



ETNO response to the consultation of the draft BEREC Guidelines on Common Approaches to the Identification of the Network Termination Point in different Network Topologies

Introduction

The consultation on guidelines for the identification of the network termination point constitutes a key element for the application of the European Electronic Communications Code. We have noticed important weaknesses in the draft guidelines that could have been avoided by engaging in timely interaction with the stakeholders. Operators should be a natural and particularly well-placed counterpart for BEREC to engage in dialogue with, especially considering the complexity and technicality of the topic. Therefore, we call upon BEREC to meet with industry and its representatives for a dialogue based on the outcome of the present consultation before entering into the finalisation of the guidelines.

Article 61(7) of the EECC requires BEREC to adopt guidelines on common approaches to the identification of the network termination point ('NTP') in different network topologies by 21 June 2020, after consultation of stakeholders. Upon implementation of the EECC NRAs need to take utmost account of those guidelines when defining the location of an NTP.

In various countries NRA's have already defined NTP's at national level. There is no reason to renew national conclusions in relations to NTP's if these have already been made after appropriate national consultation with all relevant stakeholders and implemented in the market. It should also be recalled that the NTP as defined in the Framework Directive was potentially leading to various NTPs. Operational consequences of amending existing national definitions may lead to high cost and great uncertainty, which would not be proportionate.

The definition of NTP's is relevant to network operators, network equipment manufacturers, terminal equipment manufacturers and end users alike. The EECC does not mandate NRA's to evaluate or define NTP's after the implementation. However, where an NRA intends to define new NTP-locations ETNO welcomes a framework that ensures proportionate decisions in which all relevant factors are taken into account. The draft BEREC Guidelines include a framework in which all – or in the current draft at least most – interests will be included in the analysis of NRA's before conclusions will be drawn. ETNO has still some important comments that will be addressed hereunder, mainly in relation to the scope of the services involved and the consequences of defined NTP-locations implied in the draft.

Even though ETNO acknowledges the fact that the terminal equipment market is fully liberalised and the use of equipment that is in conformity with the published specifications cannot be restricted, ETNO is of the opinion that in these Guidelines the focal points for the analysis should be derived from Article 3 EECC, that lists the objectives that BEREC and NRA's should adhere to. This article does not include the promotion of competition on the TTE market as an objective for BEREC and NRAs. Where the analytical framework emphasises the consequences of the NTP definition on the TTE market ETNO believes that based on the objectives of the EECC BEREC should prioritise the promotion of competition in the provision of electronic communications networks and associated facilities, including efficient infrastructure-based competition, and in the provision

of electronic communications services and associated services. For this the NTP can define the legal border of liability of network operator and the consumer, but for this it's not necessary to make a physical hardware cut between two devices. Directive 2008/63/EC does not assign tasks to BEREC and/or NRAs and the Guidelines based on the EECC should adhere mainly to the objectives thereof.

1. Scope of the Guidelines too broad: specialised services (e.g. managed IP Voice, managed IPTV)

The draft Guidelines mainly include a framework for the analysis of Internet Access Services, although the annex also describes other services that BEREC apparently considers to be included in the scope. In the proposed assessment of par. 3.3 these services are however not included other than via implicit references. The EECC mandates BEREC to define a common approach regarding the *location* of the *network* termination point, which seems to imply the description of the process leading to choose a physical location, rather than drawing consequences on equipment that is used for the services carried over the network.

Historically separate networks were used for separate services (such as PSTN, ISDN, X-25 data networks, traditional leased lines, mobile networks) and defining a separate NTP for these separate networks thereby also defined the NTP for the services. E.g. the NTP for PSTN was mostly a simple ('passive') connector according to national standards, whereas with ISDN mostly an 'active' NTP was defined to connect the customer equipment to the network (the NT-1). Now that mostly a variety of services (IAS, managed voice services, IPTV, business network services) can be provided over the same network – although treated as separate 'specialised' services – the situation is more complex. The graphs in the Annex of the draft Guidelines and the text thereof create the impression that one simple analysis could lead to one NTP definition, having consequences for the variety of networks and services included in that annex. This however would result in disproportionate consequences.

Firstly, there is no reason to include traditional networks and services – at the end of their lifetime – in a forward-looking analysis. For the networks and services referred to in par. 143 under 1, 2, 3 and 8, there is no reason whatsoever to revisit longstanding practices. If such services would nevertheless be included in the Guidelines, they should be separately analysed, potentially leading to similar outcomes from the historic ones. ETNO would therefore favour to exclude such services from the Guidelines and leave existing national practices untouched.

