Developing Australia's Telecommunications Infrastructure

Sue Ferguson discusses the impact of the Telecommunications National Code on the evolving structure of Australia's telecommunications industry.

It is just over eight years since the former Minister for Transport and Communications, Gareth Evans, released a statement called "Australian Telecommunications Services: A New Framework". This statement outlined the government's proposals to open up significant, but not all, areas of the telecommunications industry to competition by private entities.

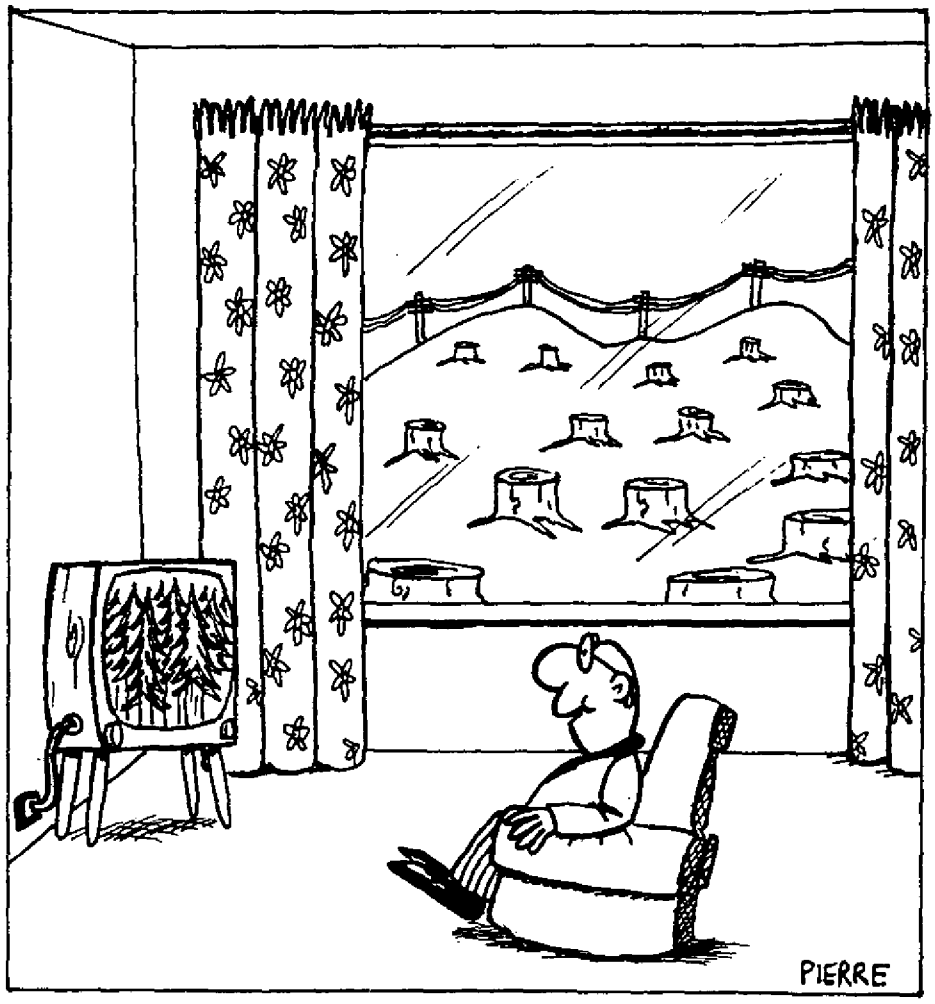
This statement was a reflection of the general trend towards deregulation and towards attempts to expose government entities to the pressures and disciplines of the market place.

In November 1990, the Beazley statement announced that a telecommunications duopoly would be established. The statement also declared the government's intention to end the duopoly in 1997, making it clear that the duopoly was a means for introducing more complete network competition.

At the time, the government was concerned to ensure that any new competitor would not be disadvantaged, that there would be a level playing field. The new competitor would be given equal access to and use of Telstra's networks and services in order to address Telstra's market dominance, achieve effective carrier competition as quickly as possible and minimise uneconomic infrastructure duplication.

