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**Re : AT&T Comments on ART's Consultation Document: "Updating the numbering plan and its management rules»**

AT&T Global Network Services France SAS and AT&T Corp. (collectively "AT&T") are pleased to provide the following comments on ART's consultation paper, *Updating the numbering plan and its management rules* (the "Consultation Paper"). As a leading provider and innovator of Voice over Internet Protocol (VoIP) services, AT&T has a strong interest in this proceeding. AT&T applauds the ART for its leadership in initiating this regulatory review, intended to "*simplify the development of network and network-related service companies, by creating a framework that encourages competition.*"

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## **1 – MAJOR DEVELOPMENTS TO TELEPHONY AND NUMBERING**

### **a. General questions**

**(1) What general comments do you have on the current numbering plan?**

As of today, AT&T Global Network Services France SAS (hereafter AT&T) has made limited use of the current numbering plan given the nature of its services ie. value added and Internet services.

The only numbers that AT&T applied for and obtained were 0860 numbers which have been used to the satisfaction of our corporate customers for remote access to AT&T services.

**(2) What are the concerns of operators, consumers, industry, etc. regarding the numbering plan? Within the next year? Within three to five years?**

Looking ahead, AT&T urges ART not to use the numbering plan as an instrument of discrimination between services offerings. In particular, with regards to the emerging range of IP-enabled services, including Voice over IP (thereafter “VoIP”), ART should ensure that both geographic and non-geographic numbers are available for VoIP services independent of whether such services are provided by PATS or non-PATS operators.

**(4) What new services are likely to develop? What will their impact be on the numbering plan?**

The emerging range of IP-enabled services, including VoIP, represent the most fundamental development in telecommunications technology in decades, enabling a revolutionary set of converged voice, data and video applications, bringing better features at lower prices for users, better applications for business, and benefits for the information society as a whole.

The impact of these new emerging services on the numbering plan are unclear at this stage. However to the extent the use of geographic numbers raises concerns about the impact on geographic numbering resources, AT&T believes there are a number of initiatives that should be considered to minimise any adverse impacts. For example, ART could “set aside” initial number blocks for VoIP services in each geographic area with allocation at possibly 1,000, or even the 100 number block level. This approach is competitively and geographically neutral, and is a proportionate response to concerns with number exhaustion. Additional blocks for VoIP would need to be made available to meet demand, even if that triggers code changes in some areas. If demand for new geographic numbers overheats, then at that point ART could consider “conservation” measures, such as allocating numbers for all services in smaller blocks. This would alleviate exhaustion concerns, but might introduce a technical complication for traditional services and shouldn’t be introduced until demand for VoIP and impact on the numbering plan is more clear.

We can share our experience in implementing a change in number block allocation from 10,000 to 1,000 in the United States where allocation of numbers in blocks of 1,000 has already been generally implemented. Thousand Block Number Pooling (“TBNP”), as it is known, has been a priority prong of the US FCC strategy to defer exhaust of the North American Numbering Plan in the face of proliferation of service providers, each needing numbering resources in multiple geographic areas. TBNP has significantly extended the life of the number plan, and is working very effectively, as evidenced by a recent FCC

report stating that TBNP has already saved *over 61 million telephone numbers*.<sup>1</sup> Should you have further questions about the implementation of TBNP, it would be our pleasure to present additional information

## **b. Uses of the plan and long-term developments**

### **(7) Do you think that “nomadism” is likely to develop in coming years? In what form? With what numbers: current numbers or a new range of numbers?**

AT&T agrees with ART that “nomadism” is likely to develop in coming years. In particular with regards to the emerging range of VoIP services, some VoIP applications and some users will make use of the ability to use the service at more than one fixed location.

AT&T’s view is that both geographic and non-geographic numbers are appropriate for VoIP services, and that solutions adopted by ART should ensure both possibilities are available in order to encourage competition with traditional voice services, as well as to enable the new advanced VoIP service features.

