "national" dialling within the Community, without the need for international dialling prefixes or country codes,
- standard access codes and number ranges for non-geographic services (freephone etc.),

the transparency of which would be of general benefit to industry and users.

However, convergence to such an extent would require very substantial harmonisation and changes of numbering at the national level and would of necessity be a long term process achieved through gradual migration. As a short term solution to pan-European numbering needs it would, however, be possible to bypass the difficulties of harmonising national numbering schemes by introducing a parallel numbering space through the introduction of a "European Area Code", additional to the existing country codes, which can be tailored for Europe-wide applications. As an additional development which is not disruptive to current national numbering arrangements, it could be rapidly implemented.

Services would, however, need to be accessed using full international dialling.

This solution would provide a relatively simple way to implement common service access codes and numbers with European uniqueness for Europe-wide services. Such numbers would identify subscribers as "European" rather than country-specific, and will thus have special value to a number of organisations. It could cover both the

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<sup>3</sup> National country codes for European countries are currently allocated by the International Telecommunications Union in the 3X and 4X range for the Member States of the Community: Belgium 32; Denmark 45; France 33; Germany 49(FR), 37(ex-GDR will be taken out of use during 1992); Greece 30; Ireland 353; Italy 39; Luxembourg 352; Netherlands 31; Portugal 351; Spain 34; UK 44. A natural choice for a one-digit code would therefore be as a three or four.

Community and EFTA countries and countries of Central and Eastern Europe, members of the CEPT. It would also provide increased capacity and flexibility for introduction of new services together with a path for migration to a unified European numbering scheme.

The Commission therefore proposes that urgent consideration should be given to the introduction of a European area code in parallel with the CEPT members' existing country codes. A high priority for the framework of cooperation is seen to be planning for the introduction and use of a European area code, including the arrangements for its procurement from the International Telecommunications Union (ITU). An investigation into the choice of code should aim to make a recommendation before the end of 1992.

Studies carried out for the Commission indicate that in the ITU's global numbering scheme, the code range 800-809 seems to provide a good, available option for a European country code:

- The "80X" range is currently still unused for, and therefore distinct from, country code numbering;
- The only other codes that are currently allocated for supra-national applications are taken from world zone "8" (the range 87X is allocated for global mobile applications; Inmarsat, the only current user, has the codes 871-874);
- This number range can be allocated consistently with ITU world numbering zones 1-9 defined for country numbering, thus allowing other world regions to similarly adopt area codes.<sup>4</sup>

As an input to this work, it is therefore recommended that the possibility that Europe be assigned code 803 should be considered, and that the remaining codes should be reserved for regional use as required. Under this arrangement, the code 804 should be reserved for Europe for future additional use since Europe occupies world numbering zones 3 and 4.

It is likely that European-numbered services could be made available starting around two years after a European area code has been procured.

#### **IV. PROVISIONS OF THE DRAFT RESOLUTION**

The approach recommended for the draft Council Resolution is based on the considerations set out in previous sections. The provisions of the Resolution are briefly explained hereunder:

**Points 1** defines strengthening cooperation at the European level on the numbering arrangements for services as a major goal of European telecommunications policy.

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<sup>4</sup> Assuming that other ITU regions would request a similar area code, this could imply the following numbering scheme: 800 - reserved (possibly used for global freephone or access to global numbering range); 801, Region 1 - North America (Canada, Caribbean, USA); 802, Region 2 - Africa; 803, Region 3 - Europe; 804, reserved for future European use; 805, Region 5 - South America; 806, Region 6 - Pacific region; 807, Region 7 - CIS; 808, Region 8 - Far East; 809, Region 9 - Middle East.

This approach would fit well with current developments on international numbering planning. It is understood that in its forthcoming report, the Toll Free Forum is likely to propose the use of the code 800 for a worldwide freephone service.

**Point 2** defines the development of common European positions on numbering at the global level as a second goal.

**Point 3** defines the need for a Europe-wide framework of cooperation on numbering to support these goals, which must take into account the opinions of all interested parties. This would cover both the Community and the other countries of the CEPT region.

**Point 4** defines the opening of a European numbering space through the introduction of a European area code for telephony in addition to existing country codes, as a key short-term goal of the framework of cooperation. A European area code would cover both the Community and the other countries of the CEPT region.

