

Handling 112 calls from people with disabilities



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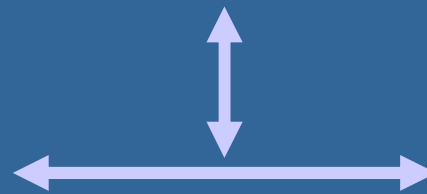
Member of EENA Advisory Board

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Some people need other modes than speech in emergency calls.
Example: Mobile video emergency call in sign language for deaf user.

(From trial "Call direct") in Sweden, funded by Swedish Telecom Agency PTS)

**Video relay service
translating
sign language <> voice**



Signing user

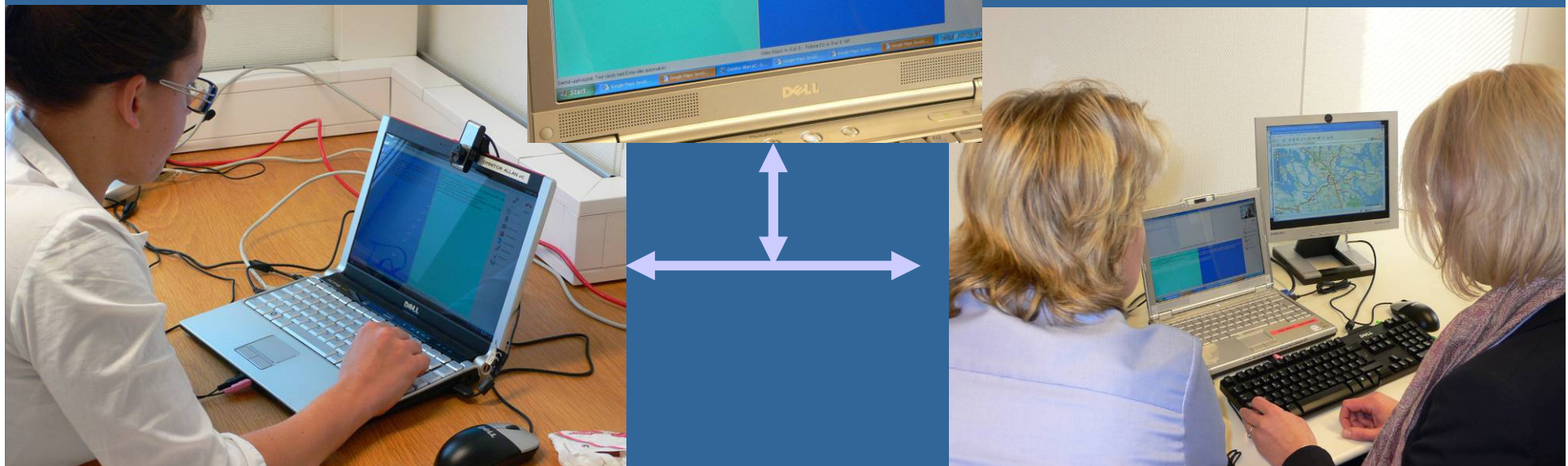
PSAP

Other users need to use real-time text
e.g. hard-of-hearing, speech-impaired

Relay service translating
text <> voice

Text user, or
Text + voice user