Secondly, for the other services of the annex, ETNO acknowledges that modern IP based networks are capable of carrying these services, but the implied conclusion that defining an NTP at either point A, or point B, or point C has consequences for all equipment used to offer the different services is unjustified. This is most apparent with present-day IPTV services and some implementations of managed voice services. Even where point A or B are chosen as the point where the *network* ends, there will be reasons that specific equipment for such specific services has to be supplied by the service provider. The requirement on the (IAS-) modem would for such services simply be that on the *network* termination point a transparent (ethernet) port is available to which the *service* specific equipment (e.g. a settop box) can be connected.

ETNO prefers that the Guidelines only cover the physical NTP location and are not extended to equipment used for services carried over the network. As a consequence, such services would be

out of scope of the Guidelines and references thereto should be deleted, as well in the annex as in the text of the Guidelines (such as references to 'media-boxes'). The instruction to define an NTP for different *network* topologies should be interpreted such that only at (broadband) network level BEREC should provide guidance. Over such broadband networks a large number of services can be offered; either 'over-the-top' or based on the concept of 'services other than internet access services'.¹

If BEREC however would include all (networks and) services mentioned in the annex, the Guidelines should apply the framework to each and every service separately, with potential different outcomes for different services.

ETNO concludes that it is necessary for BEREC to amend the draft Guidelines fundamentally in this respect.

2. Scope of the Guidelines too broad: business network services

The analytical framework presented in the draft Guidelines mainly take examples from mass market networks and services, even if leased lines are mentioned in the annex and in the evaluation on private networks the draft also refers to business customers. It should be noted however, that many business network services will require a separate analysis before conclusions can be drawn towards the location of the NTP. Given the large variation of potential services in this market – sometimes even on a per customer base – this seems impractical. Especially where the relevant business customers are heavily involved in specifying the services and equipment used, ETNO would consider it unnecessary and disproportionate if NRA's would interfere in these markets. Often contracts between operators and large business customer include agreement on the equipment used to secure the required level of QoS, network and service security and business continuity. Business market services should therefore be excluded from the scope of the guidelines.²

3. Common approach where appropriate and proportionate

Article 61 (7) EECC require BEREC to publish Guidelines in order 'to contribute to a consistent definition of the location of network termination points'. As stated in the introduction currently in many national markets' practices exist for the NTP offered by ISP's that are based on generally accepted standards. E.g. in France an expert committee of operators and others under supervision

¹ Examples of such services include (managed) VOIP or IPTV services that are generally available in markets. ETNO believes that specific equipment at customer location necessary to provide such (managed) services – such as IPTV set top boxes - should not be included in the guidelines. Not only would this extend the scope of BEREC's mandate under the text of the EECC, but also it would need BEREC to decide on services that have very specific – often operator or vendor based – implementations and are addressing complex interoperability, security and digital right management (DRM) issues. Based on their experience with such services ETNO members conclude that for example IPTV services cannot practically be offered over third party media boxes, since the DRM and service specific software are mostly proprietary and cannot practically be specified sufficiently for third parties.

² The alternative, mandating NRA's to use the analytical framework for each and every business network and service specifically, seems unrealistic.

of the NRA has agreed on commonly applied rules. BEREC guidelines on the location of the NTP should not have the effect that currently applicable satisfactory market outcomes, adapted to national circumstances, would need to be adapted.

One should bear in mind that this comes with an important cost and/or risk for loss of efficiency. This is particularly essential for services currently already offered and future upgrades thereof. ETNO is not aware that any of the current practices lead to market distortions or have otherwise negative impact on the markets of networks or equipment that would require or justify intervention in that respect. For example, the introduction of point 'A' with the definition of a passive access point in Germany made it necessary to adapt products and processes which haven't been designed for PSTN. A passive access point is neither required in the EECC nor necessary for competition on the TTE market. The BEREC guidelines and common approaches on the location of the NTP will therefore be mainly relevant for future technologies and the equipment used therefor and should consequently not copy PSTN as role model for other technologies, network topologies or services.

In this respect, in view of avoiding substantial deviation from common regulatory practices in other Member States, without objective justification in view of the national circumstances, ETNO is not in favour of a forced harmonisation in the context of these Guidelines. Instead, we believe it could be useful in view of a common approach that the Guidelines would require NRA's – when reviewing the location of the NTP for future technologies – to include a benchmarking and coordination exercise with other NRA's, prior to making its final decisions.

