

## **Public Consultation on the Future Harmonisation of Numbering Resources for the Provision of Business Services**

### **Response from the International Telecommunications Users Group (INTUG)**

#### **Executive Summary**

INTUG is pleased to contribute to the public consultation on numbering for business services, as a contribution to improving the availability of services suitable for a single market for business users throughout the European Union. This consultation is especially welcomed since it represents a rare recognition of the need for separate analysis of the business market, with its unique and distinct characteristics and lack of competition. BEREC has recognised this, and it is hoped that they will now pursue action in this area. However, business users do not generally consider telephone numbering a high priority, and changes are normally viewed as an unfortunate imposition of unwelcome costs.

Numbering has historically been associated with telephony and dialled calls from fixed or mobile devices with numeric keys. As connections and devices have multiplied globally, the length of numbers has increased. This method of identification is rapidly becoming cumbersome, inadequate and unnecessary as devices capture the numbers in directories of contact information. Once the identifier has been captured, calls are made by single key sequences via menus, without dialling the actual number being called.

A similar process has already happened with email addresses and URLs for web sites, which are bookmarked or included within a menu page, or identified as a result of using a search engine. The actual address is rarely entered. Harmonisation of email addresses and URLs under Top Level Domains has not been attempted and each organisation has the flexibility to adopt its own hierarchies. In the early days of the European Electronic Mail Association (EEMA), some attempt was made to encourage business users to adopt `firstname.lastname@company.com` with some success, but eventually duplication and company name changes resulted in reducing compliance. In addition, customers needed more than one email address, in the same way that customers have multiple telephone numbers. This has not proved to be an obstacle to the use of email addresses, and it is unlikely that inconsistent numbering structure and allocation schemes between Member States cause any greater hardship. The key to success is ensuring an easy way of enabling the selection of the appropriate identifier on the device being used, based on a progressive search process.

The strategic aim should be similar for “telephone” numbers, which should become a code, which is rarely if ever entered, but simply acquired by a device after some access process. Telephone numbers are increasingly used today as Uniform Resource Identifiers (URIs). The exercise of seeking to “harmonise” numbering schemes is therefore questionable. Harmonisation has been pursued to get greater consistency between Member States, and to ease customer understanding of number allocation and short codes, for example for emergency services. The tariff structure for mobile numbers does not fit an EU approach.

Efforts to establish a European Telephone Numbering Space (ETNS) behind country code “3883” proved unsuccessful, since it required a level of implementation which was never fully achieved and required process co-ordination for number allocation at EU level. A similar fate befell International Freephone Numbers, which was a very bad experience for business users. Many companies wanted to use them, but became frustrated when different Member States used different models, and calls from mobile phones were either not free or not possible. Many companies reverted to national numbers with double costs.

Businesses would ideally prefer their “European” number to be the same or similar to their national numbers, or the effect would be to add a 28th different number. Given existing inconsistencies, the migration task may well prove to be too great and too costly again. Priority should therefore be given to numbering for prospective pan-EU services.

The public consultation document uses the word “European” throughout, but presumably means EU Member States. If other countries, for example those within EEA/EFTA, were to participate, this would affect the necessary administrative process, and the ownership of the numbering space, which BEREC could only control for the EU. INTUG’s response assumes the scope is purely EU Member States, since the control mechanisms to implement beyond that scope are either weaker or non-existent. Some implementation might be achievable via the ITU at global level, but this is outside the consultation’s remit.

There are two distinctly different numbering options of potential value to business users. These should not be confused in considering responses to the consultation questionnaire.

The first is an EU Telephone Numbering Space (ETNS), accessible from within and from outside the EU, using a country code after the international dialling prefix. This was the approach tried with the +3883 code, which failed and was withdrawn at the end of 2010.

The second is a number range allocated at EU level, which works consistently, when used anywhere within the EU. This could be allocated behind a short code prefix, such as 115, removing the need for the international dialling prefix and a country code, when calling. Access to these numbers from outside the EU would require an international prefix and country code prior to the short code prefix, unless implemented in the calling country. Such an extension might be implemented voluntarily, e.g. in EFTA, EEA or OECD countries, but would require an ITU Recommendation to become global.

Unfortunately, the term “ETNS” is used in the consultation in an ambiguous way, which sometimes refers to the +3883 style pseudo country code approach, and sometimes includes a short code prefixed numbering range, allocated for business services.

The numbers after the prefix, whether after a short code within the EU, or after an EU country code from outside the EU, could be the same numbers, and could be used by business services to ease cross border and multi-Member State trade, by self-employed people living near borders, and by older people with homes in more than one country.

