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Real-Time Text Taskforce

What is Real-Time Text?

- When we communicate electronically we use voice and/or video. Such communications occur in real-time.
- Audio and video are sent and received continuously and we consider that normal. We take the real-time part for granted.
- Audio and video is always real-time. But what about real-time text?
- For most of us text is static, it is on the screen and does not change at all.
  - Websites
  - Newspapers
  - Email
  - Books
  - Etc.

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What is Real-Time Text?

- We also use text to communicate in a more interactive and faster way.
  - Text messaging / SMS on mobile phones
  - Instant Messaging.

- If we need to communicate more efficiently, audio is always
- used (pick up the phone and place a call). Not IM or SMS.

- But what if you cannot use the telephone
  - because you cannot hear or speak?
  - because you are in a situation where voice is inappropriate to use
    - there is a lot of background noise
    - meeting, restaurant, cinema, theatre or conference.

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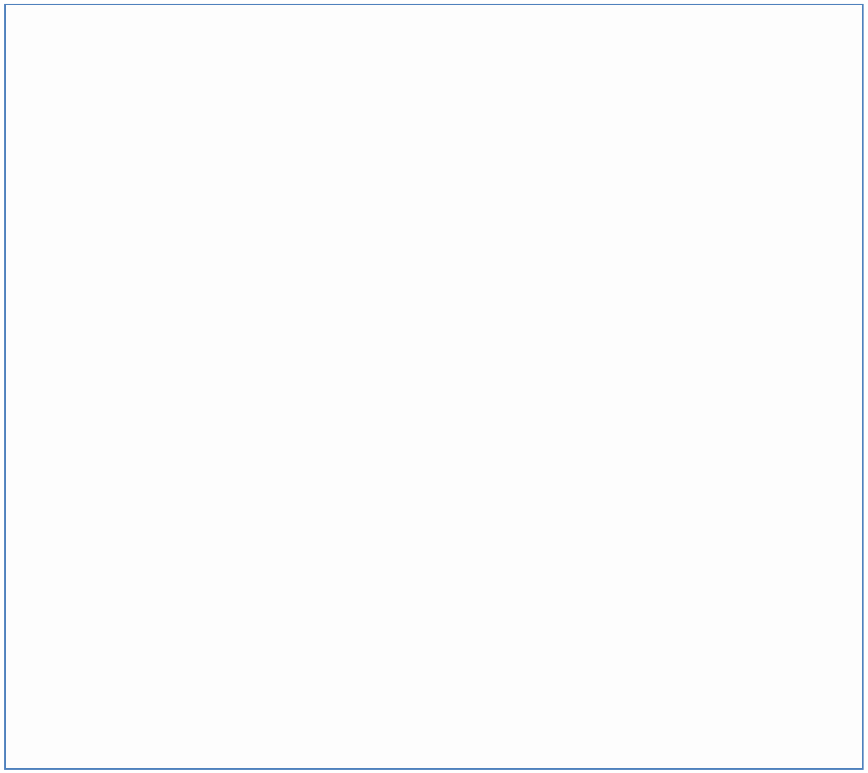
What is Real-Time Text?

- Real-time text is the solution.
- Text that is send and received on a character by character basis.
  - Characters are sent immediately once typed.
  - Characters are displayed immediately by the receiving person(s).
  - Like talking by using text.



Instant Messaging for communication

- Now compare how it would be if you depend on IM only for your communication
  - IM is wonderful for exchange of text while you are doing other things at same time.
  - IM is insufficient when you need to TALK with the other.
  - If IM was good for telephony why do people always switch to voice communication?

- IM is a great communication tool for the right situation and usage.

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Real-time text everywhere possible:

- Real-time text must be mainstream, no special solution for a special needs group island forming with each its own protocol = nightmare!
- easy to implement, do what users really want and will use!! RFC3351 shows the insight.
- And we ALL can and should be able to use it!

- Real-Time Text is designed around the ITU-T T.140 real-time text presentation layer protocol.
- T.140 allows real-time editing of text
- Based on the ISO 10646-1 character set and uses the UTF-8 format.

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RFC4103 and RFC5194:

•Transport of Real-Time Text uses the same Real-time Transport Protocol (RTP) as VoIP and Video-over-IP. The text is encoded according to IETF RFC 4103 “RTP Payload for Text Conversation”. And is also called Text-over-IP (ToIP)

•Control of ToIP sessions has been defined using the standard Session Initiation Protocol (SIP) (RFC 3261) and the Session Description Protocol (SDP) (RFC 4566) protocols.

