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Subject:	Proposal for a Directive of the European Parliament and of the Council establishing the European Electronic Communications Code (Recast) - Examination of the Presidency text

INTRODUCTION

1. Following the discussions held during the WP TELE of 15/03/2017, and the written comments provided, delegations will find in annex A an amended text of the elements of the proposed Directive concerning '**services**'. These are Articles 40, 41, 59(1)(c) and 79-108. Also included in this Annex are all the relevant recitals. For ease of reading the amendments have been made to a 'clean' version of the recast which does not include the text proposed for deletion by the Commission. Amendments to document 6701/17 are in bold and strikethrough. *Italic* marks text that has been either moved or reintroduced following a deletion in the Commission proposal or in document 6701/16.

2. Changes in respect of Article 12 or of the use of the terms 'National Regulatory Authority', 'Competent Authority' and 'Member States' have still not been included at this stage. The Presidency intends to present new text taking these issues into account once the institutional set-up will have been discussed in the Working Party early April.
3. The Presidency did not make further changes to the obligations mentioned in **Article 59(1)(c)** nor to the conditions to impose such obligations.
4. The proposed changes are organised in four sections and explained below. They seek to improve clarity and provide the basis for further deliberation of these issues ahead of further revisions. Each section ends with an explanation of what the Presidency would like to achieve in the Working Party meeting of 31 March 2017.

A. **SECURITY OF NETWORKS AND SERVICES (ARTICLES 40 AND 41)**

5. **Articles 40 and 41** have been further aligned with the corresponding provisions of the NIS Directive. These changes include:
 - including the word 'proportionate' in **Article 40(1)**;
 - deleting **Article 40(2)**;
 - replacing the word 'breach' with 'incident' throughout the text;
6. **Article 40(3)** is amended to clarify that providers should notify not only security incidents that have already occurred but also significant threats that are likely to lead to such incidents.
7. **Article 40(3)(d)** is amended to clarify that the notification obligation is not limited to cases of a service disruption.

8. In order to gather all security provisions relating to Electronic Communication Networks and Services in one legal text, the Presidency invites delegations to consider including Article 17 of the proposed ePrivacy Regulation in **Article 40(3a)**. This provision deals with information to end-users about risk of security incidents, including information about possible protective measures or remedies which can be taken by the end-users. This provision would be accompanied by an explanatory **recital 91a**.
9. **In the Working Party meeting of 31 March 2017, the Presidency would like to know whether delegations can support the move of this provision of the ePrivacy regulation in this directive and can support the revised text.**

B. **UNIVERSAL SERVICE OBLIGATIONS (ARTICLES 79 TO 86)**

10. The Presidency has updated **recital 196** to clarify that "at a fixed location" would not block the possibility to provide the functional internet access through a wireless connection. Moreover this recital now starts with the part on availability for greater coherence.
11. In recital 197, the Presidency has clarified that Member States have flexibility on how they define the capacity of the functional internet access. For example Member States can make a list of services to be supported, or set a minimum bandwidth that would be able to support the minimum list of services.
12. In **article 80**, the Presidency has moved paragraph 4 into paragraph 2 to clarify the causality and emphasise the possibility to use social allowances. **Recital 205** has been amended accordingly. Moreover paragraph 5 has been amended to ensure that the availability of assistive equipment and services would also be covered by this provision.
13. In **Article 81(1)**, the Presidency has clarified that universal service obligations could be imposed also on parts of a Member State territory and not necessarily on the full territory, as currently possible under the existing Universal Service Directive.
14. Moreover in **Recital 196, Articles 81 and 82** the Presidency has made a terminology clarification, replacing "duly demonstrated" by "established".

15. Last but not least, the most important change in this part of the CODE is the reinstatement in **Article 85** of the previous full flexibility for the funding of the Universal Service obligations, meaning that both availability and affordability can be financed through public budget or sectoral funding, bearing in mind the expanded scope of Electronic Communication Services in the current definition. Member States would be invited to confirm that this is intended. **Recitals 214, 221** and **Annex VII Part B** have been amended accordingly.
16. Articles 83, 84 and 86 have not been amended.

C. **NUMBERING (ARTICLES 87 TO 91)**

17. Throughout **Articles 87- 89** and the related **Recitals 223-226** the general term 'numbering resources' has been reintroduced where possible. More specific terms such as 'numbers', 'numbering plans' and 'numbering ranges' are used only in those cases where the more specific term is required.
18. **Recital 223** has been amended to clarify the responsibilities and process for enforcing national laws in respect of non-geographic numbers used outside the territory of the assigning Member State (extraterritorial use).
19. **In the Working Party meeting of 31 March 2017, the Presidency would like to know whether delegations can now agree to the revised text, in particular the provisions facilitating extraterritorial use of numbers.**

D. **END-USER RIGHTS (ARTICLES 92 TO 108)**

20. As the market for electronic communication networks and services is changing very rapidly, Member States have expressed a need for further flexibility, in particular in order to be able to set up new rules when new end-user issues arise and to increase the future-proof quality of this Directive.

21. Moreover Member States wanted to ensure that existing national provisions offering a high level of protection to their consumers would not be jeopardised by the introduction of the maximum harmonisation.
22. In order to answer those concerns, the Presidency has considered the following three options:
 - a. Proposing **minimum** harmonisation instead of **maximum** harmonisation. This would give maximum flexibility to the Member States, guarantee that existing provisions would not be lowered, but would risk creating a very fragmented market for OTTs and therefore go against the further development of an attractive digital single market for new and innovative actors.
 - b. **Empowering the Commission** to change the **scope** or **nature** of the different **End-User rights** applicable to electronic communications networks or services. This empowerment could only be done through delegated acts, and could lead to delays in addressing specific national circumstances.
 - c. **Limiting the maximum harmonisation provision to number independent interpersonal communication services**, therefore keeping the flexibility of Member States for undertakings in the scope of the current framework, guaranteeing that existing provisions would not be lowered, while ensuring that other actors would benefit from a true single market.
23. Presidency proposes to retain **option c**, and has amended **Article 94** accordingly.
24. In **Article 92**, the Presidency has reintroduced the term "end-users" to avoid confusion.
25. Regarding the specific end-user rights provisions, the Presidency has built upon the previously proposed **case-by-case approach**, trying to further specify the cases where rules would apply differently to different services. Those clarifications can be found in Article **95(5)(c), (d) and (f)**, and **Annex VII bis**.

26. In **Article 95**, we have also clarified that the information should be provided on a durable medium , and have added '*not-for-profit organisations*' to the list of potential beneficiaries as these were not covered by the definition of SMEs. The Presidency has not amended the text to specifically mention self-employed persons as these are already covered by the definition of an enterprise as presented in Article 1 of Commission Recommendation 2003/36: "*An enterprise is considered to be any entity engaged in an economic activity, irrespective of its legal form. This includes, in particular, self-employed persons and family businesses engaged in craft or other activities, and partnerships or associations regularly engaged in an economic activity.*".
27. **Article 95(5) subparagraph (f)** makes it clear that only subparagraph (d) of Article 4(1) of TSM regulation is relevant.
28. In addition to necessary terminology changes, Article 95 **paragraph 6** has been amended to give more flexibility to Member States regarding "bill-shock" provisions. **Recital 205** is amended accordingly.
29. **Article 96** has been amended to clarify that any provider can request to be included in the results of the comparison tool as long as it provides the relevant information.
30. **Article 98** gives the flexibility to Member States to define what an adequate delay is to terminate a contract, as long as this delay would not exceed one month. In addition, and similarly to what is proposed in Article 95, we have included, in **paragraph 2a**, '*not-for-profit organisations*' as potential beneficiaries. In **paragraph 3**, we have clarified that the charges related to the provision of the service during the notice period could still be billed. In **paragraph 4**, relating to early termination, we have clarified the rules for the billing of terminal equipment, and given the flexibility for Member States to define an adequate value not exceeding the *pro rata temporis* value.

31. In **Article 100 on Bundled offers**, and in order to avoid an unexpected extension of the scope of application of the End User rights rules, **the Presidency proposes to limit the bundles** concerned to bundles of services and **terminal equipment**, rather than goods, with an **internet access service only**. **Not-for-profit organisations** have also been added to the list of beneficiaries. Finally, the Presidency has also reintroduced the reference to Article 99(1) which had been wrongfully deleted.
32. In Article **101**, the Presidency proposes to include the internet access service in this provision in order to be future proof.
33. **Article 103** now explicitly includes the information provided pursuant to Article 95.
34. **Article 107** has been amended to clarify that part B of Annex VI only included one facility.
35. Articles **97, 99, 102, 104, 105, 106** have not been amended.
36. **In the Working Party meeting of 31 March 2017, the Presidency would like to know whether delegations can support the changes made, in particular the choice of option c as presented in paragraphs 0 and 0 of this note.**

CONCLUSION

37. In addition, a small number of technical changes were made throughout the articles to improve the clarity of drafting, for example using 'providers of' rather than 'undertakings providing'.
38. **The Presidency intends to organise future discussions on these issues around the structure set out in this note. Delegations are invited to comment on these changes and in particular in the following areas:**
 - a. **Can Member States agree to the text on security of networks and services?**
 - b. **Can Member States support the USO provisions?**

- c. **Can Member States support the revised text on Numbering, in particular the provisions facilitating extraterritorial use of numbers?**
- d. **Can Member States agree with the revised provisions on End User Rights, in particular regarding the changes made to Article 94?**

- (90) Providers of public electronic communications networks or publicly available electronic communications services, or of both, should be required to take measures to safeguard the security of their networks and services, respectively. Having regard to the state of the art, those measures should ensure a level of security of networks and services appropriate to the risks posed. Security measures should take into account, as a minimum, all the relevant aspects of the following elements: as regards security of networks and facilities: physical and environmental security, security of supplies, access control to networks and integrity of networks; as regards incident handling: incident-handling procedures, incident detection capability, incident reporting and communication; as regards business continuity management: service continuity strategy and contingency plans, disaster recovery capabilities; and as regards monitoring, auditing and testing: monitoring and logging policies, exercise contingency plans, network and service testing, security assessments and compliance monitoring; and compliance with international standards.
- (91) Given the growing importance of number-independent interpersonal communications services, it is necessary to ensure that they are also subject to appropriate security requirements in accordance with their specific nature and economic importance. Providers of such services should thus ensure a level of security commensurate with the degree of risk posed to the security of the electronic communications services they provide. Given that providers of number-independent interpersonal communications services normally do not exercise actual control over the transmission of signals over networks, the degree of risk for such services can be considered in some respects lower than for traditional electronic communications services. Therefore, whenever it is justified by the actual assessment of the security risks involved, the security requirements for number-independent interpersonal communications services should be lighter. In that context, the providers should be able to decide about the measures they consider appropriate to manage the risks posed to the security of their services. The same approach should apply mutatis mutandis to interpersonal communications services which make use of numbers and which do not exercise actual control over signal transmission.
- (91a) Providers of public communications networks or of publicly available electronic communications services should inform end- users of measures they can take to protect the security of their communications, for instance by using specific types of software or encryption technologies. The requirement to inform end-users of particular security risks should not discharge a service provider from the obligation to take, at its own costs, appropriate and immediate measures to remedy any new, unforeseen security risks and restore the normal security level of the service. The provision of information about security risks to the subscriber should be free of charge.**

- (92) Competent authorities should ensure that the integrity and availability of public communications networks are maintained. The European Network and Information Security Agency ('ENISA') should contribute to an enhanced level of security of electronic communications by, amongst other things, providing expertise and advice, and promoting the exchange of best practices. The competent authorities should have the necessary means to perform their duties, including powers to request the information necessary to assess the level of security of networks or services. They should also have the power to request comprehensive and reliable data about actual security incidents that have had a significant impact on the operation of networks or services. They should, where necessary, be assisted by Computer Security Incident Response Teams (CSIRTs) established under Article 9 of Directive (EU) 2016/1148/EU . In particular, CSIRTs may be required to provide competent authorities with information about risks and incidents affecting public communications networks and publicly available electronic communications services and recommend ways to address them.
- (137) Currently both end-to-end connectivity and access to emergency services depend on end-users adopting number-based interpersonal communications services. Future technological developments or an increased use of number-independent interpersonal communications services could entail a lack of sufficient interoperability between communications services. As a consequence significant barriers to market entry and obstacles to further onward innovation could emerge and appreciably threaten both effective end-to-end connectivity between end-users and effective access to emergency services.
- (138) In case such interoperability issues arise, the Commission may request a BEREC report which should provide a factual assessment of the market situation at the Union and Member States level. On the basis of the BEREC report and other available evidence and taking into account the effects on the internal market, the Commission should decide whether there is a need for regulatory intervention by national regulatory authorities. If the Commission considers that such regulatory intervention should be considered by National Regulatory Authorities, it may adopt implementing measures specifying the nature and scope of possible regulatory interventions by NRAs, including in particular measures to impose the mandatory use of standards or specifications on all or specific providers. The terms 'European standards' and 'international standards' are defined in Article 2 of Regulation (EU) No 1025/2012.¹ National regulatory authorities should assess, in the light of the specific national circumstances, whether any intervention is necessary and justified to ensure end-to-end-connectivity or access to emergency services, and if so, impose proportionate obligations in accordance with the Commission implementing measures.

