

Tentative Minutes of the WPAN SG Meeting

Wireless Personal Area Network Study Group Interim Meeting

**Sheraton Grand
Irving, TX**

19-21 May 1998

1.0 The meeting was called to order on Tuesday, May 19, 1998 at 1:30pm by our cochairman Bob Heile

1.1 Roll Call: People in the room were invited to introduce themselves.

1.2 Secretary: The Chair recognized Ian Gifford as the Secretary for the Study Group Meeting.

1.3 Agenda Approval: Bob Heile presented the following agenda for approval:

Agenda ---Tuesday May 19, 1998

- 1 Opening of session 1:30pm
- 1.0 Secretary
 - 1.1 Roll call
 - 1.2 Voting rights
 - 1.3 Attendance list, Registration
 - 1.4 Logistics (meeting schedule, breaks, lunch, copying, document distribution)
 - 1.5 IEEE Patent Policy
 - 1.6 Other announcements
- 2 Approval of the minutes of previous meetings
 - 2.1 Cambridge meeting
 - 2.2 Utrecht meeting
 - 2.3 Matters arising from the minutes
- 3 Reports
 - 3.1 Tutorial (Intermec)
 - 3.2 Liaison Activities
 - 3.3 HomeRF Pitch (c/o HRFWG & Butterfly Communications)
 - 3.3 Application Summaries
 - 3.4 Tutorial (ViA)
- 4 Objectives of the Dallas Meeting
 - 4.1 Review Output of Past WPAN SG Meetings
 - 4.2 Review Draft PAR
 - 4.3 Review Proposals for Potential MACs/PHYs
 - 4.4 Finalize PAR for Submission
- 5 Review of submissions
 - 98/237 S WPAN CFP - AMP Wireless Proposal, Bill Haymond, AMP
 - 98/238 S WPAN CFP - GTE Internetworking Proposal, Rick LaRowe, GTE
 - 98/239 S WPAN CFP - Intermec Technologies Proposal, Pat Kinney, Intermec
 - 98/240 S WPAN SG - MW Oven Overview, Bruce Kraemer, Harris
 - 98/241 S WPAN SG - Is 802.11 the Answer? Topics for Discussion--Bob Heile, GTE
 - 98/xxx S WPAN SG - Things for SG to consider, Bruce Kraemer, Harris
- 6 Adoption of the agenda 11-98/170r3
- 7 Unfinished Business
- 8 New Business
 - 8.1 Call for Proposals on WPAN PHY and MAC
- 9 Review/Discussions of Functional Requirements
- 10 Review of Draft PAR and 5 Criteria
- 11 Adjourn

Agenda ---Wednesday May 20, 1998

- 12 Call to Order 8:30am Bob Heile
- 13 Discuss PAR and 5 Criteria --all
- 14 CFP : WPAN PHY and MAC Layer Proposals Contributors--Intermec & AMP
- 15 Is 802.11 the Answer? Topics for Discussion--Bob Heile, GTE
- 15 Discussion of PHY and MAC Proposals--All
- 16 Adjourn 5:00pm --Bob Heile

Agenda ---Thursday May 21, 1998

- 17 Call to Order 8:30am --Bob Heile
- 18 CFP : WPAN PHY and MAC Layer Proposals Contributor--GTE
- 19 Complete Discussion of PHY and MAC Proposals
- 20 Complete PAR and 5 Criteria
- 21 Next Steps --Bob Heile
 - 21.1 La Jolla Meeting, scope and objectives --Ian Gifford
 - 21.2 Action Items --Ian Gifford
- 22 Review Future Meetings/Location --Bob Heile
- 23 Other Business --Bob Heile
 - 23.1 Things to consider--Bruce Kraemer, Harris
- 23 Adjourn --Bob Heile

Note: Some minor rearranging of tasks occurred.

Motion: Hearing no objections the motion to accept the Agenda passed by general consent.

- 2.0 Ian Gifford overviewed the April and May (4-6) meeting minutes of the Study Group (SG). The goal of the April (Cambridge) meeting was to assign Principle Investigators to the documents and to prepare them, formally, as IEEE 802.11 WPAN SG Submissions. Additionally, the May (Utrecht) meeting was productive and the Draft PAR and Draft 5 Criteria submissions were edited to meet the WPAN objectives.