PSAP working with
voice seeing text

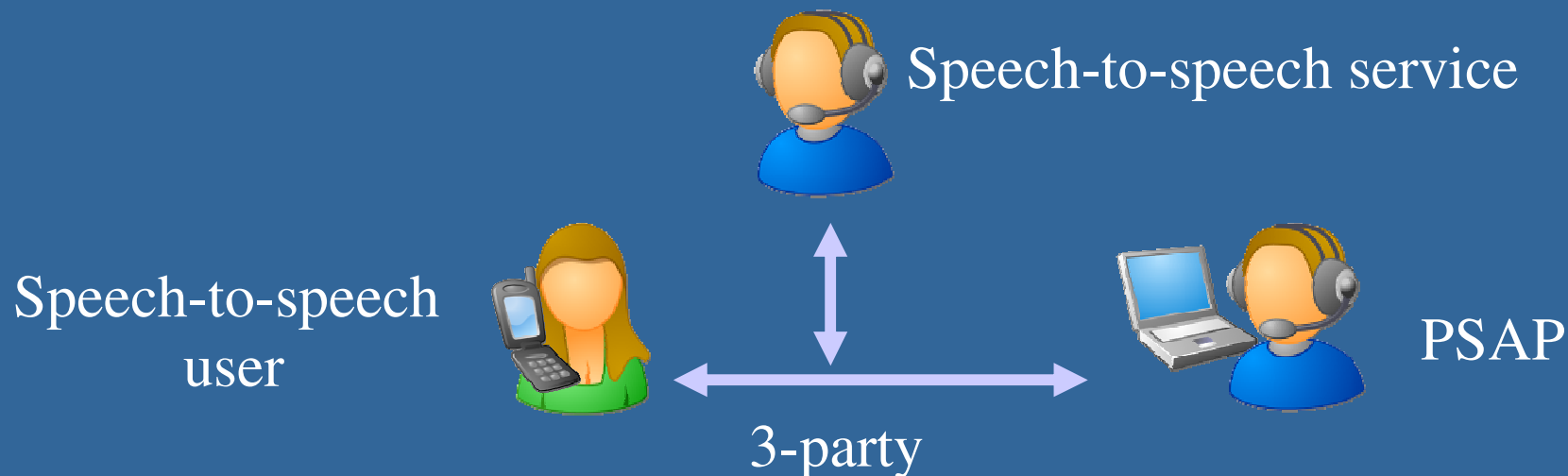


Support of two kinds of text communication

- **Real-time text: Text flows for each keystroke. Good contact. Well standardised but not widely deployed yet. Included in Total Conversation**
- Text messaging and SMS. Text transmission grouped in messages. Slow for emergency and other intensive interactions. Important because it is widely spread.

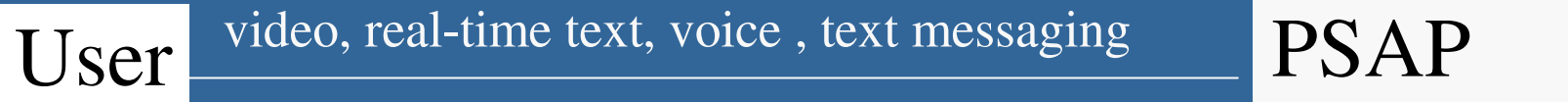
Yet others need a speech-to-speech service during emergency calls

- Speech-to-speech services support users with various speech- and cognitive disabilities
- 3-party call
- Communication assistant participates and assists when needed