¹ Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation, amending Council Directives 89/686/EEC and 93/15/EEC and Directives 94/9/EC, 94/25/EC, 95/16/EC, 97/23/EC, 98/34/EC, 2004/22/EC, 2007/23/EC, 2009/23/EC and 2009/105/EC of the European Parliament and of the Council and repealing Council Decision 87/95/EEC and Decision No 1673/2006/EC of the European Parliament and of the Council [OJ L 364 of 14.11.2012, p.12]

- (192) The liberalisation of the telecommunications sector and increasing competition and choice for communications services go hand in hand with parallel action to create a harmonised regulatory framework which secures the delivery of universal service. The concept of universal service should evolve to reflect advances in technology, market developments and changes in user demand.
- (193) Under Article 169 of the Treaty on the Functioning of the European Union, the Union is to contribute to the protection of consumers.
- (194) Universal service is a safety net to ensure that a set of minimum services is available to all end-users at an affordable price, where a risk of social exclusion arising from the lack of such access prevents citizens from full social and economic participation in society.
- (195) Basic broadband internet access is virtually universally available across the Union and very widely used for a wide range of activities. However, the overall take-up rate is lower than availability as there are still those who are disconnected by reasons related to awareness, cost, skills and by choice. Affordable functional internet access has become of crucial importance to society and the wider economy. It provides the basis for participation in the digital economy and society through essential online internet services.
- (196) *Where Member States have **established** that availability of functional internet access or of voice communications cannot be ensured under normal commercial circumstances or through other potential public policy tools, they should be able to address the lack of availability with universal service obligations. The obligation to ensure such availability of access should be limited to fixed location only, as there are more proportionate tools to ensure universal wireless coverage. **This access at a fixed location may be restricted to the end-user's primary location or residence** However, ~~There~~ **there** should be no limitations on the technical means by which the connection at a fixed location is provided, allowing for wired or wireless technologies, nor any limitations on the category of operators which provide part or all of universal service obligations. A fundamental requirement of universal service is to ensure that all end-users have access at an affordable price to available functional internet access and voice communications services, at least at a fixed location. **Member States should also have the possibility to ensure affordability to citizens on the move, where they deem this necessary to ensure full social and economic participation in society.** ~~Where Member States have duly demonstrated that availability of functional internet access or of voice communications cannot be ensured under normal commercial circumstances or through other potential public policy tools, they should be able to address the lack of availability with universal service obligations. The obligation to ensure such availability should be limited to fixed location only, as there are more proportionate tools to ensure universal wireless coverage. There should be no limitations on the technical means by which the connection at a fixed location is provided, allowing for wired or wireless technologies, nor any limitations on the category of operators which provide part or all of universal service obligations.~~*

- (197) The speed of Internet access experienced by a given user may depend on a number of factors, including the provider(s) of Internet connectivity as well as the given application for which a connection is being used. The affordable functional internet access service should have sufficient capacity to support access to and use of a minimum set of basic services that reflect the services used by the majority of end-users. This minimum list of services should be further defined by Member States. **It is for the Member States to define the most appropriate way to ensure that the functional internet access supports the minimum list of services. For instance, they may determine the capacity of functional internet by reference to a list of services to be supported by the internet access or they may define the capacity in terms of bandwidth that is needed to support the minimum list of services with the aim** ~~in order~~ to allow an adequate level of social inclusion and participation in the digital society and economy in their territory. The requirements of Union legislation on open internet, in particular of [Regulation \(EU\) No 2015/2120](#)^[1] of the European Parliament and of the Council of 25 November 2015, should apply to any functional internet access service.
- (198) End-users should not be obliged to access services they do not want and it should therefore be possible for eligible end-users to limit, on request, the affordable universal service to voice communications service only.
- (199) National regulatory authorities should be able to monitor the evolution and level of retail tariffs for services that fall under the scope of universal service obligations. The monitoring should be carried out in such a way that it would not represent an excessive administrative burden for either national regulatory authorities or undertakings providing such service.
- (200) Affordable price means a price defined by Member States at national level in the light of specific national conditions, and may involve special tariff options or packages to deal with the needs of low-income users or users with special social needs, including the elderly, the disabled and the end-users living in rural or geographically isolated areas. These offers should be provided with basic features, in order to avoid distortion of the functioning of the market. Affordability for individual end-users should be founded upon their right to contract with an undertaking, availability of a number, continued connection of service and their ability to monitor and control their expenditure.

[1] Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union (Text with EEA relevance) [*OJ L 310 of 26.11.2015, p. 1–18* .]

- (201) It should no longer be possible to refuse end-users access to the minimum set of connectivity services. A right to contract with an undertaking should mean that end-users who might face refusal, in particular those with low incomes or special social needs, should have the possibility to enter into a contract for the provision of affordable functional internet access and voice communications services at least at a fixed location with any undertaking providing such services in that location. In order to minimise the financial risks such as non-payment of bills, undertakings should be free to provide the contract under pre-payment terms, on the basis of affordable individual pre-paid units.
- (202) In order to ensure that citizens are reachable by voice communications services, Member States should ensure the availability of a telephone number for a reasonable period also during periods of non-use of voice communications service. Undertakings should be able to put in place mechanisms to check the continued interest of the end-user in keeping the availability of the number.
- (203) Compensating undertakings providing such services in such circumstances need not result in distortion of competition, provided that such undertakings are compensated for the specific net cost involved and provided that the net cost burden is recovered in a competitively neutral way.
- (204) In order to assess the need for affordability measures, national regulatory authorities should be able to monitor the evolution and details of offers of tariff options or packages for end-users with low incomes or special social needs.
- (205) Where **Member States conclude that additional specific measures are needed to ensure beyond the basic tariff options or packages provided by undertakings are insufficient for ensuring affordability for end-users with low incomes or special needs, they may, having regard to the need to minimise market distortions, provide those end-users with direct support, which may be realised by social allowances, such as for example vouchers to such end-users can be an appropriate alternative having regard to the need to minimise market distortions or require undertakings to offer basic tariff options or packages to those end-users.**
- (206) Member States should introduce measures to promote the creation of a market for affordable products and services incorporating facilities for disabled end-users, including equipment with assistive technologies or software. This can be achieved, inter alia, by referring to European standards, or by introducing requirements in accordance with Directive xxx/YYYY/EU of the European Parliament and of the Council on the approximation of the laws, regulations and administrative provisions of the Member States as regards the accessibility requirements for products and services² Member States should define appropriate measures according to national circumstances, for instance if the market is not delivering affordable products and services incorporating facilities for disabled end-users under normal economic conditions. Those measures could include direct financial support.

² OJ C [...], [...], p. [...].

- (207) For data communications at data rates that are sufficient to permit a functional Internet access, fixed-line connections are nearly universally available and used by a majority of citizens across the Union . The standard fixed broadband coverage and availability in the Union stands at 97% of homes in 2015, with an average take-up rate of 72%, and services based on wireless technologies have even greater reach. However, there are differences between Member States as regards availability and affordability of fixed broadband across urban and rural areas.
- (208) The market has a leading role to play in ensuring availability of broadband internet access with constantly growing capacity. In areas where the market would not deliver, other public policy tools to support availability of functional internet access connections appear, in principle, more cost-effective and less market-distortive than universal service obligations, for example recourse to financial instruments such as those available under EFSI and CEF, the use of public funding from the European structural and investment funds, attaching coverage obligations to rights of use for radio spectrum to support the deployment of broadband networks in less densely populated areas and public investment in conformity with Union State aid rules.
- (209) If after carrying out a due assessment, taking into account the results of the geographical survey of networks deployment conducted by the national regulatory authority, it is shown that neither the market nor public intervention mechanisms are likely to provide end-users in certain areas with a connection capable of delivering functional internet access service as defined by Member States in accordance with Article 79 (2) and voice communications services at a fixed location, the Member State should be able to exceptionally designate different undertakings or sets of undertakings to provide these services in the different relevant parts of the national territory. Universal service obligations in support of availability of functional internet access service may be restricted by Member States to the end-user's primary location or residence. There should be no constraints on the technical means by which the functional internet access and voice communications services at a fixed location are provided, allowing for wired or wireless technologies, nor any constraints on which operators provide part or all of universal service obligations.
- (210) In accordance with the principle of subsidiarity, it is for the Member States to decide on the basis of objective criteria which undertakings are designated as universal service providers, where appropriate taking into account the ability and the willingness of undertakings to accept all or part of the universal service obligations. This does not preclude that Member States can include, in the designation process, specific conditions justified on grounds of efficiency, including, inter alia, grouping geographical areas or components or setting minimum periods for the designation.

- (211) The costs of ensuring the availability of a connection capable of delivering functional internet access service as identified in accordance with Article 79 (2) and voice communications service at a fixed location at an affordable price within the universal service obligations should be estimated, in particular by assessing the expected financial burden for undertakings and users in the electronic communications sector.
- (212) A priori, requirements to ensure nation-wide territorial coverage imposed in the designation procedure are likely to exclude or dissuade certain undertakings from applying for being designated as universal service providers. Designating providers with universal service obligations for an excessive or indefinite time period may also lead to an a priori exclusion of certain undertakings.
- (213) When an undertaking designated to ensure the availability at a fixed location of functional internet access or voice communications services, as identified in Article 81 of this Directive, chooses to dispose of a substantial part, viewed in light of its universal service obligation, or all, of its local access network assets in the national territory to a separate legal entity under different ultimate ownership, the national regulatory authority should assess the effects of the transaction in order to ensure the continuity of universal service obligations in all or parts of the national territory. To this end, the national regulatory authority which imposed the universal service obligations should be informed by the undertaking in advance of the disposal. The assessment of the national regulatory authority should not prejudice the completion of the transaction.
- (214) In order to provide stability and support a gradual transition, Member States should be able to continue to ensure the provision of universal services in their territory, other than functional internet access and voice communications services at a fixed location, that are included in the scope of their universal obligations on the basis of Directive 2002/22/EC at the entry into force of this Directive, provided the services or comparable services are not available under normal commercial circumstances. Allowing the continuation of the provision of public payphones, directories and directory enquiry services under the universal service regime, as long as the need is still demonstrated, would give Member States the flexibility necessary to duly take into account the varying national circumstances. ~~However, the financing of such services should be done via public funds as for the other universal service obligations.~~
- (215) Member States should monitor the situation of end-users with respect to their use of functional internet access and voice communications services and in particular with respect to affordability. The affordability of functional internet access and voice communications services is related to the information which users receive regarding usage expenses as well as the relative cost of usage compared to other services, and is also related to their ability to control expenditure. Affordability therefore means giving power to consumers through obligations imposed on undertakings. These obligations include a specified level of itemised billing, the possibility for consumers selectively to block certain calls (such as high-priced calls to premium services), the possibility for consumers to control expenditure via pre-payment means and the possibility for consumers to offset up-front connection fees. Such measures may need to be reviewed and changed in the light of market developments.

