

Public Consultation BoR (21)129 Draft BEREC Report on the regulatory treatment for fixed and mobile backhaul

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General information

During the 48th BEREC plenary meeting (29 September 2021), the Board of Regulators has approved the [Draft BEREC Report on the regulatory treatment for fixed and mobile backhaul](#) for public consultation.

The objectives of this report are to present the legal provisions applicable to mobile and fixed backhaul, the regulation in force and use of different types of backhaul networks and services in Europe, as well as views expressed by operators on their current and future needs for backhaul.

Your details

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English

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FTTH Council Europe

*Country of origin

Belgium

* I agree with the [personal data protection provisions](#).

Practical details of the public consultation

Stakeholders are invited to comment and provide their views on the different chapters of the draft report following its structure:

Chapter 1 - Executive summary

Chapter 2 - Introduction and objectives

Chapter 3 - EU legal framework for backhaul

Chapter 4 - Stakeholders input on backhaul

Chapter 5 - Regulatory treatment of fixed and mobile backhaul by NRAs

Chapter 6 - Conclusions

Chapter 7 - Future work

Annex I: Additional charts on mobile backhaul

Annex II: Additional charts on fixed backhaul

Annex III: NRAs and stakeholders responding to the questionnaires

Annex IV: Questionnaire sent to NRAs

Annex V: Questionnaire sent to operators

Stakeholders may also upload a document as a part of their contribution, see below.

In order to facilitate the processing of the responses, the comments provided should clearly refer to certain sections/subsections/paragraphs of the draft report.

Contributions should preferably be sent in English.

Stakeholder may submit their contributions **by 5 November 2021 close of business**.

In accordance with the BEREC policy on public consultations, BEREC will publish all contributions and a summary of the contributions, respecting confidentiality requests. Any such requests should clearly indicate which information is considered confidential.

Public consultation

Please indicate comments on Chapter 1- Executive summary and Chapter 2- Introduction and objectives

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Please indicate comments on Chapter 3 - EU legal framework for backhaul

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Please indicate comments on Chapter 4 - Stakeholders input on backhaul

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The FTTH Council Europe greatly appreciates the work and quality of the analysis contained in BEREC's study. The FTTH Council has always maintained that a shift towards higher mobile speeds with 5G (and subsequent generations of mobile technology) would make fibre backhaul a necessity rather than a simple commercial advantage. The data contained within this study bears out that perspective and shows in concrete terms, that the pivot towards fibre contained within the EECC was not only timely but absolutely necessary. According to the data (see table 4 of the report), the backhaul currently used for mobile networks is essentially unregulated (there is a tiny proportion of regulated mobile backhaul but it is not significant). Mobile backhaul is overwhelmingly delivered based on either self-supply (~70%), commercially negotiated with incumbents (~10%) or commercially negotiated with other third parties (~20%). Of the self-supply, a significant proportion (about one third) is based on wireless links.

Figure 3 which looks at future trends in mobile backhaul shows a number of important movements - first there is a significant intention to use much less radio backhaul as operators transition to fibre in particular regarding higher capacity backhaul, second the reduction in wireless links leads to increased self-supplied fibre but also, to a significant increase in third party supplied fibre.

The analysis then goes on to consider whether there is a need for regulated mobile backhaul in the future. Integrated incumbent operators with their own fixed infrastructure say regulation will not be needed for mobile backhaul whereas stand-alone mobile operators are more inclined to either see a need for regulation in general or regulation targeted to harder to reach areas (see figures 4 and 5).

Alternative fibre networks operators see mobile backhaul as an important segment of future demand. As such, they are building out their networks also with mobile backhaul revenues in mind. The data from BEREC suggests that today, less than 5% of mobile backhaul relies on regulated products. This is likely to fall as network investments increase and commercial alternatives increase - the most likely future outcome is that there will be no need for regulated mobile backhaul.

Fixed Backhaul

Similar trends can be seen in the higher bandwidth fixed backhaul markets as shown in the data presented in table 10. More than 50% of this form of backhaul is supplied by third party network operators. While it is significantly more regulated (with more than 20% of backhaul products being regulated) this market will likely remain available for regulation into the future (even if some geographic segmentation may be needed). However, as alternative fibre providers build out their network based on BCRD and other passive inputs, the availability of third party backhaul will only increase in scope and in terms of the number of suppliers. There are significant levels of commercially negotiated deals (both incumbent and altnet). In areas with only limited supply such as in rural areas, parties seeking nationwide coverage may be in a position to bundle supply from both areas in a satisfactory manner though this could give rise to other issues (averaged geographic pricing may mask price discrepancies and bundling competitive and non-competitive areas could raise leverage concerns).

