Wireless Personal Area Network
Study Group

ExCom Report #3
Thursday 12, 1998

Agenda

• WPAN Study Group Status
• Motions:
  – **Motion 1** - WG approval of SG Direction
  – **Motion 2** - SG wants extend the WPAN SG from Albuquerque to Austin
  – **Motion 3** - SG Recommends that the WG investigate coexistence with other Wireless Network Systems in the 2.4GHz band
  – **Motion 4** - SG recommends sending PAR to Letter Ballot
• Definition of terms
WPAN Study Group Background

- Submitted a Motion for a PAR & 5C approval in LaJolla Plenary 7/98
- During the Plenary Our Sponsor postponed our Motion due to lack of detail
- Since LaJolla we have had significant support from 802.11
- During this session we want to report progress and receive comments from 802.11

Motion 1:
On behalf of the SG, I:

- Move to have the 802.11 Working Group endorse the WPAN SG’s direction to create an 802.11 MAC Lite & corresponding PHY Layer(s) based on interoperable derivatives of the 802.11 MAC & PHY Layer.
- SG Motion: Nov11, Ian/Ken 9/0/1, Pass
- WG Motion: Nov11, Tim/Bruce 10/17/11 pass

Note: Friendly Amendments are in red
Motion 2:
On behalf of the SG, I:

• Move to extend the timeframe of the Wireless PAN Study Group under 802.11 to the next Plenary with the goal of ensuring continuity and to submit the PAR to our Sponsor at its Jan99 Interim Meeting
  – Chair: Dick Braley
  – Vice Chair: Bob Heile
  – Secretary/Tech Editor: Ian Gifford
SG Motion: Nov11, Ian/Jim Z., 11/0/0 pass
WG Motion: Nov11, Ian/BobH. 34/0/1 pass

Note: Friendly Amendments are in red

Motion 3:
On behalf of the SG, I:

• Move to recommend that the 802.11 Working Group investigate the need for coexistence with other Wireless Networking Systems in the 2.4GHz band
• SG Motion: Nov11 Ian/Jim, 9/1/3
• WG Motion: Nov11, John/Bruce 31/2/5
WPAN Study Group Vision

802.11 MAC Lite

Legend: italic (and red) = optional

- 2.4 GHz radio
- Freq. Hopping
- Spread Spectrum
- 2 Mbit/s
- 1 Mbit/s
- 11 & 5.5 Mbit/s
- 2 Mbit/s

Higher data rate extension in 2.4 GHz 802.11b

Higher data rate extension in 5 GHz 802.11a

6-12-18...54 Mbit/s

Lower data rate extension in 2.4 GHz 802.11x

<1 Mbit/s

Medium Interoperability Continuum

interoperable communication

coexistence

sharing etiquette

interference

Full 802.11 Compliance

Acceptable to 802.11?

WPAN proposal?

Background White noise

Destructive Interference

Significant degradation

Bob Heile, GTE
WPAN Interoperability Classes

- **Class 4** - Full Compliance to the 802.11 MAC & PHY PICS
- **Class 3** - Compatibility there is a way on the medium to exchange data without an intermediate device
- **Class 2** - Bridge-like (1 MAC/2 PHYs)
- **Class 1** - Gateway-like (> 1 MAC)
- **Class 0** - Non Interoperable

Archive, Mailing List, URLs

- **Archives**
- **Mailing List**
  - stds-802-wpan@majordomo.ieee.org

- **Bluetooth Special Interest Group**
  - http://www.bluetooth.com/
- **Home RF Working Group**
  - http://www.homerf.org/

To add your name to IEEE mailing list please send an e-mail to Ian Gifford giffordi@amp.com