White Space

Database Administrators Group

Mar. 10, 2011
White Space DBA Group

Airity
Purpose

• To establish and maintain a database interoperability specification

• To support development of a device to database API specification
  – To submit the above specification to a recognized standards body

• To address technical and operation issues as they arise that affect the operation of database administrators and work with the FCC
Initial Focus

• The industry already has several standards groups working on solving different parts of the problem
• Multiple solutions will arise for many parts of the ecosystems
• Some areas will require singular solutions to best meet the FCC rules
• The 9 companies have decided to work together to address these areas and liaison with other groups to develop solutions
Multiple Standards Efforts

• ECMA-392 standard
  • Developed by CogNeA group and submitted to ECMA International
  • Focused on whole-home high definition audio/video distribution and internet access

• IEEE 802.22 Wireless Regional Area Network (WRAN)
  • Focused on TV White Space bands (VHF/UHF)
  • Large cell size (10km-100km)

• IEEE 802.11af Wireless Local Area Network (WLAN)
  • Extend Wi-Fi (802.11) to TV White Space bands
  • Focused on low-power portable devices
Multiple Standards Efforts (cont.)

• **Wireless Innovation Forum**
  – Best practice recommendations
  – Device to database contributions

• **Internet Engineering Task Force (IETF)**
  – Early stage – Birds of a Feather meeting planned
  – Proposed charter: any device, any country, any spectrum band

• **CEPT SE43 Work Group**
  – Cognitive radio systems - White spaces (470 - 790 MHz)

• **White Space Database Group**
  – Ad hoc working group; now dormant

• **More to come...**
Multiple Ecosystems

• In the 2.4GHz unlicensed band multiple ecosystems have evolved, serving different customer use models, different standards & technologies, different business models
• We believe that TV White Space will evolve in much the same way
Multiple Solutions Likely

Some examples:

• Device to Database API
• Device to Database Security
• Protected Entity Registration
• Public access to databases
Areas with Single Solutions

• Data acquisition from FCC
• Data integrity
• **Database interoperability**
• **Available channel calculation**
• Certification criteria for database
• Certification criteria for device and database as a system
• Process for regulatory issue resolution
Database Interoperability

• We are looking at two transport options
  – Secure FTP
  – Web Services
• Currently defining data formats
• Will have a first draft of the specification by next Workshop
Available Channel Calculation

• Framework for channel calculation has already been developed in prior industry efforts
• We will leverage it and complete the work
• Will have first draft of specification by next Workshop
Summary

• We are working to formally establish the White Space DBA workgroup
• We have had two face-to-face meetings and are holding regular conference calls
• We are already making progress on several issues and we intend to develop solutions on the areas we outlined
• We look forward to collaborating with the FCC