Three principles for accessible emergency calls

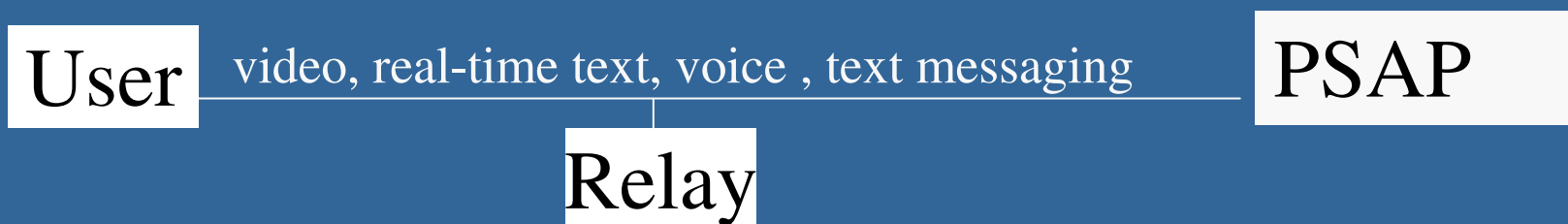
- 1. Direct media interaction



- 2. Relay services intercept media interaction



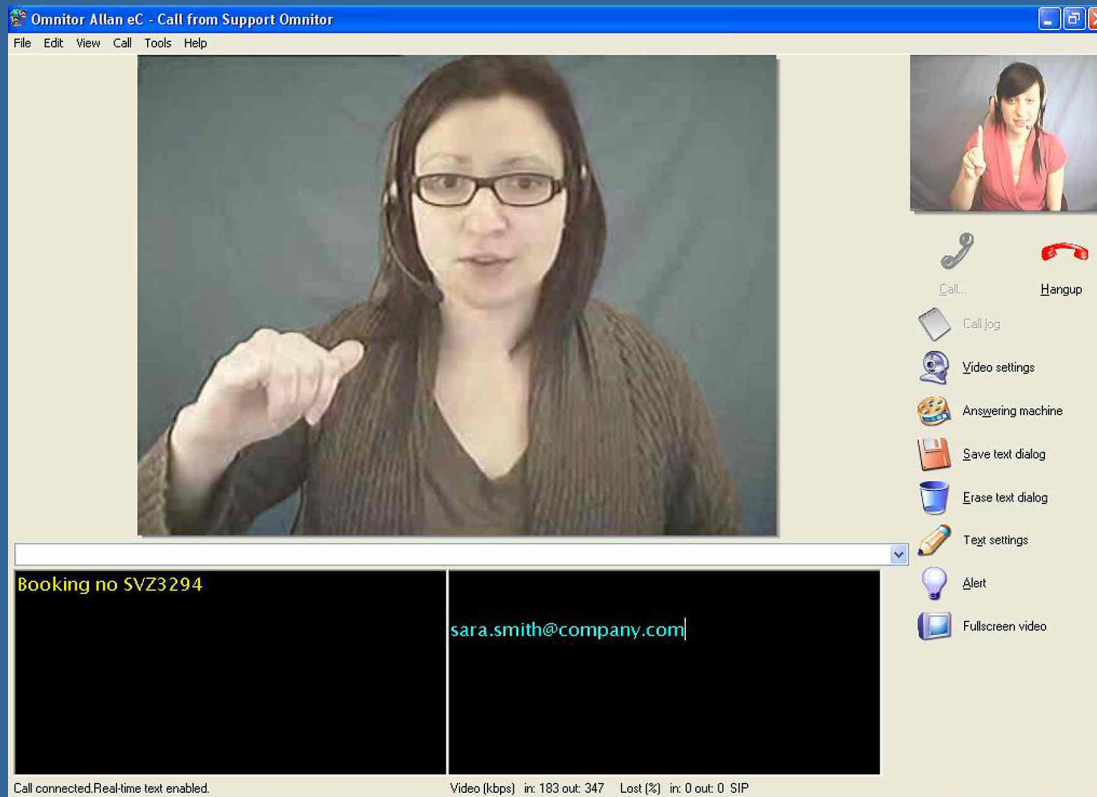
- 3. Relay services participate in media interaction



UN convention on the rights of persons with disabilities. A strong example of policy support.

- Ratified by many countries during 2008.
- Tells what **states shall** do, indicates what **all should** do.
- Many articles are valid for emergency access. E.g.
- **9.1 Right of: “Persons with disabilities to live independently and participate fully in all aspects of life on an equal basis with others in information, communications and other services, including electronic services and emergency services.”**
- **21.1 (b) Right of: “Use of sign languages, Braille, augmentative and alternative communication, and all other accessible means, modes and formats of communication in official interactions.”**