However, today we are seeing facilities based competition through network duplication, or uneconomic infrastructure duplication - as some would call it. The significance of such duplication through the rollout of broadband networks (the most hotly debated of infrastructure developments) is indicative of how wrong assumptions can be about technology.

The debates today indicate that only a few years ago decision makers did not anticipate the emergence of cable as a real alternative to wireless based technologies for facilities-cased competition. They had ignored recommendations made over the past 15 to 20 years that cable services be developed and were perhaps blinded by the desperate need to sell AUSSAT.



Furthermore, policies that aimed to achieve equal access to and use of Telstra's networks and services did not anticipate the use of those networks and services beyond telephony and into broadcasting.

This is evidenced in the *Broadcasting Services Act* 1992, where it was intended that satellite technology would be the preferred means of delivery of subscription broadcasting services.

It is interesting to note that satellite services are subject to a limited form of cross-media ownership restrictions, while other technologies (notably cable and MDS) are not subject to such rules.

It gives more weight to the notion that little thought was given to the possibility of someone going to the expense of duplicating an existing telecommunications network. It was, surely, considered that the way of the future was wireless. The concept of convergence was real. But perhaps not so real was the means by which converged services would be delivered in Australia.

It seems that the minds of policy makers and the government were set on the fact that telephony would become more mobile and pay television would be delivered, primarily, via satellite and later by MDS.

Today, different technologies are used to provide services previously limited to one means of delivery. Services are merging to form new service

types; carriers, broadcasters and computer manufacturers are entering into joint ventures to develop new business and provide new services.

The Telecommunications National Code

The National Code sets out the responsibilities of the carrier when installing telecommunications infrastructure, including the requirement to consult with relevant state and territory authorities in advance of installation and adherence to technical, safety and environmental standards.

Why do we need a National Code?

In the past, Telstra was exempt from most State and Territory laws, including laws relating to the use of land and the protection of the environment. Under arrangements put in place in 1991, carriers have certain powers to enter land and can engage in exempt activities, regardless of the specific provisions of state and territory laws or local regulations.

Exempt activities include the construction of facilities or structures in relation to a carrier's network or services and the maintenance, repair or demolition of network or services facilities or structures. However, these activities are subject to the Telecommunications National Code, which came into effect on 30 June 1994 and is designed to do two things.

First, it provides a national standard for the infrastructure development process and, secondly, it provides a different set of rules for carriers, as opposed to non-carriers, who do not have powers and immunities in relation to planing and development.

While the Code provides for a national standard, many issues are being resolved very much on a local basis, with some councils choosing to enter into negotiations with carriers and the providers of utilities. Other councils have chosen the path of litigation, or have yet to decide how they will respond; still others will probably never have to make this decision.

There are a few shires in Victoria and NSW that have proceeded down the path of negotiation with the carriers and power utilities to find common ground in the overhead cabling issue.

This may go some way towards answering the question 'Can councils, communities and carriers co-operate?', but it is an answer that does not impress all councils, who feel that there should be a more uniform and national approach.

Objects of the Code

The objects of the Code are:

- to facilitate the provision of efficient, modern and cost effective telecommunications services to the public;
- to impose responsible and uniform national requirements on carriers that engage in prescribed activities as part of developing or providing telecommunications network infrastructure;
- to maximise competitive activity by facilitating the rapid deployment of efficient telecommunications network infrastructure;
- to require carriers to develop or provide that infrastructure in a manner that has full regard for the need to maximise the protection of Australia's natural environment and cultural heritage; and
- to require carriers to be accountable to government bodies and the public for their activities.

Under the Code, carriers engaging in exempt activities must:

- prepare a corporate environment plan setting out the carrier's general policies on environmental management. This is intended to ensure that environmental considerations are integrated into planning and development procedures from the earliest possible stage;
- consult with local councils and relevant authorities and, in some cases, the Australian Heritage Commission in respect of the location of facilities;
- refer the matter to the Department of Environment, Sport and Tourism if the carrier and local council are unable to resolve issues on the likely environmental impact of the proposed facility; and
- use best endeavours to co-locate facilities wherever this is technically feasible, compatible with network configuration and minimise the effect on the environment.