- (216) Except in cases of persistent late payment or non-payment of bills, consumers entitled to affordable tariffs should be protected from immediate disconnection from the network on the grounds of an unpaid bill and, particularly in the case of disputes over high bills for premium-rate services, should continue to have access to essential voice communications services pending resolution of the dispute. Member States may decide that such access may continue to be provided only if the subscriber continues to pay line rental charges.
- (217) Where the provision of functional internet access and voice communications services or the provision of other universal services in accordance with Article 85 result in an unfair burden on an undertaking, taking due account of the costs and revenues as well as the intangible benefits resulting from the provision of the services concerned, that unfair burden can be included in any net cost calculation of universal obligations.
- (218) Member States should, where necessary, establish mechanisms for financing the net cost of universal service obligations in cases where it is demonstrated that the obligations can only be provided at a loss or at a net cost which falls outside normal commercial standards. It is important to ensure that the net cost of universal service obligations is properly calculated and that any financing is undertaken with minimum distortion to the market and to undertakings, and is compatible with the provisions of Articles 107 and 108 of the Treaty on the Functioning of the European Union .
- (219) Any calculation of the net cost of universal service should take due account of costs and revenues, as well as the intangible benefits resulting from providing universal service, but should not hinder the general aim of ensuring that pricing structures reflect costs. Any net costs of universal service obligations should be calculated on the basis of transparent procedures.
- (220) Taking into account intangible benefits means that an estimate in monetary terms, of the indirect benefits that an undertaking derives by virtue of its position as provider of universal service, should be deducted from the direct net cost of universal service obligations in order to determine the overall cost burden.

- (221) When a universal service obligation represents an unfair burden on an undertaking, it is appropriate to allow Member States to establish mechanisms for efficiently recovering net costs. **Recovery via public funds constitutes one method of recovering the net costs of universal service obligations. Sharing the net of costs of universal service obligations between providers of electronic communications networks and services is another method. Member States should be able to finance the net costs of different elements of universal service through different mechanisms, and/or to finance the net costs of some or all elements from either of the mechanisms or a combination of both.** ~~The net costs of universal service obligations should be recovered via public funds.~~ Functional internet access brings benefits not only to the electronic communications sector but also to the wider online economy and to society as a whole. Providing a connection which supports broadband speeds to an increased number of end-users enables them to use online services and so actively to participate in the digital society. Ensuring such connections on the basis of universal service obligations serves at least as much the public interest as it serves the interests of electronic communications providers. **These facts should be taken into account by Member States when choosing and designing mechanism for recovering net costs.** ~~Therefore Member States should compensate the net costs of such connections supporting broadband speeds as part of the universal service from public funds, which should be understood to comprise funding from general government budgets.~~ **In the case of cost recovery by means of sharing the net cost of universal service obligation between providers of electronic communications networks and services, Member States should ensure that that the method of allocation amongst them is based on objective and non-discriminatory criteria and is in accordance with the principle of proportionality. This principle does not prevent Member States from exempting new entrants which have not yet achieved any significant market presence. Any funding mechanism should ensure that market participants only contribute to the financing of universal service obligations and not to other activities which are not directly linked to the provision of the universal service obligations. Recovery mechanisms should in all cases respect the principles of Union law, and in particular in the case of sharing mechanisms those of non-discrimination and proportionality. Any funding mechanism should ensure that users in one Member State do not contribute to universal service costs in another Member State, for example when making calls from one Member State to another.**
- (222) Undertakings benefiting from universal service funding should provide to national regulatory authorities a sufficient level of detail of the specific elements requiring such funding in order to justify their request. Member States' schemes for the costing and financing of universal service obligations should be communicated to the Commission for verification of compatibility with the Treaty. Member States should ensure effective transparency and control of amounts charged to finance universal service obligations. Calculation of the net costs of providing universal service should be based on an objective and transparent methodology to ensure the most cost-effective provision of universal service and promote a level playing field for market operators. Making the methodology intended to be used to calculate the net costs of individual universal service elements known in advance before implementing the calculation could help to achieve increased transparency.

- (223) In order to effectively support the free movement of goods, services and persons within the Union, it should be possible to use certain national numbering resources, in particular certain non-geographic numbers, in an extraterritorial manner, that is to say outside the territory of the assigning Member State throughout the territory of the Union. In view of the considerable risk of fraud with respect to interpersonal communications, such extraterritorial use should **only** be allowed for electronic communications services ~~with the exception of other than~~ interpersonal communications services. Member States should ~~therefore~~ ensure **enforcement of that** relevant national laws, in particular consumer protection rules and other rules related to the use of ~~numbers~~ **numbering resources**, ~~are enforced~~ independently of the Member State where the rights of use for **numbering resources** ~~numbers~~ have been granted. That should entail that the national regulatory and other competent authorities of those Member States where a number is used are competent to apply their national laws to the undertaking to which the number has been assigned. In addition, the national regulatory authorities of those Member States **where a numbering resource is used** should have the possibility to request the support of the national regulatory authority ~~responsible for the~~ **which has assignment granted of the rights of use for the numbering resources** ~~number~~ to assist them in enforcing ~~the respect of the~~ **those** rules applicable in those Member States where the number is used. Such support **Enforcement measures by the national regulatory authority that granted the rights of use for the numbering resources** should include dissuasive sanctions, in particular in case of a serious breach the withdrawal of the right of extraterritorial use for the **numbering resources** ~~numbers~~ assigned to the undertaking concerned. The requirements on extraterritorial use should be without prejudice to Member States' powers to block, on a case-by case basis, access to numbers or services where that is justified by reasons of fraud or misuse. The extraterritorial use of **numbering resources** ~~numbers~~ should be without prejudice to Union's rules related to the provision of roaming services, including those relative to preventing anomalous or abusive use of roaming services which are subject to retail price regulation and which benefit from regulated wholesale roaming rates. Member States should continue to be able to enter into specific agreements on extraterritorial use of numbering resources with third countries.
- (224) Member States should promote over-the-air provisioning of numbering resources to facilitate switching of electronic communications providers. Over the-air provisioning of numbering resources enables the reprogramming of telecommunication equipment identifiers without physical access to the devices concerned. This feature is particularly relevant for machine-to-machine services, that is to say services involving an automated transfer of data and information between devices or software-based applications with limited or no human interaction. Providers of such machine-to-machine services might not have recourse to physical access to their devices due to their use in remote conditions, or to the large number of devices deployed or to their usage patterns. In view of the emerging machine-to-machine market and new technologies, Member States should strive to ensure technological neutrality in promoting over-the-air provisioning.

- (225) Access to numbering resources on the basis of transparent, objective and non-discriminatory criteria is essential for undertakings to compete in the electronic communications sector. ⇒ Member States should be able to grant rights of use for **numbering resources** ~~numbers~~ to undertakings other than providers of electronic communications networks or services in view of the increasing relevance of numbers for various Internet of Things services. ⇐ All elements of national numbering plans should be managed by national regulatory authorities, including point codes used in network addressing. Where there is a need for harmonisation of numbering resources in the ☒ Union ☒ to support the development of pan-European services ⇒ or cross-border services, in particular new machine-to-machine-based services such as connected cars, and where the demand could not be met on the basis of the existing numbering resources in place ⇐ , the Commission ☒ can ☒ take implementing measures ⇒ with the assistance of BEREC ⇐ .
- (226) The requirement to publish decisions on the granting of rights of use for **numbering resources** ~~numbers~~ may be fulfilled by making these decisions publicly accessible via a website.
- (227) Considering the particular aspects related to reporting missing children , Member States should maintain their commitment to ensure that a well-functioning service for reporting missing children is actually available in their territories under the number ‘116000’
- (228) A single market implies that end-users are able to access all numbers included in the national numbering plans of other Member States and to access services using non-geographic numbers, including freephone and premium-rate numbers, within the Union, except where the called end-user has chosen, for commercial reasons, to limit access from certain geographical areas . End-users should also be able to access numbers from the Universal International Freephone Numbers (UIFN). Cross-border access to numbering resources and associated services should not be prevented, except in objectively justified cases, for example to combat fraud or abuse (e.g. in connection with certain premium-rate services), when the number is defined as having a national scope only (e.g. a national short code) or when it is technically or economically unfeasible. Tariffs charged to parties calling from outside the Member State concerned need not be the same as for those parties calling from inside that Member State. Users should be fully informed in advance and in a clear manner of any charges applicable to freephone numbers, such as international call charges for numbers accessible through standard international dialling codes.
- (229) The completion of the single market for electronic communications requires the removal of barriers for end-users to have cross-border access to electronic communications services across the Union. Providers of electronic communications to the public should not deny or restrict access or discriminate against end-users on the basis of their nationality or Member State of residence. Differentiation should, however, be possible on the basis of objectively justifiable differences in costs and risks, which may go beyond the measures provided for in Regulation 531/2012 in respect of abusive or anomalous use of regulated retail roaming services.

- (230) Divergent implementation of the rules on end-user protection has created significant internal market barriers affecting both providers of electronic communications services and end-users. Those barriers should be reduced by the applicability of the same rules ensuring a high common level of protection across the Union. A calibrated full harmonisation of the end-user rights covered by this Directive should considerably increase legal certainty for both end-users and providers of electronic communications services, and should significantly lower entry barriers and unnecessary compliance burden stemming from the fragmentation of the rules. Full harmonisation helps to overcome barriers to the single market resulting from such national end-user provisions which at the same time protect national providers against competition from other Member States. In order to achieve a high common level of protection, several end-user provisions should be reasonably enhanced in this Directive in the light of best practices in Member States. Full harmonisation of their rights increases the trust of end-users in the internal market as they benefit from an equally high level of protection when using electronic communications services, not only in their Member State but also while living, working or travelling in other Member States. **Full harmonisation should only extend to the subject-matters governed by the provisions on end-user rights. Therefore, it should not affect national law with respect to aspects of end-user protection which are not covered by these provisions. Moreover, Member States may maintain or introduce national provisions on issues not specifically addressed in this Directive, in particular in order to address newly emerging issues. Furthermore, Member States should maintain the possibility to have a higher level of end-user protection where an explicit derogation is provided for in this Directive, and to act in areas not covered by this Directive.**
- (231) Contracts are an important tool for end users to ensure transparency of information and legal certainty. Most service providers in a competitive environment will conclude contracts with their customers for reasons of commercial desirability. In addition to the provisions of this Directive, the requirements of existing Union consumer protection legislation relating to contracts, in particular Directive 2011/83/EU of the European Parliament and of the Council on consumer rights³ and Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts, apply to consumer transactions relating to electronic communications networks and services.

³ Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council (OJ L 304, 22.11.2011, p. 64).