The SG has created, to date, the following documents:

DOC No.	TITLE
-98/58	Wearables Standards Ad-Hoc Committee Presentation to 802.11 Committee (Robert Heile, GTE/BBN, and Ian Gifford, AMP M/A-Com), January 22, 1998
-98/94	"Wearables" Standards, Presentation to IEEE 802, ExCom (Bob Heile, Acting Chairman, "Wearables" ad-hoc Standards Committee) , March 9, 1998
-98/95	"Wearables" Standards, Presentation to IEEE 802, Standards Committee (Bob Heile, Federal Express Corporation), March 9, 1998
-98/96	A brief survey of Wearable application (Steve Case, Via), March 9, 1998
-98/97	Wireless Solutions (Pat Kinney, Intermec), March 9, 1998
-98/98	PAN feasibility: The BodyLAN (TM) Experience (Rick LaRowe, GTE), March 9, 1998
-98/135	Summary Report of the IEEE 802.11 WPAN Ad-Hoc Group Meeting held at Irvine, CA, March 9th - 13th, 1998
-98/136	Tentative Minutes of the IEEE 802.11 WPAN Ad-Hoc Group Meeting held at Irvine, CA, March 9th - 13th, 1998
-98/137	Venue for WPAN Ad-Hoc Group Meeting, April 8th - 9th, 1998, Cambridge, MA.
-98/147r1	WPAN Press Release Draft (Ian Gifford, M/A-COM)
-98/159	Tentative Minutes of the WPAN Study Group Meeting, Cambridge, MA 4/8-9/98 (Ian Gifford, M/A-COM)
-98/160r1	WPAN Guidelines (Ian Gifford, M/A-COM)
-98/161	Wireless Personal Area Network (WPAN) Five Criteria and 2.4GHz Coexistence Analysis (Ian Gifford, M/A-COM)
-98/162	First Draft PAR for WPAN (Rich Ditch, Motorola)
-98/163	Venue Hosted by GTE Internetworking (Ian Gifford, M/A-COM)
-98/169	WPAN SG Draft Agenda 5/4-7/98 Utrecht, NL
-98/170	WPAN SG Draft Agenda 5/19-21/98 Irving, TX USA
-98/171	Draft Glossary & Acronym List

-98/199	WPAN SG Call for Proposals for MAC/PHY (Bob Heile, Fedex)
-98/216	WPAN SG Application Summary (Pat Kinney, Intermec)
-98/217	HomeRF Overview Presentation (Stuart J. Kerry, Butterfly Communications)
-98/222	Summary Report of the IEEE 802.11 WPAN Study Group Meeting held at Utrecht, The Netherlands, May 4th - 8th, 1998 (Ian Gifford, M/A-COM)
-98/228r2	Tentative Minutes of the IEEE 802.11 WPAN Study Group Meeting held at Utrecht, The Netherlands, May 4th - 8th, 1998 (Ian Gifford, M/A-COM)
-98/229	WPAN SG Spectrum Availability Matrix (Pat Kinney, Intermec)
-98/233	WPAN SG Draft Liaison Letter (Ian Gifford, M/A-COM)
-98/235	Summary Report of the IEEE 802.11 WPAN Study Group Meeting held at Irving, TX, May 19th - 21st, 1998 (Ian Gifford, M/A-COM)
-98/236	Tentative Minutes of the IEEE 802.11 WPAN Study Group Meeting held at Irving, TX, May 19th - 21 st , 1998 (Ian Gifford, M/A-COM)
-98/237	WPAN CFP - AMP Wireless Proposal (Bill Haymond, AMP)
-98/238	WPAN CFP - GTE Internetworking Proposal (Rick LaRowe, GTE)
-98/239	WPAN CFP - Intermec Technologies Proposal (Pat Kinney, Intermec)
-98/240	WPAN SG - Microwave Oven Overview (Bruce Kraemer, Harris)
-98/241	WPAN SG - Is 802.11 the Answer? Topics for Discussion (Bob Heile, GTE)
-98/xxx	WPAN SG - Preparing for PAR Review in LaJolla, CA (Bruce Kraemer, Harris)

Source: Extracted from doctbl98-begin-May.xls, dated May 6, 1998 - Modified May 21, 1998