Issues arising from the Code

There are three issues arising from the Code:

- community outcry about the environment;
- closed access regimes in the pay television market; and
- cabling of regional areas.

We might also note that Australia is not the only country in the world facing such issues about telecommunications infrastructure development and facilities based competition.

New Zealand

In New Zealand, communications operators have special rights to deploy their network infrastructure, with these rights being determined by the *Telecommunications Act* 1987 and the terms of the district schemes covering the deployment area issued by territorial authorities under the *Resources Management Act* 1992.

Companies providing either telecommunications services between 10 or more persons and broadcasting services by lines to more that 500 persons may be declared a network operator. Declaration assists such companies requiring access to land to lay cables or construct lines.

In many cases, the rights of operators to install telecommunications lines are governed by the *Resources Management Act*. This Act requires that each city or district council (territorial authority) prepare a district planning scheme specifying whether and how various activities which impact on the environment may be carried out. In a number of cases, these plans contain provisions restricting or requiring a public hearing process to authorise installation of telecommunications or broadcasting lines.

The balancing exercise of natural environment and cultural heritage is taken account of as part of the process of preparing the plan issued by the territorial authority.

United States

In the United States, the reported issue is not so much about cable, but about antennas. It is reported that county officials in the US are increasingly resisting applications by cellular companies to erect antennas. As the number of applications grow, more local governments are finding themselves in the situation of resolving the conflicting interests of phone companies and home owners.

Rather than blocking antennas, some jurisdictions are looking to profit from companies' use of public rights of way, such as by demanding a share of the company's revenues. The phone companies have asked the Federal Communications Commission to ban this kind of levy. Typically, though, cellular companies pay fixed rents to lease antenna sites rather than paying a percentage of their income.

The Code's performance

A check of the Code's performance in light of recent infrastructure developments indicates that it has certainly done well in maximising competitive activity, but perhaps not so well in maximising environmental and cultural protection. The fact that the Code contains potentially conflicting objects and provides carriers with a significant degree of freedom in which to operate has resulted in fierce competition and a lot of community anger.

The *Telecommunications Act* allows broadcasters to install or maintain reserved line links, but does not provide them with the same powers and immunities given to carriers.

In contrast to carriers, aspiring subscription television broadcasting providers (ie non-carriers) are subject to the normal Local, State, and Federal laws covering safety, the environment, planning and zoning, etc. If damage occurs, normal remedies are available.

We haven't seen the development of such networks in competition to the Foxtel and Optus rollouts. This is largely because they are unable to access the programming essential for their proposed services. This programming has been tied up by Australis/Galaxy and Optus in exclusive programming agreements. (Australis' programming is provided to Foxtel). Until prospective Pay TV providers have access to programs, they can't get the capital investment necessary to roll-out infrastructure.

Most prospective providers of Pay TV want to develop program services in regional areas of Australia where Foxtel and Optus are unlikely to venture. It is, therefore, difficult to understand why Australis or Optus are not prepared to hand over program rights for a fair commercial price. In some areas of regional Australia they probably wish they had overhead cable to complain about!

The upshot of such developments is that we have, in effect, a facilities based duopoly that is likely to extend beyond its intended deadline of 1997. This is because of the set of programming arrangements entered into on the basis of a particular set of policies about carriage. The content policies will be very difficult to shift.

AUSTEL's review of the code

AUSTEL's role is to monitor and ensure carrier compliance with the Code. In December 1995, AUSTEL published a report of its inquiry and review of the operation of the Code since it came into effect.

This review was conducted following a Ministerial direction to AUSTEL, largely the result of community anger with the erection of mobile phone towers without adequate consultation.

During the period of AUSTEL'S inquiry into the operation of the Code, the issue of overhead cabling hit both the courts and the newspapers. Allegations of exploitation of both the spirit and the provisions of the Code started flying. At the same time, carriers put their network rollouts into top gear, aiming to complete as much of their network development as possible before any changes to the Code were implemented.

