



GSMA response to the BEREC public consultation on the Draft BEREC Guidelines on Geographical surveys of network deployments

21 November 2019

The GSMA, which represents the interests of mobile operators worldwide, welcomes the opportunity to comment on BEREC's draft Guidelines on the Draft BEREC Guidelines on Geographical surveys of network deployments. We hope the following detailed comments can serve as a constructive contribution to BEREC's deliberations on its draft.

General Remarks

GSMA Comments:

GSMA notes that BEREC distinguishes three quality indicators (QoS-1, QoS-2 and QoS-3) and provides for the adoption two Guidelines: the first one regarding QoS-1 indicators and the second one regarding QoS-2 and QoS-3 indicators as a means of verifying QoS-1 data.

QoS-2 indicators can provide end users with additional information on quality, but drive tests perform measures in a specific moment and in a specific place and therefore are useful for end users only to compare operators' performances.

QoS-2 and QoS-3 indicators cannot be used for verifying/certifying QoS-1 indicators, since:

- QoS-2 and QoS-3 measures generally refer to a small sample which does not have statistical relevance;
- QoS-2 and especially QoS-3 are affected by factors (e.g. 4G terminal device) which cannot be controlled by network operators.

Therefore, the GSMA believes that BEREC should only provide Guidelines on QoS-1; any Guidelines on QoS-2 and QoS-3 should leave flexibility to NRAs and should not have the aim of verifying QoS-1 indicators.

As for the other parts of the draft guidelines, we mostly agree with BEREC's proposal and in particular with the recognition that the provision of reliable high resolution performance measure may be difficult for mobile broadband networks.

GSMA believes that the guidelines on forecasts deployments require a particular attention and caution.

Consultation Question 1

In BEREC's current Public Consultation on the implementation of the Open Internet Regulation (paragraph 140), BEREC is requiring that the speed values required by Article 4(1) (d) of the Regulation EU 2015/2020 should be specified on the transport layer protocol payload, and not based on a lower layer protocol. Is there any reason why this layer should not be used in providing information about speeds in the context of a Geographical Survey of Broadband reach?

GSMA answer:

Regarding the mobile network, the specification of the speed values on the transport layer protocol is not disputable. For example, in the 5G environment, some telecoms operators are measuring DL or UL throughput at the Packet Data Convergence Protocol (PDCP) level, which is the transport level protocol. However, regarding the end user experience, there is different ways to measure speed values according to the services. The QoS' campaigns are appropriate to evaluate the speed values in different types of services and environment.

If BEREC seeks the end user perception, we should use upper layer such as application layer, e.g. the French regulator uses HTTP protocol.

Consultation Question 2

BEREC has considered several methods to calculate speed information according to the relevant fixed network. The development of these methods often requires information on the position of network infrastructure (for example, collecting the distance to the street cabinet or the switching centre). Do you consider information on location of infrastructures strictly required for the purpose of art 22? If so, what is the minimum information level related to network infrastructure that the Geographic Survey should collect and why?

GSMA answer:

This question is not applicable to mobile network, therefore the GSMA does not provide an answer here.

Consultation Question 3

As explained above, BEREC considers that the characterization of the mobile network is reliant mainly on technology (subsection 2.4.2.1), and that NRAs/OCAs may collect performance information, such as QoS-1 speed information (subsection 2.4.2.2.) as they see fit for their own needs. That is, each MS may decide on the performance information suitable for its own national circumstances.

However, BEREC would like to hear views on the following issues:

- A) Does such optionality compromise the purposes of Article 22, or should BEREC consider making some performance information non-optional? If so, why, and which information should be mandatory?

GSMA answer:

We endorse that the characterization of the mobile network is reliant on technology and multiple coverage levels to provide relevant additional information to the end user.

Calculating additional performance information like speeds has no added value as this is too complex for theoretical models. It is not possible for operators to provide significant values for QoS 1 speeds with a level of resolution 100mx100m.

For example, the French regulator (ARCEP) practices QoS' campaigns to collect relevant information for the end users. Also, the Italian regulator (AGCom) carries out drive tests for measuring simultaneously the performances of Italian mobile operators. These drive tests provide measures in a specific moment and in a specific place and therefore are useful for end users to compare operators' performances. However, they should not be used for verifying QoS-1 indicators where operators provide such measure for the deployed technology.

Consequently, the opportunity above does not compromise the purposes of Article 22.

B) Which kind of performance information may be better to inform end users? (Note that in all circumstances NRAs/OCAs should consider that BoR (18) 237 has already recommended that *"In order to improve the information on mobile coverage given to the public, NRAs may want to consider specifying at least four levels of mobile coverage. Generally, the levels of mobile coverage could be chosen to reflect the different probabilities of successful service reception which equates to service availability"*. As an example, a service could be characterized by the following graded approach: capability to the end user to: 1.) browse traditional web pages and consult emails, 2) to view enriched web content and to stream standard quality video, 3.) to stream high definition videos.

GSMA answer:

The levels of mobile coverage for data need to be discussed between the NRAs and the MNOs.

Consultation Question 4

Should BEREC seek to harmonize the assumptions made by operators and NRAs throughout Europe? Should BEREC encourage NRAs/OCAs to seek this harmonization at a national level? Which assumptions should be considered to be harmonized and how? (For example, should BEREC consider data service speed coverage calculations without cell load, considering that the network is available for at least one user at a specific location at a specific time? Or should BEREC consider network load and, if so, based on which parameters?)

GSMA answer:

We believe that seeking harmonization at a national level (NRA + operators) is sufficient, because each Member state must be free to comply with Article 22, depending on national specificities. Relevant assumptions for referring to the end-user experience could be levels of coverage and speed values measured during QoS campaigns.

Other Comments

GSMA additional comments:

We agree with BEREC's position outlined in paragraph 70 that the theoretical calculations should focus on *outdoor* spaces and a static environment.

We disagree with the calculation of *indoor* mobile coverage and of mobile coverage of users in movement as proposed in paragraph 71, because the suggested approach (applying a penalty factor to outdoor coverages) is too simplistic and leads to unreliable results. Indoor coverage cannot be measured easily, as several factors must be taken into account, varying and depending on position inside a house or a building's floor or position indoor.

About Forecasts:

The forecast for state aid purposes is already regulated by the BB State aid guidelines (2013/C 25/01), therefore BEREC guidelines should not cover this type of mapping. Indeed, article 22(1) of the EECC only provides for the use of the survey of the current geographic reach of broadband networks for the application of State Aid rules. The forecast under article 22(1) shall only be intended for regulatory purposes (e.g. designating areas where regulatory measures could be used to promote investment) and BEREC guidelines should only focus on the forecast for regulatory intervention.

Therefore, we find it difficult to understand why BEREC recommends at point 94 a very long forecast period of at least 3 years, even though it rightly recognizes that operator's rollout plans may change over time. Since the reliability of the forecasts affects the objectiveness and the effectiveness of the regulatory interventions based on the predictions, we ask for a reduction of the forecast period from 'at least' 3 years to 6 months for mobile networks forecast's deployment. Shortening the forecast period to 6 months can be very important to give trustworthy information on forecasts deployments. The forecast period must be adjusted regarding a precise geographical area (national area or smaller area) so that the information can be provided: "[information] that it is available and can be provided with reasonable effort" (cf. article 22). Moreover, a forecast period between 1 to 3 years is not relevant, regarding the confidentiality of rollout deployment's plan of an operator. Combined with reliable forecasts, BEREC should drastically shorten the forecast period.