

ITU-T Workshop on “Telecommunications relay services for persons with disabilities ”

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Relay services in support of emergency calls according to the REACH112 concept

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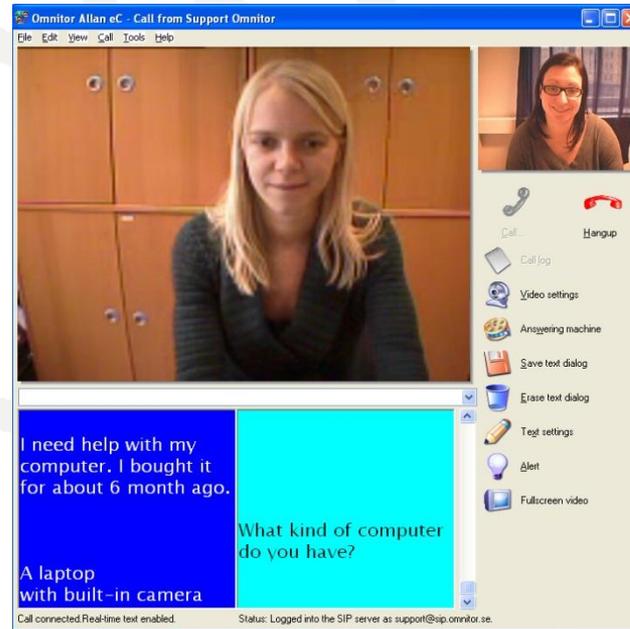
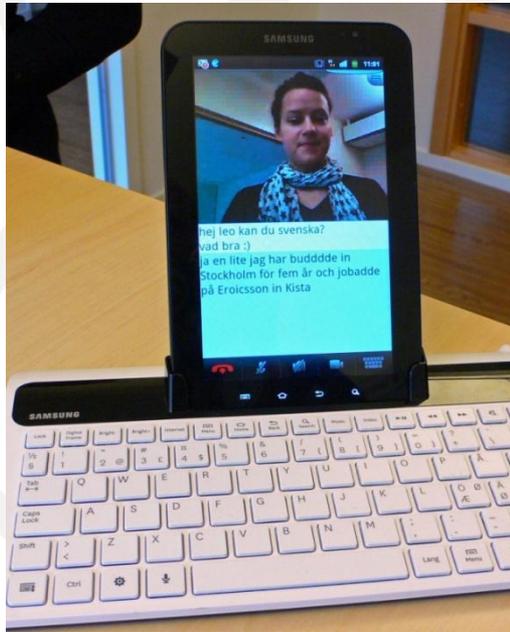
- Partly EU-funded project in the CIP PSP PolicySupportProgram, 2009-2012.
- Goal: Use Total conversation to improve:
 - Accessible user-to-user calls
 - Accessible 112 emergency services
- A practical response to requirements in EU Electronic Framework Directive and Universal Service Directive for:
 - Total conversation for equivalent service,
 - Trans-European interoperability,
 - Accessible 112 anywhere.



