IEEE 802 Emergency Services EC Study Group
Session Number 01
22nd September 2009

Co-located with
IEEE 802 Wireless Interim
Hilton Waikoloa Village
425 Waikoloa Beach Drive
Waikoloa, HI. 96738

Geoff Thompson Chair, IEEE 802 Emergency Services ECSG
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Agenda, minutes, documents:
https://mentor.ieee.org/802-sg-emergency-services/documents

IEEE 802 Emergency Services Study Group

OFFICERS

Geoff Thompson, Chair

TBD, Secretary

(All others will remain vacant for the time being)

IEEE 802 ES Study Group Approved Agenda

- Call to order
- Introduce new chair
- Intro estab'd participants to chair
- Selection of Secretary
- Ground rules for ECSG
  - Organization
  - Attendance policy
- Finalize sched & agenda for week
- Patent Policy
- Copyright policy for the time being
- Template issues (or not)
- Charter
- Any other administrivia
- Scott Henderson presentation
- Detailed Review of 802 EC Action
  - Review current PAR & 5 Criteria
  - Review July inputs to P&5C from other WGs
  - 802 Scope & arch relationship discussions
- Prep report for presentation to Dot 11 (& other Wgs) Tues late PM
- How to move forward
- Next meetings plans
- Adjourn

IEEE 802 Emergency Services Study Group

STUDY GROUP DECORUM

- **Please behave respectfully to all your colleagues**
- **Cell phone ringers off**
- **Wear your badge during all meetings and breaks**
- **Photography or recording by permission only (2008 SASB Op Manual 5.3.3.4)**
- **Press (i.e., anyone reporting publicly on this meeting) is to announce their presence (5.3.3.5)**

IEEE 802 Emergency Services Study Group

INTRODUCE NEW CHAIR

- **Geoff Thompson/GraCaSI Standards Advisors**
  - **<thompson@ieee.org>**
  - **Retained by InterDigital for this activity**
  - **Member Emeritus, 802 EC**
  - **Formerly 1st Vice Chair, 802**
  - **Before that Chair 802.3**
  - **Background**
    - **Hardware**
    - **Mfg, Service Planning, Corp Research, Dev, Stds**
    - **Bell Sys, Xerox, SynOptics/Bay/Nortel**

IEEE 802 Emergency Services Study Group

INTRODUCTIONS

- **Name / Employer / Affiliation**
  - **Other activity/history in 802**
  - **Interest in this activity**

IEEE 802 Emergency Services Study Group

Selection of Secretary

- **This meeting only (for now)**
- **Harry**

IEEE 802 Emergency Services Study Group

Ground rules for ECSG

- **Organization**
- **Attendance policy**

IEEE 802 Emergency Services Study Group

- **Finalize schedule & agenda for this week**

Motion:
Approve agenda as presented / modified

Moved by: _A. Thomson_
Second: _S. Henderson_

Y:__4__ N: __0__ Ab: _0___
(Procedural)

Pass

Guidelines for IEEE-SA Meetings

- **All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.**
- **Don't discuss the interpretation, validity, or essentiality of patents/patent claims.**
- **Don't discuss specific license rates, terms, or conditions.**
  - Relative costs, including licensing costs of essential patent claims, of different technical approaches may be discussed in standards development meetings.
    - Technical considerations remain primary focus
- **Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.**
- **Don't discuss the status or substance of ongoing or threatened litigation.**
- **Don't be silent if inappropriate topics are discussed… do formally object.**

If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit http://standards.ieee.org/board/pat/index.html

See *IEEE-SA Standards Board Operations Manual*, clause 5.3.10 and "Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association's Antitrust and Competition Policy" for more details.

