Notes from meeting between Donald Loughry (President of IEEE-SA), Jim Carlo (Chair of IEEE 802), Bob Heile (Chair of IEEE 802.15), Ian Gifford (Vice Chair IEEE 802.15) and Simon Ellis (Intel member of Bluetooth)

Friday, May 21, 1999 8:30am-10:00am PDT

Intel Corporation
Mobile & Handheld Products Group
SC9-22
2200 Mission College Blvd.
Santa Clara, CA 95052-8119 USA

1. Introduction

The meeting was called to order at 8:30am PDT and Jim Carlo asked the attendees to introduce themselves and state their affiliations. Ian Gifford, IEEE P802.15 Vice Chair is present and took these notes. Simon Ellis reminded everyone that he has already received a significant amount of information on the IEEE and the various functional organizations.

Note 1: This was not an official IEEE meeting; it is rather a presentation from the IEEE-SA President and IEEE 802 Chair to a representative of Bluetooth to explain the IEEE-SA organization and specifically, the recently formed IEEE Industry Standards and Technology Organization (IEEE-ISTO).
Note 2: This is the third meeting between the IEEE and Bluetooth Special Interest Group i.e., 14Dec98, 16Apr99, and 21May99.

2. Attendees

NAME	COMPANY	PHONE	FAX	E-MAIL
Don Loughry	IEEE-SA	+1 650 941 0670	+1 650 948 2606	d.loughry@ieee.org
Jim Carlo	Texas Instruments	+1 214 340 8837	+1 214 853 5274	jcarlo@ti.com
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Bob Heile	GTE	+1 781 466 2057	+1 781 466 2336	bheile@bbn.com

3. Meeting Agenda

WHAT	WHO
Provide you information on new initiatives within the IEEE on supporting industry standards and the formation of industry consortia through the IEEE.	Don Loughry
Provide Don Loughry with feedback on experiences in forming the Bluetooth consortia and what were the issues and problems.	Simon Ellis
Discuss care-abouts of consortia and value proposition needed from the IEEE for standardization.	Group

4. Meeting Goals

Don Loughry, who is Director of IEEE-SA Standards, is on an IEEE marketing fact finding mission on how to improve the value of IEEE standards to the industry and would like Bluetooth SIG comments on how Bluetooth was formed and what are the key care-abouts. In addition, Jim Carlo wanted Don to be familiar on what the Bluetooth SIG is looking for from the IEEE on the Bluetooth interaction.

In particular, Don is trying to understand:
1) What consortiums view as their strategic advantages?
2) What the IEEE-SA needs to do to be receptive to consortium? There are several plans in place to create a better environment where the features of a consortium could be mirrored into the IEEE-SA standards process.
3) How you see Bluetooth-IEEE P802.15 relationship and what IEEE could do so that you can see very clear values within the IEEE Consensus process.

5. IEEE Overview

The Institute of Electrical and Electronics Engineers, Inc. IEEE is a not-for-profit association and has more than 340,000 (and growing) individual members in 150 countries. Through its technical publishing, conferences and consensus-based standards activities, the IEEE:

- Produces 30 percent of the world's published literature in electrical engineering, computers and control technology,
- Holds annually more than 300 major conferences and
- Has more than 800 active standards with 700 under development.

Simon asked what accreditation IEEE has or actually how does one become a Standards Development Organization. Don led the discussion and talked about the ITU as a governmental organization and that the ISO and IEC are non-governmental organizations. The IEEE is reviewing their accreditation e.g., ANSI and the fact that it would like to be a world-wide Standards Development Organization.

http://www.ieee.org

6. IEEE-SA

Don described the IEEE Standards Association (IEEE-SA). The IEEE-SA was formed to provide a major entity that would offer increased responsiveness to the standards interests of IEEE societies and their representative industries."
- Allows for "entity" developed/voting on standards in addition to "individual" voting

http://standards.ieee.org

7. IEEE-ISTO

Don described described the IEEE Industry Standards and Technology Organization (IEEE-ISTO)
- Under the IEEE-ISTO, an IEEE Society can sponsor programs that are not possible under their existing procedures.
- Trade associations, consortia, and user groups that form around an IEEE standard can come under the IEEE-ISTO umbrella.

The IEEE-ISTO's role in the following areas could include, but are not limited to:

- Formation Assistance
- Financial Management
- Intellectual Property (IP) Management
- Record Keeping
- Membership Support
- Planning, Meeting Management and Forum Activities
- Headquarters Office Services and Identity
- Publication and Documentation Management
- On-Line Services and Communications
- General Promotion, Marketing, and Press Relations

The IEEE-ISTO provides the legal infrastructure (and support services) under which industry-specific programs and related technology development activities (e.g., Marketing, Certification, Standard Development, Interoperability Demonstrations, Branding, Conformity Assessment, Cooperative Research) can be organized. The IEEE-ISTO is structured to facilitate cost-effective, stable programs in support of any new or emerging technology that requires rapid development of standards and specifications to meet product schedules, and to attain market acceptance.