In each case, the charging principles applying to calls to and from such numbers must be consistent. If applied beyond EU level, this would require an ITU Tariff Principles Study Group Recommendation.

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The INTUG community includes user associations in many large Member States, including Belgium, Denmark, France, Germany, Spain, the Netherlands, Sweden and the UK, and the multinational user group EVUA. Each group represents public and private sector customers of communications service providers.

INTUG also consults user organisations in other countries for comment.

### **Confidentiality and Contact information**

Nothing in this submission is confidential and the contents can be considered to be in the public domain. The submission is available on the INTUG web site at [www.intug.org](http://www.intug.org).

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## **Detailed Responses to Questions**

**Question 1a:** How does the fact that numbering assignment schemes are purely national impede the development of the single market?

**Answer 1a:** International businesses have to maintain ranges of national numbers in each Member State which are inconsistent and subject to different charging rules. This prevents provision of standard access numbers to customers and business partners, and adds cost to operations for example in documentation and packaging.

**Question 1b:** What are the advantages and disadvantages of purely national numbers?

**Answer 1b: Advantages:** Management of numbers and their allocation to customers is a complex process, and the supply and demand cycle forces regular changes to numbering schemes. These occur at different times in different Member States. Co-ordinating numbering changes throughout Europe would be more complex than national number changes. National numbers are likely to be two digits shorter than in a numbering scheme covering the whole of Europe. Ex-post harmonisation of numbering schemes which are currently inconsistent is considered too expensive.

**Disadvantages:** National numbers do not support international business operations. Their inconsistency adds cost to business operations. Businesses need maximum reach, with re-routing, virtual numbers and number portability cross-border.

**Question 2:** How do you see the need for further harmonisation on numbering resources?

**Answer 2:** It is questionable whether the cost and disruption of retrospectively harmonising numbering resources between Member States can be justified.

There may be benefit in prospectively harmonising short codes and freephone numbers for business, but this has proved to be beyond the desire or capability of National Regulatory Authorities to date. Reinforcing adoption of standard short codes would have value for the mass market but less value for the business user. The price models behind the numbers need to be acceptable and consistent, for example for international mobile.

**Question 3a:** In terms of your activity do you see any benefits of having a single European telephone number?

**Answer 3a:** If a single EU telephone number could be allocated which would work from anywhere and to anywhere within the EU, this would in theory have business value, but it would have to be universal and would have to be subject to consistent charging principles. Past attempts to introduce international freephone services have failed since they were not implemented in all Member States.

**Question 3b:** How do Internet and increasing use of on-line shopping affect this demand?

**Answer 3b:** The increasing proportion of interactions by mass market consumers with suppliers via the Internet is reducing one aspect of the need for convenient free telephone access to suppliers and distribution organizations, and to banks, as more people become connected to the Internet. The bad reputation of anonymous multi organisation call centres is also driving consumers to use the Internet instead.

**Question 4a:** How could short number (sub)ranges for harmonized European use, e.g. 115xxx for business services, best facilitate cross-border business activities?

**Answer 4a:** New short number sub(ranges) offer better harmonisation opportunity as it is a prospective process, requiring less or no migration effort and cost. They could be used for cross-border business activities, e.g. as pan-EU services based on telephony, such as telesales and call centre support.

**Question 4b:** What are the advantages and disadvantages of this approach?

**Answer 4b:** The main advantage is the opportunity for establishing Single Market wide business processes leveraging EU scope and scale. One disadvantage may be that setting up the arrangement and acquiring harmonised numbers is a more complex, costly and slower process, needing cross-border administration effort. There is also the challenge of balancing the need for numbers to be short and having enough numbering space to meet demand without future changes.

**Question 4c:** Which features should they have?

**Answer 4c:** Consistent ranges in all Member States, linked to consistent charging principles and allocation of numbers within the ranges, on an EU-wide basis. They should be allocated in ranges, through BEREC, on behalf of all the NRAs. They should have the same features as national numbers offering similar facilities.

**Question 5a:** What would be the benefits of an EU short number range, in terms of marketing and branding of products and services?

**Answer 5a:** An EU short number, e.g. 115xxx, would enable standardization of marketing and packaging, making it easier for manufacturers to brand products and services as Single Market offerings consistently across the EU, but companies are increasingly using a web site address or freephone number (but not international).

**Question 5b:** What would be the impact of such a number on marketing/advertising cost?

**Answer 5b:** The level of cost reduction will vary depending on how much telephone numbers feature in after sales support and advertising, but for some organisations cost reduction from consolidation behind harmonised numbers will be significant.

