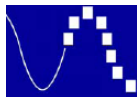


**Comments on Ofcom's proposals to safeguard
the future of geographic phone numbers**

by VON Europe, February 2011



Preliminary remarks

The Voice on the Net Coalition Europe ('VON') welcomes the opportunity to comment on Ofcom's proposals to safeguard the future of geographic phone numbers (hereafter "the Document").

VON believes that a well-designed and forward looking numbering plan is feasible (numbers are not intrinsically scarce; it is rather the way in which they are structured and managed that can cause scarcity) and will bring consumer benefits and promote competition. We also recognise that numbers have been, are and will remain a critical resource for communication services and applications.

Ofcom's approach could be much more ambitious and VON doubts that it is adequate to cope with the rapid technological trends and evolutions. We also wish to emphasise that the EU regulatory framework for electronic communications (Directive 2002/21/EC, as amended), requires numbers to be made available for ALL public electronic communication services¹ and that the European Commission's Information and Consultation Document of 14 June 2004 on the treatment of Voice over Internet Protocol (VoIP) under the EU Regulatory Framework², Section 7.1, stated explicitly that:

"Any undertaking providing or using electronic communication networks or services has the right to use numbers. [...]"

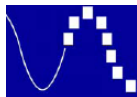
More details can be found in VON's responses below.

¹ Article 10 – Numbering, naming and addressing

1. Member States shall ensure that national regulatory authorities control the granting of rights of use of all national numbering resources and the management of the national numbering plans. Member States shall ensure that adequate numbers and numbering ranges are provided for all publicly available electronic communications services. National regulatory authorities shall establish objective, transparent and non-discriminatory procedures for granting rights of use for national numbering resources.

²

http://ec.europa.eu/information_society/policy/ecomm/doc/library/working_docs/406_14_voip_consult_paper_v2_1.pdf



Detailed remarks

Question 1: Do you have any comments on the objectives and approach to this review of geographic number management? Do you agree with the policy principles that we consider should inform the review?

Question 2: Do you agree that we should not consider further at this stage options that would change existing numbers?

Question 3: Do you agree that local solutions are appropriate based on our current forecasts of anticipated requirement of more numbers?

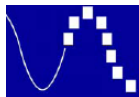
Question 6: Are there any other number supply measures that we should consider for four-digit areas?

Question 8: Are there any other numbers supply measures that we should consider for five-digit areas?

Question 9: Do you agree with our considerations and preliminary conclusions on how new supplies of numbers should be provided where they are required?

VON believes that the Internet creates tremendous opportunities for new services and applications; that a well-designed and progressive numbering plan will accommodate growing usage, bring consumer benefits, and promote competition. Such outcomes are in line with Ofcom's stated aim to '[facilitate] *communication providers (CPs) in their provision of communication services and to promote competition and consumer choice*' (Section 4.66). Moreover, a forward-looking approach would support Ofcom in realising one of its general duties on telephone numbering, namely the encouragement of efficiency and innovation (cf. Section 63, Art. 1(b) of the Communications Act 2003) (Section 4.70).

Even though VON shares Ofcom's concerns about the lower than expected investment rates in Next Generation Network (NGN) voice services infrastructure (Section 1.9 and 2.13ff), we do not consider that IP roll out delays should imply that Ofcom's approach to geographical numbering should therefore stay stuck in the 'circuit-switched' or 'copper' age. The switch to an all IP network is happening and any steps undertaken by Ofcom to review its approach to numbering should recognise that no investment is being made in legacy circuit-switched technology, and that IP voice is the modern equivalent asset for remaining circuit-switched technology. The French and Italian NRAs (ARCEP and AGCOM) are expected to imminently confirm this in their approach to the next round of



market analyses setting fixed network wholesale call termination rates, with termination rate cuts expected to be as much as a factor 10.

More importantly, when reading Ofcom's proposals in the Document, VON strongly believes that Ofcom should go much further than what the ECC³ in its 2010 Report on the Evolution of Geographic Numbers (hereafter 'the ECC Report') describes as:

"The design of NGNs implemented today is very much 'PSTN on IP based networks' with the features and restrictions of the PSTN being copied."