- (232) Provisions on contracts in this Directive should apply irrespective of the amount of any payment to be made by the customer. They should ~~apply~~ **benefit** not only ~~to~~ consumers but also ~~to~~ micro and small enterprises as defined in Commission Recommendation 2003/361/EC, whose bargaining position is comparable to that of consumers and which should therefore benefit from the same level of protection. The provisions on contracts, including those contained in Directive 2011/83/EU on consumer rights, should apply automatically to those undertakings unless they prefer negotiating individualised contract terms with providers of electronic communications services. As opposed to micro and small enterprises, larger enterprises usually have stronger bargaining power and do, therefore, not depend on the same contractual information requirements as consumers. Other provisions, such as number portability, which are important also for larger enterprises should continue to apply to all end-users.
- (233) The specificities of the electronic communications sector require, beyond horizontal contract rules, a limited number of additional end-user protection provisions. End-users should inter alia be informed of any quality of service levels offered, conditions for promotions and termination of contracts, applicable tariff plans and tariffs for services subject to particular pricing conditions. That information is relevant for internet access services and, to some extent, also for publicly available interpersonal communications services. Some types of information, for instance on quality of service or pricing, are relevant only for those interpersonal communications services which offer such quality of service or bill a price for their services, respectively. In order to enable the end-user to make a well-informed choice, it is essential that the required relevant information is provided prior to the conclusion of the contract and in clear and understandable language. For the same reason, providers should present a summary of the essential contract terms. In order to facilitate comparability and reduce compliance cost, ~~BEREC~~ **The Commission** should issue a template for such contract summaries.
- (234) Following the adoption of Regulation (EU) 2015/2120 the provisions in this Directive regarding information on conditions limiting access to and/or use of services and applications and as regards traffic shaping became obsolete and should be repealed.
- (235) With respect to terminal equipment, the customer contract should specify any restrictions imposed by the provider on the use of the equipment, such as by way of ‘SIM-locking’ mobile devices, if such restrictions are not prohibited under national legislation, and any charges due on termination of the contract, whether before or on the agreed expiry date, including any cost imposed in order to retain the equipment. Any charges due at early termination for terminal equipment and other promotional advantages should be calculated on the basis of customary depreciation methods and on a pro rata temporis basis, respectively.
- (236) Without prejudice to the substantive obligation on the provider related to security by virtue of this Directive, the contract should specify the type of action the provider might take in case of security incidents, threats or vulnerabilities.

- (237) The availability of transparent, up-to-date and comparable information on offers and services is a key element for consumers in competitive markets where several providers offer services. End-users should be able to easily compare the prices of various services offered on the market based on information published in an easily accessible form. In order to allow them to make price and service comparisons easily, national regulatory authorities should be able to require from undertakings providing electronic communications networks and/or electronic communications services other than number-independent interpersonal communications services greater transparency as regards information (including tariffs, quality of service, restrictions on terminal equipment supplied, and other relevant statistics). Any such requirements should take due account of the characteristics of those networks or services. They should also ensure that third parties have the right to use, without charge, publicly available information published by such undertakings, in view of providing comparison tools.
- (238) End-users are often not aware of the cost of their consumption behaviour or have difficulties to estimate their time or data consumption when using electronic communications services. In order to increase transparency and to allow better control of their communications budget it is important to provide end-users with facilities that enable them to track their consumption in a timely manner. **In addition, Member States may maintain provisions on consumption limits protecting end-users against “bill-shocks”.**
- (239) Independent comparison tools, such as websites, are an effective means for end-users to assess the merits of different providers of publicly available electronic communications services other than number-independent interpersonal communications services, and to obtain impartial information, in particular by comparing prices, tariffs, and quality parameters in one place. Such tools should be operationally independent from service providers, which means that no service provider should be given favourable treatment in search results, and should aim at providing information that is both clear and concise and complete and comprehensive. They should also aim at including the broadest possible range of offers, so as to give a representative overview and cover a significant part of the market. The information given on such tools should be trustworthy, impartial and transparent. End-users should be informed of the availability of such tools. Member States should ensure that end-users have free access to at least one such tool in their respective territories.

- (245) Consumers should be able to terminate their contract without incurring any costs also in cases of automatic prolongation after the expiration of the contract term.
- (246) Any changes to the contractual conditions imposed by providers of publicly available electronic communications services, to the detriment of the end-user, for example in relation to charges, tariffs, data volume limitations, data speeds, coverage, or the processing of personal data should be considered as giving rise to the right of the end-user to terminate the contract without incurring any costs, even if they are combined with some beneficial changes. Any change to the contractual conditions by the provider should therefore entitle the end-user to terminate the contract unless each change is in itself beneficial to the end-user, or the changes are strictly necessary to implement legislative or regulatory changes, such as new contract information requirements imposed by Union or national law. End-users should be notified of any changes to the contractual conditions in a durable medium. Such medium could be in particular paper, USB sticks, CD-ROMs, DVDs, memory cards or the hard disks of computers as well as e-mails.
- (251) Number portability is a key facilitator of consumer choice and effective competition in competitive markets for electronic communications and should be implemented with the minimum delay, so that the number is functionally activated within one working day and the user does not experience a loss of service lasting longer than one working day. The right to port the number should be attributed to the end-user who has the relevant (pre- or post-paid) contract with the provider. In order to facilitate a one-stop-shop enabling a seamless switching experience for end-users, the switching process should be led by the receiving provider of electronic communications to the public. National regulatory authorities may prescribe the global process of the porting of numbers, taking into account national provisions on contracts and technological developments. Experience in certain Member States has shown that there is a risk of consumers being switched to another provider without having given their consent. While that is a matter that should primarily be addressed by law enforcement authorities, Member States should be able to impose such minimum proportionate measures regarding the switching process, including appropriate sanctions, as are necessary to minimise such risks, and to ensure that consumers are protected throughout the switching process without making the process less attractive for them. The right to port numbers should not be restricted by contractual conditions.

- (252) Bundles comprising an internet access service or a publicly available interpersonal communications services, and other services such as linear broadcasting, or goods such as devices offered by the same provider and contracted jointly, have become increasingly widespread and are an important element of competition. While they often bring about benefits for end-users, they can make switching more difficult or costly and raise risks of contractual "lock-in". Where divergent contractual rules on contract termination and switching apply to the different services, and to any contractual commitment regarding acquisition of products which form part of a bundle, consumers are effectively hampered in their rights under this Directive to switch to competitive offers for the entire bundle or parts of it. The provisions of this Directive regarding contracts, transparency, contract duration and termination should, therefore, apply to all elements of a bundle, except to the extent that other rules applicable to the non-electronic communications elements of the bundle are more favourable to the consumer. Other contractual issues, such as the remedies applicable in the event of non-conformity with the contract, should be governed by the rules applicable to the respective element of the bundle, for instance by the rules of contracts for the sales of goods or for the supply of digital content. For the same reasons consumers should not be locked in with a provider by means of a contractual de facto extension of the initial contract period.

TITLE V: SECURITY AND INTEGRITY

Article 40

Security of networks and services

1. Member States shall ensure that providers of public communications networks or of publicly available electronic communications services take appropriate **and proportionate** technical and organisational measures to appropriately manage the risks posed to security of networks and services. Having regard to the state of the art, these measures shall ensure a level of security appropriate to the risk presented. In particular, measures shall be taken to prevent and minimise the impact of security incidents on users and on other networks and services.

~~2. Member States shall ensure that providers of public communications networks take all appropriate steps to guarantee the integrity of their networks, and thus ensure the continuity of supply of services provided over those networks.~~

3. Member States shall ensure that providers of public communications networks or of publicly available electronic communications services notify without undue delay the competent authority of a security incident that has had a significant impact on the networks or services **and of a significant threat that is likely to lead to such an incident.**

In order to determine the significance of the impact of a security incident, the following parameters shall, in particular, be taken into account:

- (a) the number of users affected by the ~~breach~~ **incident**;
- (b) the duration of the ~~breach~~ **incident**;
- (c) the geographical spread of the area affected by the ~~breach~~ **incident**;
- (d) the extent to which the functioning of the service or network is ~~disrupted~~ **affected**;
- (e) the impact on economic and societal activities.

Where appropriate, the competent authority concerned shall inform the competent authorities in other Member States and the European Network and Information Security Agency (ENISA). The competent authority concerned may inform the public or require the ~~undertakings~~ **providers** to do so, where it determines that disclosure of the ~~breach~~ **incident** is in the public interest.

Once a year, the competent authority concerned shall submit a summary report to the Commission and ENISA on the notifications received and the action taken in accordance with this paragraph.

3a. Member States shall ensure that in case of a particular risk of a security incident in public communications networks or publicly available electronic communications services providers of such networks or services shall inform their end-users of such a risk and of any possible protective measures or remedies which can be taken by the end-users.

4. This Article is without prejudice to Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector.

5. The Commission, taking utmost account of the opinion of ENISA, shall adopt decisions detailing the measures referred to in paragraphs 1 ~~and 2~~ as well as the circumstances, format and procedures applicable to notification requirements pursuant to paragraph 3. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 110(4). They shall be based on European and international standards to the greatest extent possible, and shall not prevent Member States from adopting additional requirements in order to pursue the objectives set out in paragraphs 1 ~~and 2~~.

Article 41

Implementation and enforcement

1. Member States shall ensure that in order to implement Article 40, the competent authorities have the power to issue binding instructions, including those regarding the measures required to remedy a ~~breach~~ **security incident** or prevent one from occurring when a significant threat has been identified and time-limits for implementation, to providers of public communications networks or publicly available electronic communications services.
2. Member States shall ensure that competent authorities have the power to require providers of public communications networks or publicly available electronic communications services to:
 - (a) provide information needed to assess the security of their services and networks, including documented security policies; and
 - (b) submit to a security audit carried out by a qualified independent body or a competent authority and make the results thereof available to the competent authority. The cost of the audit shall be paid by the provider.
3. Member States shall ensure that the competent authorities have all the powers necessary to investigate cases of non-compliance and the effects thereof on the security of the networks and services.
4. Member States shall ensure that, in order to implement Article 40, the competent authorities have the power to obtain the assistance of their Computer Security Incident Response Teams ('CSIRTs') under Article 9 of Directive (EU) 2016/1148/EU in relation to issues falling within the tasks of the CSIRTs pursuant to Annex I, point 2 of that Directive.
5. The competent authorities shall, whenever appropriate and in accordance with national law, consult and cooperate with the relevant national law enforcement authorities, the competent authorities as defined in Article 8 (1) of Directive (EU) 2016/1148 and the national data protection authorities.

TITLE II: ACCESS

CHAPTER II

ACCESS AND INTERCONNECTION

Article 59

Powers and responsibilities of the national regulatory authorities with regard to access and interconnection

1. National regulatory authorities shall, acting in pursuit of the objectives set out in Article 3, encourage and where appropriate ensure, in accordance with the provisions of this Directive, adequate access and interconnection, and the interoperability of services, exercising their responsibility in a way that promotes efficiency, sustainable competition, the deployment of very high capacity networks, efficient investment and innovation, and gives the maximum benefit to end-users. They shall provide guidance and make publicly available the procedures applicable to gain access and interconnection to ensure that small and medium-sized enterprises and operators with a limited geographical reach can benefit from the obligations imposed.

In particular, without prejudice to measures that may be taken regarding undertakings with significant market power in accordance with Article 66, national regulatory authorities shall be able to impose:

- (a) to the extent that is necessary to ensure end-to-end connectivity, obligations on those undertakings that are subject to general authorisation and that control access to end-users, including in justified cases the obligation to interconnect their networks where this is not already the case;
- (b) in justified cases and to the extent that is necessary, obligations on those undertakings that are subject to general authorisation and that control access to end-users to make their services interoperable;

- (c) in justified cases where access to emergency services or end-to-end connectivity between end-users is endangered due to a lack of interoperability between interpersonal communications services, obligations on providers of number-independent interpersonal communications services to make their services interoperable.
- (d) to the extent that is necessary to ensure accessibility for end-users to digital radio and television broadcasting services specified by the Member State, obligations on operators to provide access to the other facilities referred to in Annex II, Part II on fair, reasonable and non-discriminatory terms.

The obligations referred to in point (c) of the second subparagraph may only be imposed:

- (i) to the extent necessary to ensure interoperability of interpersonal communications services and may include obligations relating to the use and implementation of standards or specifications listed in Article 39(1) or of any other relevant European or international standards; and
- (ii) where the Commission, ~~on the basis of~~ **taking utmost account of** a report that it had requested from BEREC, has found an appreciable threat to effective access to emergency services or to end-to-end connectivity between end-users within one or several Member States or throughout the European Union and has adopted implementing measures specifying the nature and scope of any obligations that may be imposed, in accordance with the examination procedure referred to in Article 110(4).

