



## **Safely Accessing the TV White Space Spectrum – What Can We Do???**

There is a growing controversy on the use of TV “white space” for broadband internet services. This “white space” is the TV spectrum that is not licensed to any particular TV station in a given location, but it may be used from time to time by wireless microphones and could be available for other types of devices. The information technology (IT) industry, including companies such as Microsoft, Google, HP and Dell would like to make use of this spectrum to support wireless broadband internet access and other types of communications. The broadcasting industry and others are concerned that devices operating in the TV bands may interfere with programming and will thus be detrimental to their business. This issue is complicated by the fact that the unoccupied TV channels differ from location to location, so a device that operates without interference in one location may cause “harmful interference” in another if appropriate safeguards are not employed.

To address this issue, the U.S. Federal Communications Commission (FCC), the U.K. Office of Communications (Ofcom), and the International Institute of Electrical and Electronics Engineers (IEEE) has proposed the use of advanced radio technologies based on both software defined and cognitive radio capabilities. These technologies can be used to detect existing broadcast signals and authorized wireless microphones and then dynamically adjust their frequency of operation and/or transmit functions to ensure that they do not interfere with standard broadcast signals. While many of these technologies have been embraced by early adopters in the wireless market, there are many who are concerned that the technologies may not be sufficiently mature to allow operation in mainstream spectrum.

The SDR Forum will explore these concerns in a workshop to be held on June 19<sup>th</sup> in Portland, Oregon. Representatives from all sides of this debate will come together to educate the SDR Forum’s members and guests on this complex issue. The goal of this workshop is to provide a neutral venue for discussion, to allow the Forum’s members and guests to understand the issues and concerns, separate the facts from the myths, and identify common themes and areas of agreement between the various constituencies.

The output of this workshop may be used by the SDR Forum’s to define future work items that help to close the gap between the various opposing views, and promote the success of these next generation radio technologies in a manner that is acceptable to all parties. As a start, the SDR Forum could form a new Special Interest Group focused on TV White Space Communications. These groups are cross disciplinary teams comprising end-users, operators, service providers, radio manufacturers and regulators focused on the needs of a single market or market segment. The purpose of a SIG is to capture domain specific requirements, use cases and business models that will drive future regulatory and technical activities.

### References:

FCC: <http://www.fcc.gov/oet/projects/tvbanddevice/>  
Ofcom: <http://www.ofcom.org.uk/consult/condocs/ddr/>  
IEEE 802.22: <http://www.ieee802.org/22/>