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Draft BEREC Guidelines ,Network Termination Point‘

Wilhelm Schramm

https://bereg.europa.eu/eng/document_register/subject_matter/bereg/regulatory_best_practices/guidelines/8821-bereg-guidelines-on-common-approaches-to-the-identification-of-the-network-termination-point-in-different-network-topologies

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Introduction

- BEREC published the draft Guidelines 'NTP' on 7 October 2019
- At the same time, a public consultation was opened, running until 21 November 2019
- The Draft BEREC Guidelines are designed in accordance with Article 61(7) of the European Electronic Communications Code (EECC)
- They are intended to provide guidance to NRAs on common approaches to the identification of the network termination point (NTP) in different network topologies
- NRAs shall take utmost account of these Guidelines when defining the location of NTPs
- The Guidelines shall contribute to the harmonisation of the location of NTPs in the EU



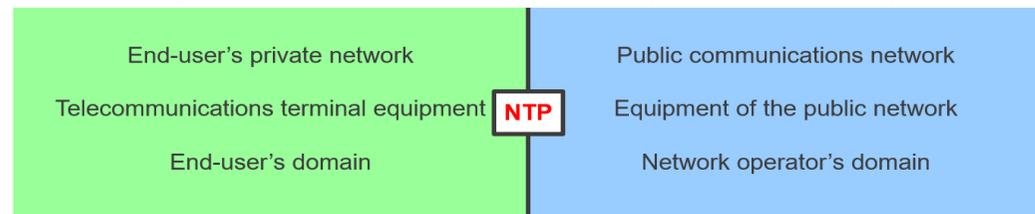
General aspects

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General aspects

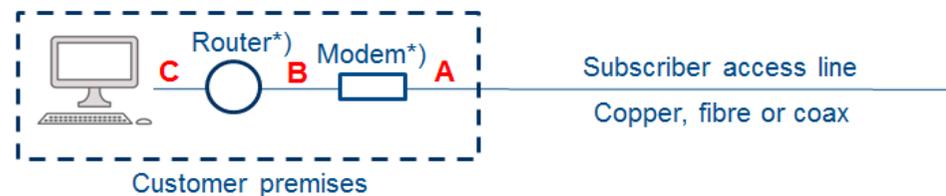
- Example 1: According to the European Electronic Communications Code (EECC, recital 19) “the network termination point (**NTP**) represents a boundary ...”



Source: BEREC

- Example 2: The location of the NTP has an impact on whether an equipment is part of the public network or part of the telecommunications terminal equipment (**TTE**)

Internet access service



*) In case the NTP is at point A or C, router and modem may be integrated in one device.



Location of the fixed NTP

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Location of the fixed NTP

- NRAs shall take into account the following criteria when defining the location of the fixed NTP
 - (1) Conformity of the definition of the fixed NTP location with the legal provisions
 - (2) Impact on TTE market
 - (3) Assessment whether there is an objective technological necessity for equipment to be part of the public network



Conformity with the legal provisions

- The definition of the fixed NTP location needs to be conform with the legal provisions at EU and national level, in particular with following
 - (1) The definition of the term 'NTP' in the EECC (Art. 2(9))
 - (2) The definition of the term 'local loop' in the EECC (Art. 2(30))
 - (3) Open Internet Regulation (Regulation (EU) 2015/2120)
 - 'End-users shall have the right to [...] use terminal equipment of their choice [...]' (Art. 3(1))
 - Including 2016 BEREC Guidelines on net neutrality rules, in particular paragraphs 26 and 27
 - (4) Directive 2008/63/EC on competition in the markets in TTE
 - Its aim is to establish a competitive internal market for TTE and
 - *'[...] that users must be allowed a free choice between the various types of equipment available [...]'* (Recital 3)



Impact on TTE market (1)

- The definition of the fixed NTP location has an impact on the TTE market
- NTP located at point A
 - A relatively high number of customers (the end-users and network operators)
 - End-users may have different needs (e.g. private and business requirements)
 - Vendors may develop a variety of different devices in order to meet these customers' demand
 - This is likely to foster innovation and competition on the TTE market



