DIGITALEUROPE

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DIGITALEUROPE comments on draft BEREC Guidelines on Very High Capacity Networks

Summary

DIGITALEUROPE greatly appreciates the opportunity to comment on the Draft BEREC Guidelines on Very High Capacity Networks (VHCN).

DIGITALEUROPE firmly supports the intention of the co-legislators in the EECC to stimulate investments in VHCN, in particular in 5G and fibre networks, and the important role of BEREC to develop a harmonised approach (Guidelines) regarding the criteria a network has to fulfil to be considered a VHCN. This is also essential to meet future connectivity needs both in the short/medium and long term where we need easily scalable and upgradeable networks to follow the evolution of user demand. The EECC objective supports and builds on the general trend of technology evolution in the last ten years to increase upload and download speed, lower latency, adapt to new delivery methods (from broadcasting based on multicast to on-demand adaptative streaming based on unicast) and support increasing services over all-IP networks while ensuring a better customer experience.

Similarly, DIGITALEUROPE is also supportive of the draft BEREC Guidelines not being intended as a criterion for public measures (i.e. public funding as stated in paragraph 24 of the draft Guidelines) as that would be outside the scope of the Guidelines. It is very clear from paragraph 1 that these “guidelines shall contribute to the harmonisation of the definition of “very high capacity networks” in the EU. We therefore do not see the added value of paragraph 24 and suggest removing it to avoid any subsequent potential confusion for NRAs.

Criteria for technology neutral definition of VHCNs

Promoting a widespread deployment and take-up of technology neutral VHCN is at the core of the EU’s ambition towards a Gigabit Society. Indeed Article 3(2) EECC states that ‘promot[ing] connectivity and access to and take-up of VHCN’ is one of the general objectives of the EU and recital (28) states rightly that ‘it is necessary to give appropriate incentives for investment in VHCN that support innovation in content-rich internet services and strengthen the international competitiveness of the Union’. In addition, paragraph 3 of the draft Guidelines

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refers rightly to the fact that the concept of VHCN is also used in other initiatives taken by the EU institutions[1] to support the EU's Gigabit Society ambition.

Because of the key role of the concept of VHCN in the EU's ambition, appropriate technology neutral criteria are of utmost importance. It is also important that the Guidelines recognise in the VHCN criteria that the networking industry is in constant evolution and innovation. DIGITALEUROPE interprets that criterion 1 and criterion 2 refer to passive dark fibre network segments (in reference to the passive layer of a network) whereas criterion 3 and criterion 4 refer to access network performance thresholds to be reached (in reference to the active layer of a network). DIGITALEUROPE recognise the complexity of the task to respect technology neutrality whilst ensuring that other technologies genuinely do have the ability to offer connectivity across all parameters similar to fibre to the multi dwelling unit for criterion 3 and to the base station for criterion 4. The guidelines need to maintain this standard to ensure the EECC delivers on Europe's digital and connectivity ambitions and encourages investments in future-proof and scalable networks.

Full connectivity in Europe is a high priority for DIGITALEUROPE members to ensure that all users and businesses can access to digital services online. Though Member States have reached 100% basic broadband penetration rate, the coronavirus pandemic revealed that not all children can study online, nor household members can watch streaming video services on TV or communicate with video through messaging applications. There are still households in Europe which do not have access to a fixed broadband connection, nor do they have sufficient mobile coverage, as it was agreed that satellite is a sufficient technology to reach the objective of 100% broadband penetration rate. In DIGITALEUROPE Input to Consultation on BEREC Strategy 2021-2025 and Work Programme 2021, we have underlined that BEREC should aim at promoting through the regulatory application of the EECC regarding the deployment of VHCN:

- **fixed** connectivity to ALL households, for users to rely on their residential broadband connection to work remotely, access business services, play online and watch high-definition video content,
- **fixed** connectivity to ALL businesses and public sector to boost digital transformation and industrial connectivity, and
- **5G** connectivity in ALL regions and not only along transport paths and in the main cities.