- SIP is used without any alteration.
- Real-time text encoding is identified by using the SDP media definition 'm=text‘.
- The 3GPP IMS defines the features of SDP that ToIP uses in 3GPP TS 26.114 v7.4.0 A5

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RFC4103 and RFC5194:

IETF RFC 5194 “Framework for real-time text over IP using the Session Initiation Protocol (SIP)”.

- requirements for real-time text (RFC3351 and more)
- requirements for ToIP interworking
- description of ToIP implementation using SIP and RTP
- description of ToIP interworking with other text services for interoperability of Real-Time Text.

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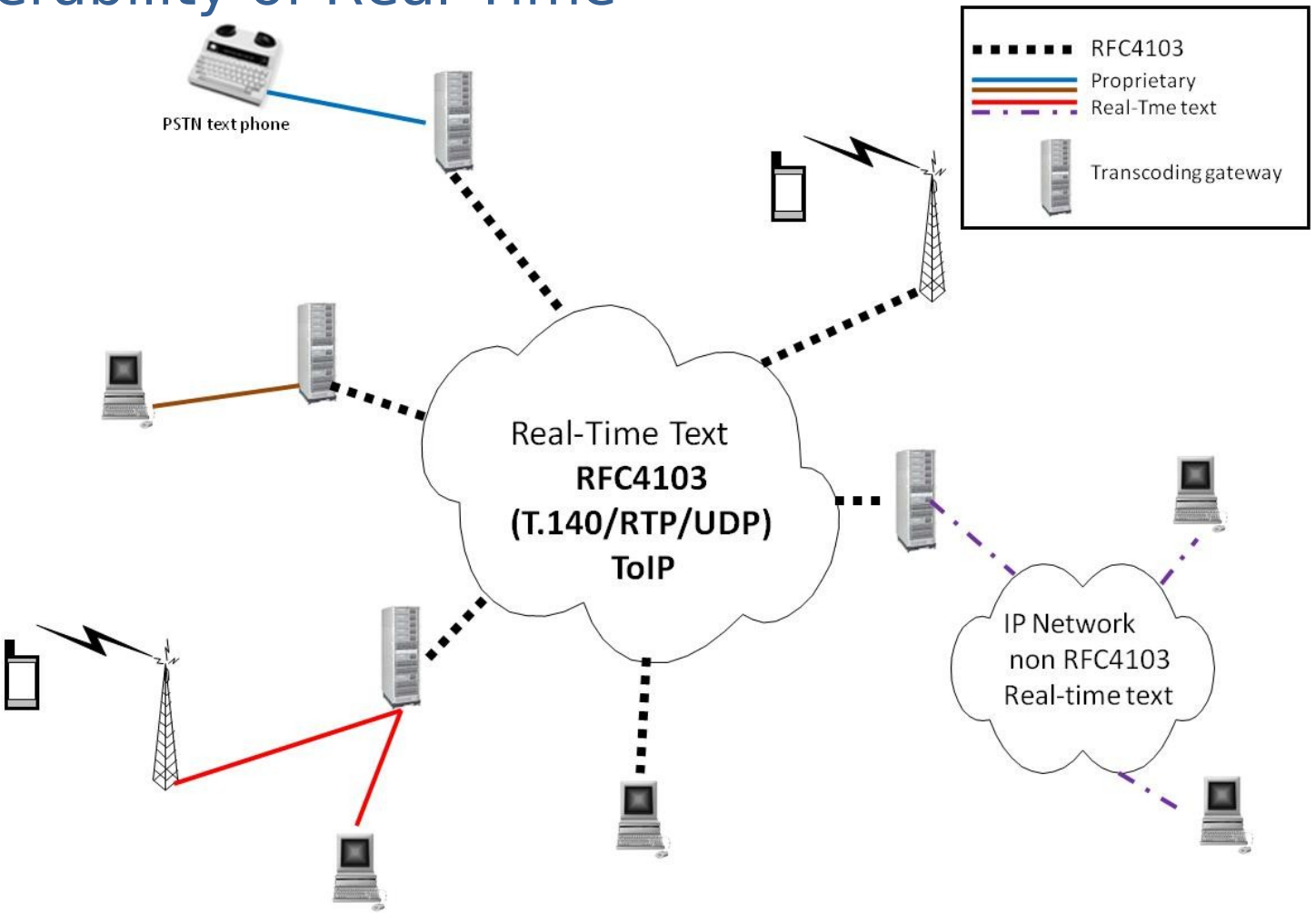
Interoperability of Real-Time Text:



