Designing Next Generation Networks for all

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Time for an accessible complement to the voice telephone

- The voice telephone system is inaccessible to many users. Supporting audio only locks out many users with communication related disabilities.
- Real-time text and video additions are urgently needed to make telephony usable for all
- NGN is a golden opportunity to make mainstream services accessible for all
- Great market and social benefits can be achieved by providing services with wider usability from the onset

ITU-T NGN Accessibility has focus on conversational services

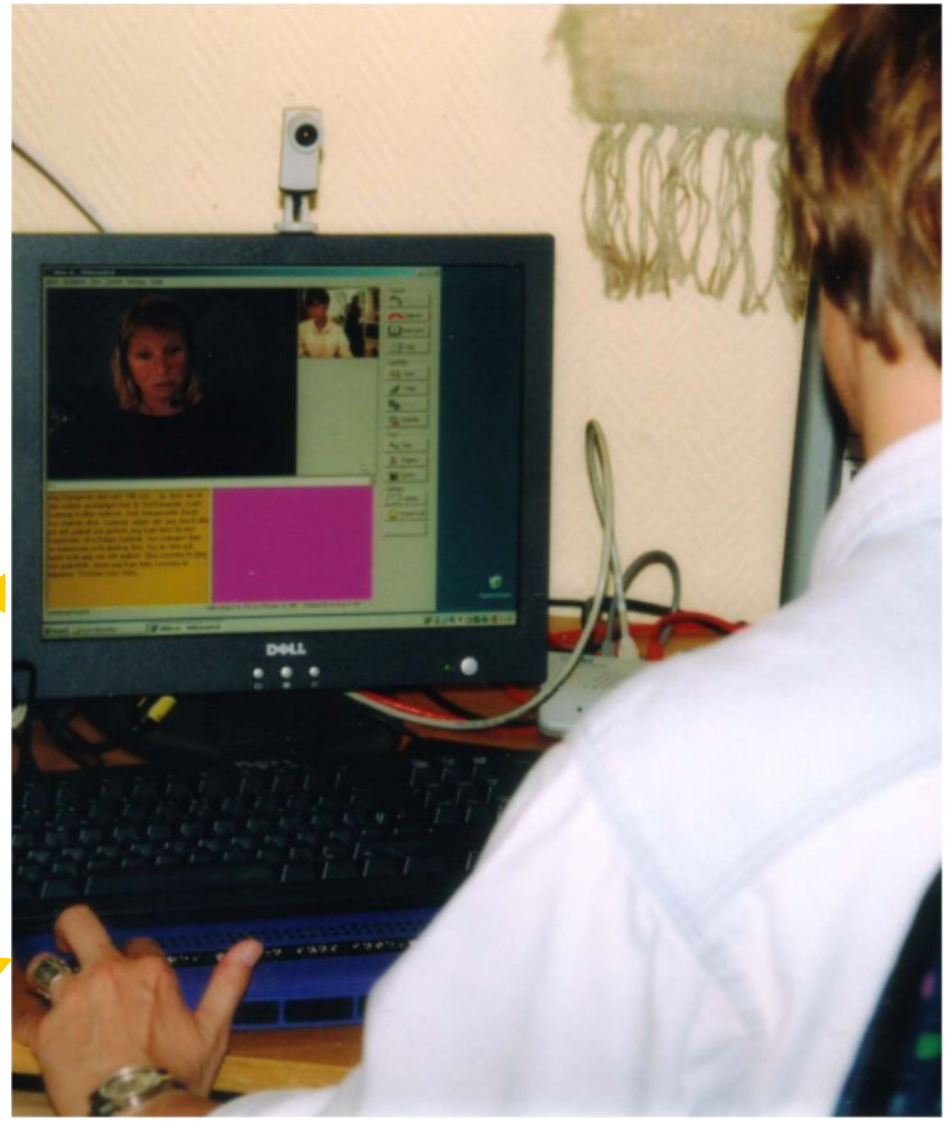
- NGN Release 1 Requirements include accessibility
  - Real-time text in conversation
  - Full motion video
  - Services of importance for people with disabilities
    - Emergency calls with real-time text and video
    - Relay service connection for translation text <> speech or sign language<>speech
- Output from SG 13 meeting in January 2006.

Example with deaf-blind user

Multimedia telephony with video, text and voice

- In this case:
  - Sign language from the deaf-blind user
  - Text back, displayed on braille display
- Many other combinations possible

Received text
Braille display



Value added service
Text and Video relay services

Interpreter

Signing deaf user

Talking voice telephone user

Video relay service
-rapid access to interpreter anywhere
-equal opportunities to participation in society
-The text part needed for phone numbers etc

Convenient invocation of relay services is an NGN feature

Good for all

- Video for feelings, acknowledgement etc
- Voice for the main dialogue
- Text for addresses, language problems, noise compensation …

(picture from Yoshio Utsumi, General secretary of ITU, and Sylvia Petter, ITU trying Total Conversation demo in UN-days 2001)

Accessibility Checklist for standards work

- Accessibility for people with disabilities is a cross-sector science
- Influences at least 30% of Recommendations
- Good accessibility is only achievable by general awareness and common goals
- All standardisation work items must consider accessibility

Accessibility checklist

- Brief checklist intended to be used at many stages of a standardisation work item
- Proposal: Include in NGN standardisation process
- Spin – off proposal: Include in the main ITU standardisation process.
- Current draft: co-operation ITU-T SG 13 - SG 16.

Traditional accessibility design golden rules

1. Design for the widest possible range of capabilities of the user as feasible.
2. Make further adaptations possible to permit an even wider range of capabilities.
3. Add standardised interfaces for the connection of a wide range of user interface devices to cater for further needs.

Accessibility checklist contents

Consider the following topics with a wide selection of media

- Control of devices
- Feedback from control of devices
- Control of services
- Feedback from control of services
- Media transport
- Media entry by the user
- Media presentation to the user
- Invocation of media translating services
- User profile management
- User profile usage

Conclusions

- NGN is a golden opportunity for accessibility enhancements.
- Implement accessibility as described in NGN Release 1 requirements in global co-operation
- Apply accessibility checklist to standardisation work items in all NGN work

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