Ofcom Consultation:

Next Generation Networks

Response from
The Number UK Ltd

24th September 2009
Introduction to The Number

The Number is the largest provider of directory enquiries services in Europe with operations in 5 EU Member States and Switzerland. It is best known in the UK for its 118118 service.
Executive summary

The Number welcomes the opportunity to comment on Ofcom’s Consultation Next Generation Networks (hereafter “the Consultation”).

As a directory enquiries provider, the Number has the status of an Electronic Communications Service Provider, has its own infrastructure and interconnects with access operators (either physically or logically). One of the main drivers of its retail price levels are the mark-ups the access operators charge to connect their customers to the directory services of The Number, mobile origination costs being especially high.

The Number strongly believes that consumers want phone services that work and are affordable. They do not care about the technologies and regulations that underpin them. Policy and ensuing regulation must focus on how to enable reliable services to be available from phones of any kind, and require regulation that achieves that goal.

For a service provider such as The Number, the following issues must be addressed by Ofcom in any policy or regulatory instruments it adopts relating to Next Generation Networks:

- **Open access and fair competition** must be ensured as services and applications migrate from legacy TDM to next generation infrastructure. Ofcom must ensure that at the wholesale level competitors’ ability to provide new services is not foreclosed and that independent service providers have fair open access to Next Generation Broadband, with the ability to bill for services and set fair and consistent prices for all customers.

- **Seamless switching** must be ensured during the migration from legacy TDM.

- **Cost-orientated access** and rebalancing mechanisms are needed to guarantee that the levels of charging for voice services do not increase on either the legacy TDM or next generation infrastructure and that no double counting or wrongful attribution of costs or risks occurs between copper/TDM and fibre networks.

- A clear **prohibition to inflate the costs** of legacy TDM/copper costs in order to fund Next Generation Access.
Preliminary remarks

The Need to Act Now

In Annex 5 of the Consultation document, NGN is defined according to its 3-layer model and its ability to apply traffic management and prioritisation techniques. Reference is made to the ITU definition but it is worth noting that, when the latter does talk about Quality of services-enabled transport, it associates this QoS (Quality of Service) to “unfettered access for users to networks and to competing service providers and services of their choice”. This emphasis on “user choice” needs to be addressed more fully in Ofcom’s approach to NGN.

Any regulation or intervention in the field of NGN must be conceived to address situations already occurring today, and not take into account only heavy fibre roll-out scenarios that may or may not occur in a remote future.

It is very important to ensure at the wholesale level that competitors’ ability to provide new services is not foreclosed and that independent service providers have fair open access to Next Generation Networks.

The Number, as a directory service provider operating in 6 countries in Europe, exists purely by virtue of its service to consumers. Our future, as well as the future of many independent service providers is under threat. For example, BT is using the move from one technology (voice over legacy TDM) to another (managed VoIP/VOB) to restrict consumer choice and to restrict competition in the UK:

- **Consumers using BT’s managed VoB (Voice over Broadband) service, BT Broadband Talk, are being denied the right to access services such as 118118 (the most called phone number in the UK) which are available via traditional TDM calls on BT’s network.**
- **BT has “over two million registered consumer customers” for its VoIP-based services of this kind. Only 118500, BT’s own Directory Enquiries (DQ) service is available for customers of BT Broadband Talk.**
- **BT does not accept that it has an obligation to enable third parties to provide Directory Enquiry services to customers of BT Broadband Talk – instead treating it as a product where wholesale access is to be negotiated on a purely ‘commercial’ basis.**
- **After a year of negotiations, the lowest proposed charges to The Number for BT customers to be able to call 118118 from BT’s managed VoB access services are over 15 times the level of charges today levied by BT for their customers to call 118118 from traditional landline services.**

This is an example of an incumbent’s approach when it believes it is ‘outside’ regulation for wholesale and retail services.

The commercial wholesale access pricing is prohibitive and competition between services such as DQ services is eliminated. In light of this case study, Ofcom should pay close attention to the risks associated with deregulating the voice retail markets, as

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1 BT Group - 2008 Annual report

2 BT’s best proposal to date involves paying all of the same charges that are levied today by BT Wholesale and Retail for calls to 118118 by BT customers is 15 times higher than the current landline charges from BT.
incumbents switch to an all-IP environment. Regulatory rules on traditional landline networks have been clear and have delivered open, non-discriminatory access to service providers like The Number to offer their services to customers. Most incumbents in Europe charge a regulated, cost-orientated price to bill their customers for DQ calls made from traditional fixed lines. A similar situation must be replicated when incumbents leverage their market dominance into the IP environment, especially as access will remain an enduring bottleneck.