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So, we have Real-Time Text…and what is possible?:

- All people can use Real-Time Text to talk using text whenever, wherever
  - As part of IP telephony, in combination with voice and/or video. Total conversation.
  - Deaf and Hard of Hearing users can communicate without restrictions.
  - Via transcoding gateways text telephony is supported.

- Real-Time Text can also be used stand-alone for direct text to text conversations. As a new text chatting function or even as an enchantment of IM.

<u>Real-Time Text creates new communication possibilities and services!</u>

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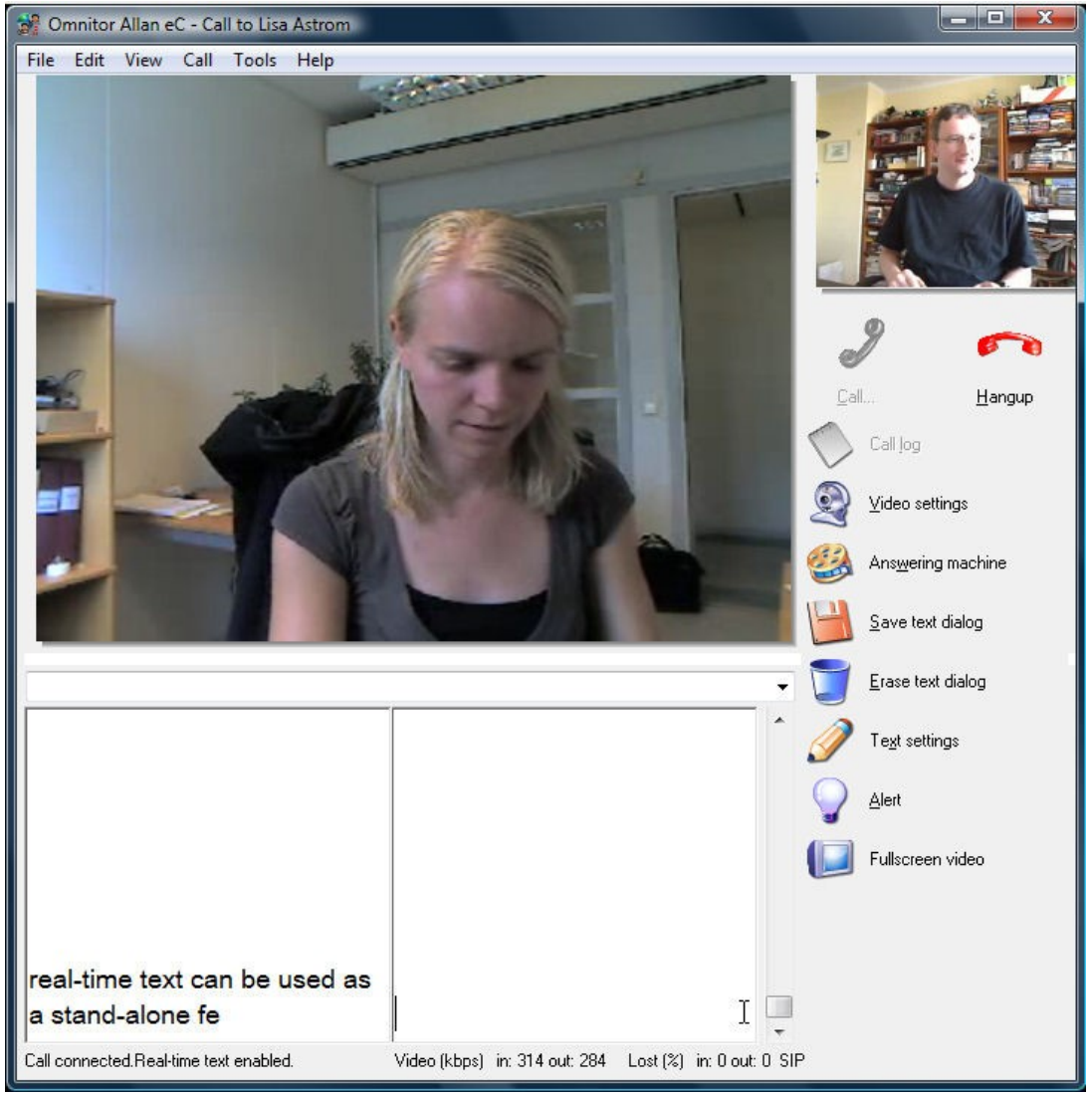
Total Conversation:

- Audio, video and Real-Time Text simultaneously
- Uses SIP telephony standards.
- Combine whichever you prefer.
- Freedom of communication



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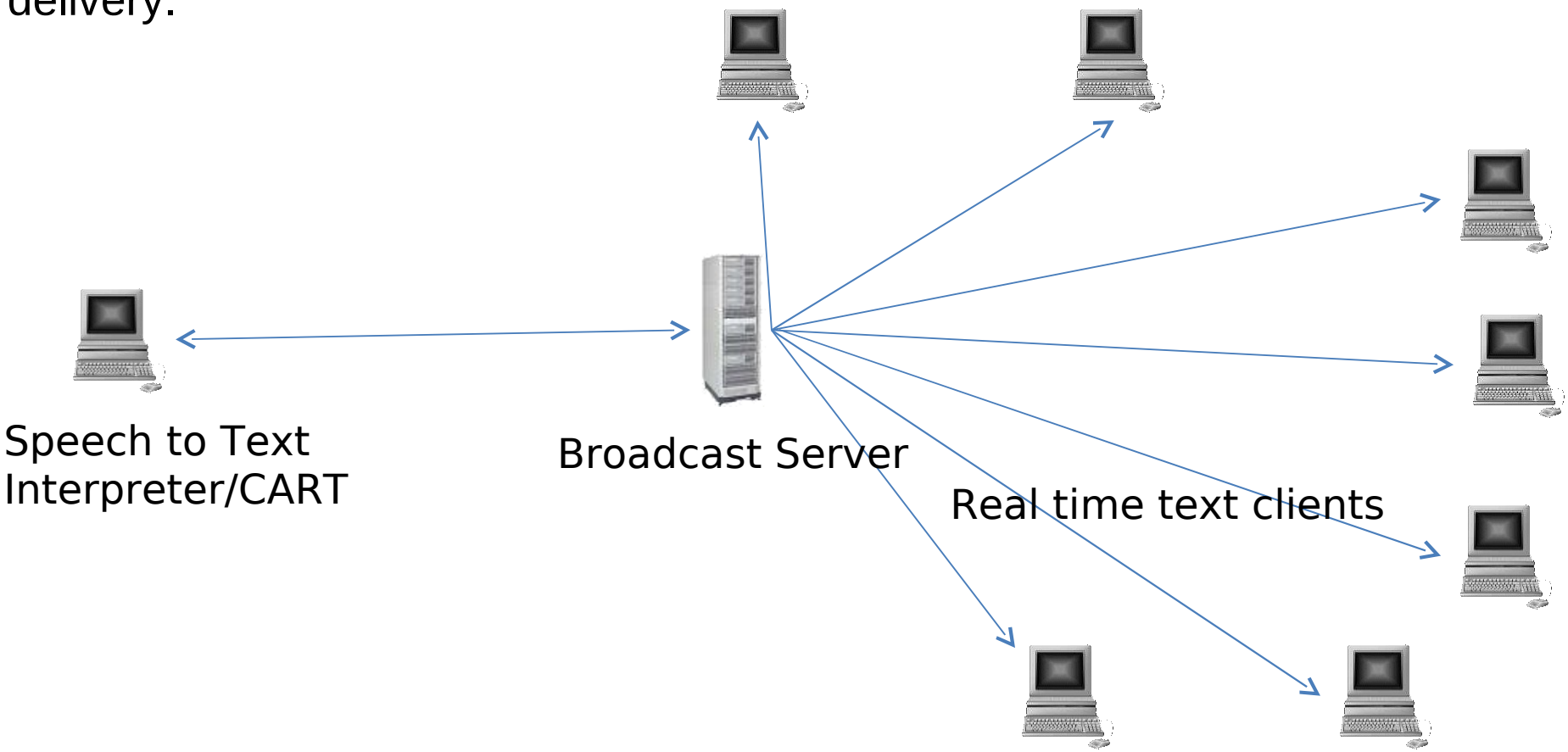
Live Transcription at conference:

•Interpreter types all speech into text, real-time text allows fastest streaming delivery.