Total Conversation & 112 for all

Total Conversation

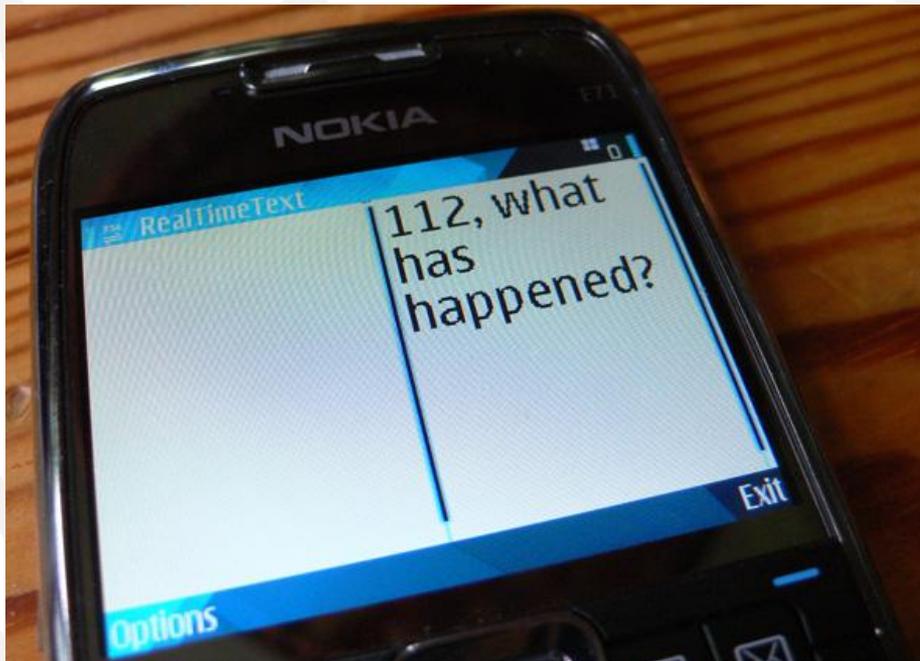
- Standardised calls with Video, Real-time text, Audio
 - ➔ Good for all. Essential for deaf, hard-of-hearing, deaf-blind, speech-disabled etc.
 - ➔ The media combination provides communication for all



Just two examples. Appearance may be different, communication protocols are harmonized, interoperable.

Real-time text

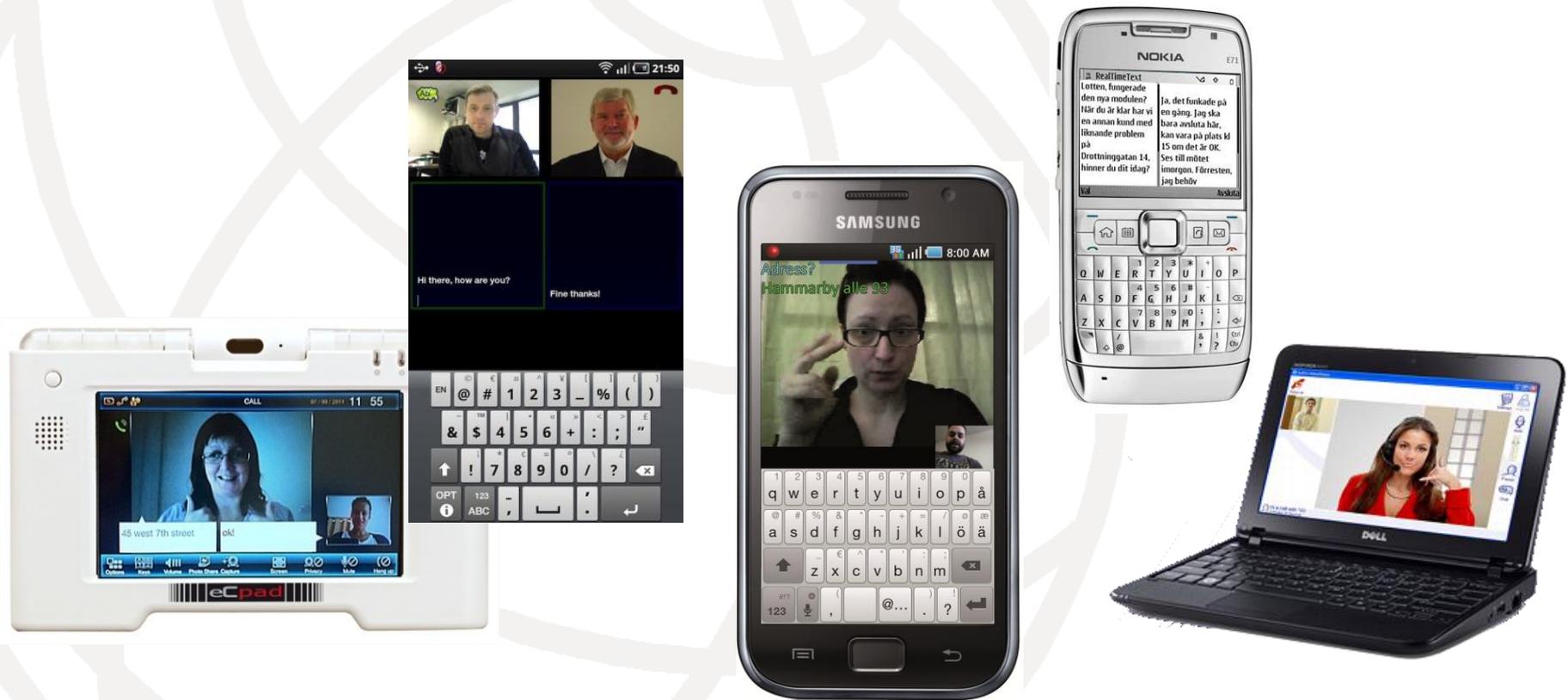
- Subset of Total conversation: Real-time text, Audio
- Same protocols. Interoperability in common media with Total conversation
- "IP Text Telephony"
- Good when video is not needed or not feasible
- E.g. for Captioned Telephony. Or call for hard-of-hearing