Achieving open access will extend consumer access to improved communications services and content by widening the choice available to consumers. Failure to create this environment now will mean large operators stifle innovation and competition, and consumers will suffer.

Putting in place the Necessary Measures to Ensure Directories remain “Comprehensive”

The Digital Britain Report states that,

“A vibrant digital economy requires that independent value-added services can be delivered across digital platforms. Where this applies to voice services (such as directory enquiries) this might require Ofcom to mandate wholesale connection rates for operators with significant market power, including where the provider is shifting from one technology to another. It might also require a more active regulatory approach to ensure that services such as directory enquiries are kept relevant to consumers’ expectations, and we support moves in Europe to ensure that requirements can be put on a wider range of operators to provide directory information to DQ service providers.”

NGN policy and regulation should hence put in place the measures required for a forward-looking comprehensive database to facilitate communication and commerce in a converged world.

This can be of immense value to small businesses and the economy, and is in line with the EU requirements of the Universal Service Directive for a “comprehensive” directory. To achieve this, Ofcom needs to look at the expansion of data capture, from name, address, number, to cover any identifiers that are relevant to Directories in a converged environment (e.g. mobile numbers, e-mail addresses etc).

In other words, all users (both consumers and businesses) should be entitled and encouraged to have their contact details included in a directory at no cost to them, and with suitable privacy options available. In line with the principle of technological neutrality, users that use a voice service, regardless if it is provided over legacy TDM or over an all-IP NGN network, should have the right to be included in directories and should be clearly offered that opportunity as is requested under the EC Universal Service Directive.
Specific Comments to Ofcom questions

Question 5: Do you agree with our analysis of investment uncertainty in relation to BT’s 21CN plan?

The emphasis given in general to the risks taken by the operators investing in NGN seems to indicate that the electronic communications sector has some kind of specific set of circumstances whereby upgrading one’s infrastructure and adapting to demand is unusually risky and should be rewarded, whilst sweating out obsolete assets that were largely funded by taxpayers should be seen as the norm. Incumbents are facing heavy investments because they have, to a large extent, not invested enough in the past.

The switch from copper TDM to NGN will require investment but entails marginal risks when incumbents (as is the case in most if not all Member States) continue to have a predominant market share and control over the last mile bottleneck.

Moreover, the most effective way for networks to reclaim investment costs is to accelerate deployment in an open manner which enables access by third party services, as stated by Ad Scheepbouwer, CEO of KPN (the Dutch incumbent) in February this year:

“In hindsight, KPN made a mistake back in 1996. We were not too enthusiastic to be forced to allow competitors on our old wireline network. That turned out not to be very wise. If you allow all your competitors on your network, all services will run on your network, and that results in the lowest cost possible per service. Which in turn attracts more customers for those services, so your network grows much faster. An open network is not charity from us”.

AT TDM LEVEL:
Ofcom should take care not to allow over-recovery on traditional TDM networks on the basis of arguments that traffic has reduced, yielding linear effects in static cost models. Price calculations are generally smoothed and should already have factored in asset lives or should be appropriately forward-looking. This implies that, where the copper network is expected to be phased out, Ofcom will have to put in place a transitional scheme to avoid over-recovery by incumbents.

AT NGN LEVEL:
Logically, since next generation infrastructure should imply additional capex costs (but decreased opex) but also higher functionality than the legacy TDM, operators must utilise the new functionality to collect revenue from a wider range of services, thereby ensuring an economically viable investment. This is why many operators have a “triple play” strategy, involving delivery of internet, television (Video on Demand, VOD or Live Stream) and voice on the next generation infrastructure.

