

Making 'universal service' work

Peter White argues that while Telecom/OTC's standard telephone service CSO is flexible it may not deliver enhanced network functions to all Australians

The *Telecommunications Act, 1991* lays the groundwork for requiring the merged Telecom/OTC to provide all Australians with 'access to a 'standard telephone service'. With the new Act the Government has signalled that the provision of universal service is to remain a priority goal. In fact universal service goals will no longer need to be cross-subsidized in mysterious ways. The merged Telecom/OTC will have a specific and enforceable mandate to provide universal service.

The new legislation also marks another important advance. For the first time there is an explicit acknowledgement that changing technology and changes in community expectations will have an impact on how universal service is ultimately defined.

Defining the standard telephone service

According to the Minister, Telecom/OTC's universal service obligation (USO) has two strands. The first is the obligation to supply the 'standard telephone service' to people in Australia. This standard telephone service is to be supplied as efficiently and economically as possible, at performance standards which reasonably meet the social, industrial and commercial needs of the Australian community. It is to be reasonably accessible to all people in Australia on an equitable basis wherever they reside or carry on business. The second aspect of the USO is to supply payphones so that they are reasonably accessible to all people in Australia. Telecom/OTC will be designated as the USO carrier and these obligations will become a part of Telecom/OTC's licence conditions.

But most importantly, the new legislation now specifically acknowledges that the definition of the 'standard telephone service' can be changed by regulation. As the Explanatory Memorandum to the Act notes, changing technologies and changing community expectations will mean that definitions of the 'standard telephone service' could be expected to change. This is in accord with research which found that domestic users of the telephone system had a clear vision of the way in which existing premium and

ancillary telecommunications services would one day be seen as a normal part of the standard telephone service.

But what must Telecom/OTC supply? In the Act the 'standard telephone service' is defined as a public switched telephone service supplied by means of a telephone handset that does not have switching functions (Part 2, Division 1). But while the legislation is reasonably clear about the kind of hand set which is to be supplied as a part of Telecom/OTC's USO, the definition of the "public switched telephone service" creates a significant problem. Apart from nominating that the public network must be switchable, the legislation is mute on the precise switching capability of the network.

Network developments

It is important to realise that telecommunications innovation is occurring at both the customer premises equipment (CPE) and the network levels.

This network capability ultimately relies on the sophistication of the local telephone exchange. Hence the capability of a local exchange determines whether or not a subscriber has access to a range of enhanced telephone services. Services currently on offer to subscribers who are connected to Telecom's computer-based AXE exchanges, and marketed by Telecom as Easycall, include call waiting alert, call hold, call diversion, three way conversation and delayed hotline.

Within the next few years, it is likely that calling line identification-based custom local areas switching services will be offered. These provide domestic and small business subscribers with facilities which are normally only accessible to users of sophisticated PABXs. These services include call trace, selective call diversion, calling number display and automatic call return. But customers who are connected to less sophisticated exchanges will be unable to access services of this kind until their local exchanges are upgraded.

Clearly, at the present time, these kinds of premium services are not seen as a part of the standard telephone service. But the new legislation makes it possible to mandate the supply of these services when both community expectations and available technologies make this desirable. But there is a short term issue which will need to be addressed.

Exchange limitations

Currently, areas designated as being either totally or partially loss making areas, or CSO areas in the old terminology, are serviced by older style exchanges which are not capable of providing any enhanced network services whatsoever. Telecom-supplied data shows that 98 per cent of lines in total CSO areas are serviced by older-style exchanges. And of those areas designated as partial CSOs, 81 per cent of the lines serviced by those older-style exchanges. By contrast, areas designated as non-CSOs have only 33 per cent of their lines serviced by those older-style exchanges. Put rather simply, subscribers who are in profitable areas are more likely to be serviced by modern exchange equipment.

Now the emerging competitive environment will encourage Telecom/OTC to focus its energies on meeting its competitors head-on. And its competitors will concentrate their energies on high volume and potentially lucrative markets. Experience in the United States suggests that in order to prosper, telecommunications carriers will focus on providing unregulated enhanced services selectively in large communities and, with pressure from competitors they will set up islands of information infrastructures that pay for themselves.

This means that Telecom/OTC's scarce capital resources will be directed to areas where competition will be fiercest and where financial returns on investment will be greatest. If this scenario is played out, the USO of providing a 'standard telephone service' could be pared to a bare minimum. If a standard telephone service can be offered with unsophisticated exchange equipment, then there will be little incentive for upgrading the exchange. Network upgrading will only occur in loss making areas when there is either competitive pressure, the promise of financial returns, or the costs of maintaining existing exchange equipment force its replacement with modern equipment. The calculation and implementation of the USO subsidy will also determine how funds are spent on loss-making areas.