2. National regulatory authorities shall impose obligations upon reasonable request to grant access to wiring and cables inside buildings or up to the first concentration or distribution point where that point is located outside the building, on the owners of such wiring and cable or on undertakings that have the right to use such wiring and cables, where this is justified on the grounds that replication of such network elements would be economically inefficient or physically impracticable. The access conditions imposed may include specific rules on access, transparency and non-discrimination and for apportioning the costs of access, which, where appropriate, are adjusted to take into account risk factors.

National regulatory authorities may extend to those owners or undertakings the imposition of such access obligations, on fair and reasonable terms and conditions, beyond the first concentration or distribution point to a concentration point as close as possible to end-users, to the extent strictly necessary to address insurmountable economic or physical barriers to replication in areas with lower population density.

National regulatory authorities shall not impose obligations in accordance with the second subparagraph where:

- (a) a viable and similar alternative means of access to end-users is made available to any undertaking, provided that the access is offered on fair and reasonable terms and conditions to a very high capacity network by an undertaking meeting the criteria listed in Article 77 paragraphs (a) and (b); and
- (b) in the case of recently deployed network elements, in particular by smaller local projects, the granting of that access would compromise the economic or financial viability of their deployment.

3. Member States shall ensure that national regulatory authorities have the power to impose on providers of or authorised to provide electronic communications networks obligations in relation to the sharing of passive or active infrastructure, obligations to conclude localised roaming access agreements, or the joint roll-out of infrastructures directly necessary for the local provision of services which rely on the use of spectrum, in compliance with Union law, where it is justified on the grounds that,

- (a) the replication of such infrastructure would be economically inefficient or physically impracticable, and
- (b) the connectivity in that area, including along its main transport paths, would be severely deficient, or the local population would be subjected to severe restrictions on choice or quality of service, or on both.

National regulatory authorities shall have regard to:

- (a) the need to maximise connectivity throughout the Union and in particular territorial areas;
- (b) the efficient use of radio spectrum;

- (c) the technical feasibility of sharing and associated conditions;
- (d) the state of infrastructure-based as well as service-based competition;
- (e) the possibility to significantly increase choice and higher quality of service for end-users;
- (f) technological innovation;
- (g) the overriding need to support the incentive of the host to roll out the infrastructure in the first place.

Such sharing, access or coordination obligations shall be subject to agreements concluded on the basis of fair and reasonable terms and conditions. In the event of dispute resolution, national regulatory authorities may *inter alia* impose on the beneficiary of the sharing or access obligation, the obligation to share its spectrum with the infrastructure host in the relevant area.

4. Obligations and conditions imposed in accordance with paragraph 1,2 and 3 shall be objective, transparent, proportionate and non-discriminatory, they shall be implemented in accordance with the procedures referred to in Articles 23, 32 and 33. National regulatory authorities shall assess the results of such obligations and conditions within five years from the adoption of the previous measure adopted in relation to the same operators and whether it would be appropriate to withdraw or amend them in the light of evolving conditions. National regulatory authorities shall notify the outcome of their assessment in accordance with the same procedures .

5. With regard to access and interconnection referred to in paragraph 1, Member States shall ensure that the national regulatory authority is empowered to intervene at its own initiative where justified in order to secure the policy objectives of Article 3 , in accordance with the provisions of this Directive and the procedures referred to in Articles 23 and 32, 26 and 27 .

6. By [entry into force plus 18 months] in order to contribute to a consistent definition of the location of network termination points by national regulatory authorities, BEREC shall, after consulting stakeholders and in close cooperation with the Commission, adopt guidelines on common approaches to the identification of the network termination point in different network topologies. National regulatory authorities shall take utmost account of those guidelines when defining the location of network termination points.

PART III. SERVICES

TITLE I: UNIVERSAL SERVICE OBLIGATIONS

Article 79

Affordable universal service

1. Member States shall ensure that all end-users in their territory have access at an affordable price, in the light of specific national conditions, to available functional internet access and voice communications services at the quality specified in their territory, including the underlying connection, at least at a fixed location.
2. Member States shall, in the light of national conditions, define the functional internet access service referred to in paragraph 1 with a view to adequately reflect services used by the majority of end-users in their territory. To that end, the functional internet access service shall at least be capable of supporting the minimum set of services set out in Annex V.
3. When an end-user so requests, the connection referred to in paragraph 1 may be limited to support voice communications only.

Provision of affordable universal service

1. National regulatory authorities shall monitor the evolution and level of retail tariffs of services identified in Article 79(1) available on the market, in particular in relation to national prices and national end-user income.
2. Where Member States establish that, in the light of national conditions, retail prices for services identified in Article 79(1) are not affordable, because low-income or special social needs end-users are prevented from accessing such services, **they may ensure that support is provided to those end-users in view of ensuring affordability of functional internet access and voice communications services at least at a fixed location** or they may require undertakings which provide such services to offer to those end-users tariff options or packages different from those provided under normal commercial conditions. To that end, Member States may require such undertakings to apply common tariffs, including geographic averaging, throughout the territory. Member States shall ensure that end-users entitled to such tariff options or packages have a right to contract with an undertaking providing the services identified in Article 79(1) and that such undertaking provides them with an adequate period of availability of a number and avoid unwarranted disconnection of service.
3. Member States shall ensure that undertakings which provide tariff options or packages to low-income or special social needs end-users pursuant to paragraph 2, keep the national regulatory authorities informed of the details of such offers. National regulatory authorities shall ensure that the conditions under which undertakings provide tariff options or packages pursuant to paragraph 2 are fully transparent and are published and applied in accordance with the principle of non-discrimination. National regulatory authorities may require that specific schemes be modified or withdrawn.
- ~~4. Member States may, in the light of national conditions, ensure that support is provided to low-income or special social needs end-users in view of ensuring affordability of functional internet access and voice communications services at least at a fixed location.~~

5. Member States shall ensure, in the light of national conditions, that support is provided as appropriate to end-users with disabilities, or that other specific measures are taken, in view of ensuring that related terminal equipment, specific equipment and specific services enhancing equivalent access are **available and** affordable.

6. When applying this Article, Member States shall seek to minimise market distortions.

Article 81

Availability of universal service

1. Where a Member State has ~~duly demonstrated~~ **established**, ~~account taken of~~ **taking into account** the results of the geographical survey, **where available**, conducted in accordance with Article 22(1), that the availability at a fixed location of functional internet access service as defined in accordance with Article 79(2) and of voice communications service cannot be ensured under normal commercial circumstances or through other potential public policy tools **in its national territory or different parts thereof**, it may impose appropriate universal service obligations to meet all reasonable requests for accessing those services in **the relevant parts of** its territory.

2. Member States shall determine the most efficient and appropriate approach for ensuring the availability at a fixed location of functional internet access service as defined in accordance with Article 79(2) and of voice communications service, whilst respecting the principles of objectivity, transparency, non-discrimination and proportionality. They shall seek to minimise market distortions, in particular the provision of services at prices or subject to other terms and conditions which depart from normal commercial conditions, whilst safeguarding the public interest.

3. In particular, where Member States decide to impose obligations to ensure the availability at a fixed location of functional internet access service as defined in accordance with Article 79(2) and of voice communications service, they may designate one or more undertakings to guarantee the availability at a fixed location of functional internet access service as identified in accordance with Article 79(2) and of voice communications service in order to cover all the national territory. Member States may designate different undertakings or sets of undertakings to provide functional internet access and voice communications services at a fixed location and/or to cover different parts of the national territory.
4. When Member States designate undertakings in part or all of the national territory as undertakings having the obligation to ensure the availability at a fixed location of functional internet access service as defined in accordance with Article 79(2) and of voice communications service, they shall do so using an efficient, objective, transparent and non-discriminatory designation mechanism, whereby no undertaking is a priori excluded from being designated. Such designation methods shall ensure that functional internet access and voice communications services at a fixed location are provided in a cost-effective manner and may be used as a means of determining the net cost of the universal service obligation in accordance with Article 84.
5. When an undertaking designated in accordance with paragraph 3 intends to dispose of a substantial part or all of its local access network assets to a separate legal entity under different ownership, it shall inform in advance the national regulatory authority in a timely manner, in order to allow that authority to assess the effect of the intended transaction on the provision at a fixed location of functional internet access service as defined in accordance with Article 79(2) and of voice communications service. The national regulatory authority may impose, amend or withdraw specific obligations in accordance with Article 13(2).

Article 82

Status of existing universal services

Member States may continue to ensure the availability or affordability of other services than functional internet access service as defined in accordance with Article 79(2) and voice communications service at a fixed location that were in force prior to [set date], if the need for such services is ~~duly demonstrated~~ **established** in the light of national circumstances. When Member States designate undertakings in part or all of the national territory for the provision of those services, Article 81 shall apply. Financing of these obligations shall comply with Article 85.

Member States shall review the obligations imposed pursuant to this Article at the latest 3 years after the entry into force of this Directive and thereafter once every 3 years.

Article 83

Control of expenditure

1. Member States shall ensure that in providing facilities and services additional to those referred to in Article 79, those providers of the services in accordance with Article 79 to 82 establish terms and conditions in such a way that the end-user is not obliged to pay for facilities or services which are not necessary or not required for the service requested.
2. Member States shall ensure that those providers of services, referred to in Article 79 and providing services pursuant to Article 80, offer the specific facilities and services set out in Annex VI, Part A, in order that end-users can monitor and control expenditure and put in place a system to avoid unwarranted disconnection of voice communications service or of functional internet access service for the end-users who are entitled thereto, including an appropriate mechanism to check continued interest in using the service.
3. Member States shall ensure that the competent authority is able to waive the requirements of paragraph 2 in all or part of its national territory if it is satisfied that the facility is widely available.

Costing of universal service obligations

1. Where national regulatory authorities consider that the provision of functional internet access service as defined in accordance with Article 79(2) and of voice communications service; as set out in Articles 79, 80 and 81 or the continuation of existing universal services as set out in Article 82 may represent an unfair burden on providers of such services and requesting for compensation, they shall calculate the net costs of its provision.

For that purpose, national regulatory authorities shall:

- (a) calculate the net cost of the universal service obligation, taking into account any market benefit which accrues to an undertaking providing functional internet access service as defined in accordance with Article 79(2) and voice communications service; as set out in Articles 79, 80 and 81 or the continuation of existing universal services as set out in Article 82 , in accordance with Annex VII ; or
 - (b) make use of the net costs of providing universal service identified by a designation mechanism in accordance with Article 81(4).
2. The accounts and/or other information serving as the basis for the calculation of the net cost of universal service obligations under paragraph 1(a) shall be audited or verified by the national regulatory authority or a body independent of the relevant parties and approved by the national regulatory authority. The results of the cost calculation and the conclusions of the audit shall be publicly available.

Financing of universal service obligations

1. Where, on the basis of the net cost calculation referred to in Article 84, national regulatory authorities find that an undertaking is subject to an unfair burden, Member States shall, upon request from the undertaking concerned, decide:

- (a) to introduce a mechanism to compensate that undertaking for the determined net costs under transparent conditions from public funds, **and/or**
- (b) *to share the net cost of universal service obligations between providers of electronic communications networks and services.*

~~Where Member States have designated undertakings as having the obligation to ensure the availability at a fixed location of functional internet access and/or of voice communications service pursuant to Article 81, they may, as an alternative to the public funding in accordance with the first sub-paragraph, introduce a mechanism to share the net cost of such universal obligation between providers of electronic communications networks and services.~~

2. Where the net cost is shared under second sub-paragraph of paragraph 1, Member States shall establish a sharing mechanism administered by the national regulatory authority or a body independent from the beneficiaries under the supervision of the national regulatory authority. Only the net cost, as determined in accordance with Article ~~1284~~, of the obligations laid down in Articles ~~3 to 10~~ **79 to 82** may be financed.

3. A sharing mechanism shall respect the principles of transparency, least market distortion, non-discrimination and proportionality, in accordance with the principles of Annex ~~IV~~**VII**, Part B. Member States may choose not to require contributions from undertakings whose national turnover is less than a set limit.

4. Any charges related to the sharing of the cost of universal service obligations shall be unbundled and identified separately for each undertaking. Such charges shall not be imposed or collected from undertakings that are not providing services in the territory of the Member State that has established the sharing mechanism.

