



ETNO Reflection Document on the ERG IP interconnection consultation

Executive Summary:

- ETNO believes it is premature to predict how points of interconnection and interconnection rates will be affected by a future NGN interconnection structure. A well-functioning interconnection market will lead to an adequate number of interconnection points and find its own price points.
- The move towards NGN has the potential of removing existing bottlenecks; basic conditions to favour this are the existence of competition and the reliance on market forces. ETNO is therefore concerned about the underlying tendency to intervene in issues such as technical interfaces, protocols, technologies or QoS.
- Customers' acceptance together with economic efficiency as a whole should be determining the choice of the best suitable billing regime.

1. How should the transition from the PSTN number of interconnection points to the probably reduced number of interconnection points in NGNs look like? Which are the implications for the price structure and price level of interconnection rates?

The deployment of NGN is a process, which is highly dependent on an array of factors like the strategy of operators, regulatory certainty, maturity of the markets, depreciation and amortization of the existing interconnection infrastructure. For example, in some cases NGN investment it is not intended to cover the entire access network, at least not at once.

At the same time, there is a lot of uncertainty surrounding the investment in NGN which has to be taken into account:

- 1) Investments which need to be made upfront must be carefully considered. One should not underestimate the technology risks involved, or the uncertainty over future demand for services,

2) Transition costs need to be taken into account: they could result either from the design and implementation costs or from the inefficiencies of the network used during the replacement process.

As concerns price structure and levels, ETNO notes that the decision to invest in an upgrade of the core network is seen by the report as a cost saving issue. The NGN core network evolution can in our view not be confined to a “cost saving issue”, its evolution will depend on a mix of reasons, including cost savings and provision of new services. Even cost savings will depend from one network to another. In old digitized networks, with complex hierarchies, the cost saving issue will be more pressing. In other cases of more recent networks, decisions will depend on the ability to provide new services, as the cost of changing the network would not be justified to provide only existing services.

Against this background, ETNO believes it is premature to predict how interconnection rates could be affected by the future NGN interconnection structure. ETNO believes that a well-functioning interconnection market will find its own price points. Attempting in such an evolving market to set these in advance by way of a regulatory process is inferior to the outcome of a market-based approach.

2. What is the equivalent to “local” interconnection in NGNs?

The development and implementation of IP-based NGNs is still at the beginning and taking place at various rates across the EU and outside. Thus the final network architecture and network structure are not known today. So, no definitive statement about the future network structure and regime, particularly about the amount of interconnection points and hierarchy levels can currently be made.

Besides that, with NGN, we enter a ‘new world’ where current models for interconnection including local, single and double tandem price levels may be less relevant as the importance of distance is decreasing. Moreover, other elements for example related to quality or service elements may play a role. However, it is too early to know if local interconnection points will disappear for all services.

The design of networks and of their interconnection is not likely to be similar all across the EU; the image of a single unified network as known from the PSTN world should not guide expectations for the structure of NGNs. ETNO members will also recall that the distinction between the economic terms of access and core networks largely varies and must not be set out by regulatory intervention, in particular as different operators may well choose very different network architectures.

We note that for “one-way” access to networks for service providers, it may not be justified to speak about interconnection if one follows the Access Directive and its definition of interconnection.

3. Reflecting the transition towards NGNs what are the implications for existing SMP products and bottleneck facilities? Does this technological change remove existing SMP positions or bottlenecks or could new ones emerge in NGNs?

We do not see any bottleneck emerging in the near future¹. In this area, regulatory intervention is therefore impossible to justify at this stage. Main challenge in applying the NRF to NGNs is to resist tendencies to intervene in an evolving market place. If the business itself handles the matter it will be willing to take risks, make errors, correct them and in the end find a solution that constitutes a reasonable balance between different aspects. Direct regulation would determine one or more solutions relatively early in the process which in turn would prevent finding possible sounder and more suitable answers through a flexible business-driven approach.