Determining a “cost based” price for voice on an NGN will be difficult using the conventional economic (LRIC) approach and may lead to pricing anomalies between voice and broadband NGN services, which may not be priced on the basis of network resource usage, if incumbents are allowed to use charging mechanisms that rely on the perceived value of a service to the end-user rather than the real cost associated to that service.
Maybe the best way to illustrate this is by drawing an analogy with the electricity market: if the price of electricity was related to the purpose it would be used for then the market for electric powered goods would have been stunted and slow to develop. The only practical and sensible way for network services like this to develop is to maximize access and set rates according to usage of that bandwidth to reclaim costs related to the investment involved (more bandwidth needed = higher charge). This in turn results in efficient investment and maximum innovation of services and products to provide use of that bandwidth for consumers.

For a consumer, VoIP (Voice over IP) calls have been synonymous in most cases to free or very cheap calls. The reason is that the cost of delivering a VoIP call to an IP user today is principally borne by the called line in terms of its ongoing broadband access and traffic charges. This is how things work now, and it would be unacceptable if, as a result from switching to NGN, VoIP calls suddenly became much more expensive, or for that matter any other type of voice calls became more expensive as a result.

We understand from previous position papers by incumbents (notably in response to EU consultations) and from consultation responses and positions taken at public hearings, that claims have been made by incumbents and policy-makers to artificially increase the cost of voice traffic over the legacy TDM network once migration is initiated. We would like to address 2 of the main claims.

False claim n°1: legacy TDM charges must be artificially increased to create the right incentives for voice providers to switch to NGN.

The appropriate incentives in any market to encourage change are to offer:

a) more compelling products
b) better priced products
c) more widely accessible products
d) better communication of the benefits of products

These incentives seem just as valid for NGN. If service providers, networks operators and consumers cannot be persuaded that NGN will offer these benefits, then NGN is unlikely to be a wise step forwards. Service providers and networks should not be forced to move, they should be attracted to move by the NGN operators offering better, cheaper, more widely available access to services. If this cannot be achieved and requires substantial subsidies or regulatory initiatives, it suggests that the NGN business model is flawed and should not be progressed.

It will be critical that a move to NGN is driven through demand-led initiatives that persuade service providers, networks and consumers to want to change to NGN rather than due to compulsion to move off the current infrastructure. It would be wholly inappropriate to force users to switch to NGN via increasing the price of the legacy TDM network.

If NGN progresses successfully, the legacy TDM voice network will likely be switched off over time, making full migration inevitable. This raises the issue of the withdrawal in due time of a legacy SMP product and the fact that the SMP operator should bear the burden
of proof to justify this withdrawal\(^3\) and that clear timetables and processes must be set, and controlled by the regulator. Ensuring that there is no excessive return above cost in the pricing of the legacy copper loops is important in establishing the right incentives for SMP operators to encourage efficient migration, rather than creating a scenario where the incumbent operators may desire to force migration to NGN to seek potentially higher returns through NGN networks that may have different, higher access pricing rules.

*False claim n° 2: legacy TDM charges should be artificially increased or kept high to enable network providers to fund the next generation infrastructure.*

Such reasoning would imply that in order for mobile operators to switch from 2G to 3G infrastructure, mobile customers should pay more. Practice shows this is not the case and regulators have tended to regulate mobile operators more over the last years regardless of the required investments in 3G. At the same time, roll-out of 3G, though cautious, has not seemed impossible nor required heavy taxes or “risk premiums”.

Moreover, should Ofcom accept that such a “tax” be levied on copper networks to fund NGN, Ofcom would have to force the incumbent operator to effectively invest the additional revenues per minute from copper into the next generation infrastructure, and only if the upgrade to NGN is proven to be efficiently done.

In conclusion, Ofcom will play a vital role in determining the success of the transition and needs to establish the right regulatory framework to encourage fair competition and seamless switching. Ofcom needs to understand the incumbents’ plans, provide for transparency with affected parties and carefully manage the transition including by addressing questions over the pace of transition, cost recovery and any requirements for parallel running of networks. It is also vital for Ofcom to ensure that cost-savings are passed on in a non-discriminatory manner and that costs in establishing interconnect and access are not loaded onto service providers.

**Question 6: How do you think Ofcom should take forward considerations relating to switching involving next generation access and core networks, and which areas should we focus on?**

NGN deployment can provide a socio-economic benefit but it requires Ofcom to carefully monitor and control the migration process from legacy TDM to NGN. The Number welcomes the fact that Ofcom takes into account the challenges migration will raise in the near future.