Multitude of solutions

– common standards

- 6 Technology providers in the project
- Interoperable solutions thanks to standards
- User terminals of different makes, different models, same interoperable communication

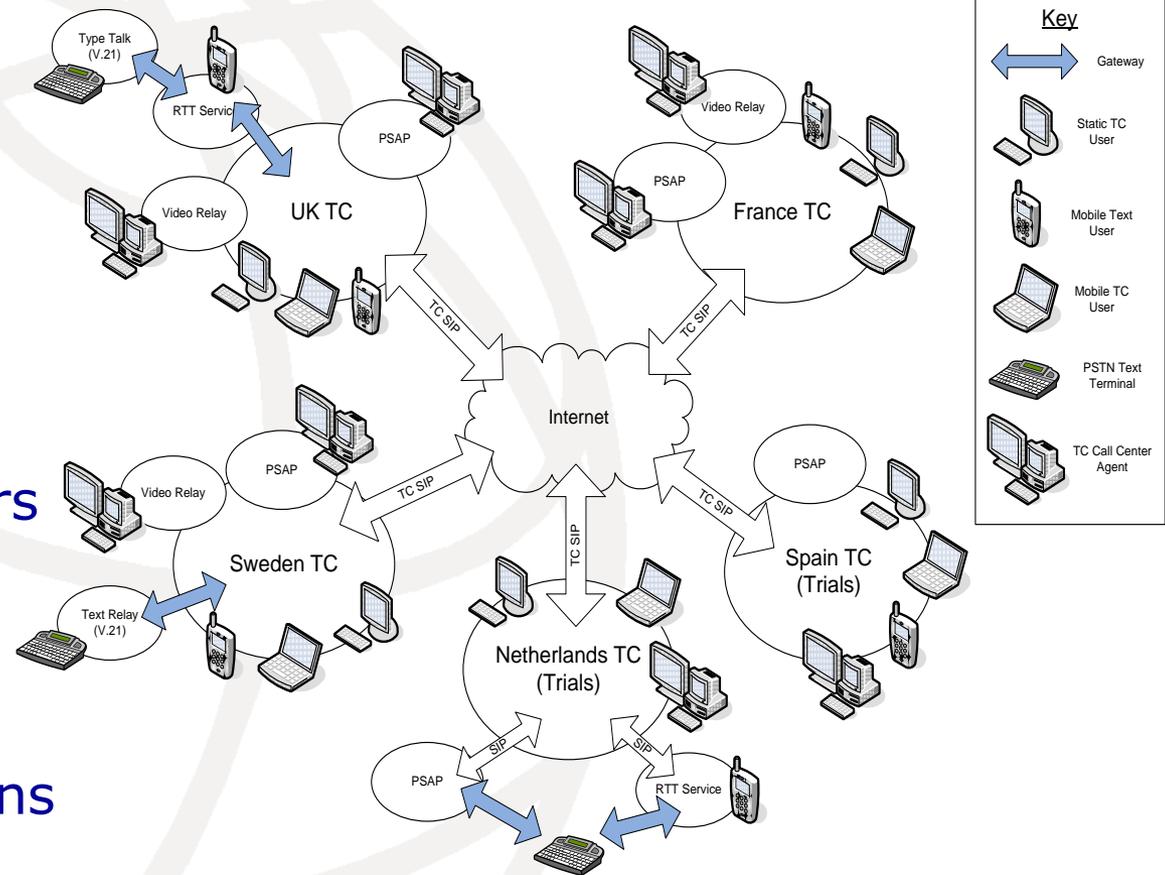