Don explained that there are currently two (2) Industry Specific groups that formed inside the ISTO e.g., Medical Device Communications Industry Group (MDCIG) [1] and a new one called the Printer Working Group. The ISTO is in discussion with another nine (9) and they have talked to fifty (50) since inception. The IEEE-ISTO would like to sign on 2-3 groups in 1999.

Simon indicated he was interested in having the IEEE-ISTO review the Bluetooth Special Interest Group needs for an Interoperability Administrator. This interoperability would be at the API Layer or rather Usage Model to Usage Model and Manufacturer to Manufacturer. The group decided that the Bluetooth Special Interest Group should submit a "Terms List" to the IEEE-ISTO 2H99 to help determine the value proposition. Simon indicated that the SIG was not interested in the ISTO handling "General Promotion, Marketing, and Press Relations".

http://www.ieee-isto.org

8. Bluetooth Special Interest Group

Simon provided a short background on the Bluetooth Special Interest Group.

Bluetooth is the codename for a technology specification for small form factor, low-cost, short range radio links between mobile PCs, mobile phones and other portable devices. The Bluetooth Special Interest Group is an industry group consisting of leaders in the telecommunications and computing industries that are driving development of the technology and bringing it to market. Bluetooth technology allows for the replacement of the many proprietary cables that connect one device to another with one universal short-range radio link. For instance, Bluetooth radio technology built into both the cellular telephone and the laptop would replace the cumbersome cable used today to connect a laptop to a cellular telephone.

Bluetooth radios operate in the unlicensed ISM band at 2.4 GHz. A frequency hop transceiver is applied to combat interference and fading. A shaped, binary FM modulation is applied to minimize transceiver complexity. The gross data rate is 1Mb/s. A Time-Division Duplex scheme is used for full-duplex transmission.

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[1] The Medical Device Communications Industry Group was formed to accelerate, promote, and support the activities of the IEEE 1073 (Medical Information Bus) Standards Committee of the IEEE Standards Association, and to foster adoption of the IEEE 1073 family of standards by medical device vendors and healthcare providers.

The Bluetooth Special Interest Group (SIG) was formed by five (5) Promoters e.g., Ericsson AB, IBM Corporation, Intel Corporation, Nokia Corporation, and Toshiba Corporation. Simon informed us that there were ~760 Adopter [2] Organizations. He explained that we can segment this large number of participants into Promoters a.k.a. SIG (5), Users (?), Implementers (?), Radio Chip Manufacturers (6), and Other (?).

Simon discussed Bluetooth Problem Statements, etc.
- Formed May 20, 1998, goal to have product available (limited) in two (2) years i.e., May00
- Generate Revenue; not a charity
- Globally available
- Driver - Understand Usage Models and provide positive end-user value
- The Bluetooth Special Interest Group is not a magic formula for bring technology to market

Simon said that the Bluetooth Special Interest Group operates on the "super majority" or no vetoes process. That is to say the SIG makes decision at the working group session level and the SIG rarely gets involved and if they do then it four out of five that decides.

http://www/bluetooth.com

9. Open Discussion

The Bluetooth Special Interest Group is interested in two (2) parallel activities with the IEEE. The first is working with the IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) submitting, via a license, the Layer 1 and 2 of the Bluetooth Protocol Stack to P802.15 as a draft standard and the second is having the IEEE-ISTO respond to the Interoperability Administrator or box to box testing issue.

10. Next Steps

The following will summarize the next steps from this meeting:

WHAT	WHO	WHEN
Send out minutes from meeting	Ian Gifford	4Jun99-
Continue Liaison with IEEE P802.15	Ian Gifford	ongoing
Bluetooth SIG to contact IEEE-ISTO to advise on the next steps on "contracting" the ISTO for Testing Standards.	Simon Ellis	2H99

11. Conclusion

Don Loughry & Jim Carlo thanked Simon Ellis for his continued interest in the IEEE.

The meeting was adjourned at 10:00am PDT.

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[2] Bluetooth Adopters Agreement Form which is a patent license agreement among parties wishing to adopt the Bluetooth Specification. As of May 21, 1999 there were approximately 760 Adopters on record.