The architects of the new telecommunications policy would argue that these incentives are appropriate.

service can be offered with unsophisticated exchange equipment, then there will be little incentive for upgrading the exchange. Network upgrading will only occur in loss making areas when there is either competitive pressure, the promise of financial returns, or the costs of maintaining existing exchange equipment force its replacement with modern equipment. The calculation and implementation of the USO subsidy will also determine how funds are spent on loss-making areas.

The architects of the new telecommunications policy would argue that these incentives are appropriate. Telecom/OTC should be guided to make 'rational' economic decisions and to avoid over-investment in network infrastructure which is not warranted by the financial returns. But the stated goal of regulation is to ensure that there is some degree of equity in access to network-based services (*Telecommunications Act*, 1991, section 3). This would mean that subscribers in loss-making areas, who are willing to pay for access to enhanced services should not be permanently disadvantaged, or at least disadvantaged for long periods of time. But some commentators have cautioned that care must be taken so that we do not "perpetuate islands of information 'haves' in a sea of information 'have-nots'". How might this inequity be resolved?

USO trigger

Clearly, the notion of equity can be understood in many ways. But in a European context, Nicholas Garnham has suggested that when access to a specific set of telecommunications services is available to 80 per cent of the population, then the remaining population should have access to those services as a part of the USO.

The adoption of this approach would mean that specific infrastructure costs associated with network enhancement should be assessable as a part of the cost of providing the USO. This simple rule of thumb, based on an unambiguous threshold level, would both encourage network enhancement and avoid unnecessary wrangling about the desirability or otherwise of redefining the nature of the 'standard telephone service'. Such an automatic threshold level would also overcome another ambiguity in the new legislation. A close reading of the Act suggests that there is no straightforward process for initiating an examination of the definition of the 'standard telephone service'. Revision of the definition could be seen as a change in licence conditions and

this would be at the discretion of the Minister. The adoption of a threshold rule would essentially remove the Minister from the politics of any decision about refining the definition of the 'standard telephone service'.

Clearly, for this proposal to be useful, it is imperative that there be accurate information about the status of the Telecom/OTC network and that information must be in the public domain. This will be essential if the crucial network-based aspects of the standard telephone service are to be reflected in regulation.

Access v participation

Legislative guarantees of universal service and equitable access should not lull anyone into the false expectation that Australian telecommunications policy now guarantees that all Australians will have a telephone in their homes, if they so desire. This is for the simple reason that access does not necessarily guarantee participation. The ability to obtain a telephone service rests on much more than the existence of a telephone company's cable outside your front door.

'access does not necessarily guarantee participation'

It is important to realise that the new Australian telecommunications policy on universal service is rooted in the long standing Australian goal of extending the coverage of the telecommunications system and it is essentially a policy designed to provide universal 'access'. This means that Australia's access policies will be primarily directed towards loss-making, sparsely settled areas of the country, where subscribers are often located significant distances from a telephone exchange.

The policy ignores the possibility that there are groups of potential telephone users in urban areas who cannot gain access to the telephone system. This policy assumes that all subscribers have an equal ability to pay for a telephone service. And where they are unable to pay, it assumes that other arms of Government will provide targeted financial assistance. This financial aid is drawn from general taxation revenue and not as a cross subsidy or tax on users of the telecommunications system.

The Australian approach to universal access differs quite markedly from that chosen in the United States. There, subsidies for both connection, and ongoing access to the telephone system have been

given to means tested individuals. The Federal Communication Commission's (FCC) 'Link-Up America' program contributes towards the cost of a new subscriber's connection fee and encourages local telephone companies to offer deferred payment schedules on the remaining charges. Various FCC initiated, but State administered, 'Lifeline' programs provide a range of subsidies for monthly rental, service connection charges and telephone handset rental to eligible people. Each program uses revenue derived from an impost on all telephone users.

In the US these telephone assistance programs are often justified on the grounds that the telephone is indispensable to the public health, safety and welfare of low-income individuals. And some economists argue that these programs can be economically justified because benefits arise for all subscribers when more people are connected to the telephone system.

So what are the implications of the Australian policy? Clearly the Government's price-cap safeguards do not have any consequence for people who either cannot afford to be connected to the telephone, or who are excluded for other reasons.

Information

The specification of the standard telephone service requires information about the status of the network. Clarity about who is connected to the network requires demographic information about network users and non-users and the reasons for their non-use.

In recent times Telecom and the Telecom Australia Consumer Council have commissioned important work in these areas. But it is impossible to predict how the new competitive environment will affect the merged Telecom/OTC's interest in either commissioning research or making the results of that research available.

Clearly a major task for the Department of Transport and Communications, Austel, Telecom/OTC and the new competitor is to ensure that information of this kind is readily available. This will be crucial if rational debate about the status and future directions of the Australian telecommunications network is to be possible.

Dr Peter White is a Senior Lecturer in the Media Centre, La Trobe University, Melbourne