Availability of geographic numbers is particularly important for VoIP adoption, because some consumers will prefer to have the option to port an existing number or obtain a new but familiar type of number. This is the policy adopted by key global regulators in advanced telecommunications markets, such as the UK, Japan and the USA. In reaching its recent decision to allow the liberal allocation of geographic numbers to VoIP services, Ofcom, the UK regulator concluded that: *“By fostering an environment where new voice services may flourish, this option is an example of best regulatory practice.”*<sup>2</sup> AT&T agrees. This approach is also consistent with the European Commission’s recommendation to Member States in its recently published consultation on VoIP regulation: *“in order to foster competition and stimulate the emergence of new services, Member States are encouraged to give any undertaking providing or using electronic communications networks or services that applies for it, access to geographic numbers.”*<sup>3</sup> AT&T therefore agrees with the *Consultation*’s preliminary conclusion that there are many arguments to support the allocation of geographic numbers for VoIP services with a nomadic capability.

AT&T does not believe that the limited transportability, or nomadicity, of certain VoIP services should make them ineligible for the allocation of geographic numbers. Only some VoIP applications and only some users will make use of the ability to use the service at more than one fixed location. And some of these users will prefer that the non-fixed capability remain opaque to callers (i.e. working from a virtual location, different

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<sup>1</sup> *FCC Releases Telephone Numbering Resource Utilization Report, Over 61 Million Numbers Saved Through Thousand-Block Pooling*, FCC News, (rel. Dec. 11, 2003) ([http://www.fcc.gov/Bureaus/Common\\_Carrier/Reports/FCC-State\\_Link/IAD/utilizationjun2003.pdf](http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/utilizationjun2003.pdf)).

<sup>2</sup> *Numbering arrangements for new voice services*, Ofcom Statement, 6 September 2004 at ¶ 4.55.

<sup>3</sup> *The Treatment of Voice over Internet Protocol (VoIP) under the EU Regulatory Framework – An Information and Consultation Document*, European Commission, 14 June 2004 at ¶ 7.2.

from the physical location associated with a geographic number). Provided tariffing for calls to numbers is consistent with the ZNE, the fact that calls are physically routed to Telephone Adaptor locations remote from that indicated by the ZNE should not be a determinative issue. Rather, transparency of tariff prices to calling parties is the crucial “test” for use of number – not whether the called party physically is located within the ZNE. This transparency and certainty of the rate being paid by the calling party when dialling a geographic number is not compromised by the limited transportability offered by some VoIP services. The overriding concern of regulators should be whether or not end users are harmed by this innovative use, and at this early point, the compelling indications are that consumers benefit from the numbering flexibility.

In the United States, for example, AT&T (and others) offer VoIP services which allow a degree of terminal transportability. Users have a Telephone Adaptor (TA) configured with IP addressing that establishes the registered user, which can be moved to a different broadband connection, e.g., from home to office or in a broadband-enabled hotel room when travelling. The TA registers with the VoIP service provider network, which in turn instructs where to deliver calls to the customer's number via the TA. Regardless of where the user and the TA are located, *the point of interface to which other carriers deliver calls to the VoIP carrier always remains fixed and appropriate to the geographic area associated with the number prefix as for any geographic number*. This insures that calling parties are charged the same as for a call to any similarly situated geographic number regardless of where the calls is terminated to the TA by the VoIP provider. This remarkable flexibility for end users to control how and where they communicate, and at an efficient cost, must be encouraged rather than impeded.

**(8) More generally, do you consider it pertinent to imagine a single number per subscriber? Conversely, do you think that the current situation where each subscriber has more than one number (fixed, mobile), in addition to other contact identifiers (address, email address, instant messaging identifier) can last?**

AT&T believes that customer demand for numbers is still at a nascent stage, and it is too early to determine what type of demand patterns may emerge for innovative services. Although some customers may find value in a unified number that links multiple devices, other customers may find value in having multiple numbers either for different purposes or for convenience/cost control reasons. It would be premature at this stage for the regulator or operators to force one outcome rather than the other.

**(11) What constraints does portability provoke on the national numbering plan? What solutions would you propose?**

Portability is an effective means to ease scarcity concerns as well as promoting competition. However these benefits must be weighed against the costs of broadly mandating it. Services providers should have the choice to support or not support number portability based on the acceptance of specific rights & obligations.

