GSMA – ETNO response the public consultation on the draft BEREC Guidelines on very high-capacity networks

28 April 2023

Introduction

The GSMA and ETNO thank BEREC for the opportunity to comment on the new version of the BEREC Guidelines on very high-capacity networks, which updates criterion 4 based on data collected from mobile network operators of 5G. We hope the following comments can serve as constructive input to BEREC's completion of the Guidelines.

The GSMA and ETNO agree that 5G deployment and penetration have increased since BEREC developed its 2020 version of the Guidelines, however we find that more work is needed before BEREC adopt its Guidelines. Indeed, at point 109 BEREC itself highlights that "*at the time of data collection (May to June 2022, see paragraph 59) the mobile network operators were still rolling out 5G, their new 5G networks may not yet have been fully used*.".

Therefore, the representativeness of the statistical champion is very limited, as it only includes 19 operators across the whole Union (out of 44 responses received, some of which are excluded due to the fact that the operators had not yet deployed a 5G network) with less than half of the EU countries represented. The number of operators considered for KPIs other than data rates is in some cases also lower than 10 (e.g., only data from 6 operators are considered for the IP packet error ratio). It is therefore questionable that BEREC provides for an update of criterion 4 now, considering that in 2025 it is going to review the overall guidelines pursuant to pursuant to Article 82 EECC. At that time 5G will have reached a significant level of maturity and the criteria will better represent 5G performances.

1. Criteria (e) – further assessment needed.

The main criteria for defining VHCN for wireless networks are described in the Guidelines (p7) as follows:

a. Downlink data rate ≥ 350 Mbps
b. Uplink data rate ≥ 50 Mbps
c. IP packet error ratio (Y.1540) ≤ 0.01%
d. IP packet loss ratio (Y.1540) ≤ 0.01%
e. Round-trip IP packet delay (RFC 2681) ≤ 18 ms
f. IP packet delay variation (RFC 3393) ≤ 5 ms

IP service availability ≥ 99.9% per year

We believe that under good radio coverage condition at busy hour, the criteria are achievable in 5G except for the latency criterion (e) "Round-trip IP packet delay (RTD)".

For the latency criterion, the stated threshold remains to be further assessed. Latency from the point of view of the end- user varies depending on several parameters such as terminal, technology used, whole cell, loaded or not, good radio condition or not and location of the internet server that measures it. In our view it seems difficult to obtain a single threshold to qualify a VHCN, as it depends on whether the user is on a 4G, 5G NSA or 5G SA network in a given radio configuration.

Without the precise definition of the measurement protocol and the nature of the measurements (field measurements, sensors), we believe it is not possible to build a common reference between mobile operators to evaluate the relevant threshold.

The 18 ms threshold is in our view very low and such a requirement requires knowledge of the calculation method. It is therefore premature to establish such a value. Once the criteria have been stabilised, we propose that in a second stage, work on the measurement protocol be carried out before identifying a relevant threshold value.

2. Criteria (c) and (d) to be merged.

In terms of customer experience, we consider the technical criteria (c) and (d) to be equivalent. As soon as there is an error in the transmission of a packet (c), it is dropped and lost at application level and this amounts to estimating the packet loss rate (d). We therefor suggest that these two criteria be merged into one criterion.

3. Layer protocol

We note that BEREC modifies the layer at which the data rate performance applies (from IP packet payload to transport layer protocol payload), leaving unchanged the layer for fixed VHCN, with an evident inconsistency between fixed and mobile performance KPIs (see point 47). We deem that this last amendment is not justified and should be assessed in the overall review of the guidelines in 2025.

About GSMA

The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach.

About ETNO

ETNO (European Telecommunications Network Operators' Association) represents Europe's telecommunications network operators and is the principal policy group for European e-communications network operators. ETNO's primary purpose is to promote a positive policy environment allowing the EU telecommunications sector to deliver best quality services to consumers and businesses.

For questions and clarifications regarding this position paper, please contact Lotte Abildgaard [redacted] Director, Public Policy at GSMA Europe, Maarit Palovirta [redacted] Senior Director Regulatory Affairs at ETNO and Xhoana Shehu [redacted], Policy Manager at ETNO.