Please indicate comments on Chapter 5 - Regulatory treatment of fixed and mobile backhaul by NRAs

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Article 3 EECC and the incentive to invest

One gap which the FTTH Council would observe is the lack of consideration in the analysis concerning the incentives to invest in FTTH as required in Article 3 of the EECC. From an FTTH Council perspective, 5G is seen very much as a complement rather than a substitute technology to fibre networks. The implication is that 5G is one of the demand drivers for FTTH and in particular, mobile backhaul can be a significant driver of fibre operators' business cases.

The current mobile backhaul market is essentially unregulated with regulated backhaul products being limited to less than 5% of all backhaul products. As 5G evolves and moves towards small cell deployments, a reasonable business assumption for a fibre network operator would be to anticipate more and more wholesale business from third party mobile operators. Again, as mobile operators seek higher capacity backhaul they move from wireless links to fibre access and they move from self-supply (mostly wireless) to third party supply (with alternative operators' share rising significantly once those links go above 1Gbp).

The principal concern for both fixed and mobile backhaul ought to be around the impact that regulation could have on the incentive to invest. This is especially true for mobile backhaul where a move to a regulated backhaul market risks undermining alternative fibre providers' business cases with unknown consequences. This can be especially problematic where a geographically averaged regulated price is imposed, thereby masking the high cost of provision in higher cost, often rural, areas. However, what is clear in the current report is that insufficient consideration has been given to the revised Article 3 of the EECC which makes encouraging investment in (and take up of) fibre a primary objective of European NRAs.

Building for future demand, achieving efficiencies

The impact of a threat of regulation can be very significant. With respect to mobile networks, a cost model developed by the FTTH Council in 2019 estimated how much of the 5G costs attributed to the fixed network can be saved by having a combined and inclusive roll-out of fibre at the start of the network deployment (or viewed differently, the results can tell us what the additional FTTH network costs would be to be ready to supply 5G whenever it is deployed). The costs are affected by the form of cell deployment and three categories are estimated, high, mid and low cell density (details in the report (1)). In the case of low cell density deployments, the savings are very dramatic since the cost of deploying additional fibres to the selected sites can be quite low. While not as dramatic, for High Cell Density, the savings are still impressive and should give all parties serious pause to consider how such savings might be achieved.

The cost of the fixed network to support a 5G deployment in a high-density urban centre with a high cell density can be reduced by 74% if it is done as

part of the initial FTTH deployment rather than as a stand-alone project. Put another way, in this scenario, the cost of anticipating a 5G support solution would only add 5.6% to the FTTH network cost whether it was ultimately used or not.

A 2020 update (2) to this cost model considered what cost savings would be available to a network builder where the 5G network parameters are not known and demonstrated the relationship between the percentage of spare capacity in the original FTTH deployment and future cost of 5G fibre rollout. That study found that by creating spare capacity at the point of FTTH deployment the increase in costs was small but the potential savings were large (particularly once spare capacity increased beyond 24% and ideally to 48%). That study showed that by putting additional capacity in place that would support a future 5G backhaul network (even though no actual network is deployed) up to 68% of the cost of a 5G backhaul network can be avoided. Again, putting that capacity in place at the point of deployment would add less than half of one percent to the deployment costs.

With such significant saving available it could be expected that operators deploy in this way. However the biggest obstacle to these savings being achieved may be fear of regulated access to the 'spare capacity' or 'spare fibres' built in anticipation of 5G which can undermine the incentive to invest.

The approach currently suggested in the assessment of mobile backhaul is very positive towards future regulation.

(1): Fibre for 5G: the story of convergence (2019 edition) <https://www.ftthcouncil.eu/knowledge-centre/all-publications-and-assets/294/fibre-for-5g-the-story-of-convergence-update-2019>

(2): Fibre for 5G: the story of convergence (update 2020) <https://www.ftthcouncil.eu/knowledge-centre/all-publications-and-assets/118/fibre-for-5g-the-story-of-convergence-update-2020>

Please indicate comments on Chapter 6 - Conclusions

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Please indicate comments on Chapter 7 - Future work

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The future direction of regulation

As can be seen in Annex 1, there are a large number of markets on which SMP could be found and backhaul remedies could be imposed. While not explicitly stated, it would appear that 'future regulation' (mentioned 17 times in the paper) is likely to remain while investment in infrastructure and the impact of regulation on investment is not mentioned once.