**(15) In the long term, do you think that other addressing systems will replace the numbering plan for interpersonal voice communications? How can the numbering plan interact with other addressing systems? Will it become a subsystem of a global**

**system like IPv6, or have its own autonomous and parallel development?**

See answer to Question (16)

**(16) What is your interest in the ENUM standard? What impact could this standard and its developments have on the numbering plan?**

AT&T is very interested in the ENUM standard and contributes to its development in several organizations. However ENUM follows its own autonomous and parallel development and should not require special numbering ranges on the numbering plan. Given the trend for all electronic communications services moving to an IP platform, ENUM can and may ultimately be applied to all numbers.

## **2 – NUMBERING RESOURCE MANAGEMENT RULES**

### **b. The numbers intended for interpersonal voice communications**

**(20) As concerns numbering, what type of treatment would you suggest for the various voice-over-IP services?**

AT&T believes that both geographic numbers and non-geographic numbers are appropriate for VoIP services in order to encourage competition with traditional voice services, as well as to enable the new advanced VOIP service features.

**(21) Do you feel it pertinent to consider eliminating the geographic element in the numbering plan (option 2)? If yes, at what point in the future and why? Other than option 1 (keeping ZNE, which might be extended), do you feel another option might be possible?**

AT&T favours Option 2 (removing the requirement for relationship to geographic location) because it enables VoIP service providers to flexibly use the most familiar and commonly used number ranges that are associated with low tariffs. This option will be the most effective in stimulating competition to traditional voice services, as well as fostering innovation in service offerings.

This Option does not however remove the meaning of ZNE completely. They will continue to signal tariff information to calling customers and, as we indicated above (see answer to Question (7)), AT&T's experience in the US is that most numbers continue to be used in the geography indicated by the ZNE. Furthermore, AT&T does not believe that, because a user can be nomadic, this Option implies a change for routing by incumbents provided that the point of interconnection remains fixed.

**(22) For option 1, which maintains the geographic element by using ZNE, do you think there might be a risk of over-consumption of geographic numbers, because of the large number of blocks needed by an operator to cover all of France, for example? What else might cause over-consumption of geographic numbers?**

Option 1 heavily favours traditional voice providers with existing number blocks in most areas, over new entrant service providers that would be obliged to purchase multiple numbering blocks to offer nationwide coverage. Depending on the difficulty to obtain

the numbers directly or indirectly through sub-allocations from network operators, this could create a significant barrier to entry and disproportionate impact, without a demonstrated need. AT&T therefore concludes that this Option would be incompatible with EU NRA's duties with regard to numbering, naming and addressing under the Framework Directive (2002/21/EC) and specifically Article 10.2 which requires that: *"National regulatory authorities shall ensure that numbering plans and procedures are applied in a manner that gives equal treatment to all providers of publicly available electronic communications services."*

**(25) Should the use of geographic numbers be limited to public telephone services? If not, what should be the perimeter for services eligible for geographic numbers?**

**What definitions would you propose for these services?**

AT&T does not agree that the availability of geographic numbers should be limited to services that qualify as public telephone services. AT&T believes that the fact that VoIP services are not necessarily geographically constrained (and offer additional features such as transportability, flat rate tariff options for outgoing calls, etc.) should not lead to allocation of geographic numbers being restricted to situations where the current specifically geographic characteristics apply or if the VoIP services are clearly substituting PSTN services that would themselves be generating the same need for PSTN numbers. AT&T believes that there are many other circumstances where geographic numbers will be entirely appropriate and desirable for use with a VoIP service, particularly when marketing to consumers who are more likely to adopt familiar numbering resources. One example would be a customer who is seeking to add a second residential line and whose primary intent is not to utilise the nomadic functions of VoIP. Furthermore, although not always possible to predict, ART policies should aim to be future-proof, and given the likely long-term trends of all voice services towards an IP and broadband platform, it would be harmful to artificially segregate the geographic numbering resource on the basis of an arbitrary view of what constitutes a PSTN substitute. Hence, AT&T advocates allocation of geographic numbers to all IP-enabled services, including VoIP.

