

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](http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/3GPP2%20IP%20Based%20Emergency%20Calls.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/IEEE%20Update2.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](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](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](http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/NENA%20NG911%20arch%20for%20SDO%20workshop.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](http://www.ietf-ecrit.org/EmergencyWorkshop2006/slides/TIA%20TR-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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