Article 86

Transparency

1. Where the net cost of universal service obligations is to be calculated in accordance with Article 84, national regulatory authorities shall ensure that the principles for net cost calculation, including the details of mechanism to be used to compensate the net cost are publicly available.
2. Subject to Union and national rules on business confidentiality, national regulatory authorities shall ensure that an annual report is published providing the details of calculated cost of universal service obligations including any market benefits that may have accrued to the undertaking(s) pursuant to universal service obligations laid down in Articles 79, ~~81~~ and to 82 .

TITLE II: ~~NUMBERS~~ NUMBERING RESOURCES

Article 87

Numbering resources

1. Member States shall ensure that national regulatory authorities control the granting of rights of use for all national numbering resources and the management of the national numbering plans and that they provide adequate ~~numbers and numbering ranges~~ **numbering resources** 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* ~~numbers~~.

2. National regulatory authorities may also grant rights of use for numbering resources ~~numbers~~ from the national numbering plans for the provision of specific services to undertakings other than providers of electronic ~~communications~~ networks or services, provided that sufficient and adequate numbering resources are made available to satisfy current and foreseeable future demand.

Undertakings shall demonstrate their ability to manage the **numbering resources** ~~numbers~~ and comply with any relevant requirements set out pursuant to Article 88. National regulatory authorities may suspend the further granting of rights of use for **numbering resources** ~~numbers~~ to such undertakings if it is demonstrated that there is a risk of exhaustion of numbering resources. By [entry into force plus 18 months] in order to contribute to the consistent application of this paragraph, BEREC shall adopt, after consulting stakeholders and in ~~close~~ cooperation with the Commission, guidelines on common criteria for the assessment of the ability to manage **numbering resources** ~~numbers~~ and the risk of exhaustion of numbering resources.

3. National regulatory authorities shall ensure that national numbering plans and procedures are applied in a manner that gives equal treatment to all providers of publicly available electronic communications services and the undertakings eligible in accordance with paragraph 2. In particular, Member States shall ensure that an undertaking to which the rights of use for **numbering resources** ~~a range of numbers~~ has been granted does not discriminate against other providers of electronic communications services as regards the **numbering resources** ~~number sequences~~ used to give access to their services.

4. Each Member State shall ensure that national regulatory authorities make available a range of non-geographic ~~numbers numbering resources~~ which may be used for the provision of electronic communications services other than interpersonal communications services, throughout the territory of the Union, without prejudice to Regulation (EU) No 531/2012 , and Article 91 (2) of this Directive. Where rights of use for ~~numbering resources numbers~~ have been granted in accordance with paragraph 2 to undertakings other than providers of electronic communications networks or services, this paragraph shall apply to the specific services provided by those undertakings. National regulatory authorities shall ensure that the conditions, **attached in accordance with Part E of Annex 1**, for the rights of use for ~~numbering resources numbers~~ used for the provision of services outside the Member State of the country code, and their enforcement, are ~~not~~ **neither less stringent nor more stringent** than the conditions and enforcement applicable to services provided within the Member State of the country code, **in accordance with this Directive**. National regulatory authorities shall also ensure in accordance with Article 88(6) that providers using **numbering resources numbers** of their country code in other Member States comply with consumer protection and other national rules related to the use of ~~numbering resources numbers~~ applicable in those Member States where the ~~numbering resources numbers~~ are used. This obligation is without prejudice to the enforcement powers of the competent authorities of those Member States.

National regulatory authorities may request BEREC's assistance in coordinating their activities to ensure an efficient management of numbering resources and extraterritorial use within the Union.

In order to facilitate the monitoring by the national regulatory authorities of compliance with the requirements of this paragraph, BEREC shall establish a central registry of the **numbering resources numbers** with a right of extraterritorial use within the Union. For this purpose national regulatory authorities shall transmit the relevant information to BEREC.

5. Member States shall ensure that the '00' code is the standard international access code. Special arrangements for the use of number-based interpersonal communications services between locations adjacent to one another across borders between Member States may be established or continued.

Member States may agree to share a common numbering plan for all or specific categories of numbers.

End-users in the locations concerned shall be fully informed of such arrangements or agreements.

6. Member States shall promote the over-the-air provisioning of numbering resources, - where technically feasible, to facilitate switching of providers of electronic communications networks or services by end-users other than consumers, in particular providers and users of machine-to-machine services.

7. Member States shall ensure that the national numbering plans, and all subsequent additions or amendments thereto, are published, subject only to limitations imposed on the grounds of national security.

8. Member States shall support the harmonisation of specific numbers or numbering ranges within the Union where it promotes both the functioning of the internal market and the development of pan-European services necessary to address unmet cross-border or pan-European demand for numbers, the Commission shall, taking utmost account of the opinion of BEREC, adopt implementing acts harmonising specific numbers or numbering ranges.

Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 110(4).

Article 88

Procedure of granting of rights of use for **numbering resources numbers**

1. Where it is necessary to grant individual rights of use for **numbering resources numbers**, national regulatory authorities shall grant such rights, upon request, to any undertaking for the provision of electronic communications networks or services covered by a general authorisation referred to in Article 12, subject to the provisions of Articles 13 and 21(1)(c) and any other rules ensuring the efficient use of those **numbering resources** in accordance with this Directive .
2. The rights of use for **numbering resources numbers** shall be granted through open, objective, transparent, non-discriminatory and proportionate procedures.

When granting rights of use for **numbering resources numbers**, national regulatory authorities shall specify whether those rights can be transferred by the holder of the rights, and under which conditions.

Where national regulatory authorities grant rights of use for a limited period of time, the duration shall be appropriate for the service concerned in view of the objective pursued taking due account of the need to allow for an appropriate period for investment amortisation.

3. Decisions on the granting of rights of use for **numbering resources numbers** shall be taken, communicated and made public as soon as possible after receipt of the complete application by the national regulatory authority, within three weeks in the case of **numbering resources numbers** that have been allocated for specific purposes within the national numbering plan.
4. Where national regulatory authorities have determined, after consultation with interested parties in accordance with Article 23, that rights of use for **numbering resources numbers** of exceptional economic value are to be granted through competitive or comparative selection procedures, national regulatory authorities may extend the period referred to in paragraph 3 by up to three weeks.

5. National regulatory authorities shall not limit the number of rights of use to be granted except where this is necessary to ensure the efficient use of numbering resources.

6. Where the rights of use for **numbering resources numbers** includes extraterritorial use within the Union in accordance with Article 87(4), the national regulatory authority shall attach to the rights of use specific conditions in order to ensure compliance with the relevant national consumer protection rules and national laws related to the use of **numbering resources numbers** applicable in the Member States where the **numbering resources numbers** are used.

Upon request from a national regulatory authority of a Member State where the **numbering resources numbers** are used, demonstrating a breach of relevant consumer protection rules or ~~number-related~~ national laws **related to the use of numbering resources** of that Member State, the national regulatory authority of the Member State where the rights of use for the **numbering resources numbers** have been granted, shall enforce the conditions attached under the first subparagraph in accordance with Article 30, including in serious cases by withdrawing the right of extraterritorial use for the **numbering resources numbers** granted to the undertaking concerned.

BEREC shall facilitate and coordinate the exchange of information between the national regulatory authorities of the Member States involved and ensure the appropriate coordination of work among them.

6a. This Article shall also apply where national regulatory authorities grant rights of use for **numbering resources numbers** to undertakings other than providers of electronic communications networks or services in accordance with Article 87(2).

Article 89

Fees for rights of use for numbering resources ~~numbers~~

Member States may allow the national regulatory authority to impose fees for the rights of use for **numbering resources ~~numbers~~** which reflect the need to ensure the optimal use of these resources. Member States shall ensure that such fees are objectively justified, transparent, non-discriminatory and proportionate in relation to their intended purpose and shall take into account the objectives in Article 3.

Article 90

The missing children hotline number

1. Member States shall ensure that citizens have access to a service operating a hotline to report cases of missing children. The hotline shall be available on the number '116000'.
2. Member States shall ensure that disabled end-users are able to access services provided under the number '116000' ~~numbering range~~ to the greatest extent possible. Measures taken to facilitate disabled end-users' access to such services whilst travelling in other Member States shall be based on compliance with relevant standards or specifications published in accordance with Article 39.

Article 91

Access to numbers and services

1. Member States shall ensure that, where technically and economically feasible, and except where a called end-user has chosen for commercial reasons to limit access by calling parties located in specific geographical areas, national regulatory authorities take all necessary steps to ensure that end-users are able to:
 - (a) access and use services using non-geographic numbers within the Union; and
 - (b) access all numbers provided in the Union, regardless of the technology and devices used by the operator, including those in the national numbering plans of Member States and Universal International Freephone Numbers (UIFN).

2. Member States shall ensure that the national regulatory authorities are able to require providers of public communications networks and/or publicly available electronic communications services to block, on a case-by-case basis, access to numbers or services where this is justified by reasons of fraud or misuse and to require that in such cases providers of electronic communications services withhold relevant interconnection or other service revenues.

Title III: End-user rights

Article 92

Equal Treatment

Providers of electronic communications networks or services shall not apply any different requirements or conditions of access or use to end-users in the Union based on *the end-users'* ~~their~~ nationality or Member State of residence or of establishment unless such differences are objectively justified.

Article 93

Fundamental rights

1. National measures regarding end-users' access to, or use of, services and applications through electronic communications networks shall respect the Charter of Fundamental Rights of the Union ('the Charter') and general principles of Union law.

2. Any measures regarding end-users' access to, or use of, services and applications through electronic communications networks liable to limit the exercise of the rights or freedoms recognised by the Charter may only be imposed if they are provided for by law and respect those rights or freedoms, are, proportionate, necessary, and genuinely meet objectives of general interest recognised by the Union or the need to protect the rights and freedoms of others in line with Article 52(1) of the Charter and with general principles of Union law, including the right to an effective remedy and to a fair trial. Accordingly, these measures may only be taken with due respect for the principle of the presumption of innocence and the right to privacy. A fair and impartial procedure shall be guaranteed, including the right to be heard of the person or persons concerned, subject to the need for appropriate conditions and procedural arrangements in duly substantiated cases of urgency in conformity with the Charter.

Article 94

Level of harmonisation

1. Member States shall not maintain or introduce in their national law **end-user protection provisions on number-independent interpersonal communication services** diverging from the provisions laid down in this Title, including more or less stringent provisions to ensure a different level of protection, unless otherwise provided for in this Title.
2. **Member States may maintain or introduce in their national law more stringent end-user protection provisions than those laid down in this Title on electronic communications networks and services other than number-independent interpersonal communications services.**

Article 95

Information requirements for contracts

1. Before a consumer is bound by a contract or any corresponding offer, providers of publicly available electronic communications services, shall provide the information required pursuant to Articles 5 and 6 of Directive 2011/83/EU, irrespective of the amount of any payment to be made, and the information listed in Annex VII bis in a clear and comprehensible manner **on a durable medium**.
3. The information referred to in Paragraph 1 shall also be provided to micro or small enterprises as end-users **and not for profit organisations** unless they have explicitly agreed to waive all or parts of those provisions,
5. By [entry into force + 12 months], the Commission shall adopt a decision on a contract summary template, which identifies the main elements of the information requirements in accordance with paragraphs 1. Those main elements shall include at least complete information on:
 - (a) the name and address of the provider,
 - (b) the main characteristics of each service provided,
 - (c) the respective prices ~~where applicable~~ **to the extent the contract entails elements of monetary remuneration**,
 - (d) the duration of the contract and the conditions for its renewal and termination ~~where applicable~~,
 - (e) the extent to which the products and services are designed for disabled end-users,
 - (f) with respect to internet access services, the information required pursuant to Article 4 (1)(d) of Regulation (EU) 2015/2120.

That implementing act shall be adopted in accordance with the examination procedure referred to in Article 110(4).

