
Presentation on WRC-03 Agenda Item 1.5

IEEE 802.18 RR-TAG

October 2002

Globally Harmonized Allocations at 5 GHz are Important to Industry and the Public

- Harmonized allocations will result in increased economies of scale for manufacturers, resulting in lower costs to users
 - Harmonized allocations will facilitate roaming across regulatory domains, which is important to business and industrial users in our increasingly global economy
 - Harmonized allocations will benefit US industry by opening more global markets to US manufacturers
 - There is currently an opportunity for US manufacturers to benefit greatly from the global adoption of the IEEE 802.11 standards
 - If the US takes a position adverse to US industry interests, it is possible that the global market could be fragmented, or even dominated by the ETSI BRAN HIPERLAN/2 standard (much as the GSM technology has become the dominant global cellular standard)
 - Thus, the position the US takes at WRC-03 could either greatly help or greatly harm US manufacturers (and therefore could benefit or harm the US economy and opportunities for increased exports)
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Spectrum Requirements Studies Demonstrate that Additional WAS/RLAN Spectrum is Needed

- The globally harmonized allocations contemplated in WRC-03 Agenda Item 1.5 address the need for additional spectrum *recognized by the ITU* by proposing to provide access to the 5470-5725 MHz band
 - While not all areas of the US will need the total spectrum, user density in urban areas will require it to meet peak demands
 - Good engineering practice is to design for peak traffic loads to prevent unwanted outages due to lack of capacity
 - Market projections support the results of spectrum requirements studies
 - However, even in less densely populated areas, access to additional spectrum will facilitate sharing with other users of the band(s) (see next slide)
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Additional Spectrum will Facilitate Sharing between WAS/RLANs and Other Users

- Access to more spectrum will allow interference mitigation techniques to more effectively avoid other users (i.e., radars)
 - The IEEE 802.16a (Draft) Standard for Wireless Metropolitan Area Networks includes Dynamic Frequency Selection and Transmit Power Control (“DFS/TPC”), as a mandatory feature
 - IEEE 802.11 TGh is developing extensions to the IEEE 802.11 Standard for DFS/TPC
 - In a practical sense it is reasonable to expect that manufacturers will implement the DFS/TPC extensions due to the economic advantage of having one product implementation that is globally acceptable (the ERC 99(23) Decision REQUIRES the use of DFS/TPC)
 - The ability to spread more will also reduce aggregate power (interference potential) for EESS and MSS Feeder Links
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WECA has a Petition for Rulemaking Pending Before the FCC

- WECA is an industry association that promotes IEEE 802.11 standards and does interoperability certifications
 - The WECA Petition asks the FCC to add the band 5470-5725 MHz to the “U-NII” bands now
 - It is imperative that additional spectrum be allocated BEFORE a critical shortage arises ... if the FCC waits until the shortage occurs, it will be too late
 - In Europe, the ERC 99(23) Decision already allocates this band for “High Performance LANS” on a co-primary basis (with a requirement for DFS/TPC)
 - Allocation of this band now will permit US manufacturers to implement products that will be globally acceptable in a regulatory sense, increasing market opportunities and exports to the benefit of the economy
 - Additionally, the sooner this band becomes available, the less “legacy” equipment that is unable to take advantage of it will be fielded, reducing the potential for incompatibilities and increasing the ability of systems to mitigate interference to other users of the 5 GHz band as a whole
 - Due to a recent name change, WECA is now officially known as “the Wi-Fi Alliance”
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US Industry Needs Your Support

- **Even in the midst of the “telecom slump,” the WAS/RLAN industry grew 40% year over year over the past year**
 - The 2.4 GHz band is already becoming congested at this point and the projected use of the band by approximately 3.5 *billion* IEEE 802.15.1 (“Bluetooth”) devices in the next few years demands that future WAS/RLAN growth be accommodated at 5 GHz
 - **A lack of adequate spectrum to meet future needs will produce congestion and degradation of service that will ultimately have a chilling effect on the the future of this important sector of the economy and its ability to serve the public**
 - **The economic benefits of these products to business, industry, health care, education, and the public in general are enormous, dwarfing the revenues of the industry that produces the products**
 - **Finally, the industry has created many 10’s of thousands of high-paying, high tech jobs (taxpayers) and will create even more if sufficient spectrum is allocated to permit it to continue its historical growth trends**
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Thank you.

Questions?
