FCC-FDA Wireless Test Beds Workshop
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1. Overview
2. Specifications
3. Anatomy of a Interoperability
Overview

• Currently wireless interference and co-existence testing
  • Prescribed programs such as WFA/CTIA Converged Wireless Group
  • Independent studies have been conducted such as
    • Bluetooth and Wi-Fi in the 2.4MHz band for interference
    • Ofcom Award of the 2.3 and 3.4 GHz spectrum bands: Update on the coexistence of 2.3 GHz LTE with Wi-Fi in the 2400 to 2483.5 MHz range and other coexistence issues – Dec. 3, 2014
    • LTE band 40 desensitization of Wi-Fi® devices - Technical note, Steve Shearer, Wi-Fi Alliance, October 2014

• Formal interoperability and certification programs should be sponsored by leading authorities such as FDA
  • Continua has a good model but this should be expanded to be scalable
Specifications

- Not as much co-existence testing as in the Other segment
  - ISO/IEEE 11703 Personal Health Data (PHD)
  - 802.15.6 Wireless Body Area Network
  - C63.27
- More co-existence testing in the Other segments
  - Multiple Wi-Fi 802.11 standards
  - 802.15.a Bluetooth vs. Wi-Fi
  - 802.15.4 referred to as Zigbee
Anatomy of Interoperability (1 of 4)

• FCC mHealth Task Force Guidelines note interoperability needed

• The benefits of interoperability

  • Interoperability means that:
    • Users have a much greater choice of products
    • Users trust their device will operate with another if each has been certified

• Interoperability is important in the success of new technologies,
• Market demand has ensured that interoperability holds a prominent position in standardization.
Anatomy of Interoperability (2 of 4)

• The role of standards in achieving interoperability
• One of the key motives for the development of standards is to facilitate interoperability between products in a multi-vendor, multi-network and multi-service environment.
  • Complex products and systems are often based on multiple standards from several standards-making organizations,
• In addition, standards themselves need to be designed and tested to ensure that products and services complying with them do indeed achieve interoperability.
• Standards do not guarantee interoperability
  • Vendor specific implementations can differ but still be in spec
  • Optional features may be excluded
  • OS platforms may influence interoperability beyond ODM levels
Anatomy of Interoperability (3 of 4)

• The role of testing in interoperability
• Testing of products and systems to verify their interoperability is critical to their
• A standardized approach to testing is essential if the results are to be trusted.
  • Plugfest is an example of this
• This requires a prescribed industry support Interoperability and Certification Program
Anatomy of Interoperability (4 of 4)

Interoperability and Certification Program
THANK YOU

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