XUNTA DE GALICIA

amtega Axencia para a Modernización Tecnolóxica

Response to the public consultation to the Draft BEREC Guidelines on Very High Capacity Networks from AMTEGA (BCO Galicia (Spain))

1. Background

Galicia is a northwest region of Spain with only 2.7 million inhabitants but with half of the population villages of Spain. Therefore, Galicia is one of the most rural regions in Spain with a 39.5% of its population residing in nucleus of less than 500 inhabitants.

It is quite clear that wireless networks will play an important role in providing high capacity services in rural areas. Thus, although basic broadband is available in more than 98% of Galicia's population, 15% of this service is provided only through 3G/4G networks (according to the latest broadband coverage report published by the Government of Spain).

Knowing that wireless access technologies are continually evolving to provide higher quality services, we are also aware that these developments do not reach all the population. In rural areas, where private investments in network roll-out are not considered due to the low profitability, these improvements take much more time to be deployed, or never do it.

Despite the significant efforts made in the past, the services offered to citizens in many areas of the territory are still insufficient. As a result, public support is still necessary to enhance these services.

As far as NGA networks are concerned, although the majority of base stations are connected with optical fibre, they do not provide NGA services. In fact, only 1% of Galicia's population is covered by wireless NGA networks (whereas the coverage of wireless basic broadband is more than 98%).

Therefore, the number of complaints received from users about the quality access is growing rapidly, especially when it comes to telework or videoconference. This tendency has become even more marked since the COVID-19 lockdown.

For all these reasons, we consider that it would be necessary to establish conditions related to end-users' quality of service in order to determine if a wireless network is a very high capacity network, regardless of the fact that base station that provides the service is connected through Optical Fibre.

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2. Response to the public consultation

2. Definition of the term 'very high capacity network' in the EECC

[...]

12. In conclusion, very high capacity networks according to Art. 2(2) are:

a. Any network providing a fixed-line connection with fibre roll out at least up to the multi-dwelling building;

b. Any network providing a wireless connection with fibre roll out up to the base station;

[...]

In the case of wireless network we believe that the fact that the fiber reaches a base station is not a sufficient condition to consider it as a very high capacity network (VHCN), since it doesn´t guarantee the quality of service provided to the end user.

In fact, according to the broadband coverage report published by the Government of Spain, only 1% of 98% wireless networks coverage in Galicia is considered NGA.

We believe that it is necessary to establish conditions on the service provided to the end user, such as available uplink and downlink bandwidth, latency, error-related parameters, availability and any other parameters related to quality of service.

Furthermore, these conditions should be established taking into account the services currently required by end users, and the objectives of the European Union, such the Gigabit Society.

3. Criteria for the definition of 'very high capacity networks'

[…]

BEREC has determined that any network which fulfils one (or more) of the following four criteria is a very high capacity network:

Criterion 1: Any network providing a fixed-line connection with a fibre roll out at least up to the multi-dwelling building.

Criterion 2: Any network providing a wireless connection with a fibre roll out up to the base station.

Criterion 3: Any network providing a fixed-line connection which is capable of delivering, under usual peak-time conditions, services to end-users with the following quality of service (performance thresholds 1):

a. Downlink data rate ≥ 1000 Mbps

b. Uplink data rate ≥ 200 Mbps

c. IP packet error ratio (Y.1540) ≤ 0.05%

d. IP packet loss ratio (Y.1540) ≤ 0.0025%

e. Round-trip IP packet delay (RFC 2681) ≤ 10 ms

f. IP packet delay variation (RFC 3393) ≤ 2 ms

g. IP service availability (Y.1540) ≥ 99.9% per year

Criterion 4: Any network providing a wireless connection which is capable of delivering, under usual peak-time conditions, services to end-users with the following quality of service (performance thresholds 2).

a. Downlink data rate ≥ 150 Mbps

b. Uplink data rate ≥ 50 Mbps

c. IP packet error ratio (Y.1540) ≤ 0.01%

d. IP packet loss ratio (Y.1540) ≤ 0.005%

e. Round-trip IP packet delay (RFC 2681) ≤ 25 ms

f. IP packet delay variation (RFC 3393) ≤ 6 ms

g. IP service availability (Y.1540) ≥ 99.81% per year

[…]

We consider that it is necessary to establish the same requirements for criterion 2 and 4, since it would not make sense to distinguish between two types of very high capacity wireless networks. Even more when most of the current networks that could be considered VHCN according to criterion 2, would not meet criterion 4.

Conditions on the service provided to the end user must be established in all criterion, such as available uplink and downlink bandwidth, latency, error-related parameters, availability and any other parameters related to quality of service.

Furthermore, as previously stated, these conditions should be established taking into account the services currently required by end users, and the objectives of the European Union, such the Gigabit Society.