**Question 6:** Which stakeholders could benefit from a single European number?

**Answer 6:** Beneficiaries would include manufacturers, distributors, wholesalers, retailers, packagers, systems integrators and call centre operators, as well as public and government service providers, and mass-market end consumers.

However, benefits will only accrue if the single EU number is fully implemented and supported in EVERY Member State as a regulatory obligation, and is not subject to inconsistent functionality limitations and/or charging principle differences.

**Question 7:** How could the reservation process of numbers individually at EU level, and implemented separately by each Member State, affect the take-up of the number range?

**Answer 7:** Speed and efficiency by the EU-level administrative process, with control over excessive pre-emptive reservation, will be essential, allied to strictly applied deadlines for implementation in every Member State, unlike the ineffective and partial process achieved for the ill-fated international freephone numbers.

**Question 8:** How can we ensure that the reserved numbers are effectively used across the Member States?

**Answer 8:** By clear deadlines for implementation, and financial remedies in the event of failure to implement by a Member State, and/or by responsible operators.

**Question 9a:** How can it be ensured that calling a short number is competitive in terms of pricing, compared to the use of other numbers?

**Answer 9a:** Charging principles must be agreed at EU level by BEREC and adhered to by all NRAs, which align pricing between the international numbers and similar services offered on national numbers. This argument has also been made for roaming charges, since it leverages domestic competition at EU level.

**Question 9b:** What should the pricing structure be to make a short number a success?

**Answer 9b:** The target price for an EU number must be the same as for a call of similar function nationally. This is the only way to achieve a true Single Market. Regulation must ensure originating operators treat their subscribers exactly the same when making calls to a 115xxx number, compared with other fixed numbers. This includes inclusion or exclusion from bundled offerings and discount options.

**Question 10a:** Could +3883 prove useful for building a European numbering identity?

**Answer 10a:** No. It is too unwieldy and unmemorable. An EU country code of +3, mirroring North America, would have been simpler, but this would have required all countries with an existing country code beginning with 3 to change. There are two distinct options - a country code prefix to call an EU number from inside or outside the EU, and a short code prefixed number for calling within the EU.

**Question 10b:** How could a single European-wide number best facilitate cross-border business activities?

**Answer 10b:** Whilst a single EU-wide number reachable from outside the EU, based on an EU “country” code prefix, would simplify cross border activities, businesses operating call centres in the EU supporting multiple Member State operations can do this with a hub in one Member State using existing country codes.

**A short code prefixed number allocated EU-wide has greater advantages within the EU as it allows use of the same number to access businesses without a central hub, and the caller will not need to use an international dialling prefix and country code.**

**Question 10c:** What are the advantages and disadvantages of this approach?

**Answer 10c:** The main advantage is simplification of EU-wide business processes leveraging EU scope and scale. One disadvantage is that allocating/implementing harmonised numbers is likely to be a more complex, costly and slower process, needing cross-border administration effort. There is also the challenge of balancing the need for the number to be short whilst having enough space for future needs.

**Question 11a:** What would be the benefits of a single European number in terms of marketing and branding of products and services?

**Answer 11a:** A single EU number allocated within an EU numbering space, would enable standardization of marketing and packaging, making branding of products and services as Single Market offerings consistently throughout the EU easier.

**Question 11b:** What would be the marketing/advertising cost impact of such a number?

**Answer 11b:** The level of cost reduction depends on how much telephone numbers feature in after sales support and advertising, but for some organisations cost reduction from consolidation behind a single EU number will be significant.

**Question 12:** Which stakeholders could benefit from a single European number?

**Answer 12:** Beneficiaries would include manufacturers, distributors, wholesalers, retailers, packagers, systems integrators and call centre operators, as well as public and government service providers, and mass-market end consumers.

**Benefits will only accrue, however, if the single EU number is fully implemented and supported in EVERY Member State as a regulatory obligation, and is not subject to functionality limitations and/or charging principle inconsistencies.**

**Question 13a:** Given the DG INFSO 2009 study which outlined the three options of +3883 + 8 digits, +3833 (sic) + 5 digits, and an access point to a subscribers contact details, what are the technical/length requirements for an attractive ETNS?

**Answer 13a:** As indicated above, the ideal would be a single digit, e.g. +3, but it is acknowledged that this is unlikely to be achievable due to migration disruption. Accepting the impracticality of a single EU country code system for all numbers in the short to medium term, a two-digit unallocated E164 country code should be the maximum length, for convenience beginning with 3 or 4. Member States with existing corporate numbering ranges of up to 7 digits could incorporate their existing numbers into an 8-digit scheme with one prefix digit.