5 interoperating pilots

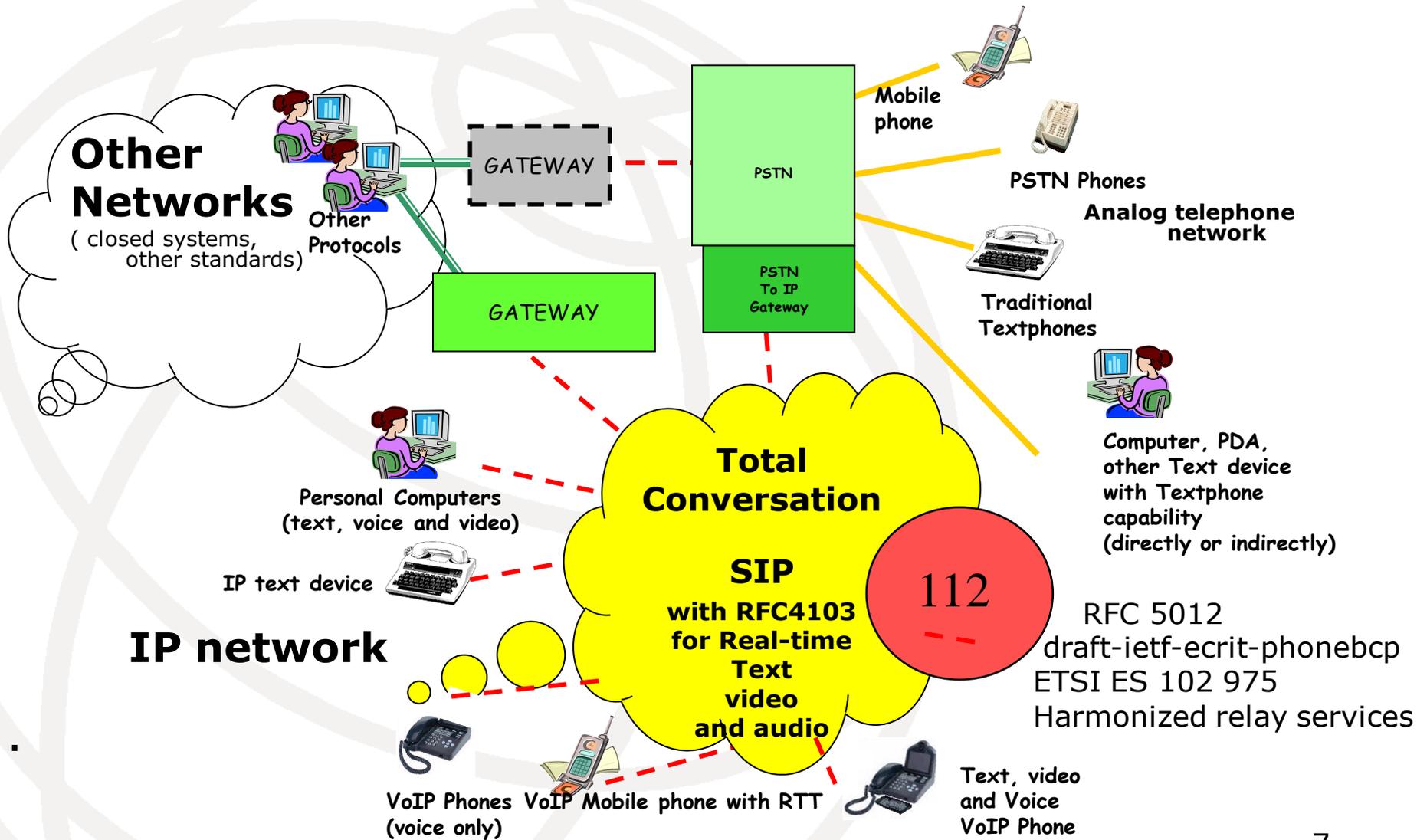
A model for Europe

- France
- The Netherlands
- Spain
- Sweden
- UK

- Technology providers
- Service providers
- Emergency service providers
- Interest organizations
- University

