Radio Spectrum Policy Group
[Draft] Opinion for public consultation on
A Spectrum Roadmap for IoT
Draft Opinion on the Spectrum Aspects of the Internet-of-things (IoT) including M2M

Executive Summary

EchoStar Mobile Limited (EML) and Hughes Network Systems Europe (collectively EchoStar) welcome the RSPG's consideration of the spectrum aspects that impact the Internet-of-things (IoT) and their future development in Europe.

We are encouraged by the acknowledgement that IoT is heterogeneous, encompassing multiple applications and operational requirements and as such it is important to acknowledge that Satellite platforms are already an established enabler of IoT services on a global basis.

EchoStar endorses the observation that the RSPG does not foresee a scarcity of spectrum for IoT and we encourage the RSPG in future reviews to ensure that they consider all service platforms, including Satellite, in their deliberations. The Satellite sector is ideally placed to deliver upon the ambition of global economies of scale with our service footprints covering continents thus maximising the potential to connect devices.

We endorse the RSPG's observation that interventions are not required as there is no obvious constraint on access to spectrum particularly when the Satellite sector is taken into account. In addition, the Satellite sector already offers pan-European solutions to the IoT community that drives scale economies. Moreover, to ensure that the market has the opportunity to further exploit economies of scale going forward we encourage a 'technology neutral' approach.

Overall, we urge the RSPG to have an open mind towards the role of communications platforms in the future development and delivery of IoT capability and in so doing seek a level playing field amongst technologies and platforms in keeping with the second pillar of the Digital Single Market Strategy for Europe.[1] To this end we encourage the RSPG to include Satellite platforms more significantly in the developing framework to maximise the potential for competition and avoid discrimination between platforms.

Background

Communication Satellites have been a key enabler for IoT services with EchoStar playing an active role in supporting this emerging technology. EchoStar Mobile Limited (EML) is one of the 2 pan-European licensees for MSS/CGC and with the imminent launch of our advanced MSS 2 GHz band satellite, EchoStar XXI, we will soon be able to provide access to IoT

[1] A Digital Single Market Strategy for Europe, Brussels, 6.5.2015, COM(2015) 192 final

systems via this platform offering the IoT community all the benefits of Satellite systems, i.e. ubiquity of service, high resilience, robust, reliable, and service redundancy. Whilst, Hughes Network Systems Europe (Hughes Europe) provides high-quality, resilient and cost-effective broadband network solutions to organisations throughout Europe. Combining the best of breed in satellite and terrestrial technologies and supporting world-class Managed Network Services to deliver connected systems.

Discussion

EchoStar welcomes the RSPG Draft Opinion on the Spectrum Aspects of the Internet-of-Things (IoT) including M2M and in particular the intention by the RSPG to take an inclusive view of connected devices and the spectrum they need.

Diversity of applications and operational requirements

In the Annex the RSPG attempts to capture the diversity of established and emerging use cases for IoT systems and alongside this the range of operational requirements that apply to IoT networks. The diversity of applications and requirements as noted emphasises that there is no 'one size fits all' platform solution that will cater to the IoT community and hence encourages the adoption of a technology neutral approach in support of IoT. By taking a technology neutral approach to the regulation and spectrum management of IoT, the RSPG can encourage the best technology or technologies to be utilised for the specific purpose.

Increased demand for spectrum in the medium and / or long term

IoT services to date have utilised existing communications systems, whether they be fixed, mobile, satellite or broadcast, for their connectivity solution. We anticipate that this arrangement will continue to be the case in the future with IoT applications being delivered alongside other services in an efficient and cost effective way. To best support spectrum use for IoT and future growth in demand we encourage the RSPG to advocate, harmonised spectrum allocations for the services that support IoT. Furthermore, we encourage the RSPG to ensure that sufficient access to spectrum (including long term certainty) is afforded to communications platform providers so that they can invest and innovate to support the growth in traffic anticipated. Additional spectrum considerations should be addressed on a technology neutral basis to avoid regulatory interventions that distort the market and the natural effect of competition.

Avoiding a bias towards terrestrial solutions

We have noted that Satellite platforms are already an established communications platform for the IoT community, however the RSPG draft opinion is too heavily focused on the needs of terrestrial systems with Satellite mentioned as an afterthought. In addition it is suggested that public mobile networks allow 'ubiquitous coverage and roaming' this is typically not the case as per the recent acknowledgement by the UK Government of mobile 'not spots' in the

UK[2]. In addition a similar situation exists in France where they call the coverage holes 'white spots.' Satellite clearly has the benefit of supporting ubiquitous coverage for IoT services and hence has enabled the IoT community to provide truly national and International solutions. In acknowledging this characteristic of Satellite platforms it is important to recognise the diverse requirements of the IoT community which has been acknowledged by the RSPG and in so doing ensure that a bias to specific communication platforms is avoided when developing the future regulatory framework.

Conclusions

EchoStar as an active provider of communications systems to the IoT community is keen to work with regulators to ensure that the framework for IoT services is open and competitive.

We therefore encourage the RSPG and National Regulators to establish an open regulatory framework that enables appropriate communications system solutions for the IoT community on a technology neutral basis. In so doing we anticipate that Satellite platforms, an already established platform serving the IoT community, will be included in future thinking and developments.

Respectfully submitted,

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[2] Mobile Coverage in the UK: Government plans to tackle 'mobile not-spots,' Briefing paper Number CBP-07069, 22 September 2016. House of Commons Library.