Wireless Personal Area Networking
A Study Group Report
November 11, 1998
Albuquerque, NM

Agenda

- WPAN Study Group Status
- Albuquerque Summary
- 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
- Liaisons Contacts
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

WPAN Application Feature List

<table>
<thead>
<tr>
<th>Consensus</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td>low cost</td>
<td>packet + isochronous</td>
</tr>
<tr>
<td></td>
<td>low power</td>
<td>encryption</td>
</tr>
<tr>
<td></td>
<td>small size</td>
<td>mobility ≤ 10 mph</td>
</tr>
<tr>
<td></td>
<td>packet data ≤ 1 Mbps</td>
<td>gateway</td>
</tr>
<tr>
<td></td>
<td>range ≤ 10m</td>
<td>native IP</td>
</tr>
<tr>
<td></td>
<td>active devices ≤ 10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>manual auth/auto attach</td>
<td></td>
</tr>
<tr>
<td></td>
<td>coexistence with 802.11</td>
<td></td>
</tr>
<tr>
<td>Weak</td>
<td>topology</td>
<td>inter-pan connectivity</td>
</tr>
<tr>
<td></td>
<td>active devices 10 - 128</td>
<td></td>
</tr>
<tr>
<td></td>
<td>coexisting PANs 4-30</td>
<td></td>
</tr>
</tbody>
</table>

Ian Gifford, M/A-COM
WPAN Study Group Vision
802.11 MAC Lite

WPAN MAC Summary

• Keep 95% of the existing 802.11 MAC
• Extend current 802.11 capabilities
  – The AP gains power management
  – AP functionality migrates between WPAN capable devices
• Remove some Overhead
  – Slim down the MIB
  – Eliminate RTS/CTS
  – Eliminate IBSS
Background for Motion 1

- The SG received inputs from 802.11 experts on the standard to provide information on a method on deriving an 802.11 MAC Lite:
  - 98/322r2 “MAC PICS vs. WPAN Requirements”
  - 98/323 “802.11 Terminology related to WPAN”
  - 98/324 “PHY PICS vs. WPAN Requirements”
- Strawpoll Nov10, 16/1/7

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 a derivative of the 802.11 MAC Layer.

- SG Motion: Nov11, Ian/Ken 9/0/1, Motion Passes
Motion 2:
On behalf of the SG, I:

- Move to extend the timeframe of the Wireless PAN Study Group under 802.11 to ensure continuity and submit the PAR to our Sponsor at its Jan99 Interim Meeting
- Chair: Dick Braley
  - Vice Chair: Bob Heile
  - Secretary/Tech Editor: Ian Gifford

Motion: Nov11, Ian/Jim Z., 11/0/0 motion passes

Background for Motion 3

- This motion is a result of the Study Group’s desire to have coexistence with 802.11 devices and we feel it would be prudent for 802.11 to investigate coexistence with other Wireless Network Systems in the 2.4GHz band
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

Motion: Nov11 Ian/Jim, 9/1/3

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
Liaison Contact Info

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**IEEE 802.11 Meeting Schedule**

- 1999
  - Jan 11-15 - Grovsvsenor Resort, Lake Buena Vista, FL, Interim (Harris)
    - **DEADLINE November 15th, 1998!**
  - March 8-12 - Hyatt Regency, Town Lake, Austin, TX, Plenary
  - May TBD - Japan?, Interim (Clarion)
  - July 5-9 - Queen Elizabeth, Montreal, PQ, Canada, Plenary
  - Sept TBD - Israel?, Interim (BreezeCom)
  - November 8-12 - Hyatt Regency Kauai, Koloa, HI, Plenary