

Spectrum Monitoring. An approach based on People-Centric sensing (SMOPEC)

Cuevas-Ruíz, J.L. García Alba-Iduñate Pascual
Centro de Estudios
Instituto Federal de Telecomunicaciones, México
E-mail: jose.cuevas@ift.org.mx, pascual.garcia@ift.org.mx

Abstract —The spectrum monitoring is a key factor in the spectrum management strategy implemented by government entities. It is of enormous importance to evaluate the spectrum use and its overall performance. Spectrum monitoring, with inspection and law enforcement provide useful tools to maintain the integrity of the spectrum management process. The infrastructure and equipment necessary to get a complete monitoring system require a huge investment, about money, time and human resources.

By means of People-Centric sensing is feasible to develop a monitoring spectrum system via the users' mobile devices. An app installed in the mobile devices allow to manage all the information obtained by the sensors collocated in the mobile devices. This monitoring system, would reduce the aforementioned investment. Also, the system updates could be cheaper and easier.

In this paper is explained a Spectrum Monitoring approach using a People-Centric sensing (SMOPEC) approach; the system elements are described, the operation are detailed, a pilot test results are showed and the feasibility are exposed.

Keywords — Spectrum Monitoring, People-Centric, Spectrum Management.