**Point 5** invites the Member States to coordinate their actions within the CEPT to promote the establishment of the framework of cooperation based on the setting up of a European Numbering Office (ENO), and defines the tasks that this body should undertake including high priority tasks related to the introduction and use of a European area code.

**Point 6** invites the Commission to promote the preparation, in the context of working arrangements drawn up under the framework of cooperation, of arrangements for procurement and introduction of a European area code.

**Point 7** invites the Commission to propose further measures as appropriate to facilitate the rapid introduction of pan-European services numbered from the European numbering space.

## **V. CONCLUSIONS**

Numbers, are the key to provision and use of telecommunications services. As such, numbering schemes must be carefully managed to take account of the needs of service providers, network operators, equipment suppliers and users, as numbers are a potentially scarce resource.

The implementation of a Europe-wide framework of cooperation between Member States on numbering will allow all factors to be considered in number planning and supply management - those at a European level as well as those at a national level. This will have benefits for the long-term supply of numbers in the Community.

The rapid introduction of a European area code for telephony in parallel with existing Member States' country codes will provide an important short-term solution to pan-European numbering needs. It would open a European numbering space in parallel with the existing national numbering spaces and therefore facilitate substantially future harmonisation, without unnecessary disturbance of national numbering spaces.

Accordingly, preparation for the introduction and use of a European area code, including recommendation of an appropriate choice of code before the end of 1992 and a coordinated request to the International Telecommunications Union (ITU) for issue of such a code, is seen as a high priority for the framework of cooperation.

These are the aims of the attached draft Resolution. The Council is requested to support these aims and adopt this Resolution.

## COUNCIL RESOLUTION

on the promotion of Europe-wide cooperation on numbering of telecommunications services, including the introduction of a European area code for telephony services with Europe-wide applications

**THE COUNCIL OF THE EUROPEAN COMMUNITIES,**

Having regard to the Treaty establishing the European Economic Community,

Having regard to the proposal from the Commission,

Whereas the Council Resolution 88/C257/01 on the development of the common market for telecommunications services and equipment up to 1992<sup>1</sup> calls for promotion of the creation of Europe-wide services according to market requirements and appropriate social needs;

Whereas the Commission Directive 90/388/EEC on competition in the markets for telecommunications services<sup>2</sup> provides for competitive provision of telecommunications services and services based on public telecommunications networks and/or services;

Whereas the Council Directive 90/387/EEC on the establishment of the internal market for telecommunications services through the implementation of open network provision<sup>3</sup> emphasizes the need for open and efficient access to and use of public telecommunications services;

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<sup>1</sup> OJ No.C257, 04.10.1988, p.1

<sup>2</sup> OJ No.L192, 24.07.1990, p.10

<sup>3</sup> OJ No.L192, 24.07.1990, p.1



Whereas numbers are the key for access to and use of telecommunications services and, as such, are essential for the provision of telecommunications services and services based on these, particularly as regards the introduction of new and competitively-provided services; whereas, in addition, the ease of use of telephony-based services is largely dictated by how familiar and easily understood numbering and dialling arrangements are;

Whereas numbering changes can cause high levels of cost and disruption to service providers and users, particularly where these are required to change their existing numbers;

Whereas this, in conjunction with the limitations to available capacity resulting from historical structuring of numbering schemes, has led to a potential shortage of numbers in some Member States and such a situation is foreseen in others; whereas certain Member States are undertaking or planning extensive changes to their numbering schemes to counteract this;

Whereas competition and innovation in telecommunications service provision resulting from the opening of telecommunications service markets according to Directive 90/388/EEC and the implementation of open network provision according to Directive 90/387/EEC will serve to further intensify demands on the supply of numbers;

Whereas the design of numbering schemes from which numbers are allocated is an important factor in the design of networks and equipment which support telecommunications services, in particular pan-European services serving areas employing different numbering schemes, since numbering information is used to perform essential functions such as route selection and charging; whereas, in addition, advances in technology may progressively change the ways in which numbers are used in networks and by people;

Whereas, therefore, the development of numbering schemes and allocation of numbers from these must be carefully managed to ensure that the development of telecommunications services and equipment is not in any way constrained by numbering limitations;

Whereas management of numbering schemes in Europe is undertaken by individual Member States; whereas, however, this has resulted in a lack of coherence across national numbering schemes which may limit the ease of provision and use of services at the European level and affect the design of systems supporting these;

