



TELSTRA DISCUSSION PAPER
Videotelephony

HREOC FORUM
28 November 2003

Consumer Affairs, Corporate Relations, Telstra
Level 37, 242 Exhibition Street, Melbourne
Postal address: Locked Bag 4960, Melbourne, 3001
Telephone: 03 9634 5508 (or Freecall 1800 804 591)
TTY: Freecall 1800 671 880
Contact: Margaret Portelli
Email: Margaret.Portelli@team.telstra.com
www.telstra.com.au/disability

Recommendation 21: Funding arrangements for accessible videotelephony

Telstra welcomes the opportunity to participate in the Human Rights and Equal Opportunity Commission Forum and to provide some comments on the discussion paper commissioned by HREOC, *When the Tide Comes In: Towards Accessible Telecommunications for People with Disabilities in Australia*, released in July 2003.

Recommendation 21 proposes that HREOC discuss with DCITA the need for research to develop costing models and funding arrangements that would ensure affordability of videotelephony for Deaf people using Auslan.

Section 4.8.1 of the HREOC Discussion Paper notes the potential of videotelephony for Deaf people to enable them to communicate in Auslan. The paper also notes that a high-grade (384kbps) full motion quality service over ISDN is deemed to be optimal. The paper provides some insights into a number of services and projects, including video interpreting services. Telstra recognises that this type of service (ISDN) is currently widely available, and would provide adequate fidelity at 384 kbit/s to allow use of Auslan.

The paper also notes the steady increase in bandwidth capacity of communications channels and improved video compression techniques. However, it is noted that more research is required to optimise video communication for Auslan, and that currently the major barrier is cost.

Telstra is aware of the Deaf community's interest in videotelephony, and that studies undertaken both in Australia and overseas have discussed and considered a number of possibilities. As discussed below, Telstra is supporting some of these studies to explore the feasibility of some of these technologies.

Other options that could be further explored in the Australian context include videorelay services using 'Microsoft's Netmeeting'. Telstra is aware that at least one US operator - Sprint- is providing such a video relay service.

However, Telstra notes that while compression and coding/decoding technologies continue to improve (our understanding is that it is improving at around 10% per year), our experience is that they are not improving as fast as some other technologies. We cannot expect a doubling of performance every year or two as has been experienced with processor speeds and disk storage densities, for example. It is also not clear whether the equipment support required by end users is currently anywhere near adequate, especially for first-time and infrequent users.

In Telstra's case, and in contrast to our ISDN products, our Internet Protocol (IP) network has been dimensioned on the premise that people are able to use high bandwidths, for short periods while they browse the web using IP. Current IP technology is in its infancy and cannot readily provide the quality of service necessary to support many users for sustained periods of high bandwidth usage such as real-time any-to-any videostreaming for conferencing purposes and does not deliver the necessary quality of service. It must be remembered that current IP networks offer a "best effort" or "store and forward" service with no guarantee of delivery.

Unless dedicated circuits are used (both upstream and downstream at 384kb/256kb using products such as ISDN), the videoconference quality using undedicated 'packet' or IP technology is very likely to be of greatly variable quality depending on the load on the network at the time.

To enable videoconferencing on IP networks at the optimal 384kb or indeed at the lower 256kb for extended periods, the dimensioning of our IP network would need to be significantly increased relative to its current status, that is, it would need to be over-dimensioned so that the interpretation of the sign language (Auslan) does not lead to high character corruption rates. Needless to say, this would be an extremely costly exercise and would take some time to achieve across the entire network and would take some time to achieve across the entire network. The cost of the over-dimensioning could ultimately translate to an increase in IP costs to the customer.

Telstra believes there needs to be more substantial and thorough exploration of options, and implications for carrier grade IP networks before any solutions are recommended or indeed implemented.

The ACIF Text Any-to-Any working Group (TATA) has agreed to consider Videotelephony as a long-term issue, preferring to focus its energies on text connectivity for the present, with videotelephony being part of future deliberations. Telstra agrees with this approach.

In the meantime, Telstra has and will continue to support studies and research initiatives that will lead to a better understanding of the use of videotelephony for communication purposes using Auslan by Deaf people, and more generally by the wider community. Examples of initiatives supported by Telstra include:

- the Deaf Australia Online 2001 Project conducted by a consortium of organisations including Australian Association of the Deaf Inc.
- Deakin University's *Videocommunication for the Deaf* research project. The project aims to explore the usefulness of videoconferencing using VIDEOoverIP and video relay interpreting for Deaf people using sign language in their workplace. It also aims to explore adoption patterns of such communication options by Deaf people. Data will be collected over a six-month period commencing September 2003. Telstra expects to gain valuable insights into the use of videocommunications as an option for Deaf people in their workplace from this project. The Australian Communication Exchange is also a key participant in this research.