As mentioned above, the development and implementation of IP-based NGN is still at its initial stage and there is no information about the final network architecture of the future NGN-world. But of course the move towards NGN has the potential to remove existing bottlenecks. The basic conditions to favour this are the existence of competition and the reliance on market forces.

ETNO is therefore concerned with the underlying tendency to intervene in issues such as technical interfaces, protocols, technologies or QoS. In these issues, commercial freedom should be given to operators as a rule.

NRA should take into account that the NGN functional architecture could lead to network operators being challenged by new market players: for instance, application providers and premium content providers could neutralise and challenge the legacy market power over the physical network. Service providers could become strong competitors which do not invest in the network infrastructures themselves.

The freedom for operators to discontinue the supply of existing wholesale products and upgrade their network architecture is a prerequisite for enabling an efficient and economic transition to NGNs. In case an incumbent operator chooses to discontinue supplying legacy wholesale products, this should be allowed provided:

- It no longer has SMP or;
- There is no longer reasonable demand for existing SMP products. It would be disproportionate to continue SMP-driven obligations related to wholesale products offered to by a small number of alternative operators, for a small absolute level of demand, or where demand is in rapid decline
- It is reasonable to move to NGN products: an operator's wholesale customers will have a greater incentive to shift to NGN platforms, if there is a reasonable prospect of timely market reviews leading to a transparent mechanism for withdrawal of legacy products.

¹ BT notes that an upgrade to NGN/NGA may facilitate a wider range of potentially competing access technologies but will not necessarily remove existing bottlenecks.

4. How do you evaluate the advantages and disadvantages of different charging principles discussed in the paper?

ETNO questions the underlying ERG assumption that the public Internet should merge with circuit switched networks. The business models developed in each system have evolved independently. The perspective of a common use of the Internet Protocol (IP) should not command an identical interconnection and billing regime. Customers could benefit from the persistence of different interconnection regimes fostering an enhanced competition.

Monitoring the development of the changes in technology and the existing different billing regimes is important. The cost of any possible transition needs to be carefully weighted when making decision with regard to billing systems.

No far reaching prospective conclusions should be drawn about customers' acceptance and the way the market will react. Customers' acceptance together with economic efficiency as a whole should be determining the choice of the best suitable billing regime. Regulation should not shape the market. If it does, customers will be sanctioned as some business models will not emerge.

ETNO does not understand the ERG's eagerness to intervene in this matter, nor the urgency.

Different retail charging principles will coexist in NGN. When the technical environment allows various commercial options, one will notice that Bill and Keep is chosen provided parties consider each other as peers. Peering arrangements can lead then to the adoption of Bill and Keep billing regime as it is shown in the internet today and also referred to in the report. The document misunderstands the inter-operator relationships in the Internet world as two kinds of relations exist: client to provider and peering relations. Only peering relations are Bill and Keep relations and they are grounded in the symmetry between players (in the core network); to peer or not to peer is a typical bilateral decision. Otherwise the most frequent relation is the client-to-provider relation.

With the emergence of various markets players in the future NGN context, it is very doubtful that all service providers and network operators will find the same symmetry of traffic between each other. In that case, an interconnection arrangement similar to today's IP-Transit would be necessary, but this will also have to be market driven. Symmetric exchange of traffic is almost non-existent. A Bill & Keep billing regime can hardly deal with traffic asymmetries; this model should therefore not be imposed by NRAs as it could result in delaying the development of NGN networks.

An artificially mandated Bill & Keep-Regime, like the proposed Dual Regime, would lead to technical inefficiencies with regard to an artificial set of points of interconnection as well as to a cost recovery problem: relying on the general customers' acceptance of a reversal of the charging principle as a result of the technological change would seem very adventurous. Besides this

acceptance problem of Receiving Party Pays (RPP), the costs for network usage risk not be recovered by charging the operator's own customers because of fierce competition on the retail market, particularly in the case of a flat rate retail price offering.

Therefore, the most important objectives of the future charging principle for IP-interconnection has to be the possibility to recover costs as well as incentives for investments. These objectives are best fulfilled by an interconnection arrangement that develops in the market.