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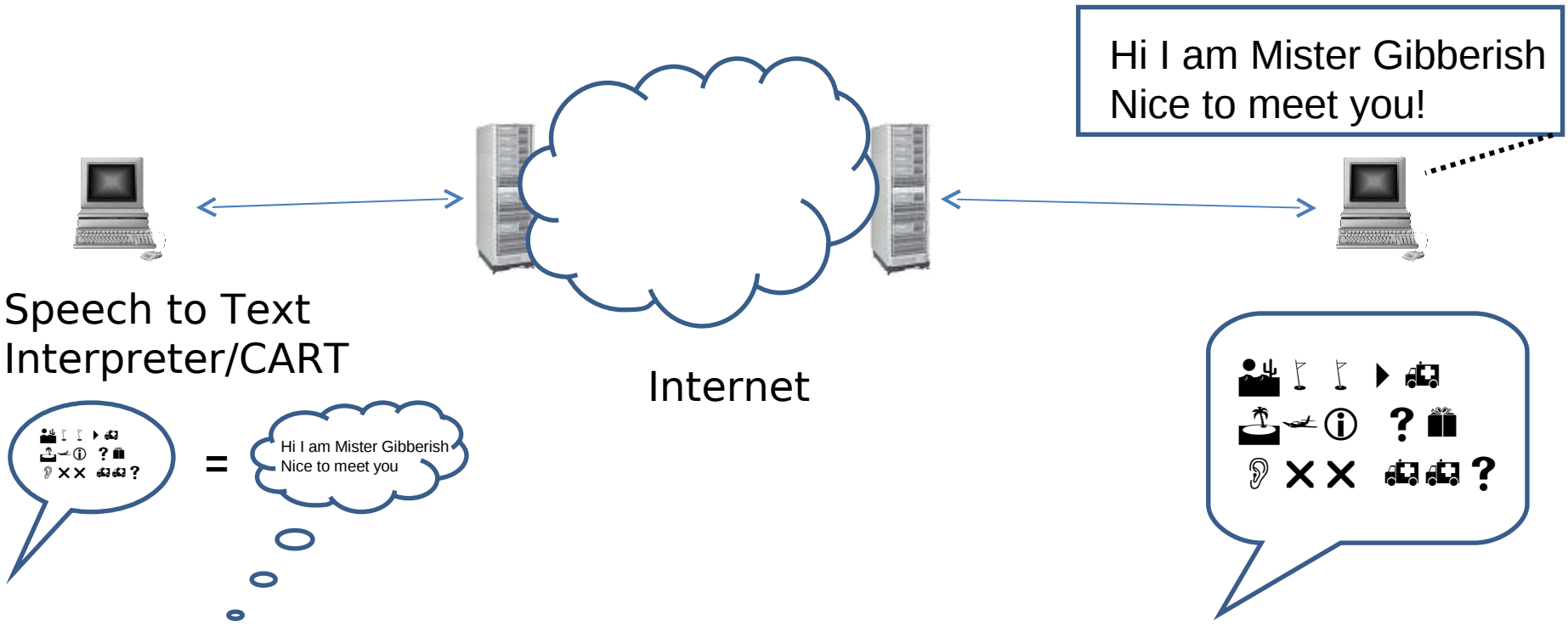
Remote Interpreter:

•An interpreter listens in from a remote location and translates the spoken conversation in text.