VON is convinced that a forward-looking approach to numbering is a must in light of changing consumer demands and the inevitable switch to an all-IP world on both fixed and mobile NGNs. Approaches to numbering plans require a much more flexible organisation in order to accommodate these shifts, while at the same time ensuring transparent retail prices for consumers.

Such a forward looking approach was looked at, for example, by the Swedish NRA PTS in a 2010 Study⁴ on the future organisation of Sweden's numbering plan. For PTS, the challenge was not to patch the existing numbering plan with minor fixes, but rather to look at ways in which to accommodate on the one hand the evolution to nomadic IP-based voice services and on the other hand end-users' need for mobility and flexibility, instead of letting the 'contemporary technological conditions' – that gave rise to most existing number plans – guide them⁵.

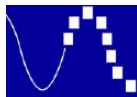
The ECC Report takes a similar approach and comes to the following conclusions:

- *'the concept of geographic numbers is changing. For instance in more and more countries the rule of strict coupling between the physical location of a connection point and the geographic information in the geographic number is given a more flexible interpretation (e.g. in nomadic VoIP services)' (p. 9);*
- *'the network technology has advance and network costs have changed so that retail tariffs in many countries have become distance independent' (p. 4); and,*

³ See ECC. (2010). *Evolution of Geographic Numbers* [ECC REPORT 154]. Luxembourg: CEPT. Retrieved at, <http://www.erodocdb.dk/Docs/doc98/official/pdf/ECCREP154.PDF>. p. 24.

⁴ See notably p. 8, 11, 26 and 58 of PTS. (2010). *Behov av en framtidsinriktad telefonnummerplan. 6 olika förändringsalternativ. Det fortsatta arbetet* [Need for a Future-Oriented Telephony Numbering Plan. Six Different Change Options. Next Steps] [PTS-ER-2010:20]. Stockholm: PTS. Retrieved at, <http://www.pts.se/upload/Remisser/2010/10-8918-remiss-rapport-100929.pdf>

⁵ See PTS, 2010, p. 16.



- *'To retain tariff transparency the removal of geographic information must be preceded by the retail end-user tariff schemes becoming correspondingly distance independent, e.g. the same tariff within a numbering area'. (p. 9).*

VON considers that the focus of policy makers and regulators on NGNs has lacked a crucial element until now: that is 'Next Generation Numbers'.

This review by Ofcom offers the perfect opportunity to look into this issue in order to render the UK's numbering plan future-proof and not just address issues in a piecemeal fashion. VON considers that there definitely is an erosion of location significance (Section 2.22 point 4) and that instead of introducing a multitude of intermediary steps, Ofcom should consider a bolder approach. It is worth noting in this regard that the Swedish NRA PTS in its 2010 Study notes that holding off major changes until the need arises to enforce them swiftly can bring along much higher costs than a well-thought out implementation over time⁶.

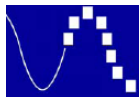
VON strongly believes that Ofcom should tackle the modernisation of the numbering plan on a nationwide scale, instead of limiting its efforts to resolve potential number shortages on a local scale (Section 4.18ff). While we recognise Ofcom's aim to minimise consumer discomfort (Section 1.11), we also note that even the preferred options put forward for four- and five-digit areas would still disrupt consumer behaviour, in particular for vulnerable consumers (Section 4.34, 4.65, A3.48, and A3.52).

Certainly when it comes to the option of introducing overlay codes the ECC Report⁷ points out that the allocation of new unfamiliar area codes in parallel with existing familiar area codes will already start to reduce the degree of location transparency, hence further blurring the geographical location significance.

VON urges Ofcom to pursue a more radical and holistic approach towards numbering, an approach that fosters future technological and service innovations, instead of opting for a short-term 'quick fix' solution. Such an approach could for example be achieved with **the eradication of the linkage of area code and location through the introduction of numbers with a UK-wide** (as opposed to an area-wide) significance, beyond the 03 numbering range already in place in the UK (Section 5.7).

⁶ See PTS, 2010, p. 67.

⁷ See p. 16.



