# 802.16.3 As an Open PHY standard

**IEEE 802.16 Presentation Submission Template (Rev. 8)**

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Base Document:

IEEE 802.16.3p-00/03 **<http://www.wirelessman.org/sub11/contrib/802163c−00_03.pdf>**

Purpose:

Suggest an alternative way of developing a standard that will allow an open and flexible physical layer.

# Why Interoperability

- **Reduce costs following mass production**

- **Allows network design using standard components**

- **Multi–vendor supply**

- **Increased market confidence**

# Why not interoperability

- **Interoperability– not an essential requirement**

- **Experience with NB–FWA**

- **Operator responsible for both ends**
  - **Careful planning and professional installation is required.**
  - **Multi–dwelling units**

- **Operators look for integrated solutions**

# Why not Interoperability

- **Wide scope of requirements**
  - **Frequency range**
  - **Services**
  - **Platforms**

- **Conflicting interests of vendors and operators**

- **Long time to develop a standard**

# Possible Ways Forward

- **Cutting options by vote**
  - **Fast**
  - **Decrease support for the standard**
  - **Technically inferior standard**

- **Building up consensus**
  - **Long time to develop**

- **Leave options in – let the market decide**

- **Etiquette standards**

# Etiquette Standards

- **Allow several options and a protocol to switch between them**

- **802.16.3 –compliant equipment does not have to support each option.**

- **Require the following attributes**
  - **Parameters – different for each options**
  - **Revisions – for future changes**
  - **Extensions – new protocols that replace the old protocols**
  - **NSF – non standard functions – for proprietary**

# Advantages of Etiquette

- **Avoids standard battles**

- **Allows "compatibility over time"**

- **Allows market segmentation**

- **Allows compatibility among segments**

- **Follows the development of software defined equipment**

- **Options are unavoidable, let us use them**
  - **Experience in UMTS, DVB, H.323, and other standards**

# Advantage to 802.16.3

- **Better solutions for specific scenarios**

- **Versions for large markets / big companies as well as niche markets / small companies**

- **Shorten time to publish**

- **Reduce operator risks**

- **Provide support for future development**

# Way Forward

- **Take the "etiquette approach" in consideration**

- **Add the basic "mechanisms" as requirements**

- **If found useful, define and develop a protocol for interoperability channels**

- **Listen to Ken Kretchmer, in RAWCON 2000**