Whereas, therefore, there is an indispensable requirement for increased coordination in the management of numbering schemes at the European level in order to best support the development of and growth in services with Europe-wide applications; whereas in its

Resolution 88/C257/01, the Council has recognised the desirability of Community coordination in relation to international telecommunications matters;

Whereas the requirements of different categories of service providers and users at the European level are diversely influenced by a growing complexity of market and technological factors;

Whereas, therefore, coordinated management of numbering schemes at the European level must be carried out within a framework of Europe-wide cooperation allowing account to be taken in a timely manner of the opinions of numbering experts from national authorities responsible for numbering scheme management, network operators including an appropriate involvement of the Association of European Telecommunications Network Operators (ETNO), service providers, industry and users;

Whereas such Europe-wide consultation is indispensable to allow establishment of standards, development of equipment by European industry, and timely service introduction by telecommunications organisations and other service providers;

Whereas such a framework of cooperation must respect the principle of separation of regulatory and operational functions required according to the Directive 90/388/EEC; whereas, therefore, decisions on the development of numbering schemes and procedures for the allocation of numbers must rest with regulatory authorities, according to this principle;

Whereas, according to the principles defined in Directive 90/387/EEC, management of numbering schemes must be carried out in an objective, transparent and non-discriminatory manner to ensure equality of treatment of the requirements for numbers of different categories of service providers and users;

Whereas such a framework should draw on the experience of existing cooperation mechanisms involving the Conférence Européenne des Postes et Télécommunications (CEPT); whereas, in particular, the arrangements relating to radio frequencies based on the setting up of the European Radiocommunications Committee/European Radiocommunications Office may provide a suitable model on which to base the arrangements for numbering; whereas, in this respect, such a framework might be realised through the creation of a European numbering office (ENO) and draw on established mechanisms of regulatory coordination, in particular the European Committee of Telecommunications Regulatory Authorities (ECTRA);

Whereas in such a framework Member States will be obliged to comply with Community law, in particular with the competition rules;

Whereas an appropriate involvement of the Commission of the European Communities should be ensured in such a framework, including the drawing up of specific working arrangements;

Whereas such a framework should facilitate long-term number supply planning at the European level, particularly with regard to the most efficient use of numbering space which is a potentially scarce resource and in the context of global change in the demand for and use of numbers, taking account of trends in market and industrial requirements, the significant timescales needed to phase out or relocate existing uses and the substantial investments which may accompany such changes;

Whereas such a framework should also facilitate the working out of common European positions concerning numbering at the global level, in particular with regard to the work of the ITU in this area; whereas the Council Resolution 88/C257/01 recognises the desirability of Community coordination in relation to international telecommunications matters, which include the field of numbering;

Whereas the existence of common telephony numbering and dialling arrangements, including European numbers which relate to the Community as a whole and which can be dialled identically from anywhere in the world, would promote the establishment of a cohesive European identity and the functioning of the single market through facilitating provision of Europe-wide services;

Whereas the rapid creation of a European area code for telephony in parallel with Member States' existing country codes would provide a simple mechanism for harmonisation of numbering and dialling arrangements in Europe, allowing common numbering and dialling arrangements to be established in the short term through minimising the requirement for lengthy harmonisation of national numbering schemes at this time;

Whereas the procurement of a European area code for telephony concerns the standards and procedures in the field of international telephone service established by the International Telecommunications Union (ITU); whereas such regional area codes might similarly be created for other world numbering zones as defined by the ITU;

Whereas, therefore, the establishment of a European area code for telephony, the development of coordinated procedures for its implementation and use and its presentation to the ITU should be a first priority for a framework of cooperation such as mentioned above; whereas Member States should accordingly coordinate their actions within this framework of cooperation to ensure that the necessary priority tasks are undertaken;

Whereas this Resolution proposes that detailed work on numbering should be carried out by the Member States in the framework of the European Numbering Office to be created, and to the extent that the objectives of the proposed actions can not be sufficiently achieved on an individual basis by the Member States, for reasons of effectiveness of this work, appropriate Community action is required.