This slide set is available at http://standards.ieee.org/board/pat/prePAR-pat-slideset.ppt

IEEE 802 Emergency Services Study Group

Guidelines for Submitted Documents

- **Copyright policy for the time being**
  There is a new IEEE-SA policy coming out regarding copyright issues on submissions and material in drafts.
- **Template issues (or not)**
  Keep things simple
  Use good sense (date submissions,
  Minimal use of company logos,
  No “Company Confidential”,
  Avoid “©” if possible)

Charter of ECSG

- **Reference final form of EC motion that was approved.**
- **(See next slide)**

Motion to form Emergency Services ECSG

As finally voted by EC on Friday

- **Request the IEEE 802 Executive Committee to create an IEEE 802 ECSG to address Emergency Services issues in IEEE 802 networks with the following objectives:**

  - Develop an architecture (scope(s) and purpose(s)) as to how to fit Emergency Services into the IEEE 802 architecture (i.e., state the problem in terms that we can deal with).
  - Define, in conjunction with upper layer SDOs, L2 requirements (including regulatory requirements)to support ES for IEEE 802 technologies
  - Develop a set of PAR/5C to satisfy the above requirements
  - Moved: Vivek Gupta
  - Seconded: Pat Thaler

  - Result: 14/0/0 PASS

Strawman new Scope & Purpose

- Scope of Proposed Standard:
- This standard will define mechanisms that support compliance within IEEE 802 to civil authority requirements for local and national emergency services such as citizen-to-authority (e.g. packet data encoded 911/112 calls)~~, authority-to-citizen (e.g. emergency alert broadcasts for weather or tsunami) and authority-to-authority (e.g. priority override).~~
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- This project does not propose a new MAC and PHY (A new MAC or PHY is considered to be outside the scope of the current effort.)
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- Purpose of Proposed Standard:
- This standard will define such mechanisms (e.g. structure of management information) as

  required that are within the scope of IEEE 802 as needed to support compliance to civil authority requirements for local and national emergency IP based communications such as citizen-to-authority packet data encoded 911/112 calls.

Drafting new Scope

- Scope of Proposed Standard:
- This standard will define a mechanism that supports the need for consistent data that is specifically required for citizen-to-authority emergency services packet data encoded session initiation request and support compliance within IEEE 802 to applicable civil authority requirements.
- A new MAC or PHY is outside the scope of this effort.

Drafting new Purpose

- The purpose of this standard is to support compliance to civil authority requirements complementary to IETF ECRIT specifications for citizen to authority emergency services functionality. This standard intends to encompass voice, data and multi-media requests across IEEE 802 using a new Layer 2 entity and associated behaviors and provide a uniform Structure of Management Information (SMI) for transferring required data for emergency services requests.

Wednesday PM (contin on 5C)

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Broad Market Potential

A standards project authorized by IEEE 802 shall have a broad market potential. Specifically, it shall have the potential for:

* Broad sets of applicability.
* Multiple vendors and numerous users.
* Balanced costs (LAN versus attached stations).

A: An IEEE 802 Emergency Services standard would be applicable to all 802 wireless and wireline networks and mixtures thereof which could be called upon to support emergency services requests.

B: This standard is needed to comply with existing and forthcoming multi-national regulatory requirements for all 802 access networks.

This will be extensible to enable support of emerging requirements for next generation emergency services. Next generation emergency services requirements are being generated by the emergency services operators and SDOs in concert with government authorities.

C: Implementation of changes required by this standard will affect both end and relay devices in a balanced manner.

Thursday AM (contin on 5C)

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Distinct Identity

- IEEE 802 defines a family of standards. All standards shall be in conformance with the IEEE 802.1 Architecture, Management and Interworking documents as follows: 802. Overview and Architecture, 802.1D, 802.1Q and parts of 802.1f. If any variances in conformance emerge, they shall be thoroughly disclosed and reviewed with 802.
- Each standard in the IEEE 802 family of standards shall include a definition of managed objects which are compatible with systems management standards.
- 1. The proposed project will be developed in conformance with the 802 Overview and Architecture.
- 2. The proposed project will be developed in conformance with 802.1D, 802.1Q, 802.1f.
- 3. Managed objects will be defined consistent with existing policies and practices for 802.1 standards.
- Consideration will be made to ensure compatibility with the 802 architectural model including at least 802, 802.2, 802.1D, 802.1f, 802.1Q, and 802.1X.
- Consideration will be made to ensure that compatibility is maintained with 802 security mechanisms and that existing security is not compromised.

