

Welcome to the World of Standards



STF489 - Total Conversation for Emergency Communications

Presentation to IETF#93 -20th July 2015 / Prague -CZ

Ban Al-Bakri

Outline of the Presentation



- STF489 -Total Conversation for emergency communications
- Why STF489?
- What is Total Conversation for Emergency Communications?
- Benefits of Total Conversation for emergency communications
- STF489 Goals
- Current status of standardisation
- Issues potentially impacting IETF
- Contact details
- Annex



STF489 - Total Conversation for emergency communications



➤ STF489 reports to ETSI SC EMTEL

➤ Team Members

🌐 Ban Al-Bakri Team Leader

🌐 Craig Bishop Technical expert

🌐 Gunnar Hellström Rapporteur/
 Technical expert

➤ STF489 web-page:

https://portal.etsi.org/stfs/STF_HomePages/STF489/STF489.asp

➤ STF489 is co-financed by the EC/EFTA

➤ STF489 timeline:

- STF 489 has started its activities March 1st


2015.



Why STF489?




- EU policy and the Domain 3 (e-Inclusion) of the EC ICT Standardisation Work Programme 2010-2013, requires that Total Conversation be supported for communications between citizens and emergency services.


 DIRECTIVE 2009/136/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 November 2009. Article 26.4:

- *“Member States shall ensure that access for disabled end-users to emergency services is equivalent to that enjoyed by other end-users. Measures taken to ensure that disabled end-users are able to access emergency services whilst travelling in other Member States shall be based to the greatest extent possible on European standards or specifications published in accordance with the provisions of Article 17 of Directive 2002/21/EC (Framework Directive), and they shall not prevent Member States from adopting additional requirements in order to pursue the objectives set out in this Article.”*



 Domain 3 (e-Inclusion) of the EC ICT Standardisation Work Programme 2010-2013:

- *“New areas for standardisation activities (deliveries: Workshop Agreements or Technical Reports) Accessibility of and interoperability of related solutions for Total Conversation (including text telephony).”*

 Draft Rolling Plan for ICT standardisation (proposed outline of 29/5/2013):

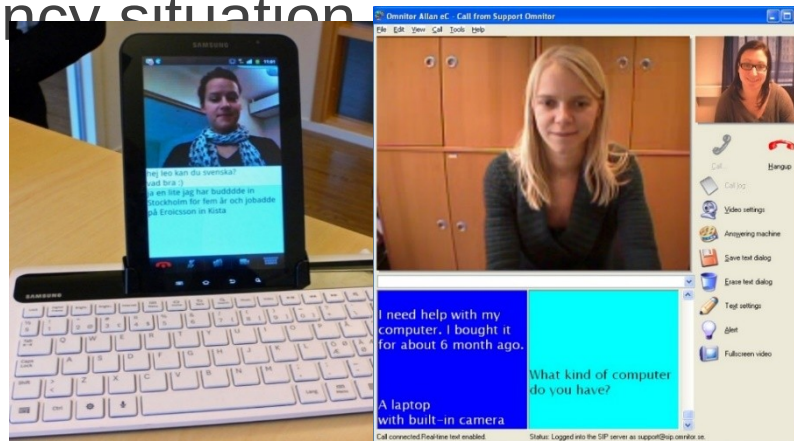
- *“The lack of commonly agreed standards in support of electronic communications networks for the emergency call service in Europe is a barrier for implementing future proof solutions which fulfil the requirements of amended Universal Service Directive 2002/22/EC.”*



What is Total Conversation for Emergency Communications? (1/2)



