Real-time text IETF specification refinements

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Presented drafts


http://www.ietf.org/internet-drafts/draft-hellstrom-textpreview-06.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
   - User: video, real-time text, voice, text messaging
   - PSAP

2. Relay services intercept media interaction
   - User: video, real-time text, voice, text messaging
   - Relay: voice
   - PSAP

3. Relay services participate in media interaction
   - User: video, real-time text, voice, text messaging
   - Relay
   - PSAP
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.
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.
• 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.
• 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.
• 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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