Public Consultation on the RSPG Draft Opinion on A Spectrum Roadmap for IoT

The Ericsson Response

Ericsson Response to “Public Consultation on the RSPG Draft Opinion on A Spectrum Roadmap for IoT”

Ericsson welcomes the opportunity to respond to the RSPG consultation on “A Spectrum Roadmap for IoT”.

Ericsson appreciates and supports the RSPG activities to provide an Opinion concerning spectrum for IoT in Europe. Ericsson understands that such a RSPG opinion is addressing the timely availability of spectrum for different types of IoT technologies and applications, enabling deployment of networks for mMTC and URLLC to serve consumers, governments and industries. Spectrum and regulatory regimes is a key element for enabling these services, and Europe should make an effort to be prepared for the very fast development that can be foreseen in the coming years, affecting both licensed and unlicensed frequency bands.

GFSA-17:000008 Uen Rev A

Ericsson would like to provide the following views on the opinions in the Spectrum Roadmap for IoT:

1) Ericsson concurs with RSPG that different solutions will be needed to provide all IoT applications, and that these differences apply also to access to spectrum needs. See further the comments on opinion 2.
2) It is the view of Ericsson that the matter of spectrum requirements needs further clarification. Whereas for mMTC there may be no serious spectrum scarcity for the time being, there are indications that e.g. the 863-870 MHz band is becoming heavily loaded in some areas, implying that meeting QoS requirements there can be challenging now, or may become so in the near future. In addition, Ericsson believes that it is critical for URLLC applications that additional spectrum is made available. It is not clear to us whether the RSPG Opinion is intended to cover URLLC aspects of IoT. If that is the case, inclusion of additional information on spectrum requirements for URLLC would be beneficial. Ericsson would like to stress the requirements on both latency and reliability for URLLC applications, and further notes the different URLLC deployment scenarios, both local and wide area. In summary, Ericsson would support a more thorough investigation of the spectrum needs of IoT, also considering the existence of underused spectrum in Europe that may be of relevance. We would further like to emphasize the need to find spectrum in both low and high frequency bands, which e.g. implies the whole 5G/IMT-2020 frequency range, and for both small and large bandwidths.
3) From a general perspective, Ericsson supports opinion 3, but would like to propose that the text is modified to become technology neutral by replacing "… and those for WiFi (WAS/RLAN)." by "… and those for WAS/RLAN." This viewpoint applies also to the figure on page 3, where it would be preferable to refer to RLAN only, and not specific technologies.
4) No comments
5) No comments
6) Ericsson concurs with RSPG that IoT encompasses a broad set of applications and that new IoT use cases will be enabled by 5G. We do not, however, see that IoT in general would encompass a broader set of applications and use cases than those enabled by 5G; in particular, the list of IoT applications on page 4 does not contain any IoT applications not supported by 5G.
7) Ericsson supports the effort to make existing ECS spectrum available for IoT technologies, and participates actively in the efforts of 3GPP and CEPT to make this happen. In our view, it is our understanding that the 3GPP specifications are designed to maximize the match with current regulation, and that in the cases where additional efforts are needed, CEPT will identify the necessary modifications to the current regulation.
8) No comments.

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Regarding the Annex, Ericsson would like to provide the following comments:

Section 5, pages 6 and 7: Ericsson supports making 1900-1920 MHz technology neutral in the event that this is decided to be used for IoT.

Section 6, page 8: Ericsson notes that specifications for LTE e-MTC have now been approved as part of Release 13.

Section 6, page 8: The paragraph on 900 MHz can be updated based on the insights provided by the on-going work in ECC PT1. We propose the following text, noting that the situation for 1800 MHz is the same as that for 900 MHz:
- The 900 MHz and 1800 MHz authorisations explicitly refer to GSM/UMTS/LTE/WiMAX, and require compliance with specific ETSI harmonised standards. For In-band and Guard band NB-IoT this will resolved by inclusion in the LTE harmonized standard, enabling deployment as LTE technology in this band. For Standalone NB-IoT, CEPT and ETSI are investigating possible solutions.

Ericsson welcomes a continued dialogue with RSPG regarding frequency bands for IoT in Europe.

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