**CONSIDERS THE FOLLOWING POINTS AS MAJOR POLICY GOALS IN THIS AREA:**

1. strengthening cooperation at the European level on the numbering arrangements for services, in particular with pan-European applications, with the objectives of:
  - ensuring that long-term demand for numbers for such services can be met according to the needs of the European market and different categories of user,
  - working towards the fair, equitable and timely allocation of numbers for provision and use of such services,
  - promoting the most efficient use of numbering space by taking timely account of service and user requirements against the background of industrial development and global changes in numbering,
2. developing common European positions in relation to global numbering developments, in particular with regard to the work of the ITU in this area;
3. in order to facilitate the achievement of these goals, encouraging development of a Europe-wide framework of cooperation on numbering between experts from national authorities responsible for numbering scheme management, network operators, service providers, industry and users, drawing on the experience of existing coordination mechanisms set up by the CEPT, in particular as regards the arrangements relating to radio frequencies which may provide a suitable model on which to base the arrangements for numbering and which could, in this respect, include the setting up of a European numbering office (ENO). Such a framework should:
  - be open to the opinions of any member of the categories mentioned above,
  - provide a forum for common studies towards development of European numbering schemes in a manner most suited for existing and future services, taking due account of the diversity of market and technological factors influencing service and product development,
  - have available the resources to carry out analyses of long-term market and technology implications of numbering recommendations at the European level,
4. the opening of a European numbering space within the global telephony numbering plan, through timely introduction of a European area code for telephony in addition

to Member States' country codes, to support the achievement of European telecommunications policy goals, in particular:

- promotion of the creation of Europe-wide services according to market requirements and appropriate social needs, by providing Europe-wide numbers for such services which is essential for their provision and ease of use,
- open and efficient access to and use of public telecommunications networks and services, by providing a mechanism for harmonisation of numbering and dialling arrangements in Europe, in particular common service access codes and number ranges as required,
- provision of a European identity for European undertakings and other organisations in the form of European telephony numbers,

**INVITES THE MEMBER STATES:**

5. to coordinate their actions within the CEPT to promote the development and implementation, in conformity with Community law and in particular the competition rules of the Treaty, of a framework of Europe-wide cooperation on numbering allowing the opinions of all interested parties to be taken into account and involving the Commission as appropriate, including the setting up of a European Numbering Office (ENO) on the basis of an appropriate statute, making available the resources necessary to ensure efficiency and the ability to rapidly respond to changes in the demand for and use of numbers in carrying out its tasks including:

- undertaking research to support the long-term development of European numbering schemes and capabilities such as number portability, taking into account market needs, the needs of different categories of user and global considerations, and forwarding recommendations to regulatory authorities and the Community as appropriate,
- carrying out investigations to support developments in practices of management and allocation of numbers, forwarding recommendations to regulatory authorities and the Community, and carrying out these practices as appropriate,
- undertaking research in preparation of common positions at ITU numbering fora as required to facilitate the attainment of common global positions,
- liaison with bodies responsible for numbering scheme management, particularly at the national level, and with authorities charged with the registration of

names, numbers and addresses particularly as regards the ongoing development of European directory services,

- cooperation and interaction with the European Telecommunications Standards Institute (ETSI) and other standardization bodies in order to take full account of the link between standards development and numbering resource management,

and, as a high priority,

- investigation of the choice of a European area code for use in parallel with Member States' existing country codes, with particular reference to studies indicating the possibilities of the 80X range of codes and taking full account of work in the ITU framework, aiming at recommendation of a preferred choice before the end of 1992 in preparation of a coordinated request to the ITU for the issue of such a code,
- development of coordinated procedures for the management and allocation of pan-European telephony numbers resulting from the creation of a European area code, in particular with regard to the services listed in the Annex,

**INVITES THE COMMISSION:**

6. to promote the preparation, in the context of working arrangements drawn up under the framework of cooperation, of a plan for the coordinated introduction of a European area code in the Community, including working out cooperative arrangements under which the Community and other CEPT members can procure such a code from the ITU;
7. to propose further measures as appropriate to facilitate the rapid introduction of pan-European services numbered from the number space accessed by the European area code by agreed dates, in accordance with the relevant ONP provisions and in response to user demand.

## ANNEX

### **Pan-European services which may be introduced under Point 5.**

- Europe-wide subscriber telephony numbers
  - Flexible routing service
    - providing the ability to flexibly route calls to different answering points e.g. according to country of call origination, time of day etc.
  - Europe-wide green/freephone call service
    - particularly making use of flexible routing
  - Europe-wide kiosk billing service
    - including flexibility for private service operators to choose the charge for a call, up to a maximum set by the national regulatory authority.
  - Europe-wide shared cost call service
  - Europe-wide mobile services
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