Impact on TTE market (2)

- **NTP located at point C**
 - Network operators may offer end-users to select between different types of equipment (not the same variety)
 - This may result in a lower level of innovation and competition for equipment like modem, router, media box, IAD
- **NTP located at point B**
 - With regard to modem, the situation is similar to NTP is located at point C
 - With regard to other equipment, the situation is similar to NTP is located at point A
- **Conclusions: The degree that the NTP location fosters innovation and competition on the TTE market is highest for point A, lower for point B and still lower for point C**



Objective technological necessity (1)

- Criterion ‘Assessment whether there is an objective technological necessity for equipment to be part of the public network’
 - From legal provisions with regard to the freedom of end-users to use the TTE of their choice (Regulation (EU)2015/2120, Directive 2008/63/EC) and the impact of the NTP location on the TTE market follows that
 - Equipment at the customer premises is part of the TTE unless there is an objective technological necessity for equipment to be part of the public network
 - NRAs shall assess whether this is the case



Objective technological necessity (2)

- **NRA assessment shall in particular consider the following criteria**
 - Interoperability between public network and TTE
 - Simplicity of the operation of the public network
 - Network security
 - Data protection
 - Local traffic
 - Fixed-line services based on wireless technology
- **The Guidelines present for each criterion**
 - Basic aspects of the impact of different NTP locations (A, B and C)
 - Aspects which in particular need to be taken into account



Interoperability between public network and TTE

- **Needs to be ensured**
 - In order to enable network operators to provide communications services to end-users and to
 - Prevent end-users' TTEs from harming the public network
- **The NRA assessment shall take into account in particular**
 - Network operators have the possibility to take into account any requirements their networks may have when defining the NTP characteristics
 - Appropriate measures need to be in place which allow the network operators to adequately protect their networks



Simplicity of the operation of the public network

- The fixed NTP location may have an impact on the operation of the public network
- The NRA assessment shall take into account in particular
 - The use of many different types of modems, routers, media boxes etc. is inevitable
 - The degree to which this impairs the simplicity of network operations has to evidently outweigh the potential benefits for end-users and competition on the TTE market to constitute an objective technological necessity



Network security

- Network security is important and the definition of the fixed NTP location may have an impact on it
- The NRA assessment shall take into account in particular
 - The measures that are in place which allow the network operators to protect their networks against security incidents caused by abuse of modem, router, media box etc.
 - If these measures are sufficient, then an objective technological necessity that the modem, router, media box etc. need to be part of the public network would not be likely



Data protection

- Data protection is important and the definition of the fixed NTP location may have an impact on it
- The NRA assessment shall take into account in particular
 - There is no objective technological necessity of equipment (e.g. modem, router, media box) needing to be part of the public network with regard to the protection of private data against access by network operators
 - In case of network access based on a shared medium and the NTP is located at point A, the interoperability between TTE and public network need to include the interworking of appropriate protection measures (e.g. encryption) in order to protect private data against access by unauthorised end-users



Local traffic

- The definition of the fixed NTP location has an impact on the legal and regulatory considerations around local traffic at customer premises
- The NRA assessment shall take into account in particular
 - Modem and router being part of the public network may have serious implications
 - No objective technological necessity that modem or router must be part of the public network results from the criterion 'local traffic'



Fixed-line services based on wireless technology

- Fixed-line services may be based on wireless technology and the definition of the fixed NTP location may have an impact on whether or not this is possible
- The NRA assessment shall take into account in particular
 - In case it is necessary to enable fixed-line services based on wireless technology, there may be a need that equipment (e.g. modem with integrated VoIP adapter, router) is part of the public network
 - However, a router being part of the public network may have serious implications



Location of the mobile NTP

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Location of the mobile NTP

- Today, the end-users have the possibility to use their own mobile equipment in all 28 EU countries
- This shows that there is no objective technological necessity for mobile equipment to be considered as part of the public mobile network
- Therefore, NRAs when defining the mobile NTP location shall determine that the mobile NTP is at a location (e.g. the air interface between mobile equipment and base station) which permits end-users to (continue to) use their own mobile equipment.



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