For new technologies it would be wise to wait with the definition of any NTP until an acceptable level of maturity with regard to network solutions, technology and related standardisation. We recommend BEREC to follow-up with the stakeholders in the early stages of development.

4. The analytical framework: what is missing?

Firstly, while it is likely that different technologies have their specific issues in relation to defining an NTP, it is of importance that BEREC includes potential competitive and economic (dis-)advantages of choices to be made in approaches for defining NTP's in its analysis. Configurations are also chosen by the operators because they present a better economic efficiency without interfering in the end-user experience. Especially in fixed broadband markets various access technologies are available, used by various operators that compete in the retail markets. As acknowledged in the draft Guidelines different technologies could have similar characteristics, such as being based on a shared medium (e.g. PON and coax-based access network, see par. 19). The framework in part 3.3 of the draft Guidelines does however not include an analysis of the competitive aspects of decisions for different technologies. According to ETNO, this should be an element in the analytical framework. Similarities in technological aspects should be weighed in such a way that the market approach of operators using such competing technologies do not need to differ. It should be avoided that by defining a different approach per technology certain technologies operationally would (implicitly) be disadvantaged compared to other technologies that compete in the retail markets.

Secondly, an element that is not sufficiently highlighted in the current draft is the fact that ISP's should be able to fulfil all regulatory obligations imposed upon them, such as related to privacy, security, transparency on functionalities and QoS (including transparency thereof). If defining an

NTP at a certain point would complicate ISP's ability to fully comply to the interpretation of such an obligation, this element should be included in the analytical framework

Thirdly, returning to the issue mentioned in par 1 above, concerning equipment for specific services such as IPTV services, it should be noted that if BEREC opts to include a specific analysis of specific services – rather than restricting the scope of the Guidelines, as ETNO prefers – it could be necessary to include additional elements in the analysis, such as copyright. One of the major reasons why providers are only offering IPTV services over set-top boxes they provide themselves is related to DRM and copyright issues.

5. The analytical framework: what is too much?

ETNO has two further remarks to the analytical framework described in part 3.3 of the draft.

Firstly, even though ETNO acknowledges the fact that the terminal equipment market is fully liberalised and the use of equipment that is in conformity with the published specifications cannot be restricted, ETNO is of the opinion that in these Guidelines the focal points for the analysis should be derived from Article 3 EECC, that lists the objectives that BEREC and NRA's should adhere to. This article does not include the promotion of competition on the TTE market as an objective for BEREC and NRAs. Where the analytical framework emphasises the consequences of the NTP definition on the TTE market ETNO believes that based on the objectives of the EECC BEREC should prioritise the promotion of competition in the provision of electronic communications networks and associated facilities, including efficient infrastructure-based competition, and in the provision of electronic communications services and associated services. Directive 2008/63/EC does not assign tasks to BEREC and/or NRAs and the Guidelines based on the EECC should adhere to the objectives thereof. BEREC guidelines on NTP should not regard the public network interfaces published by the operator.

Secondly, as a minor remark, ETNO questions the absolute terms in which par. 112 is written. The description seems almost to imply a guarantee from ISP's in relation to the protection of data of end users ('e.g. encryption'). Such a guarantee cannot apply to all access services that are offered. E.g. for basic internet access services encryption cannot realistically be offered for all traffic and the ISP can only secure the access service itself and not the data the customer sends over the connection.

ETNO questions if data protection should be a criterion in the assessment of the NTP localisation. Data protection is an important issue which requires a balanced approach between the different players of the value chain, OTTs included. The fact that, according to the Guidelines, the problem relates to the risk of access by the operator to the data of its customers, appears to be unbalanced, with respect to the wide access allowed to OTTs to customer data through apps and browsing on Internet. The e-Privacy Directive (and future e-Privacy Regulation) protect the use of the relevant data.

6. 'Local traffic'

Figures 3 and 4³ (pages 20-21) in the draft Guidelines describe the possible regulatory treatment of 'local traffic' in different scenarios. In par. 124 the consequences of an interpretation where 'modem and router' are part of the network are described in a way that also 'local traffic' such as PC-to-printer traffic would be part of the public service, with all relevant regulatory consequences (privacy protection, lawful intercept etc.). ETNO is of the opinion that this consequence is unjustified. This might relate also to the scope of the Guidelines (see par 1, above). Local traffic should not be a criterion supporting the location of the NTP in point A. The issue seems related to the cases of a 'home network' and the fact that home network traffic to the router in the customer site could be reached by the operator.