Appendix A

IEEE Industry Standards and Technology Organization

[Don Loughry pitch requested 31May99 from Peter Lefkin (author); when received I will forward this document to the participants]

Appendix B

IEEE Industry Standards and Technology Organization
Affiliated with the IEEE and the IEEE Standards Association

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IEEE-ISTO Overview

The IEEE Industry Standards and Technology Organization (IEEE-ISTO) was established on 1 January 1999 as an independent not-for-profit corporation, tax exempt under Section 501(c)(6) of the U.S. tax code. The organization is affiliated with the Institute of Electrical and Electronics Engineers (and the IEEE Standards Association), through a license agreement which permits the IEEE-ISTO to utilize the IEEE Name and Service Marks. The formation of the IEEE-ISTO is indicative of IEEE's recognition and response to the dynamic standards development environment, and the need to be able to offer industry increased choice and flexibility through a complete menu of standards development options and services.

The IEEE-ISTO offers industry groups (e.g., consortia, special interest groups, alliances, forums, working groups) an innovative and flexible operational forum and support services for development and post-development standards and technology development activities. The IEEE-ISTO operates as an umbrella organization to provide the legal forum for industry groups to operate, without the need to incorporate themselves as a legal entity.

The IEEE-ISTO has been formed as a self-supporting organization, through fees for services provided to industry groups. Each group establishes and approves its program budget and services dependent upon the group's priorities, requirements, and funding. Operational services may be purchased from the IEEE-ISTO on an as needed basis.

The IEEE-ISTO enables developers to define their unique rules and procedures to build a foundation tailored to the technology, the market, the participants, the required time-frame, and the financial and human resources available to achieve their goals. The organization provides a forum not only to develop standards, but also to facilitate the activities that support the standard in the marketplace.

IEEE-ISTO Offerings and Secretariat Services

The IEEE-ISTO provides the legal infrastructure (and support services) under which industry-specific programs and related technology development activities (e.g., Marketing, Certification, Standard Development, Interoperability Demonstrations, Branding, Conformity Assessment, Cooperative Research) can be organized. The IEEE-ISTO is structured to facilitate cost-effective, stable programs in support of any new or emerging technology that requires rapid development of standards and specifications to meet product schedules, and to attain market acceptance.

The IEEE-ISTO provides a complete menu of comprehensive management and operational services, from formation to ongoing facilitation, administration and management of an industry group's daily activities. The services required and provided can be scaled and tailored to meet the needs and objectives of each group, on an as needed basis.

The IEEE-ISTO can provide all of the ongoing support functions which allow the members and leadership to focus their efforts on the goals at hand. Groups can mobilize quickly and maintain their unique identity without the need to develop their own "do-it-yourself" organization where technical staff, including the leadership, perform administrative and management functions on a daily basis. The earlier that industry groups engage experienced independent professionals to assist in the design and management of their organizations, the sooner the organization's founders and members can focus on the mission, by leaving the administration and management to an independent, neutral organization. The staff of the IEEE-ISTO is committed to providing this support, with a high standard of integrity and confidentiality, and can be as flexible and creative as necessary to realize the goals for the program.

Our experience in association management and governance has proven that industry groups require access to a core set of services that allow the organization to create, manage, and distribute its benefits to its membership and supporters. These core services involve a mix of traditional association management services, plus the full spectrum of electronic communications services. The IEEE-ISTO's role in the following areas could include, but are not limited to:

Formation Assistance
The IEEE-ISTO works with representatives of companies seeking to form an industry group to assist them in the formation of an entity that meets their common goals and objectives. We work with groups to create the organizational structure and business operations plan. The IEEE-ISTO can also implement the steps necessary to bring the group to the point where it is ready to publicly solicit membership and supporters.
- Develop and clarify founder's goals for the program
- Create an interim entity within the IEEE-ISTO for founders and supporters to execute and plan the formation
- Identify and develop membership benefits (including dues and structure)
- In conjunction with legal counsel:
  - Develop bylaws and/or operating procedures
  - Formulate agreements between the IEEE-ISTO and the group to formally establish the group as an entity, or program of the IEEE-ISTO. Groups enjoy the legal protections of operating within a legally incorporated, non-profit, 501(c)(6) organization, including insurance and other protections.
  - Implement anti-trust guidelines
  - Secure trademark and other property rights

Financial Management
The IEEE-ISTO can establish and coordinate management of accounts and contracts, and create an efficient accounts payable / receivable process, and regular reporting for all financial activities of the organization.

Intellectual Property (IP) Management
The IEEE-ISTO is able to coordinate and manage the administration of each organization's unique rules and procedures regarding intellectual property and the disposition and licensing of technology and patents. Unique IP procedures can be adopted and negotiated as agreed upon by the IEEE-ISTO and each industry group.

