

Real-time text IETF specification refinements

IETF ECRIT

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Presented drafts

<http://www.ietf.org/internet-drafts/draft-hellstrom-text-conference-01.txt>

<http://www.ietf.org/internet-drafts/draft-hellstrom-textpreview-06.txt>

<http://www.ietf.org/internet-drafts/draft-hellstrom-text-turntaking-02.txt>

<http://www.ietf.org/internet-drafts/draft-hellstrom-txtgwy-01.txt>

Real-time text – an important medium in emergency calls

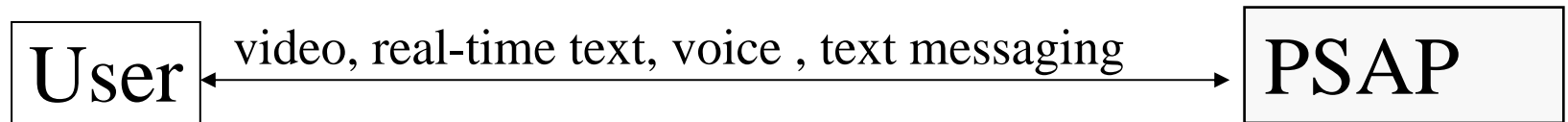
- Transmission and display essentially character –by – character
- Provides good human contact.
- Used for the whole call, or just small parts requiring exact information.
- Combined with other media according to user needs. – real-time text, video, audio.
- Mode translation can be handled in relay services if so wanted.

Basic existing specifications

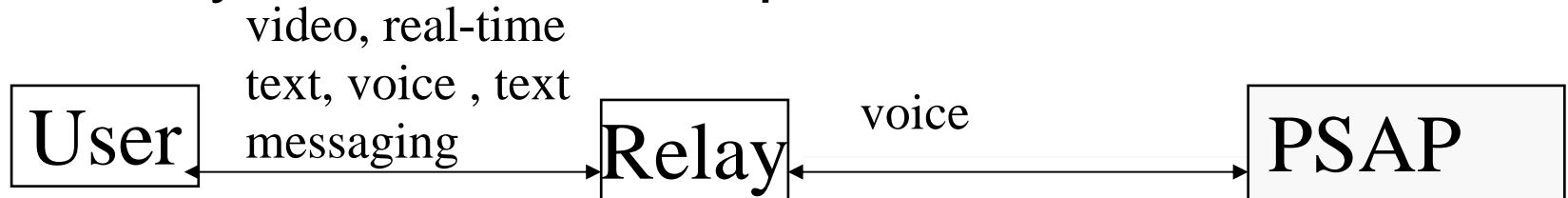
- ITU-T T.140 Presentation of Real time text
- IETF RFC 4103 RTP payload for real-time text
- IETF RFC 5194 Framework for real-time text in SIP
- IETF RFC 5012 Emergency service requirements.
- 3GPP TS 26.114 IMS Multimedia Telephony

Three principles for accessible emergency calls

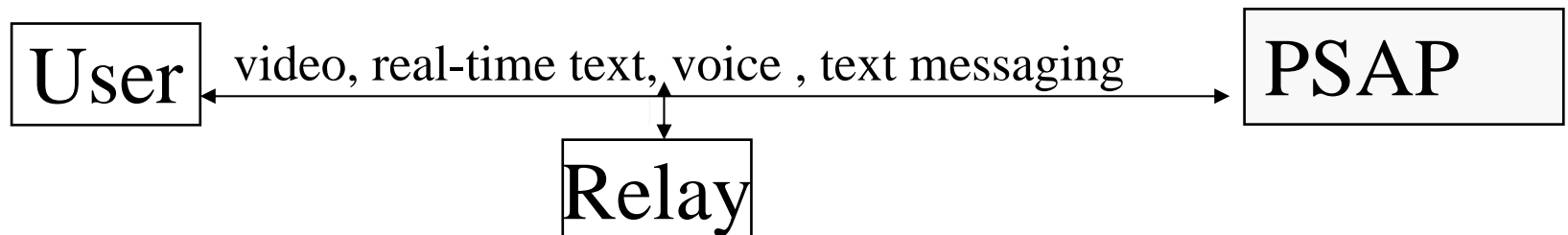
1. Direct media interaction User <> PSAP



2. Relay services intercept media interaction



3. Relay services participate in media interaction



Three principles for relay service invocation in emergency calls

- By manual user request
- By network routing evaluation (user profile etc.)
- By manual PSAP request

- Requirements
 - Same mechanism must work for call-back
 - Same emergency number as for other users
 - Location information must be correctly conveyed
 - General emergency call principles must not block needs from this mechanism for call diversion, three-party call setup.

Refinements of real-time text in IETF drafts

- New drafts in IETF on details in real-time text
- Main purpose: increase opportunity to have a consistent view of the text dialogue.
- Currently individual drafts. Announced in ECRIT, Dispatch, AVT.

draft-hellstrom-text-conference-01

- Purpose: agree on method for multi-party real-time text. Good for relay service inclusion.
- Two options for marking source of RFC 4103 text:
 - RTP Translator, separate SSRC per source
 - RTP Mixer plus new defined source identifier inline in media. Use ITU-T T.140 coding.
- Preferred result: Discussion and agree on one method.

draft-hellstrom-textpreview-06

- Proposes presentation details for real-time text.
- Ambition: selectable layout per user, but contents of session equal.
- Sharpening up use of ITU-T T.140 Presentation of real-time text.
- New details:
 - “Hard return” and “soft return” for a kind of message structure of the text stream.
 - Scope of erasure, limited back to latest “hard return”
- The new details especially important for gateways to other forms of text communication.

draft-hellstrom-text-turntaking-02

- Legacy methods for real-time text in PSTN has lower functionality than in IP.
- IP real-time text user has full simultaneity of media and transmission directions.
- In PSTN turn-taking is needed.
- IP User need to know the difference in case of interoperability.
- Registration of a SIP media feature tag.
- To be used to tell UA.
- Of importance for PSAP if PSTN text calls are converted to real-time text in SIP and brought in to PSAP.

draft-hellstrom-textgwy-01

- Call control and media handling in gateways between SIP UA with RFC 4103 real-time text capability and PSTN textphones.
- Media negotiation.
- When to start tones on PSTN.
- How to achieve the required alternating between text and voice.
- Gateway location and inclusion in selected calls only.

Conclusions

- Real-time text has a firm base in approved specifications.
- Proposed refinements ease consistent implementation for assured interoperability.
- ECRIT may have interest to use of these drafts for assured PSAP functionality.

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