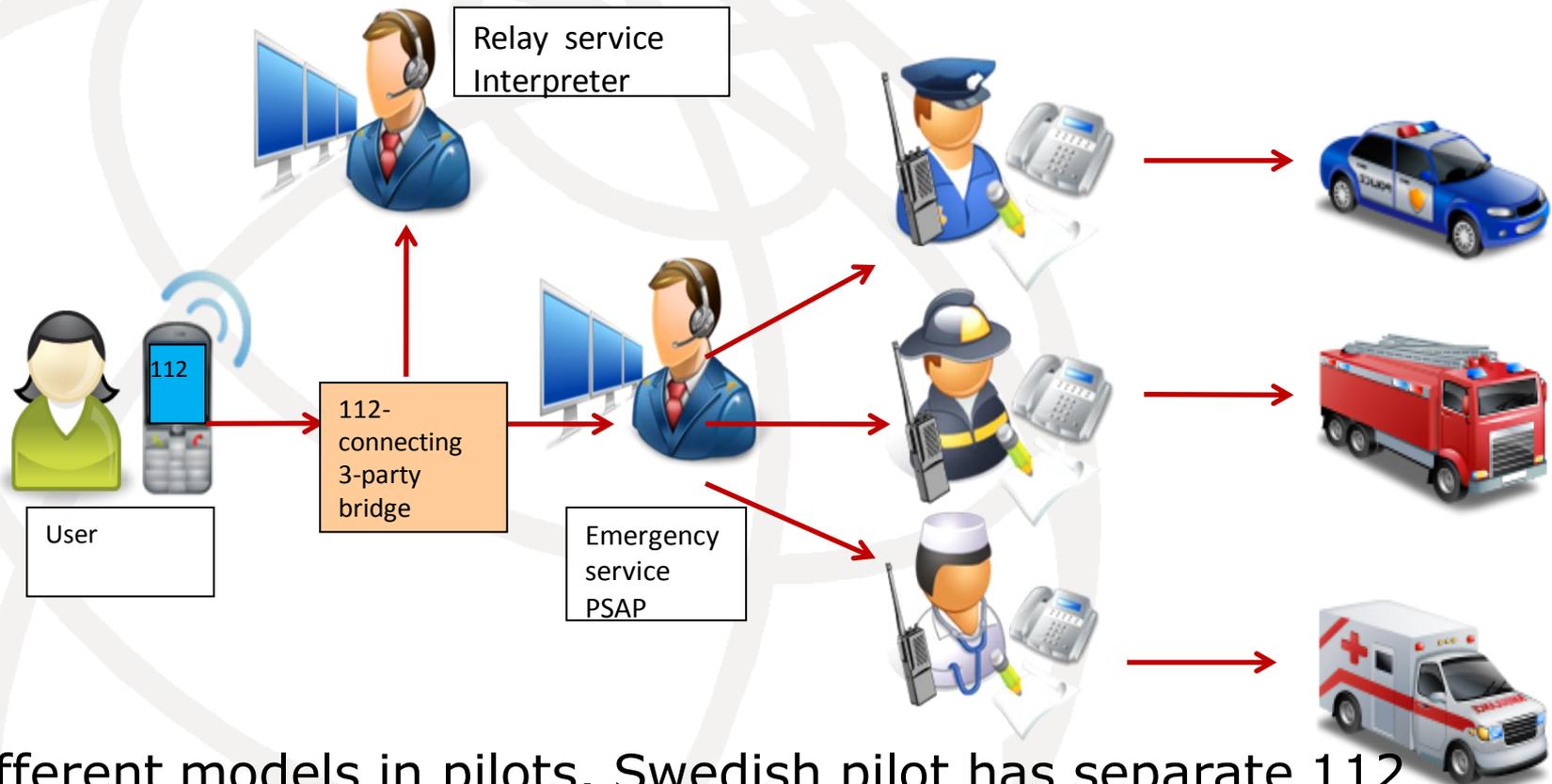


The common standards



The 112 emergency service connection with specific relay service