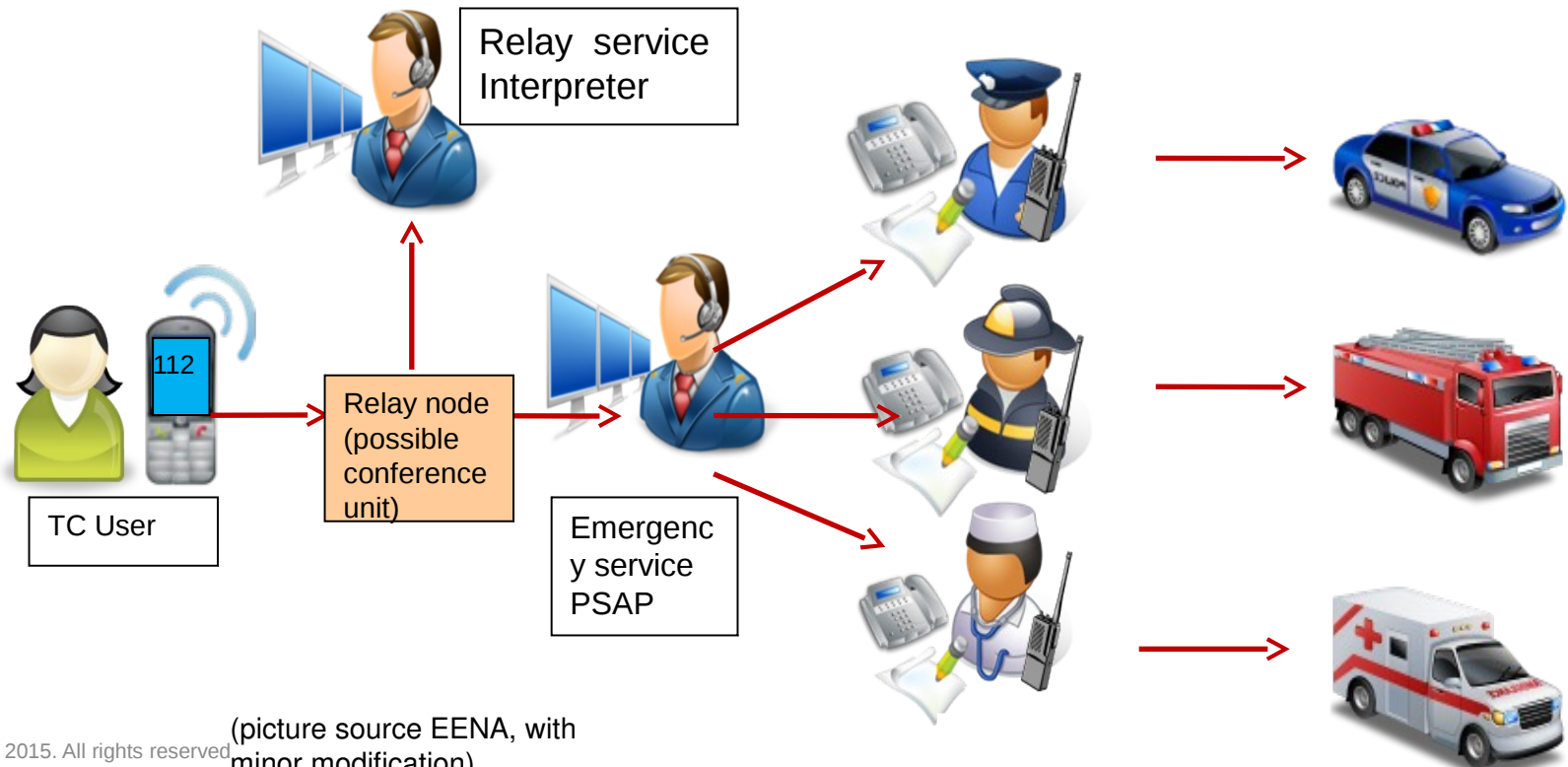
- Total Conversation (TC) is a Multimedia Call with Video, Real-time text and Audio
- necessary for deaf, hard-of-hearing, deaf-blind, speech-disabled etc, who require real-time text for texting or video for sign language.
- TC for Emergency communications is TC calling PSAP in case of emergency situation



What is Total Conversation for Emergency Communications? (2/2)



- A **Relay service** is required when PSAP does not support TC user preferred language / modality
- Relay service could be invoked by User, Application Service Provider, or PSAP during call establishment, or by PSAP once call has been established
- Optimum case: all parties get all media from each other



(picture source EENA, with minor modification)

Benefits of Total Conversation for emergency communications



Video can be used for:

- making TC user feel confident by being able to see the call taker
- PSAP-operator to assess the situation visually and decide on a more precise action
- Sign-language to/from the TC user and the PSAP or Relay service

Real Time Text can be used for:

- for accurately and rapidly conveying exact details such as *addresses, names, medicinal doses, etc. (e.g. compared with voice spelling)*
- whole conversations or in one direction, e.g. with voice in the other direction depending on user's capabilities
- initial communication, e.g. while waiting for a relay service to be added to the call for communication with a sign-language user

Audio can be used in combination with other media for:

- assessing background information (noise, voices, etc.)
- one way communication, e.g. by deaf user able to read text or lip read video communication from PSAP
- Two way speech with the other media as useful complements

- Provide a Technical Report TR 103 201 providing implementation guidelines:
 - 🌐 Assist ETSI SC EMTEL to coordinate with other standards bodies and relevant stakeholders so that the recommendations of ETSI TS 101 470 and ETSI TR 103 170 can be implemented.
 - 🌐 Assess if Total Conversation requirements are fulfilled by other necessary standards, and that there are no gaps or contradictions, in particular the document covers:
 - Assessment of 3GPP and IETF standards to support Total Conversation.
 - IETF and 3GPP changes required to support Total Conversation.
 - Guidance for developers, PSAPs, users.



- Coordinate and raise awareness with various standardisation-bodies and stakeholders :
 - relevant 3GPP committees (SA1, SA2, CTx)
 - IETF (ECRIT and SLIM)
 - GSM Association, for network operators' acceptance of Total Conversation.
 - ETSI TC HF
 - European Emergency Number Association (EENA), British APCO, PSCE Forum, World Federation of the Deaf and other stakeholders that may be identified in the course of the activity.



- ETSI Emergency Communications (EMTEL) Total Conversation Access to Emergency Services
 - Technical Report: TR 103 170
 - Technical Specification TS 101 470
- 3GPP specifications: Mobile and fixed IMS networks.
 - IMS Multimedia Telephony covers the requirements of TC
 - IMS Emergency Sessions specifies the support for TC in emergency calls
- IETF specifies SIP based emergency calling
 - Total Conversation is referenced in RFC 6443 (*Dec 2011-Framework*) and 6881 (*March 2013-Best Current Practice*)
 - ECRIT: Additional Data Related to an EMC <https://tools.ietf.org/html/draft-ietf-ecrit-additional-data-32> (need to include a way to indicate the assisting service and then be approved)
 - Selection of Language for Internet Media (SLIM) <https://datatracker.ietf.org/doc/charter-ietf-slim/>
- ETSI HF ES 202 975 specifies requirements for Harmonised Relay services
- EENA NG 112 LTD specification for IP based Emergency Services

Inclusion of assisting services

- Same as per non-emergency sessions?
- ... but solution has to work in roaming and non-roaming scenarios
 - *some jurisdictions may not allow PSAPs to contact assisting services in different countries*
 - *How to dispatch emergency service if the assisting service or the PSAP is in a different country (language, contact info and authority issues)*
- How to indicate/identify?
 - Explicit indication by TC user?
 - Explicit indication in user profile?
 - Implicit indication using language / modality tags?



→ Continued...

- How to include?
 - Conference invoked by PSAP, TC user, or Application Service Provider?
 - Need to ensure location and caller identity information are provided transparently to PSAP
- Availability and Trust?
 - 24/7 and Trusted by the PSAP

Routing to the most appropriate PSAP

- Should consider location, media, modality /language

All 3 media in every TC emergency session should be available!

What about automatic Speech to Text

© ETSI 2012. All rights reserved. **transcription application?**



Thank You!



Contact Details:

Ban Al-Bakri

Ban.Al-Bakri@etsi.org

Craig Bishop


craig@bishop-consulting.co.uk

Gunnar Hellström


gunnar.hellstrom@omnitor.se

Thank you!


➤ **About ETSI:**

 *ETSI produces globally-applicable standards for Information and Communications Technologies (ICT), including fixed, mobile, radio, converged, broadcast and internet technologies and is officially recognized by the European Commission as a European Standards Organization. ETSI is a not-for-profit organization whose Member Organizations benefit from direct participation and are drawn from countries worldwide. For more information, please visit: www.etsi.org*


➤ **About ETSI Specialist Task Forces (STF):**

 *STFs are teams of highly-skilled experts working together over a pre-defined period to draft an ETSI standard under the technical guidance of an ETSI Technical Body and with the support of the ETSI Secretariat. The task of the STFs is to accelerate the standardization process in areas of strategic importance and in response to urgent market needs. For more information, please visit the [STF home page](#)*

➤ **EU co-financed**

 *The work carried out in STF 489 is co-financed by the EC/EFTA in response to the EC's ICT Standardisation Work Programme.*

➤ **Disclaimer**

 *This information is based upon STF489 working assumptions. The views expressed do not necessarily represent the position of ETSI in this context.*