The FTTH Council Europe is not suggesting that regulation or that the possibility of regulation should be removed but it is suggesting that there should be far greater consideration of the impact on investment that stems from regulated access. Looking at the data in the BEREC report, there is a marked difference between the use today of regulated access products for mobile and fixed backhaul. That balance may lead to different treatment of backhaul depending on its use (a) so that competition is preserved but also (b) that the incentive to invest is maintained.

The FTTH Council Europe believes that specific instruments such as the BCRD can have a significant impact on the cost of deployment, thereby facilitating deployment and enabling self-sustaining competition. Lowering barriers to entry in this way can facilitate competition without creating uncertainty about future demand. To achieve this, the future direction of regulation should be focused on enabling entry at the deepest level of the value chain possible - namely via physical infrastructure access products.

Please indicate your comments on Annex I: Additional charts on mobile backhaul

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Annex 1 The current approach to regulating backhaul

In a sense, it is surprising that there is so little regulated access in the market. Right now we can see that fibre LLU is imposed in 18 countries as a remedy in market 1/2020 or market 3a/2014. In all 18 of those countries, fibre LLU can be used for both mobile and fixed backhaul purposes. In 19 of 32 (including EEA and accession states) countries where market 1/2020 or market 3a/2014 is regulated, an ancillary backhaul service is available. Although the use and/or availability of the ancillary backhaul services may be subject to the fulfilment of specific conditions regarding the related regulated wholesale product, they can be considered as a regulated fixed backhaul product and to some extent as substitutes for leased lines products. In addition, the use of wholesale access products, which are imposed as a remedy in market 3b/2014, for mobile or fixed backhaul purposes is also allowed in some countries, or at least not explicitly prohibited. Nevertheless, similarly to the wholesale products in market 1/2020 or market 3a/2014, even if we are told that most of the NRAs do not consider it to be especially important.

In 16 of 29 countries where some remedy is imposed in market 3b/2014 also imposed an ancillary backhaul service related to the market.

Market 2/2020 or market 4/2014 are subject to ex ante regulation in 22 countries (out of the 35 respondents). As regards the EU, market 2/2020 or market 4/2014 are regulated in 18 countries.

The obligations on the SMP operator to provide traditional leased lines, Ethernet leased lines and Ethernet services are imposed respectively by 17, 18 and 16 of the 22 NRAs that regulate these markets. RTR (Austria), HAKOM (Croatia), NMHH (Hungary), ARKEP (Kosovo), UKE (Poland), ACM (the Netherlands), and RATEL (Republic of Serbia), do not regulate traditional leased lines.

Dark fibre is regulated in the three (Austria, Montenegro and Iceland) of the four countries that include this technology in market 2/2020 or market 4/2014. In the Netherlands it is not regulated.

We are told that nearly half of the 35 BEREC members and observers that replied to the questionnaire include the use of backhaul within a regulated market 2/2020 or market 4/2014. As regards EU countries, 12 NRAs consider backhaul services to be part of a regulated market 2/2020 or market 4/2014. As to the remaining 15 NRAs, eight of them find market 2/2020 or market 4/2014 to be effectively competitive while the other six NRAs regulate market 2/2020 or market 4/2014 but exclude backhaul from such market (or it is excluded from the uses that are subject to ex-ante regulation).

The NRAs which ensure the provision of backhaul on a regulated basis in market 2/2020 or market 4/2014 do not differentiate remedies as regards backhaul and therefore both, mobile and fixed backhaul, are available on same terms.

When looking more into details at the regulation imposed by the EU NRAs in market 2/2020 or M4/2014, it is found that:

- The wholesale services that can be used for backhaul are mainly traditional leased lines and Ethernet services (including leased lines with Ethernet interface).
- The majority of NRAs which regulate either leased lines with Ethernet interface or Ethernet services (Ethernet) consider them to be important for backhaul. The relevance of leased lines with traditional interface is significantly lower; no more than four NRAs consider them to be important for backhaul.

Please indicate your comments on Annex II: Additional charts on fixed backhaul

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Please indicate your comments on Annex III: NRAs and stakeholders responding to the questionnaires

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Please indicate your comments on Annex IV: Questionnaire sent to NRAs

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Please indicate your comments on Annex V: Questionnaire sent to operators

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Please specify which part of your response should be treated as confidential, if any.

THANK YOU FOR YOUR CONTRIBUTION

Contact

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