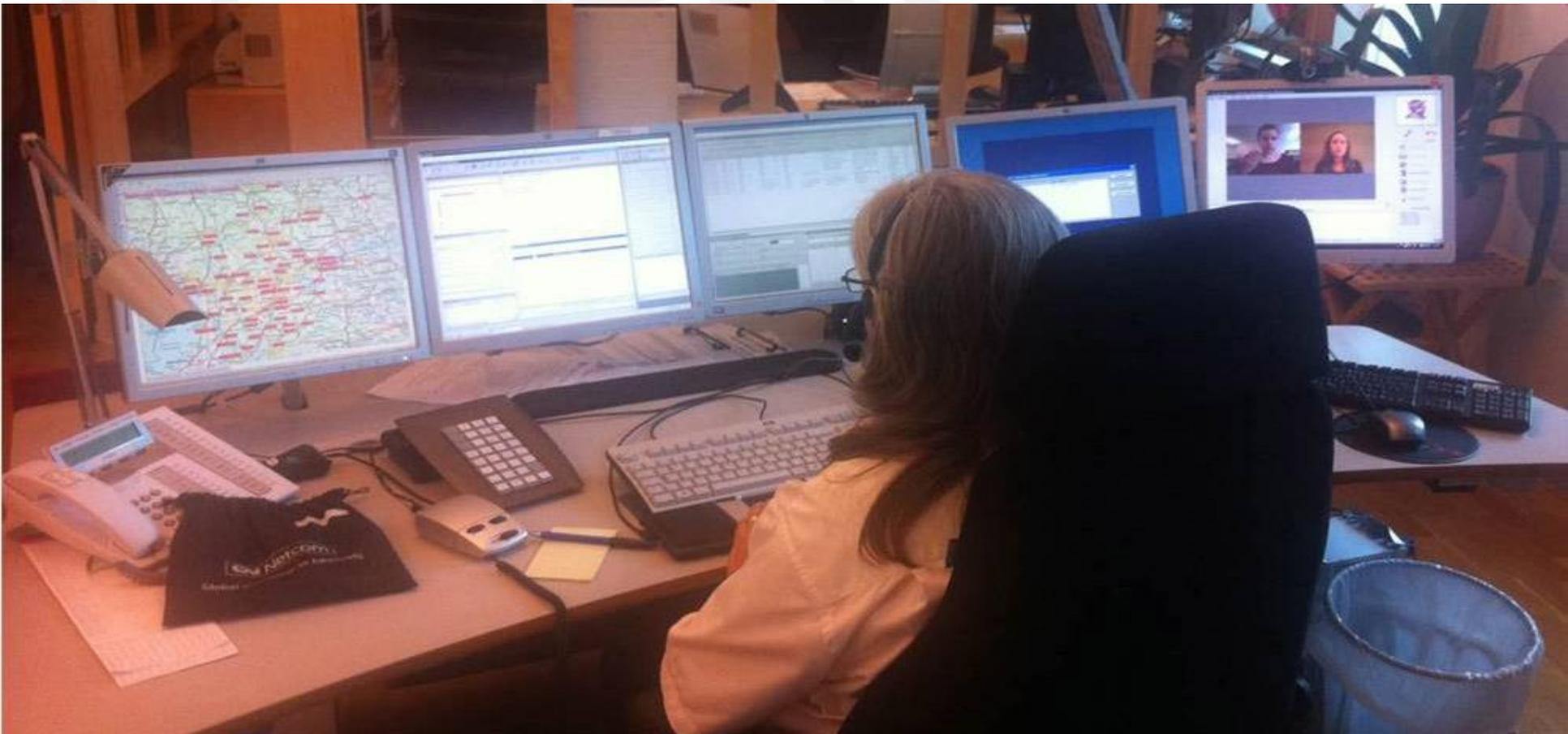
Number analysis finds 112 and connect to 112-center and relay service in three-party connection simultaneously.