- 3.0** The latest WPAN Press Release was discussed and distributed to the SG meeting attendees, via Flash Card. We discussed the parallel Press Releases by the Home Radio Frequency Working Group (HRFWG) and Intel's "Blue Tooth" Group and that Jim Carlo had recommended that we consider a separate marketing group to handle Marketing Communications.
- 4.0** Bob Heile overviewed the up and coming IEEE 802 LMSC Plenary Meeting in LaJolla, CA. Indicating the deadline dates for the Hotel and Meeting. Bob stressed the need to sign up early as well as electronically to avoid admin problems and higher costs.
- 5.0** Again, Bob Heile led the discussion on potential Liaisons from the WPAN Study Group to:
- Infrared Data Association (IrDA)
 - Home Radio Frequency Working Group (HRFWG)
 - ETSI Broadband Radio Access Networks (BRAN) Project
 - ATM Forum Wireless ATM (WATM) Working Group
 - Wireless LAN Alliance (WLANA)
 - Internet Engineering Task Force (IETF)

The liaison "communication devices" would be a Sponsor Letter from 802.11 Chair, the Draft IEEE WPAN SG Press Release and the list of WPAN Protocol Proposals i.e., strawman MAC & PHY Layers.

The following table describes the overall tasks that the WPAN SG would need to take to achieve a standard within IEEE:

TASKS	START DATE	END DATE	STATUS
Cambridge, MA WPAN SG Meeting	4/8/98	4/9/98	Done
Call For Proposals (CFP)	4/30/98	5/19/98	Done
Utrecht, NL 802.11 Interim Meeting	5/4/98	5/8/98	Done
Irving, TX WPAN SG Meeting	5/19/98	5/21/98	Done
SUBMIT WPAN PAR		6/4/98	In process
La Jolla, CA 802 Plenary Meeting	7/5/98	7/10/98	
Waltham, MA 802.11 Interim Meeting	9/14/98	9/18/98	
First Unapproved WPAN Draft Specification		March 1999	
Draft Specification approved by 802.11 WG		September 1999	
Draft Specification approved by IEEE SAB		March 2000	

- 6.0** Bob Heile then progressed the specificity of the WPAN Technical Guidelines a.k.a. Functional Requirements.

- 7.0 This work consumed the group until we adjourned at 6:00pm.
- 8.0 Bob Heile brought the meeting back to order on Wednesday May 20th, 1998 at 8:30a and the group returned to the editing the WPAN documents Draft WPAN PAR, WPAN 5 Criteria & 2.4 GHz Coexistence, and WPAN Technical Guidelines a.k.a. Functional Requirements document to prioritize the requirements (see document -98/160r2).
- 9.0 Pat Kinney and Joe Kubler presented the Intermecc WPAN Proposal (see document -98/239) as well as provided a working demo at the close of the Wednesday, May 20th, 1998 session of the Study Group.
- 10.0 Bill Haymond presented the AMP Wireless Systems WPAN Proposal (see document -98/237).
- 11.0 Bob Heile presented a submission from GTE entitled “WPAN SG - Is 802.11 the Answer? Topics for Discussion” (see document -98/241). This submission was basically an informal overlay of the Technical Guidelines onto the 802.11 Specification dated July 1997. A discussion ensued.
- 12.0 Bob Heile adjourned the meeting at 5:00p.
- 13.0 Bob Heile brought the meeting back to order on Thursday May 21st, 1998 at 8:30a.
- 14.0 Rick LaRowe presented the GTE Internetworking BodyLAN WPAN Proposal (see document -98/238).
- 15.0 Bruce Kraemer presented a submission from Harris entitled “Preparing for PAR Review in LaJolla, CA” (see document -98/xxx)
- 16.0 Next Steps