Swedish NRA PTS⁸ puts a similar scenario forward as one of the options for Sweden. Their belief is that this would result in a numbering plan tailored to the technological and societal advancements in a nomadic IP-based environment, while also being advantageous from a resource efficiency perspective, as telephone numbers can be allocated from the whole available numbers pool. The ECC Report⁹ also remarks that the removal of geographic information could have wider benefits than a mere efficiency increase, as it would also allow the introduction of wider area location portability, a possibility that is very appealing in a society where both businesses and individuals become more and more mobile.

The location significance of geographic numbering has long been considered its main distinguishing feature. This was due to the fact that a geographic number was associated in the past to a tariff range, an expected call quality, and a specific location of the recipient of the call.

But in an all-IP world several of these characteristics have become obsolete, if one looks for example at the numerous providers of VoIP-enabled offerings providing location independent possibilities to call for free or at very low flat free tariffs. In parallel, people divert their fixed phones (*i.e.* call forwarding), or even abandon them in favour of mobile phones. Thus geographic numbers are becoming less and less representative of the caller's location. The 2010 PTS Study¹⁰ also points towards the rise of nomadic communication as an indicator of the erosion of geographic significance.

In VON's view, location information of geographic numbers should mostly be written off as we move away from the Plain Old Telephony Services (POTS) paradigm. In the past decades, people have become more flexible and willing to move and travel at the spur of the moment. Today's consumer is increasingly nomadic. Mobile phones are slowly overtaking fixed phones¹¹ for voice and calling your plumber happens more often than not on his mobile phone.

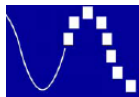
Thus while Ofcom states that the bulk of consumers still seem to attach importance to the location identification of numbers (Section footnote 12 and 3.5), VON is confident that this importance is decreasing, and that consumers' true concern rather lies with the actual cost of calling (Section 3.6).

⁸ See p. 46ff.

⁹ See p. 2 and 10.

¹⁰ See p. 12 and 33.

¹¹ See for example tables 1.24 (p. 51), 1.25 (p. 52) and figures 1.21 (p. 52), 1.23 (p. 53) in Leckner, S., & Facht, U. (2010). *A Sampler of International Media and Communication Statistics 2010* [Nordic Media Trends 12]. Göteborg: Nordicom. Retrieved at, http://www.nordicom.gu.se/common/publ_pdf/NMT12.pdf



In Sweden, the 2010 PTS Study¹² for example found that there is a readiness and willingness amongst Swedish consumers to abolish area codes altogether.

Moreover, when looking at the parameters influencing consumers' perception of geographic numbering, the ECC notes in its Report that: *'where there is an open dialling plan subscribers may have a greater awareness of the geographic meaning of numbers and so they may have a stronger perception of the change than subscribers in a country with a closed dialling plan. This aspect may cause that the social and economic impact of the removal of geographic information may be stronger in the situation that a dialling plan is not closed'*¹³.

VON therefore believes that a much more forward-looking approach would be for Ofcom to **focus its attention on ensuring transparent retail prices while decoupling geographic numbers from their location information.**

The trade off has been accurately summarized in the ECC's 2010 Report¹⁴: the removal of all constraints regarding geographic information in the numbering plan would allow a more innovative use of geographic numbers; decrease the possible barriers of entry for new parties in the telephony market; give consumers the option to keep their number when they are moving; and allow a more efficient use of numbering resources.

Question 16: Do you consider that there are any technical obstacles currently to the effective sharing of number blocks by CPs and to sub-allocation? How could we usefully address those obstacles?

Question 17: What are your views on the concept, practicalities and implications of introducing a reservation system for geographic numbers?

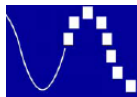
VON would like to point out that aside from technical obstacles, commercial barriers could also be put in place by certain CPs to slow down the uptake of sub-allocation.

VON urges Ofcom to ensure that potential anticompetitive behaviour would be reduced to a minimum. From our perspective protection mechanisms need to be set in place to safeguard smaller CPs from possible abusive practices of larger CPs. For example, larger CPs could unduly delay interconnection negotiations to exceed the reservation period and as such hold smaller CPs in

¹² See p. 35.