Compatibility

1. The proposed project will be developed in conformance with the 802 Overview and Architecture. In addition it will accommodate the relay needs of the currently approved 802 wireless standards.

2. The proposed project will be developed in conformance with 802.1D, 802.1Q, 802.1f. The equivalent needed specification notations will need to be brought forth by 802.11, 802.15, and 802.16.

3. Managed objects will be defined consistent with existing policies and practices for 802.1 standards.

Consideration will be made to ensure compatibility with the 802 architectural model including at least 802, 802.2, 802.1D, 802.1f, 802.1Q, and 802.1X.

Consideration will be made to ensure that compatibility is maintained with 802 security mechanisms and that existing security is not compromised.

Distinct Identity

1. There is no single standard that provides Emergency Services citizen to authority call mechanisms and location information for all of IEEE 802.

   Existing IEEE 802 standards provide some of the individual capabilities required to meet emergency services functionality (e.g. location, connection integrity). However, current implementations are inconsistent and do not provide all of the expected capabilities.

2. The need for a unique and consistent IEEE 802 solution for emergency calls is driven by insufficient functionality for VoIP based citizen to authority emergency calls across current IEEE 802 data link standards.

3. This standard by its title will be identified as the consistent and unique IEEE 802 definition of capabilities to support citizen to authority emergency calls.

Technical Feasibility

a. The IEEE 802 portion of the functionality has been demonstrated by IEEE 802.16. There are other portions of the system functionality whose technical feasibility is outside our scope but IEEE 802 needs to provide the underlying support functions.

b. This project would reuse and harmonize existing IEEE 802 functionality and utilize extensions to existing and proven IEEE 802 functionality to provide full implementation of citizen to authority emergency services capabilities.

c. Existing IEEE 802 functions are tested and in service in commercial networks leading to a high confidence in those parts of the solution.

Economic Feasibility

a. **This project is equivalent to earlier projects in IEEE 802 which provided significant additional functionality for relatively small additions to firmware.**

b. **See a.**

c. **Installation of these features is consistent with normal software/firmware upgrades to a large portion of the installed base.**

We believe that implementation of this standard will be a small part of the implementation of the total required solution set.

Thursday AM (contin on PAR Text)

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Proposed new text for PAR

5.5 Need for the Project:

VoIP emergency calls are less effective than those provided by traditional wireline and contemporary cellular networks.

Data encoded emergency calls across IEEE 802 technologies need to support regulatory requirements to assure successful completion of these calls to the correct Public Service Access Point (PSAP), and to do so utilizing the existing set of IEEE 802 PHYs and MACs.

Proposed new text for PAR

5.6 Stakeholders for the Standard:

Emergency Service authorities and government agencies (e.g. NENA, and the equivalent bodies in ROW); IETF; other telecom, cellular and emergency services standards development organizations (e.g. IETF, 3GPP, ETSI EMTEL). Within IEEE 802, the expected stake holders will be 802.1, 802.3, 802.11, 802.16, 802.20 and 802.22 as potential layer 2 alternatives and 802.21 for related handover development.

Proposed new text for PAR

Intellectual Property

6.1.a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR prior to the PAR submittal to the IEEE-SA Standards Board? Yes

If yes, state date: 2009-09-22

If no, please explain:

6.1.b. Is the Sponsor aware of any copyright permissions needed for this project? No

If yes, please explain:

6.1.c. Is the Sponsor aware of possible registration activity related to this project? No

If yes, please explain:

Thursday AM Final Items

- Next meetings
- During the Atlanta Plenary
  (Activity will be refining PAR & 5C and pitching project to the other WGs)
- January Interim
- Will be co-located with 802.16 et al at La Jolla (San Diego), CA, Jan 11 – 14, 2010
  (Interim sponsor is IEEE 802)
- Adjourn at 12 Noon.