Consumers today use electronic communications infrastructure for 3 main purposes: (1) voice (fixed or mobile); (2) SMS and (3) broadband. Switching to next generation infrastructure will only be wise if consumers gain improvements for these three services. These services should either become better (e.g. higher bandwidth in broadband) or cheaper. At worst, these 3 services should continue to offer the same benefits as today when used via NGN, with added benefits gained for consumers from new services in addition. If the move to NGN is managed in such a way that causes consumers to

\(^3\) Some of the arguments that could be considered relevant if sufficiently demonstrated include the fact that providing the service over its legacy network has become uneconomic, or that the SMP operator no longer has SMP in a relevant market after a market review has been undertaken.
end up with fewer benefits in price or quality than today for these 3 core
communication services, then the policies are flawed and consumers will rightly
feel cheated.

In parallel, from an operator’s point of view, it is considered that the 3 main NGN drivers
for incumbents are:

(1) reduce operational costs (typically between 30% and 40%);
(2) enable new services (e.g. HDTV); and,
(3) protect market share and launch win-back campaigns by leveraging ownership of
bottleneck assets and benefiting from legacy advantages.4

Voice is typically a service that will not benefit from a surge in quality due to the transition
to next generation infrastructure. More importantly, it runs a serious risk of becoming more
expensive, both on the legacy TDM infrastructure and on the new fibre infrastructure, if
cost calculations continue to rely on LRIC, without rebalancing mechanisms.

Ofcom should:
o **issue detailed transitional guidance** as regards the issue of migration from
current networks to next generation products and networks and put in place
safeguards to ensure that service providers such as directory providers do not end
up being squeezed out of the market.

o **proactively consult on every step relating to migration** by the incumbent.

o **Make migration be conditional upon prior approval by Ofcom.**

o **conduct a thorough analysis to ensure no double counting or wrongful
attribution of costs** or risks occurs between copper/TDM and fibre networks. For
example, not allowing costs to include a “risk” factor based on low penetration
expectations for NGN whilst also allowing an increase of the legacy TDM costs
based on the assumption that demand (including self-supply) for unbundling and
bitstream will reduce significantly.

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Question 7: Do you agree that the consumer protection principles and our approach to
addressing consumer protection issues are still valid?

The consumer protection principles outlined by Ofcom in 2006 and notably the fact that
“the services offered to consumers on NGNs should at least be equivalent to their existing
services” are important and The Number supports them. It will be essential for detailed
regulatory measures to be put in place by Ofcom to achieve these objectives.

The need for more bandwidth derives from the fact that consumers want access to more
content, services and applications, and value the innovation they create. Ofcom should

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4 There are several examples of win-back campaigns organised by incumbents on the legacy
networks, such as the Telecom Italia case, that suggest the same types of behaviour can be
expected in an NGN environment.
consider it a priority to preserve the derived demand for NGN created by the innovative services and applications made available over broadband (demand which was created at little or no cost).

Many service, application and content providers will not see an increased benefit for their services to be delivered over NGN, as compared to the current legacy infrastructure. This is true for directory enquiry providers, but more generally for most of the non high-bandwidth consuming service, application and content providers that make up most of the internet offering available to users. For them to be penalised for a risk taken by access providers, to benefit access providers seems absurd and unacceptable.

The Number therefore needs access conditions to be reasonable, fair, and cost-oriented, to ensure that consumers can (1) reach its services (2) at an affordable price. It is all about access!

The focus of Ofcom’s interventions and monitoring should be on a continued consumer access to an infrastructure that is open and ensures choice for consumers and the possibility for Communications Providers to deliver new services over infrastructure as innovation occurs. This approach is equally true for next generation infrastructure at core and access levels.

It is very important to ensure that at the wholesale level competitors’ ability to provide new services is not foreclosed and that independent service providers have fair open access to Next Generation Broadband, with the ability to bill for services and set fair and consistent prices for all customers. Without this, competition in telecoms is threatened and consumers suffer through lack of service availability and increased prices.
### Cover sheet for response to an Ofcom consultation

#### BASIC DETAILS
- **Consultation title:** Next Generation Networks
- **To (Ofcom contact):** Gideon Senensieb
- **Name of respondent:** Nik Hole
- **Representing (self or organisation/s):** The Number UK Ltd
- **Address (if not received by email):**

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**Name**  
Nik Hole  
**Signed (if hard copy)**