Providers subject to the obligations under paragraphs 1 and 23 shall duly complete this contract summary template with the required information and provide it to consumers, and micro and small enterprises, prior to the conclusion of the contract.

5bis. The information referred to in paragraphs 1 and 5 shall become an integral part of the contract.

6. Providers of internet access services and providers of publicly available number-based interpersonal communications services shall offer end-users the facility to monitor and control the usage of each of those services which is billed on the basis of either time or volume consumption. This facility shall include access to timely information on the level of consumption of services included in a tariff plan and ~~should~~ **shall** inform the end-users before/when any of the service volumes included in their tariff plan is consumed. In particular, end-users ~~should~~ **shall** receive a notification before they fully consume a service included in their tariff plan. **Member States may maintain provisions to temporarily prevent further usage of the relevant service in excess of a financial or volume limit determined by the Competent Authority.**

Article 96

Transparency, comparison of offers and publication of information of internet access services and/or publicly available interpersonal communications services

1. National regulatory authorities shall ensure that the information referred to in Annex VIII is published in a clear, comprehensive and easily accessible form by all providers of internet access services and/or publicly available interpersonal communications services, or by the national regulatory authority itself. National regulatory authorities may specify additional requirements regarding the form in which such information is to be published. That information shall, on request, be supplied to the national regulatory authority in advance of its publication.
2. National regulatory authorities shall ensure that end-users have access free of charge to at least one independent comparison tool which enables them to compare and evaluate prices and tariffs, of services provided against monetary remuneration, and the quality of service performance where minimum service quality is offered, of different internet access services and publicly available interpersonal communications services. The comparison tool shall:
 - (a) be operationally independent by ensuring that service providers are given equal treatment in search results;
 - (b) clearly disclose the owners and operators of the comparison tool;
 - (c) set out clear, objective criteria on which the comparison will be based;
 - (d) use plain and unambiguous language;

- (e) provide accurate and up-to-date information and state the time of the last update;
- (f) **be open to any provider of internet access services or interpersonal communications services making available the relevant information, and** include a broad range of offers covering a significant part of the market **and**, where the information presented is not a complete overview of the market, a clear statement to that effect, before displaying results;
- (g) provide an effective procedure to report incorrect information.

Comparison tools fulfilling the requirements in points (a) to (g) shall, upon request by the provider of the tool, be certified by national regulatory authorities. Third parties shall have a right to use, free of charge, the information published by providers of internet access services and/or publicly available interpersonal communications services, for the purposes of making available such independent comparison tools.

3. Member States may require that the providers of internet access services and/or publicly available interpersonal communications services distribute public interest information free of charge to existing and new end-users, where appropriate, by the same means as those they ordinarily use in their communications with end-users. In such a case, that public interest information shall be provided by the relevant public authorities in a standardised format and shall, inter alia, cover the following topics:

- (a) the most common uses of internet access services and publicly available interpersonal communications services to engage in unlawful activities or to disseminate harmful content, particularly where it may prejudice respect for the rights and freedoms of others, including infringements of copyright and related rights, and their legal consequences; and
- (b) the means of protection against risks to personal security, privacy and personal data when using internet access services and publicly available interpersonal communications services.

Article 97

Quality of service of internet access services and interpersonal communications services

1. National regulatory authorities may require providers of internet access services and of publicly available interpersonal communications services to publish comprehensive, comparable, reliable, user-friendly and up-to-date information for end-users on the quality of their services, to the extent that they offer minimum levels of service quality, and on measures taken to ensure equivalence in access for disabled end-users. That information shall, on request, be supplied to the national regulatory authority in advance of its publication.
2. Where National regulatory authorities require publication of quality of service information pursuant to paragraph 1, they shall specify, taking utmost account of BEREC guidelines, the quality of service parameters to be measured and the applicable measurement methods, and the content, form and manner of the information to be published, including possible quality certification mechanisms. Where appropriate, the parameters, definitions and measurement methods set out in Annex IX shall be used.

By [entry into force plus 18 months], in order to contribute to a consistent application of this paragraph and of Annex IX, BEREC shall adopt, after consultation of stakeholders and in close cooperation with the Commission, guidelines detailing the relevant quality of service parameters, including parameters relevant for disabled end-users, the applicable measurement methods, the content and format of publication of the information, and quality certification mechanisms.

Contract duration and termination

1. Member States shall ensure that conditions and procedures for contract termination are not a disincentive against changing service provider and that contracts concluded between consumers and providers of internet access services and publicly available interpersonal communications services, do not mandate commitment period longer than 24 months. Member States may adopt or maintain shorter maximum durations for the initial commitment period.

This paragraph shall not apply to the duration of an instalment contract where the consumer has agreed in a separate contract to instalment payments for deployment of a physical connection.

2. Where a contract or national law provides for a fixed duration contract to be automatically prolonged, the Member State shall ensure that, after the such an automatic prolongation, consumers are entitled to terminate the contract at any time with a ~~one-month~~ notice period **not exceeding one month** and without incurring any costs except the charges for receiving the service during the notice period.

2a. Paragraphs 1 and 2 shall also apply to micro or small enterprises **and not-for-profit organisations** as end-users unless they have explicitly agreed to waive those provisions.

3. End-users shall have the right to terminate their contract without incurring any costs upon notice of changes in the contractual conditions proposed by the provider of publicly available electronic communications services unless the proposed changes are exclusively to the benefit of the end-user or they are strictly necessary to implement legislative or regulatory changes. Providers shall notify end-users, at least one month in advance, of any change in the contractual conditions, and shall inform them at the same time of their right to terminate their contract without incurring any costs **except the charges for receiving the service during the notice period** if they do not accept the new conditions. Member States shall ensure that notification is made in a clear and comprehensible manner on a durable medium and in a format chosen by the end-user at the time of concluding the contract.

4. Where an **end-user has the right to terminate** ~~early termination of a contract on for a~~ publicly available electronic communications service **before the end of the agreed contract term** ~~by the end-user is possible in accordance with~~ **on the basis of** this Directive, other provisions of Union law or national law, no compensation shall be due by the end-user. **If the end-user chooses to retain terminal equipment bundled at the moment of the contract conclusion, any compensation due shall not exceed its *pro rata temporis* value.** ~~of subsidised equipment bundled with the contract at the moment of the contract conclusion and a *pro rata temporis* reimbursement for any other promotional advantages marked as such at the moment of the contract conclusion.~~ Any restriction on the usage of terminal equipment on other networks shall be lifted, free of charge, by the provider at the latest upon payment of such compensation.

Article 99

Provider switching and number portability

1. In case of switching between providers of internet access services, the providers concerned shall provide the end-user with adequate information before and during the switching process and ensure continuity of the service. The receiving provider shall ensure that the activation of the service shall occur on the date explicitly agreed with the end-user. The transferring provider shall continue to provide its services on the same terms until the services of the receiving provider are activated.

National regulatory authorities shall ensure the efficiency of the switching process for the end-user.

2. Member States shall ensure that all end-users with numbers from the national telephone numbering plan who so request can retain their number(s) independently of the undertaking providing the service in accordance with the provisions of Part C of Annex VI.

3. National regulatory authorities shall ensure that pricing between operators and/or service providers related to the provision of number portability is cost-oriented, and that no direct charges are applied to end-users .

5. Switching of providers and/or porting of numbers and their subsequent activation shall be carried out within the shortest possible time on the date(s) agreed with the end user. In any case, end-users who have concluded an agreement to port a number to a new undertaking shall have that number activated within one working day from the date agreed with the end user. In case of failure of the porting process, the transferring provider shall reactivate the number of the end-user until the porting is successful. The transferring provider shall continue to provide its services on the same terms until the services of the receiving provider are activated.

5a. The receiving provider shall lead the switching and porting process, and both the receiving and transferring providers shall cooperate in good faith. National regulatory authorities may establish the global process of switching and of porting of numbers, taking into account national provisions on contracts, technical feasibility and the need to maintain continuity of service to the end-user. In any event, loss of service during the process of switching and porting shall not exceed one working day. National regulatory authorities shall also take appropriate measures ensuring that end-users are adequately informed and protected throughout the switching and porting process and are not switched to another provider against their will.

6. Member States shall ensure that appropriate sanctions on undertakings are provided for, including an obligation to compensate end-users in case of delay in porting or switching or abuse of porting or switching by them or on their behalf.

Article 100

Bundled offers

1. If a bundle of services or a bundle of services and **terminal equipment goods** offered to consumers, micro or small enterprises, **or not-for-profit organisations**, comprises ~~at least an internet access service or a publicly available interpersonal communications service~~, Articles 96 (1), 98 **and 99 (1)** and the information requirements listed in points (a) to (e) of Article 95(4) shall apply *mutatis mutandis* to all elements of the bundle except where the provisions applicable to another element of the bundle are more favourable to the end-user.
2. Any subscription to additional services or **terminal equipment goods** provided or distributed by the same provider of an internet access service ~~or a publicly available interpersonal communications service~~ shall not extend the term of the initial contract unless explicitly agreed otherwise when subscribing to the additional services or **terminal equipment goods**.

Article 101

Availability of services

Member States shall take all necessary measures to ensure the fullest possible availability of voice communications **and internet access service** provided over public communications networks in the event of catastrophic network breakdown or in cases of force majeure. Member States shall ensure that providers of voice communications **and internet access service** take all necessary measures to ensure uninterrupted access to emergency services.

Emergency communications and the single European emergency call number

1. Member States shall ensure that all end-users of the service referred to in paragraph 2, including users of public pay telephones, are able to access the emergency services through emergency communications free of charge and without having to use any means of payment, by using the single European emergency number '112' and any national emergency number specified by Member States.
2. Member States, in consultation with national regulatory authorities and emergency services and providers of electronic communications services, shall ensure that undertakings providing end-users with number-based interpersonal communications service provide access to emergency services through emergency communications to the most appropriate PSAP. In case of an appreciable threat to effective access to emergency services the obligation for undertakings may be extended by national regulatory authorities to all interpersonal communications services in accordance with the conditions and procedure set out in Article 59 (1) (c).
3. Member States shall ensure that all emergency communications to the single European emergency number '112' are appropriately answered and handled in the manner best suited to the national organisation of emergency systems. Such emergency communications shall be answered and handled at least as expeditiously and effectively as emergency communications to the national emergency number or numbers, where these continue to be in use.
4. Member States shall ensure that access for disabled end-users to emergency services is available through emergency communications and equivalent to that enjoyed by other end-users. Measures taken to ensure that disabled end-users are able to access emergency services through emergency communications whilst travelling in other Member States shall be based to the greatest extent possible on European standards or specifications published in accordance with the provisions of Article 39 , and they shall not prevent Member States from adopting additional requirements in order to pursue the objectives set out in this Article.

5. Member States shall ensure that caller location information is made available to the PSAP without delay after the emergency communication is set up. Member States shall ensure that the establishment and the transmission of the caller location information are free of charge for the end-user and to the PSAP with regard to all emergency communications to the single European emergency number '112'. Member States may extend that obligation to cover emergency communications to national emergency numbers. Competent regulatory authorities shall lay down criteria for the accuracy and reliability of the caller location information provided.

6. Member States shall ensure that citizens are adequately informed about the existence and use of the single European emergency number '112', in particular through initiatives specifically targeting persons travelling between Member States.

7. In order to ensure effective access to emergency services through emergency communications to '112' services in the Member States, the Commission shall be empowered to adopt delegated acts in accordance with Article 109 supplementing paragraphs 2, 4 and 5 by laying down the measures necessary to ensure the compatibility, interoperability, quality, reliability and continuity of emergency communications in the Union with regard to caller location solutions, access for disabled end-users and routing to the most appropriate PSAP .

Those measures shall be adopted without prejudice to, and shall have no impact on, the organisation of emergency services, which remains in the exclusive competence of Member States.