¹³ See p. 9.

¹⁴ See p. 17-19.



their grip, unless the smaller CPs are able to prove the protraction of the negotiations, a proof that is burdensome to say the least (Section 5.38ff).

In addition to that, sub-allocation is not a solution 'per-se', as it places the sub-allocatee in a greater dependence towards the CPs that has a complete power over the numbers and the network. In case of problems, the only solution the sub-allocatee has, is to transfer the numbers to another CPs provided that the latter allow it. A porting would also be possible but then would need to involve the end users – which is not the preferred solution for solving a carrier-to-carrier issue.

Question 18 Do you have any comments on our proposed scope of additional audits?

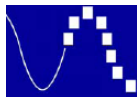
VON considers that Ofcom should take into account the additional administrative burden of these audits on smaller CPs and balance it with the benefits that would stem from auditing such small CPs.

Question 19 Do you agree with the high level objectives proposed for the charging regime?

VON does not agree that a charging regime should be introduced at this stage. Whilst the members understand the reasoning behind the objectives for charging, they believe that it is unnecessary, disproportionate and potentially damaging to specific sections of the industry.

If a charging regime is to be introduced, VON believes that Ofcom should aim to minimise potential competitive distortions related to the introduction of a charging regime (Section 6.29ff). In light of this, extra attention should be paid to the asymmetries in the market between the larger and smaller CPs. Safeguards should be put in place regarding both the charges levied and sub-allocation practices, in order to protect current players and future entrants.

VON would specifically like to draw Ofcom's attention to the impacts of number charging on smaller and innovative CPs. Introducing a charging mechanism on numbers will change the business model, more specifically the cost and revenue structures, already in place. VON encourages Ofcom to find ways in which to allocate smaller number blocks to these CPs in order to avoid creating a charging mechanism that basically amounts to a barrier to entry. This would be especially disappointing considering that Ofcom's past decision to open geographic number ranges to VoIP service providers has undoubtedly created a new market dynamic with increased (albeit far from perfect) competition (Section A2.33).



Question 21 Do you agree with our view on how charges could be set? If not, please propose an alternative approach with supporting evidence.

Question 22 Do you agree with our preferred option for charging for geographic numbers? (i.e. Option 2 Pilot scheme: Charge a flat rate of 10p per number per annum in area codes with 100 or fewer blocks of 1,000 numbers (no charge for other areas). If not, please state your reasoned preference.

Question 24 Do you agree with the proposed level of the charge (i.e. 10p per number per annum)?

VON notes that the 10p charge proposed by Ofcom represents a substantial amount that is above the European average by a considerable margin.

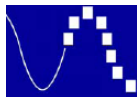
In general, VON believes that introducing a charging mechanism would have more negative effects than positive effects, especially as regards smaller CPs and new entrants, to whom this additional burden will create a barrier to entry with negative effects for competition.

In subsidiary order and only to the extent that Ofcom would install a charging regime for the allocation of numbering ranges, VON proposes to take into account a transition phase which is sufficiently long to allow the CPs and their customers to prepare to such charges and as a minimum to avoid the application of any charges with retroactive effect.

VON strongly supports a more long-term vision as referred to in our response to Questions 1 to 9. In our view, Ofcom should rethink its entire approach to geographic numbering and consider a UK-wide approach that would make more sense in a converging world and would solve the problems outlined.

We thank you in advance for taking consideration of these views. Feel free to contact Caroline De Cock, Executive Director VON Europe, by phone (+ 32 (0)474 840515) or email (cdc@voneurope.eu) should you need further information.

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About VON Coalition Europe

The Voice on the Net (VON) Coalition Europe was launched in December 2007 by leading Internet communications and technology companies, on the cutting edge – iBasis, Google, Microsoft, Skype and Voxbone – to create an authoritative voice for the Internet-enabled communications industry.

The VON Coalition Europe notably focuses on educating and informing policymakers in the European Union in order to promote responsible government policies that enable innovation and the many benefits that Internet voice innovations can deliver.