Different models in pilots. Swedish pilot has separate 112 relay service and Total conversation terminals in 112-center. 3-party connection. All three get all media from both others.

The 112-center view of Total conversation 112 calls In SOS Alarm 112-center in Sweden

112-terminal with 3-party Total conversation view with video and real-time text display



The user view of Total conversation 112 calls

**Hur man ringer
112 med
bildtelefon
(demo)**

Benefits and draw-backs of 3-party Total conversation to 112 center

■ Benefits

- User feel confident to be properly handled
- 112-operator can assess the situation visually
- 112-operator can handle real-time text dialogue
- Some communication can be done even if relay fails to answer (e.g. because of busy during large night-time catastrophe)
- Text is very useful for exact details.
- Recording of all media at 112-center captures also interpreter – user communication. Complete trace is achieved.

■ Draw-backs (compared to bringing the calls to 112-centre by voice)

- Requires extra hardware and IP connection at 112-centre
- Takes time and resources to deploy as widely as 112 voice workstations – risk for longer answering times with fewer equipped terminals

Location information provision a recently standardised option in SIP

- Location Information Provision through the Geolocation header in SIP Invite and Geopriv PIDF-LO object by value in SIP Invite body. (draft-ietf-sipcore-location-conveyance and IETF RFC 4119). Supported in the Swedish REACH112 pilot.

User
Nokia RTT



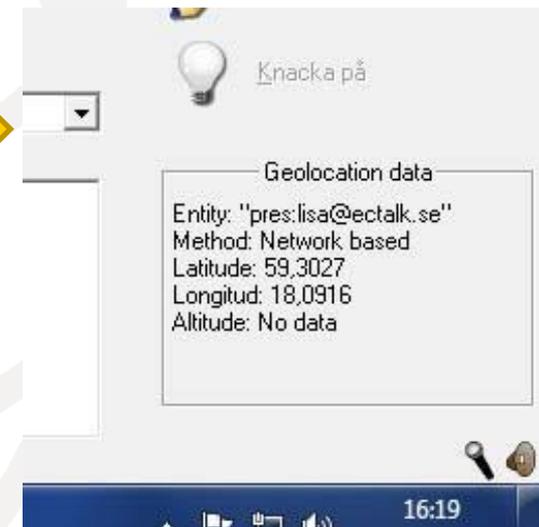
SIP
transmission

```
INVITE
Geolocation:
<cid:....>

Body:

<gml:pos>
  12.9873 77.7370
</gml:pos>
```

112-centre
Omniator Allan eC PSAP terminal



Relevant On-going standardisation

- ETSI EMTel DTS 103 370 Total Conversation access to Emergency Services.
- 3GPP NOVES – Implementation of use cases from 3GPP TS 22.871 Multimedia Emergency Services (with Total conversation included, implemented by 3GPP TS 26.114 IMS Multimedia Telephony – a possible future environment for the REACH112 concept)
- NG911 and NG112 activities in NENA and EENA

Challenges

- **Synchronize Project with national policy** actions for implementing the new Electronic communication directives (e.g. running relay service 24/7 before society support is available)
- **Requirement in Universal service directive** that travelling disabled users shall have equal access to emergency services anywhere in Europe, and the standards for that shall be published in the Official Journal
- **Full integration** of Total Conversation in 112 call handling platforms
- **Europe-wide harmonization** for user benefit of interoperability of user-to-user calls, relay service access and emergency service access

REACH112 is a good step on the way to meet these challenges, more steps will be needed.

Join in taking next steps!

REACH112-for equivalent service REACH112-for accessible 112

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Total Conversation & 112 for all

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