Even if the NTP is considered to be point B (for example in shared networks) the NTP on customer side would usually provide a standardised ethernet signal on which the customer can use any router chosen. A modem – even if part of the network – usually provides a standardised ethernet connection at the 'customer-side' of it. In principle this is not different if a router-function is implemented in the equipment provided by the ISP, since this is an optional function of the equipment and the customer can also use the transparent ethernet port of the equipment to use its own router. The 'local traffic' thereby always remains outside control of the ISP and will not be part of its public service. It would even be impossible for the ISP to control 'local traffic', such as the PC to printer traffic. BEREC's conclusions in this respect are too theoretical and unnecessary. As described already in par. 1, the choice for point C would not be related to the basic network access, but to specific service-related equipment that should not be included in the NTP definition.

7. Protecting networks and (other) customers

BEREC rightly acknowledges the importance for ISP's to be able to secure the level of network security and protection of end users against harm by other customers. This can be achieved by choosing an NTP location where the ISP can guarantee such security by means of its own managed modems (point B), or by allowing the ISP to immediately take the necessary measures (if point A would be chosen). Par. 60/61 and 92/93 of the draft Guidelines rightly imply that if TTE harms the network disconnection should be allowed. BEREC leaves open, however, that in some member states such disconnection would not be allowed by national law.

Given that network continuity and security are of the utmost importance for telecoms operators and customers alike, ETNO would promote the stronger position that national rules should include a provision that third-party modems (etc.) that harm the network and/or connections of other subscribers could be (temporarily) disconnected. Providers should be able to take appropriate and proportionate measures to manage the risks posed to the security of networks and services (see also Art. 40 EEC).

BEREC's view on the customer's ability to protect its local network autonomously, and on the fact that the use of a diversity of terminals can improve the level of protection, cannot be generally

³ Figure 4 is the more confusing referring to NTPs as 'Ports'. Does this imply a requirement on the physical NTP?

supported. Not all customers will actively seek the best level of protection, whereas operators can ensure that the equipment provided complies with the various national regulations, certifications and provisions.

8. Hybrid access technologies

Increasingly broadband access services are offered in the market that combine fixed and mobile networks in order to allow the customers the best available broadband service quality at their location. Such services are an extremely important means for ISP's to offer high speed broadband where the fixed network (still) lacks the necessary possibilities. There is a large variation of solutions and business models available, mostly based on proprietary solutions of vendors of the relevant equipment. In light of the objectives of Article 3 EEC BEREC and NRA's should promote such services and not complicate the operation thereof by unnecessary burdens. It is most likely that these services will develop further and innovation should not be stifled by fixing NTP's at a level where specification of TTE is either not possible due to the fact that proprietary specifications are used, or where the expected developments would likely lead to continuous changes in specifications.

In par. 3.3.6 three examples of hybrid services are described in such a way that it could be read that the conclusion on the location of an NTP is made solely based on the separate characteristics of the underlying separate network technologies. It would be preferable to use an approach whereby operators can flexibly use the underlying technologies to offer a separate 'hybrid NTP'. Thereby there will be no unnecessary restriction in innovation to exploit the best available IAS for customers given the possibilities of (fixed and mobile) networks at that premises in a given period of time.

9. Mobile networks

Point 141 asks the NRAs to determine that the mobile NTP is in the "air interface" between mobile equipment and base station: we consider, that the NTP cannot always be in the air. However, we estimate that there is no need to provide further guidance on the NTP, and that operators should be free to deal with different configuration based on technical and economic constraints and current practices.

10. Operational consequences of implementing decisions based on the Guidelines

The BEREC guidelines have to be published by 21 June 2020. Only thereafter NRA's can implement these guidelines nationally. The guidelines should include guidance on processes that NRA's have to follow to define realistic implementation, based on prior fact-based investigations into operational consequences of implementing NRA decisions. ISP's attention is driven by constant improvement of quality of services and security and not by amending customer processes to comply with regulation that potentially could lead to introduce more differentiated customer relations.

To avoid unrealistic implementation requirements NRA's should be advised – as is practiced in some countries – to discuss all relevant issues with stakeholders by creating an expert committee



where in detail reliable and efficient rules can be defined and timing for implementation can be decided. It is important that legitimate requests from stakeholders should not be questioned.
