Summary of Emergency Services Workshop

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Abstract

Standards Development Organisations (SDO) Emergency Services Coordination Workshop (ESW06)

Workshop Details

- **Workshop organised by IETF ECRIT, trying to neutrally address all fora and organisations looking at the emergency service support for wireless communication systems. (5th and 6th October 2006 – New York)**

- **Webpage:**
  http://www.ietf-ecrit.org/EmergencyWorkshop2006/
- **Agenda:**
  http://www.ietf-ecrit.org/EmergencyWorkshop2006/agenda.html
- **Slides:**
  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/
- **Participants:**
  http://www.ietf-ecrit.org/EmergencyWorkshop2006/participants.html
- **Pictures:**
  http://www.ietf-ecrit.org/EmergencyWorkshop2006/pics/

- **3GPP**

  - Service requirements from 3GPP TS 22.101

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/
  Service_requirements-ESW06.ppt

  - Architecture = IMS (centralised)

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/
  3GPP IP Based Emergency Calls.pdf

  - Protocol Details from 3GPP TS 24.229

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/
  3GPP-Protocol_details.ppt

- **3GPP2**
  - S.R0115 "All IP-Network Emergency Call Support" - Stage 1 requirements, produced by TSG-S; recommended for publication on Sept. 14, 2006
    - http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ 3GPP2 IP Based Emergency Calls.ppt

- **IEEE 802.11**
  - Emergency Service Identification (IEEE 802.11u)
  - Location (IEEE 802.11k and IEEE 802.11v)
  - Unauthenticated Network Access (IEEE 802.11u)

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/IEEE Update2.ppt
  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ 11-06-1563-00-0000-emergency-services-workshop-update.ppt

- **IEEE 802.1AB - Link Layer Discovery Protocol**
  - A standard and extensible multi-vendor protocol and management elements to support network topology discovery and exchange device configuration and capabilities

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ ESW06 - IEEE LLDP overview.ppt

- **LLDP-MED (TIA)**
  - Extension to base IEEE 802.1AB (LLDP) standard to support multi-vendor interoperability between VoIP endpoint devices and IEEE 802 networking infrastructure elements, including physical location discovery (among other things)

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ ESW06 - TIA LLDP-MED Location overview.ppt

• **IETF ECRIT/GEOPRIV**

- ECRIT working since 2004
- Building off of the GEOPRIV work and architecture
- And the 'sipping-emergency' design team of SIPPING
- Initial focus on using location information to learn how to direct emergency calls on the Internet
- architecture = localised

- IETF ECRIT Architecture
  - http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/IETF-Overview.ppt
- SIP Location Conveyance:
  - http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/SIP_Location_Conveyance.ppt
- Emergency Services Identifiers
  - http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ESW06-service-urn.ppt
- LoST and LoST Architecture
  - http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ESW06-LoST.ppt
- DHCP Civic & Geo
  - http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ESW06-civic.ppt
  - http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/Geo DHCP Option 123 for LCI.ppt
- Geopriv L7 LCP
  - http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/L7LCP-ESW06.ppt

- **NENA = North American Emergency Number Association**
  - Sets standards (among many other things) for emergency calls in U.S./Canada
  - Next Generation 9-1-1 project
    - Complete overhaul of the entire 9-1-1 system
    - Based on IP
    - Includes changes to processes, funding, training, etc, etc
    - The initial version of the technical standards part is known as "i3"
  - Architecture and solutions based on IETF protocols

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ NENA NG911 arch for SDO workshop.ppt

  Note: NENA sent an liaison to IEEE 802, regarding location issues

- **TIA TR-45**
  - **Develops performance, compatibility, interoperability and service standards for mobile and personal communications systems**
  - **Joint effort between TIA TR-45.2 AHES and ATIS WTSC (formerly T1P1) to develop Emergency Services Standards**
  - Requirements

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/TIA TR-45.pdf

- **OMA**
  - Mentioning of Mobile Location Services, Secure User Plane for Location, Mobile Location Protocol, Roaming Location Protocol, Privacy Control Protocol
    http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ OMA-LOC ES Coordination WorkshopR01.ppt

- **ITU-T**
  - Work focused on Telecommunications for Disaster Relief and Early Warning

    http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ TDR in ITU-T Oct 06.ppt

- **ETSI EMTEL**
  - Special Committee on Emergency Communications
  - Act as a key coordinator in getting requirements on Emergency Communications, outside ETSI (i.e. from different stakeholders) and inside ETSI (i.e. ETSI Bodies).
  - Provide requirements on issues of network security, network integrity, network behaviour in emergency situations, and emergency telecommunications needs in networks http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ EMTEL Presentation_ECRIT 200.ppt
- **OCG**
  - The Open Geospatial Consortium, Inc. (OGC) is a non-profit, international voluntary consensus standards organisation that is leading the development of standards for geospatial and location based services.
  - http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ 2006 OGC GML Info for October SDO Coordination Meeting.ppt

- **EU Commission**
  - Presentation on the EU Regulatory Framework
  - Discussion on establishment of document outlining responsibilities of different market players

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ EU-Commission.ppt

- **COMCARE**
  - US Organization Overview and pointers to OASIS standards for authority-to-authority communication.

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ Emergency Services SDO Workshop Architecture.ppt

  - Agency Locator Service Prototype

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ Emergency Services SDO Workshop Agency Locator Services. ppt

- **ESIF NGES**
    - Next Generation Emergency Services (NGES) Subcommittee created at ESIF 17 in Las Vegas
    - Provide liaison with global SDOs for the standards development coordination
    - Plans to develop stage 2/3 standards based on NENA's i3 requirements and to
    - would like to act as SDO coordinator on emergency services
    - The goal is to ensure other Standards are aware of NG9-1-1 work being done at NENA and ESIF

    http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ESIF NGES Update.ppt

- **ANSI HSSP**
    - The ANSI Homeland Security Standards Panel (HSSP)
    - Plans to offer a forum for standards and coordination
    - Aims to produce a white paper to outline key issues, emergency communications standards, identified gaps, and resources for further information/possible partnerships

    http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ANSI-HSSP - SDO Emergency Services Coordination Workshop.ppt

- **US DoT**
  - – Report about WE9-1-1 and NG9-1-1 projects

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ USDOT. ppt

- **Emergency Services Project in Austria**
  - – Emergency service project based on IETF protocols

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ AT_PROTOTYP_FIELDTEST.ppt

- **Emergency Services Prototype**
  - – Prototype by Columbia University
  - – Presentation about learned lessons

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ NG9-1-1 Prototype Demo.ppt

  http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/ ESW06-lessons.ppt

Major Open Issues and Disagreements

- **Top Line: So many overlaps and ignorance**

- **Architectural:**
  - Providing emergency service support also for VoIP providers that are not access network providers.
- **Sending location information to the end host.**
- **Who should develop which protocols.**
- **Role of a "global coordinator**
  - High level for a ??
  - Technology standardisation bodies ??
- **Network Push "Emergency Alerts" are coming.**

Next Steps

- **Schedule another workshop**
  - Timeframe: min. 6 months
    (if enough new work can be reported about)
  - Potential host: US Department of Transportation
- **Inform other SDOs about the work we do.**
  - Using the es-coordination@cs.columbia.edu mailing list
  - Register at:

    https://lists.cs.columbia.edu/cucslists/listinfo/es-coordination
- **Request feedback from other SDOs regarding our documents**
- **Setup topic-specific liaisons, if necessary.**
- **Perform workshops with SDOs on selected topics (e.g., OMA and IEEE).**

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