WHAT	WHO	WHEN
Provide a Glossary & Acronym List for WPAN	I. Gifford	5/8/98
Setup IEEE Majordomo reflector: stds-802-wpan@majordomo.ieee.org	I. Gifford	5/11/98
-98/229 WPAN SG Spectrum Availability Matrix	P. Kinney	6/98
Ask Vic Hayes for input on the MAC as a subset or stripped down version. Is it still 802.11 MAC?	I. Gifford	5/21/98
Ask Vic Hayes for status on the Liaison Letter?	I. Gifford	5/21/98
Ask Vic Hayes for guidance on PAR 5C Full vs. Trial usage?	I. Gifford	5/21/98
Ask Vic Hayes for explanation/guidance on PAR 12b.	I. Gifford	5/21/98
Clean up Draft PAR & 5 Criteria and e-mail out to SG/Irving.	R. Ditch	5/98
Electronically distribute the in/out contributions at Irving	I. Gifford	5/21/98
Add to the LaJolla agenda that we discuss the issue on Technical Eval Criteria will be for the WPAN MAC & PHY.	I. Gifford	5/98
Provide a compare & contrast matrix on the plethora of Protocols that can address WPANs. Bruce Kraemer.	B. Kraemer & Tom Schmidt	7/5/98
SG Subcommittee will create a FAQ and Answers for submission to the July Plenary.	Larry Ochs, Pat Kinney, Rick LaRowe, and Bruce Kraemer	7/5/98
Incorporate Bruce Kraemer’s foils presented on May 21, 1998 into an official IEEE submission	I. Gifford	5/27/98

The Ad Hoc Group wishes to thank the 802.11 WG for their time and assistance and help. We look forward to participating in the Working Group in La Jolla, CA.

Tentative meeting schedule

Date	Month	Year	Place	Type	Location	Host
5-10	Jul	1998	La Jolla, CA	Plenary	Hyatt Regency	
14-18	Sept	1998	Waltham, MA, tent	Interim WG		Raytheon
8-13	Nov	1998	Albuquerque, NM	Plenary	Hyatt Regency	
7-12	March	199	Austin, TX	Plenary	Hyatt Regency, Town Lake	
4-9	July	1999	Montreal, PQ	Plenary	Queen Elisabeth Hotel	
7-12	Nov	1999	Koloa, HI	Plenary	Hyatt Regency Kauai	

Attendance list for minutes Irving, TX May 19-21, 1998

Full name	att. %	memstatus	company	phone	e_mail
Mr. Timothy J. Blaney	10	aspirant	Commcepts	+1 408 356 8311	tim@wireless-network.com
Mr. Steve Case	10	nonvoter	VIA Inc.	+1 507 663 1399	scase@flexipc.com
Mr. Jim R. Chess	10	nonvoter	XETRON Corporation	+1 513 881 3332	jimmyc@xetron.com
Dr. Paolo Dini	10	nonvoter	VIA Inc.	+1 507 663 1399	pdini@flexipc.com
Mr. Richard Ditch	10	aspirant	Motorola	+1 602 441 0809	P26658@email.sps.mot.com
Mr. Ian Gifford	10	voter	M/A-COM Inc.	+1 978 442 4650	marketing@macom.com
Mr. Bill Haymond	10	nonvoter	AMP Wireless Systems	+1 604 415 4003	
Mr. Robert Heile	10	voter	GTE Internetworking Technologies	+1 617 873 4835	bheile@bbn.com
Mr. Patrick Kinney	10	voter	Intermec Technologies Corp. (Norand)	+1 319 369 3593	kinneypw@norand.com
Mr. Bruce P. Kraemer	10	aspirant	HARRIS Corporation	+1 407 728 5883	bkraemer@harris.com
Mr. Joseph J. Kubler	10	nonvoter	Norand Corporation	+1 303 442 1850	kublerj@norand.com
Dr. Richard P. LaRowe Jr.	10	nonvoter	GTE Internetworking Technologies	+1 617 873 2193	rlarowe@bbn.com
Mr. Michael D. McInnis	10	aspirant	The Boeing Company	+1 425 865 2840	michael.d.mcinnis@boeing.com
Mr. Larry P. Ochs	10	aspirant	XETRON Corporation	+1 513 881 3266	larryo@xetron.com
Mr. Jon Rasmussen	10	nonvoter	Intermec Technologies Corp. (Norand)	+1 319 369 3508	rasmussj@norand.com
Dr. Stephen Shellhammer	10	aspirant	Symbol Technologies Inc.	+1 516 738 4302	shell@symbol.com
Mr. Thomas Siep	10	voter	Texas Instruments	+1 972 480 6786	siep@ti.com
Dr. Adam Wyszynski	10	nonvoter	Wireless System	+1 972 294 8663	wysza@airmail.net