



Open road, blue sky ...

Last month, telecommunications consultant Terry Cutler called on Telstra to deliver on consumer ISDN and affordable bandwidth.. Now, Telstra's **John Murphy** responds.

Telstra's domestic ISDN service, launched about seven years ago, positioned Australia at the forefront of the digital age. This innovation used an Australian standard in the proprietary overlay network. The current tariffs for ISDN compare favourably with many overseas carriers' tariffs including Europe, New Zealand, Japan, Canada and the USA (with respect to often quoted low tariffs in some states of the USA, it has been reported these tariffs come at a cost to consumers through the degradation of service quality).¹

The emergence within the last two years of online information services (such as the Internet) and other customer applications has led to an increase in ISDN demand.

Telstra, at the end of 1994, announced its commitment to invest over \$300 million in ISDN hardware, software and inter-exchange upgrades that would allow ISDN services to be delivered off the new digitised exchanges, expanding the geographic coverage of the service.

The first of a range of new products to be delivered off the new ISDN network is expected to be launched in mid 1996. These new products will reflect the lower costs of the new ISDN network, with significantly reduced prices.

Carrier access and usage costs comprise only one component of the costs faced by potential users of ISDN. Customer premise equipment (CPE) constitutes a substantial up front cost for the potential ISDN customer. Telstra has selected the European standard (ETSI) for the new ISDN network because Australian industry would benefit from:

- lower prices through increased competition from overseas suppliers of ETSI compatible CPE, and
- local manufacturers will have a larger market in which to sell their products with the corresponding offsets of research and development costs.

For customers to realise the full benefits of ISDN, they must have appropriate applications. Telstra is actively involved with various industries and individual companies in the development of multimedia applications.

There is no doubt that the building cost per circuit of international submarine cables is declining. In the early life of the cable there is unused capacity which is expected to meet growth in demand and hence there is a cost of carrying the unused capacity. When Telstra promoted the PacRim cables, it adopted the technology available at the time that provided the maximum possible capacity per fibre. Exploiting its R&D work, Telstra opted to be at the forefront in submarine optical fibre cables by being the first to select 1.5 micron, 565 Mbps technology for long haul cables.

This was visionary and afforded unused capacity for new unforeseeable growth opportunities - like Internet. Many of Telstra's overseas partners did not have the same vision and only sought relatively small capacities, and share of the cost. This factor, coupled with the added costs due to the geographic remoteness of Australia and the limited economics of scale because of Australia's smallish population base all contribute to the cost of provision from Australia. So cable costs for Telstra will be greater than for others.

Notwithstanding these network costs, the price of IDD calls has declined some 26 per cent since competition commenced in late 1992, and further reductions have been announced. The major constraint to greater reductions is not network costs but the level of payment that Telstra must make to overseas carriers for the delivery of telephone calls.

Available information suggests that Telstra has achieved amongst the lowest settlement rates in the world, resulting in low IDD prices. Analysis, supported by the Bureau of Industry Economics in its latest report shows that on a reciprocal basis, Telstra has lower IDD rates than the USA, the UK, Japan, Hong Kong, Singapore and many other major destinations affording competitive cost advantage to Australian organisations.

In terms of raw digital capacity, underprovisioning of the PacRim link to the US is not evident. It currently is operating at only 50 per cent of its overall capacity and so additional capacity is available now. Telstra would have to buy this capacity at market rates.

And in the future, Internet transmission capacity demand will no doubt continue to grow strongly. But the advent of Hot Java interpreters and the development of caches could constitute a counter trend in the medium term. The essence of effective investment is timing. Premature investments cost Telstra - and ultimately its customers - money. Remember ISDN? □

¹ The issue of service degradation was raised by the North American ISDN User Forum in a hook-up with ATUG during Global 95, International ISDN Forum held 28-30 November 1995.