**(26) Should technical constraints be introduced in the assignment rules and the conditions of use for geographic numbers? Or on the contrary, should the assignment of numbers depend simply on meeting objectives (quality of service, location), regardless of the resources used? Please support your answer.**

See answer to Question (21)

**(27) Is access to geographic numbers indispensable for the development of certain activities?**

See answer to Question (25)

**(28) Are non-mobile non-geographic numbers open for interpersonal voice calls (087B) suited to the needs of users and companies? Do you feel it necessary to open a new range of numbers for interpersonal voice calls without geographic location? Please support your answer.**

AT&T has no objection to personal numbers from the existing 087B range being allocated to VoIP services, although we agree with ART that the disadvantages associated with this range may limit their attractiveness to VoIP service providers and their customers.

AT&T would support an ART proposal to establish a new range of non-geographic numbers for VoIP. AT&T notes a number of other countries within and beyond the EU that have already opened, or are considering opening, new non-geographic number ranges for VoIP services. AT&T has supported such initiatives, provided that VoIP services are not constrained only to a non-geographic number range. Non-geographic numbers are one option, but not the only option, suitable for VoIP services. By establishing a non-geographic number range reserved to encourage deployment of a numbering resource for VoIP service, and by also preserving a reasonable ability to obtain geographic numbers for such service, ART will best allow providers a long-term ability to innovate and confirm customer demand, as well as ways to satisfy key aspects of economic, social and safety regulation.

AT&T therefore supports ART's proposal to establish non-geographic numbers for VoIP, particularly if this will create efficiencies that improve the ability of new VoIP providers to obtain and use number resources. For VoIP applications that rely significantly on the service for mobility or long distance and international use, a non-geographic number may be desirable given the independence of the number from concepts of distance or fixed location. Additionally, during the early phase of VoIP adoption, the non-geographic number also may be desirable to consumer and regulator alike, signalling a clear intent by the regulator and an assumed knowledge by the consumer that services within this number range are innovative and will have light regulatory obligations. ART should establish the non-geographic number range for VoIP with low entry barriers for obtaining number blocks, as this will foster VoIP deployment. ComReg should, however, bear in mind that, as more and more voice services migrate to IP, artificial segregation of VoIP services behind a non-geographic number range is unlikely to be sustainable in the long term.

In establishing this range, ART should seek to ensure that the charges for calling non-geographic numbers are competitively equivalent to the standard national charges for calling geographic numbers, so that inappropriately high charges do not dampen customer acceptance of VoIP service.

**(30) If a range is opened, do you feel it would be necessary to distinguish between numbers allocated for electronic communications services and numbers allocated for public telephone services? What ranges of numbers should be allocated to each category of service?**

AT&T does not agree with distinguishing between numbers allocated for electronic communications services and numbers allocated for public telephone services. AT&T asserts that a flexible approach to regulation – one that focuses on encouraging service provider differentiation along with customer notification -- will best encourage innovation and investment in new voice services. A consumer policy approach based on

a regulatory distinction between “pure voice” and “hybrid” VoIP services would be difficult to implement given the range of potential applications, and the appropriate policy approach is to focus on empowering consumers to make informed decisions about the products they are buying and how to use them. The ART should be thinking about IP-enabled services of the present and future, in which voice is but one of many fully integrated IP services, most of which have nothing to do with the traditional voice regulatory framework.

AT&T urges the ART to focus not on rigid regulatory categories that fit in a familiar way with traditional voice service facts, but rather to emphasize future-proof principles that allow a range of new voice services to evolve. By encouraging service provider differentiation combined with customer notification of capabilities, the ART has a better opportunity to achieve this.

**c. Numbers used to provide on-line services**

**(41) Is it necessary to increase information to the consumer? If yes, why and what solutions would you recommend?**

AT&T agrees that it is important to ensure that customers fully understand the capabilities and limitations of the specific service they are purchasing from a specific service provider, including with respect to costs. AT&T believes that this should take place at the point of sale, and not at the point of numbering regulation.

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AT&T commends ART on its review of the numbering plan with a view to “*guarantee simple and efficient use for users, and in order to objectively, transparently, and non-discriminatingly attribute these resources*”. In that perspective, AT&T strongly believe that a numbering plan combining the availability for VoIP services of current geographic numbers and a new (non-geographic) number range is the best method to promote the interests of all key stakeholders. If you have any further questions concerning these comments, please do not hesitate to contact me in that regard.

Yours sincerely,

Philippe Wintrebart