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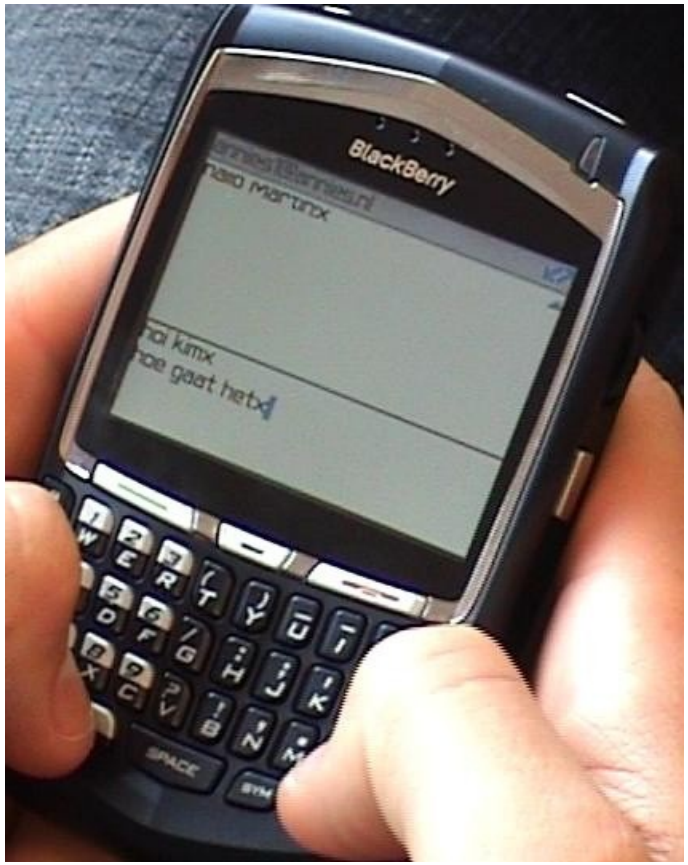
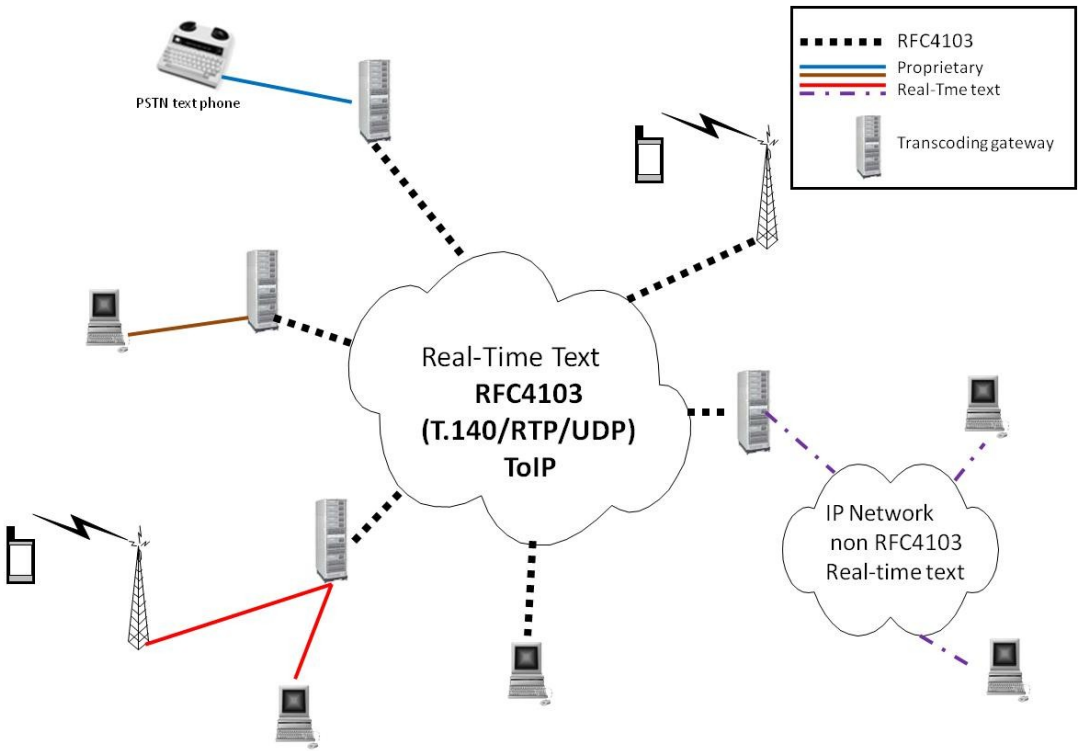
Mobile Real-Time Text. Acts as Mobile Textphone using transcoding GW for PSTN text telephony for users who are Deaf or hard of Hearing.