Record Keeping
The IEEE-ISTO can maintain and coordinate all records of the organization, including membership records, mailing lists, accounting records, meeting minutes, and all other information deemed appropriate to maintain.

Membership Support
At the request of an industry group, the IEEE-ISTO could develop and execute a plan for

membership recruitment, retention or support. The IEEE-ISTO is organized to effectively coordinate each organization's unique membership support needs.

Planning, Meeting Management and Forum Activities
The IEEE-ISTO can plan, organize and coordinate all of the logistics, as appropriate or required, for an organization's meetings. The IEEE-ISTO can engage the full resources of the IEEE's Meeting Planning Services to coordinate events, both large and small. Services could include: site selection and contracting, pre-registration (via web or e-mail), on-site registration, on-site logistics, room blocking, and audio/visual service contracting. Additionally, the IEEE-ISTO could coordinate your group's presence at trade shows worldwide.

Headquarters Office Services and Identity
The IEEE-ISTO is able to provide groups with a physical location, a staff resource, if necessary, and a dedicated fax and voice mail system which provides a point of contact for members, the press, and other interested parties.

Publication and Documentation Management
The IEEE-ISTO can coordinate the production, distribution, archiving, and maintenance of a group's publications and documents, in any format, or manage outside contractors performing these activities. Output from participant groups may include technical papers, standards, promotional materials, etc. The IEEE-ISTO has the ability to utilize the IEEE's tremendous publishing, distribution and documentation management resources.
Groups organized within the IEEE-ISTO will be able to develop and publish "IEEE-ISTO Industry Standards" (e.g., IEEE-ISTO "Industry Group Name (IG)" Standard for XYZ Technology (IEEE-ISTO IG 2500 1999)). The resulting standards will have the instant global recognition associated with the "IEEE" name and brand identity, and can then be submitted, as appropriate, to other standards bodies for approval or adoption (e.g., IETF, ISO, IEC, IEEE, ISO/IEC JTC1, W3C). Standards developed may be distributed as freely as the individual industry groups require and fund.
Through the close organizational connection to the IEEE Standards Association, industry groups that so choose may accelerate entry into and through that process when desired. The "IEEE-ISTO Industry Standard" could serve as the basis for an IEEE Project Authorization Request (PAR) to be submitted through the IEEE-SA's voluntary consensus process for approval as an IEEE Standard by the IEEE-SA Standards Board.

On-Line Services and Communications
The IEEE-ISTO is able to provide a full spectrum of electronic communications services for quick and effective marketing and communication among participants, including, but not limited to:
- Establish and/or maintain each group's unique web presence
- Web site creation, maintenance and continued development utilizing the latest technologies, as appropriate (e.g., CGI scripts, and back-end databases)
- Domain name service - groups are able to maintain their unique identity by registering a domain name
- Private, password protected web areas for posting "members only" information including draft standards, unapproved working documents, minutes, etc.
- E-mail list management and maintenance (Majordomo and web-based archives)
- Optional login accounts for groups who wish to administer their own web sites
- Administrative tools include: HTML validators, link checkers, "web hit" analysis) ·
- FTP site management and maintenance

General Promotion, Marketing, and Press Relations
Self-promotion of a group's efforts, and marketing the acceptance of a standard, is often one

of the key driving factors toward forming an initiative. The IEEE-ISTO can coordinate each group's activities to promote new technologies and to recruit membership.
The IEEE-ISTO is experienced in working with committees to provide support for writing, editing, and facilitating member comments and quotes for press releases; distribution via appropriate medium (e.g., Business Wire, PRNewswire, e-mail, web site); and to serve as the single point of contact for all press and other inquiries generated.

IEEE-ISTO and the Medical Device Communications Industry Group (MDCIG)

In mid-February 1999, the MDCIG was established as the first program to operate within the IEEE-ISTO. The group is organized to support and promote the activities and adoption of the IEEE 1073 (Medical Information Bus) Standards. The MDCIG provides a forum for medical device manufacturers to work together to support and accelerate the development of the IEEE 1073 Standards, as well as market and demonstrate the capabilities of standardized medical data communications.

The IEEE-ISTO is currently facilitating all aspects of the program including: web site development and maintenance; other online services including e-mail lists; contract management (MDCIG Executive Director); marketing and promotion (2 BusinessWire Press Releases, representation at the recent Healthcare Information and Management Systems Society (HIMSS) Annual Conference and Exhibition, and an interoperability demonstration at Massachusetts General Hospital); membership coordination; headquarters office services and identity. Presently there are 4 Sponsor companies - Alaris Medical Systems, GE Marquette Medical Systems, Hewlett Packard Medical Group, and Siemens Medical System. The IEEE-ISTO is presently working with the group to attract additional members.