Article 103

Equivalent access and choice for disabled end-users

1. Member States shall ensure that the competent authorities specify, where appropriate, requirements to be met by providers of publicly available electronic communications services to ensure that disabled end-users:

(a) have access to electronic communications services, **including the related contractual information provided pursuant to Article 95**, equivalent to that enjoyed by the majority of end-users; and

(b) benefit from the choice of undertakings and services available to the majority of end-users.

2. In taking the measures referred to in paragraph 1, Member States shall encourage compliance with the relevant standards or specifications published in accordance with Article 39.

Article 104

Telephone directory enquiry services

1. Member States shall ensure that all undertakings which assign telephone numbers to end-users meet all reasonable requests to make available, for the purposes of the provision of publicly available directory enquiry services and directories, the relevant information in an agreed format on terms which are fair, objective, cost oriented and non-discriminatory.

2. National regulatory authorities shall be able to impose obligations and conditions on undertakings that control access of end-users for the provision of directory enquiry services in accordance with the provisions of Article 59 . Such obligations and conditions shall be objective, equitable, non-discriminatory and transparent.

3. Member States shall not maintain any regulatory restrictions which prevent end-users in one Member State from accessing directly the directory enquiry service in another Member State by voice call or SMS, and shall take measures to ensure such access in accordance with Article 91.

4. Paragraphs 1 to 3 shall apply subject to the requirements of Union legislation on the protection of personal data and privacy and, in particular, Article 12 of Directive 2002/58/EC .

Article 105

Interoperability of consumer digital television equipment

In accordance with the provisions of Annex X, Member States shall ensure the interoperability of the consumer digital television equipment referred to therein.

Article 106

‘Must carry’ obligations

1. Member States may impose reasonable ‘must carry’ obligations, for the transmission of specified radio and television broadcast channels and related complementary services, particularly accessibility services to enable appropriate access for disabled end-users and data supporting connected TV services and electronic programme guides, on undertakings under their jurisdiction providing electronic communications networks used for the distribution of radio or television broadcast channels to the public where a significant number of end-users of such networks use them as their principal means to receive radio and television broadcast channels. Such obligations shall only be imposed where they are necessary to meet general interest objectives as clearly defined by each Member State and shall be proportionate and transparent.

The obligations referred to in the first subparagraph shall be reviewed by the Member States at the latest within one year of [date of entry into force of this Directive], except where Member States have carried out such a review within the previous four years.

Member States shall review ‘must carry’ obligations at least every five years.

2. Neither paragraph 1 of this Article nor Article 57(2) shall prejudice the ability of Member States to determine appropriate remuneration, if any, in respect of measures taken in accordance with this Article while ensuring that, in similar circumstances, there is no discrimination in the treatment of providers of electronic communications networks. Where remuneration is provided for, Member States shall ensure that it is applied in a proportionate and transparent manner.

Provision of additional facilities

1. Without prejudice to Article 83(2), Member States shall ensure that national regulatory authorities are able to require all undertakings that provide internet access services and/or publicly available number-based interpersonal communications services to make available the additional facility ~~listed~~ in Part B of Annex VI free of charge, subject to technical feasibility, as well as all or part of the additional facilities listed in Part A of Annex VI.

2. A Member State may decide to waive the requirements of paragraph 1 in all or part of its territory if it considers, after taking into account the views of interested parties, that there is sufficient access to these facilities.

ANNEX V

MINIMUM SET OF SERVICES WHICH THE FUNCTIONAL INTERNET ACCESS SERVICE
SHALL BE CAPABLE OF SUPPORTING IN ACCORDANCE WITH ARTICLE 79(2)

- (1) E-mail
- (2) search engines enabling search and finding of all type of information
- (3) basic training and education online tools
- (4) online newspapers/news
- (5) buying/ordering goods or services online
- (6) job searching and job searching tools
- (7) professional networking
- (8) internet banking
- (9) eGovernment service use
- (10) social media and instant messaging
- (11) calls and video calls (standard quality)

ANNEX VI

DESCRIPTION OF FACILITIES AND SERVICES REFERRED TO IN ARTICLE 83 (CONTROL OF EXPENDITURE), ARTICLE 107 (ADDITIONAL FACILITIES) AND ARTICLE 99 (PROVIDER SWITCHING AND NUMBER PORTABILITY)

PART A: FACILITIES AND SERVICES REFERRED TO IN ARTICLE 83

(a) Itemised billing

Member States are to ensure that national regulatory authorities, subject to the requirements of relevant legislation on the protection of personal data and privacy, may lay down the basic level of itemised bills which are to be offered by providers of voice communications services to end-users free of charge in order that they can:

- (i) allow verification and control of the charges incurred in using the public communications network at a fixed location and/or voice communications services, or number-based interpersonal communications services in the case of Article 107; and
- ii) adequately monitor their usage and expenditure and thereby exercise a reasonable degree of control over their bills.

Where appropriate, additional levels of detail may be offered to end-users at reasonable tariffs or at no charge.

Calls which are free of charge to the calling end-users, including calls to helplines, are not to be identified in the calling end user's itemised bill.

(b) Selective barring for outgoing calls or premium SMS or MMS, or, where technically feasible, other kinds of similar applications, free of charge

i.e. the facility whereby the end-users can, on request to the providers of voice communications services, or number-based interpersonal communications services in the case of Article 107, bar outgoing calls or premium SMS or MMS or other kinds of similar applications of defined types or to defined types of numbers free of charge.

(c) Pre-payment systems

Member States are to ensure that national regulatory authorities may require providers to offer means for consumers to pay for access to the public communications network and use of voice communications or functional internet access services, or number-based interpersonal communications services in the case of Article 107, on pre-paid terms.

(d) Phased payment of connection fees

Member States are to ensure that national regulatory authorities may require providers to allow consumers to pay for connection to the public communications network on the basis of payments phased over time.

(e) Non-payment of bills

Member States are to authorise specified measures, which are to be proportionate, non-discriminatory and published, to cover non-payment of bills issued by providers. These measures are to ensure that due warning of any consequent service interruption or disconnection is given to the end-users beforehand. Except in cases of fraud, persistent late payment or non-payment, these measures are to ensure, as far as is technically feasible that any service interruption is confined to the service concerned. Disconnection for non-payment of bills should take place only after due warning is given to the end-users. Member States may allow a period of limited service prior to complete disconnection, during which only calls that do not incur a charge to the end-users (e.g. '112' calls) are permitted.

(f) Tariff advice

i.e. the facility whereby end-users may request the providers to offer information regarding alternative lower-cost tariffs, if available.

(g) Cost control

i.e. the facility whereby providers offer other means, if determined to be appropriate by national regulatory authorities, to control the costs of voice communications or functional internet access services, or number-based interpersonal communications services in the case of Article 107, including free-of-charge alerts to consumers in case of abnormal or excessive consumption patterns.

PART B: FACILITIES REFERRED TO IN ARTICLE 107

Calling-line identification

i.e. the calling party's number is presented to the called party prior to the call being established. This facility should be provided in accordance with relevant legislation on protection of personal data and privacy, in particular Directive 2002/58/EC (Directive on privacy and electronic communications).

To the extent technically feasible, operators should provide data and signals to facilitate the offering of calling-line identity and tone dialling across Member State boundaries.

PART C: IMPLEMENTATION OF THE NUMBER PORTABILITY PROVISIONS REFERRED TO IN ARTICLE 99

The requirement that all end-users with numbers from the national numbering plan, who so request can retain their number(s) independently of the undertaking providing the service shall apply:

- (a) in the case of geographic numbers, at a specific location; and
- (b) in the case of non-geographic numbers, at any location.

This Part does not apply to the porting of numbers between networks providing services at a fixed location and mobile networks.

ANNEX VII

Part B: Recovery of any net costs of universal service obligations

The recovery or financing of any net costs of universal service obligations requires ~~designated~~ undertakings with universal service obligations to be compensated for the services they provide under non-commercial conditions. Because such a compensation involves financial transfers, Member States are to ensure that these are undertaken in an objective, transparent, non-discriminatory and proportionate manner. This means that the transfers result in the least distortion to competition and to user demand.

In accordance with Article ~~13(3)~~**85**, a sharing mechanism based on a fund should use a transparent and neutral means for collecting contributions that avoids the danger of a double imposition of contributions falling on both outputs and inputs of undertakings.

The independent body administering the fund is to be responsible for collecting contributions from undertakings which are assessed as liable to contribute to the net cost of universal service obligations in the Member State and is to oversee the transfer of sums due and/or administrative payments to the undertakings entitled to receive payments from the fund.

ANNEX VII bis

INFORMATION REQUIREMENTS TO BE PROVIDED IN ACCORDANCE WITH ARTICLE 95 (INFORMATION REQUIREMENTS FOR CONTRACTS)

A. INFORMATION REQUIREMENTS FOR PROVIDERS OF PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS SERVICES

Providers of publicly available electronic communications services shall provide the following information:

- (1) as part of the main characteristics of each service provided:
 - (i) any minimum service quality levels to the extent that these are offered,
- (2) as part of the information on the duration of the contract and the conditions for renewal and termination of the contract, and where ~~relevant~~ **applicable according to the contract** :
 - (i) any minimum usage or duration required to benefit from promotional terms,
 - (ii) any charges related to switching and compensation and refund arrangements for delay or abuse of switching,
 - (iii) any charges due on early termination of the contract, including any cost recovery with respect to terminal equipment ~~and other promotional advantages~~,
- (3) any compensation and refund arrangements, which apply if contracted service quality levels are not met;
- (4) the type of action that might be taken by the provider in reaction to security or integrity incidents or threats and vulnerabilities.

B- INFORMATION REQUIREMENTS FOR PROVIDERS OF INTERNET ACCESS SERVICES AND PUBLICLY AVAILABLE INTERPERSONAL COMMUNICATIONS SERVICES

I. In addition to the requirements set out in Part A, providers of internet access services and publicly available interpersonal communications services shall provide the following information:

- (1) as part of the main characteristics of each service provided:
 - (i) any minimum service quality levels to the extent that these are offered, and taking utmost account of **the BEREC guidelines to be adopted in accordance with Article 97(2)**~~after consultation of stakeholders and in close cooperation with the Commission~~, regarding:

- for internet access services: at least latency, jitter, packet loss;
 - for publicly available **number-based** interpersonal communications services, ~~where relevant~~: at least the time for the initial connection, failure probability, call signalling delays;
- (ii) without prejudice to the right of end-users to use terminal equipment of their choice in accordance with Article 3(1) of Regulation 2015/2120/EC, any restrictions imposed by the provider on the use of terminal equipment supplied;
- (2) as part of the information on price, **to the extent the contract entails elements of monetary remuneration**, ~~where relevant~~:
- (i) details of tariff plans under the contract and, where applicable, the volumes of communications (MB, minutes, SMS) included per billing period, and the price for additional communication units,
 - (ii) tariff information regarding any numbers or services subject to particular pricing conditions; with respect to individual categories of services, NRAs may require such information to be provided immediately prior to connecting the call or to providing the service,
 - (iii) for bundled services and bundles including both services and equipment the price of the individual elements of the bundle to the extent they are also marketed separately,
 - (iv) details of after-sales service and maintenance charges, and
 - (v) the means by which up-to-date information on all applicable tariffs and maintenance charges may be obtained;
- (3) as part of the information on the duration of the contract for bundled services and the conditions for renewal and termination of the contract, where ~~relevant~~ **applicable**, the conditions of termination of the bundle or of elements thereof;
- (4) details on products and services designed for disabled end-users and how updates on this information can be obtained;
- (5) the means of initiating procedures for the settlement of disputes in accordance with Article 25;

II. In addition to the requirements set out in part A and under I, providers of publicly available number-based interpersonal communications services shall also provide the following information:

- (1) any constraints on access to emergency services and/or caller location information due to a lack of technical feasibility;
- (2) the end-user's right to determine whether or not to include his or her personal data in a directory, and the types of data concerned, in accordance with Article 12 of Directive 2002/58/EC;

III. In addition to the requirements set out in part A and under I, providers of internet access services shall also provide the information required pursuant to Article 4(1) of Regulation (EU) 2015/2120.