Total Conversation – part of the solution



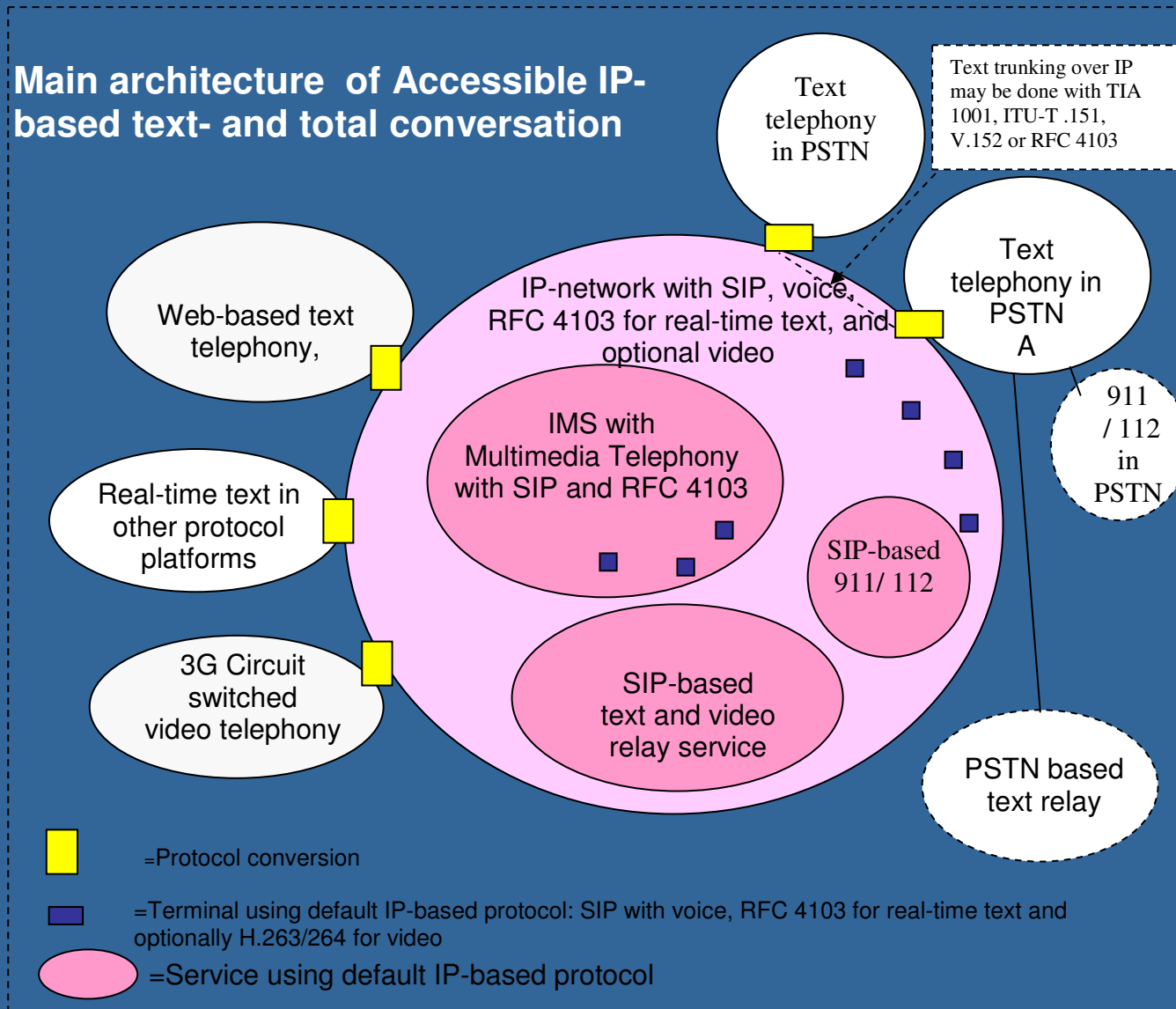
Enables consistent communication in **video**, real-time **text** and **voice** at the **same** time.

Allows gradually increased disability with same communication tool.

Good base for accessible services.

Total conversation architecture

Main architecture of Accessible IP-based text- and total conversation



New implementation action

- **European Commission funding for 3 year project: Total Conversation and Emergency Services for all.**
 - Create interoperability between users and emergency access. Provide pilot services.
 - **Project proposal "REACH112" just selected for funding.**
 - Important to interact with all countries for interoperable solutions. Gives people freedom to move in Europe with maintained emergency support also in other modes than speech.

Conclusion: The main principles for accessible emergency services

- **Provide more media simultaneously:**
 - Video, Voice, Real-time text, Text messaging.
- Provide mode conversion support through relay services.
 - Text <> speech
 - Sign language <> speech
 - Weak voice <> supported speech etc ...
- Maintain location information, priority, security.
- **Provide calling methods based on emergency number 112.**
- **Assure interoperability by using common standards.**

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