Int J Sens Netw Data Commun 2018, Volume 7
DOI: 10.4172/2090-4886-C1-012

Framework for demystifying M2M spectrum regulation

Anuradha C B and **Arpit Khosla**
Ericsson India Global Services Pvt. Ltd., India

The evolving machine-to-machine (M2M) landscape cuts across diverse verticals and embraces range of networks and devices. These diverse and dynamic requirements make regulatory policy formulation a daunting challenge. Of all the regulatory policy dimensions, the one that confounds the regulator the most is spectrum regulation. The typical dilemmas that regulators face in this area are regarding two key challenges a) justified requirement of a separate licensed band b) if the unlicensed band is indeed sufficient to maintain scalability with QOS for various use cases. As expected, there is no panacea for spectrum access regulation as the technical requirements (for example data throughput, reliability, range and output power etc.) vary dramatically across the use cases spectrum. The proposed framework provides a robust approach to help regulator design the M2M spectrum policy. The framework brings out the key factors that are instrumental in defining an optimal M2M spectrum posture (for instance spectrum supply, spectrum demand and spectrum utilization). Thereon the paper illustrates the approach for an in-depth study and analysis of these factors helping the regulator in deciphering the target M2M spectrum policy posture. Finally our study delves into earmarking and detailing the policy levers (e.g. spectrum fees, sharing regulations, license authorization model) which can help regulator in reaching the aspired policy posture. The study not only encompasses the point of views of multiple stakeholders and regulators but also reinforces the framework with global references. Overall this framework will attempt to demystify the policy regulation in the evolving area of M2M.

anuradha.c.b@ericsson.com