**Question 13b:** What kind of services should be available under the ETNS?

**Answer 13b:** Freephone, local call rate, shared cost, premium rate services and Calling Line Identification should be supported, in addition to normal functionality. Limitations on the functionality available for what is essentially a business service option automatically impact on the economic and functional benefits of the ETNS.

Freephone and premium rate are a vital requirement for businesses operating international call centres, and the positioning of 115 xxx numbers as “normal” numbers would make shared cost numbers a necessity also.

**Question 13c:** Would any of the 3 options above prove a suitable model for the ETNS?

**Answer 13c:** Presuming that the second option in the study is +3883 and not +3833, i.e. the same number, the 5 digit option reserved for businesses is the preferred option for some organisations, but other groups believe an 8 digit numbering space will be needed to meet demand. This will be affected by the knowledge that +3883 (or +3833) failed partly because it made numbers too long to be workable anyway.

**Question 13d:** What would be an alternative approach?

**Answer 13d:** A shorter code with a number space allocated at EU level by BEREC, which aligns with access to EU business numbers, accessible via the short code prefix as well, i.e. dialling +3Xabcde from outside the EU and 115abcde from inside.

**Question 14:** To what extent does the fact that premium rate, shared cost or freephone services cannot be provided over +3883 affect the attractiveness of the ETNS?

**Answer 14:** It prevents a consistent approach for callers from inside the EU using short code prefix and callers from outside the EU using the ETNS and hence does affect the attractiveness of ETNS. Freephone and premium rate are a requirement for businesses operating international call centres, and the positioning of 115 xxx numbers as “normal” numbers would make shared cost numbers a necessity also. In addition, as indicated above, the international freephone services did not work.

**Questions 15:** Should the ETNS number be reserved to businesses/organisations only, or should it be available both to private and business users?

**Answer 15:** ETNS numbers should not be reserved for business/organisations only, since they will be of value to self employed people in border areas and older people with homes in two countries, but allocation must be controlled in order to ensure some potential for a reasonably short number, a reasonably low cost manageable allocation process, and smooth number portability internationally.

**Question 16a:** How can it be ensured that calling an ETNS number is competitive in terms of pricing compared to the use of other numbers?

**Answer 16a:** By agreeing clear charging principles which match those of national numbers, supported by robust regulatory monitoring and appropriate remedies. Problems with access to freephone numbers from mobiles should not be repeated.

**Question 16b:** What should the pricing structure look like to make ETNS a success?

**Answer 16b:** The ETNS pricing structure must match that of national fixed numbers. This is the only feasible approach if the objective is to support Single Market cross-border trade, without imposing an indirect tax on trade as with roaming charges. Such a structure will only be achieved with appropriate regulation and remedies.

**Question 17a:** What should be the role and tasks of the legal entity having sole responsibility for the management, number assignment and promotion of the ETNS?

**Answer 17a:** The role and tasks should be consistent with those undertaken by NRAs for the management of numbers within Member States, lending itself to being an arm of BEREC. Administration should be impartial, efficient and not-for-profit, with numbers notionally “owned” by the entity, and assigned to business users.

The entity should be responsible for appropriate husbandry of the resource to avoid profligate or anti-competitive use, e.g. in the way “golden” easy-to-recall numbers are assigned. If the endeavour is effective, “promotion” should be unnecessary.

**Question 17b:** What would be the most appropriate management model for ETNS?

**Answer 17b:** The entity should be responsible to BEREC for monitoring effective and efficient implementation and usage, and for reporting on allocation and stock. A numbering plan should be devised which minimizes the need for future change.

**Question 18a:** Which form of organization would be most suitable for managing ETNS?

**Answer 18a:** Numbering is a specialized discipline and in many countries is resourced by experts previously employed by the incumbent for that purpose. There is a risk that such resourcing can inherit some partiality, and outsourcing to a specialist organisation with a clear remit to meet public aims at EU level is fairer.

**When Neustar was given the contract to manage +3883, nothing happened because there was no mandate to enable the code in the C5/C7 switches. There was a lot of discussion of ENUM enabling the code but no action due to incumbents' resistance. Such problems must be avoided by any new management organisation for ETNS.**

**Question 18b:** Should the ETNS manager be a public body or a commercial entity?

**Answer 18b:** The ETNS management organisation should be a public body, within or reporting to BEREC, and not a commercial entity, to avoid the risk of adding cost for businesses using the numbering space. This should also prevent profiteering from exorbitant pricing of golden easy to remember numbers. Its technical resources might, however, come from a commercial enterprise specializing in numbering.

**Question 19:** What is the most appropriate model for financing of ETNS management?

**Answer 19:** The most appropriate model for financing ETNS management would be BEREC, and hence indirectly NRAs who already fund national number management.

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