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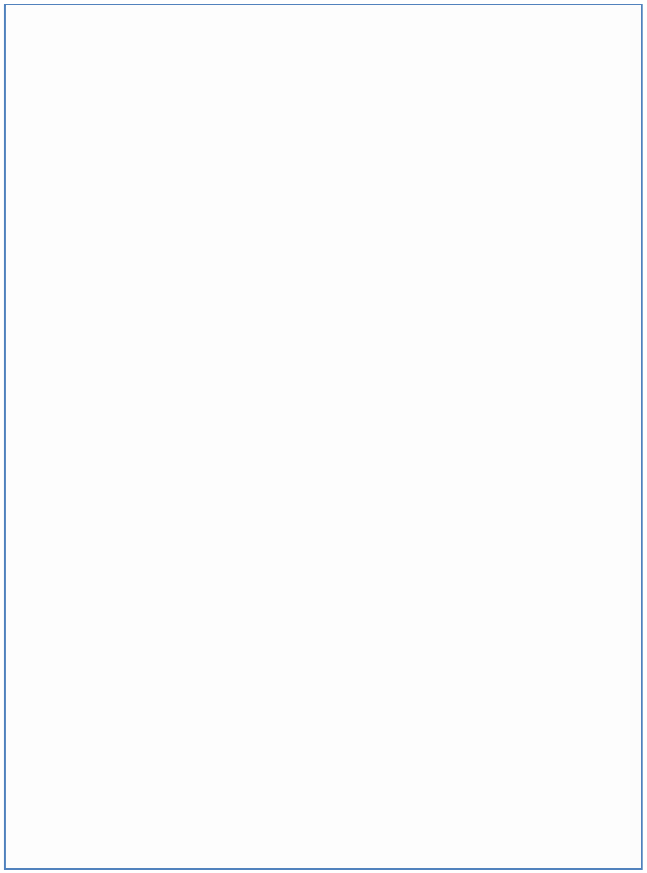
Enhanced IM with Real-Time Text Preview:

- Instead of waiting for the bloc of text to pop up. You can already see it being typed!
- Gives you freedom to choose how to chat!
- Best of both worlds.



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Allows new communication possibilities and services:

- Text based IVR read and reply by pressing the number. And you can interrupt if you know the menu partly (or know which number to start)

- 112/911 use for when voice is not possible.
  - E.g. hidden under bed with burglar sitting on it.

- Hip youngsters with
  Next generation chatting!
  A new market!

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ISOC and Disability

- ISOC's "Enabling Access Initiative" aims to address some of the fundamental hurdles to Internet growth and usability.
- One aspect of the initiative focuses on advancing the development of technologies, business cases, and policy environments for improving the use and experience of the Internet by people with disabilities.
- As part of this effort, ISOC is serving as an “incubator” of the R3TF, by providing coordination assistance, technical expertise, and implementation support for the Taskforce.
- R3TF website: www.realtimetext.org

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Real-Time Text Taskforce

•Stand- alone taskforce, only link with IETF are the standards and several people who help improving the world for us all.

Goal of the R3TF:
ensure that Real-Time Text is as readily available for all users as voice is.
To achieve the Goal, the R3TF will create and maintain a Roadmap that will provide the basis for the full deployment, seamless inter-operability and the future development and evolution of Real-Time Text as a mainstream feature/service.

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- R3TF will promote the interoperability of Real-Time Text implementations with RFC4103 (ToIP).(allows evolution!)
- R3TF will help facilitate the development of interworking test beds that will allow implementers to test how well their solutions comply with RFC5194.
- R3TF will also distribute information on the technology, its user requirements, and implementation and act as an educator on related issues.
- And is an open forum for engineers, motivated individuals, experts, companies and organisations that wish to help test, implement, and advance the widespread adoption of the Real-Time Text framework.

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- We need you! We need programmers and resources for:
- Open source clients using RFC4103 with RFC5194 compliance.
- Gateways and services should be created with RFC4103 to allow people to experience Real-Time Text
- Add RFC4103 to existing Video clients and Voice clients and IM clients.
- If a different Real-Time Text protocol is used: Ensure interoperability with RFC4103 with RFC5194 compliance.
- RFC4103 web client to allow direct user support for websites and lower barriers to call with Real-Time Text
- Be part of R3TF and contribute to Forum and website.

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Help ISOC and the ISOC Chapters and the Internet community to make the Internet for Everyone!
(that is also you!).

Thank you

Questions?

Contact: vanwijk@isoc.org
arnoud@realtimetext.org