[1] Connecting Europe Facility (CEF2) Digital (https://ec.europa.eu/digital-single-market/en/news/connecting-europe-facility-cef2-digital-draft-orientations-towards-implementation-roadmap); Multiannual Financial Framework post-2020 (https://ec.europa.eu/commission/future-europe/eu-budget-future_en)

DIGITALEUROPE believes the Guidelines must emphasize that fixed and wireless networks remain complementary and both contribute equally to achieving gigabit connectivity. We agree that performance criteria for these networks might be different. However, the guidelines must ensure this does not get misunderstood as a signal to rather focus on one type of network but simply reflects the differences between the speeds, etc., that these networks can achieve. Ubiquitous coverage of both fixed and mobile VHCN remains essential for Europe's competitiveness, social and economic development.

Criterion 3

The values proposed by BEREC seem to reflect rather the maximum achievable performances than the performances which could be delivered under usual peak time conditions, as requested by the Code.

The proposed parameters are overestimated and inconsistent, given that nowadays very few wholly fibre networks (which by default meet the criterion 1) provide such speed limits on a commercial basis and that theoretically they might not qualify according to criteria 3. The result will be that only the fixed technologies satisfying the criterion 1 will be qualified as VHCN. Though we fully agree that criteria 1 and 3 are not to be considered cumulative, we believe that the parameters under criterion 3 are not set sufficiently accurate to serve the purpose of identifying technologies with an equivalent performance to fibre such as G.Fast 106MHz. Also, the performance thresholds of criterion 3 are not in line with Fixed Wireless Access (FWA) technologies (article 20).[2]

In addition, the draft Guidelines explain in annex 3 the BEREC's methodology for determining performance thresholds on the 7 QoS parameters of criterion 3 to be used for qualifying fixed non-fibre networks as VHCN. The methodology starts with an isolated approach where, for each individual QoS parameter, first the relevant values are selected (e.g. selection of technologies, exclusion of outliers) and second, the threshold is calculated as the median[3] of the relevant values. Criterion 3 is then defined by aggregating the 7 resulting thresholds into the conditions to be met for criterion 3.

In doing so, the VHCN qualification conditions are set at an unrealistic level being the median value of each of the 7 QoS parameters. As a result, criterion 3 is set so strong that none of the 23 fixed VHCN networks that BEREC considered for determining criterion 3 meet the final aggregate thresholds of criterion 3. Moreover, many networks qualifying as VHCN under criterion 1 will not meet the set of thresholds under criterion 3 in real life. From this it can be concluded that the criterion is not set to "correspond to network performance equivalent to that achievable by an optical fibre installation up to a multi-dwelling building,

[2] Cisco notes their dissent on this point and agrees with the parameters and thresholds for fixed networks in criterion 3 of the draft Guidelines.

[3] The determination of DL and UL for mobile is an exception.

considered to be the serving location". In other words, the criterion is not set in such a way as to answer the requirements of the Code.

Criterion 4

For determining the performance thresholds of criterion 4 for wireless networks BEREC applies the same methodology. Consequently, the undesirable tightening - that has nothing to do with the focus on best or future technology such as 5G - is also regarding criterion 4 a fact. It should be remarked that when bringing all parameters together at the same time for an unknown number of consumers in the same base station/cell it is impossible to guarantee that the criteria are fulfilled. Criterion 4 as proposed by BEREC should be clarified to make clear that it doesn't mean that the network at all times have to provide the speeds and QoS indicated as the speeds in mobile wireless access like LTE depend also on the distance between the antenna and the mobile endpoint etc., and there are also other tools to respond to the services and users demands than just assessing the network capacity itself (such as dynamic resource management).

Conclusion

While our understanding that criteria 3 and 4 were to identify all VHCN networks, including non-fibre terminated networks, as the EECC and the principle of technological neutrality prescribes, requiring a long list of parameters increases unduly the hurdle to qualify network technologies and the difficulty of investors and new entrants to clearly understand what are VHCN networks (at passive and active layers). DIGITALEUROPE considers that criteria 3 and 4 should be reviewed to better reflect existing and future network technologies.

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About DIGITALEUROPE

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