The Department has advised that a draft Code will be available soon for public comment. Senator Alston has announced plans to place stricter controls on overhead cables and mobile telephone towers under the new Code. It is expected that the new Code will eventually be replaced by a set of national planning arrangements to be administered by the States and Local governments.

It has been reported that the new Code will require environmental impact assessments to be conducted on new networks and will see AUSTEL establish an independent dispute resolution process to hear complaints.

The Code in practice

It is easy to look back and say that we should have seen these issues coming and that something should have been done about it at the time. However, the speed with which events took place (especially in relation to broadband cable rollouts) took everyone by surprise.

Visionstream

One minute, Telstra has filed a tariff for Visionstream and the next minute a second network is committed by Optus, changing the picture of the converging telecommunications and broadcasting industries. Visionstream was the company set up by Telstra to build and operate its cable television network.

Until late in 1994, it had been expected that Telstra would operate on a common carrier basis and provide open and equal access to its Visionstream network. Visionstream would initially provide cable television services and, ultimately, telephony and other interactive multimedia services. Telstra filed its Visionstream tariff on 15 July 1994 and withdrew it four months later, on 14 November 1994.

Optus' decision to enter the market and to install, operate and control its own network changed the policy picture dramatically. In September 1994, Optus said that it would not succumb to pressure to provide open access to its network because it was vital for the success of the venture that it control content.

By clever structural means, Optus was able to establish a network that was not required to comply with the access provisions of the *Telecommunications Act*. Optus would be able to veto access to its network and avoid the limitations of the open access system chosen by Telstra for its network.

Optus' exclusive access arrangements were key factors in securing investment in the network rollout. The investment would be returned, though, as Optus relieved itself of its dependence on Telstra. The network would provide Optus with a broader future, extending its operations into television and local telephony.

However, the price Optus has paid is community outrage in some areas. While Optus is providing the competitive environment desired by both government and consumers for so long, it has incurred the wrath of the community for the environmental effects of its rollout and for perceptions that it is proceeding apace despite community protestations.

Comments about Optus cables being strung between power poles have ranger from 'plain ugly' to 'environmental vandalism'.

Camouflaging cables

A recent US journal reports that, in response to complaints about the aesthetics of antennas, many wireless companies are placing their antennas with other companies' antennas or are camouflaging them to blend in with their surroundings. Antennas have been made to look like tall pine trees, church steeples or street lights.

Perhaps this is where Senator Alston got his idea to paint overhead cables to blend into their environment (ATUG '96).

Litigation

While the overhead rollout is the quickest and most economically viable option for Optus to introduce competition into the pay television and local telephony markets, it has landed the company in the courts in Victoria, NSW and the High Court of Australia.

The High Court has been asked to resolve questions relating to the constitutional rights of councils, determining who has sovereignty over local planning and the need for carriers to comply with various town planning laws and controls.

In order to maintain pace with Optus, Telstra has recently announced that it will roll out up to 30 per cent of its cable network via overhead cabling. Will it too be subject to the same public outcry?

Why has Optus proceeded down this path? In simple terms, because it undertook to rid itself of its dependence on Telstra. While some might say that the means by which Optus has achieved this is by exploitation of the provisions of the *Telecommunications Act*, the fact remains that Optus is achieving both the former and the present government's policy of facilities based competition.

Policy intentions

However, many consider it contrary to government policy, which has been founded on a philosophy of open access for end-line consumers and content providers.

While Optus' arrangements are legal, much public comment is based on the assumption that Optus is constructing an overhead cable network because it is immune from State and local planning laws.

Optus has been well aware of the growing anger at its network construction and aware of the moves to tighten the National Code. But, it must be remembered, Optus' business plan was developed many years ago.

As we know, much has happened since then - a lot of it in the courts.

Optus' move to establish its own cable network highlighted the difficult policy considerations of the day. When the *Telecommunications Act* was drafted it was not anticipated that, as a carrier and being exempt from State and Local government legislation, what was essentially a privately-developed and operated Pay TV service in the first instance, would be able to take advantage of all of the carrier benefits in terms of powers and immunities for network construction.

In hindsight, we might ask whether the Government should have reviewed the National Code at that time and if, in fact, there were other options available to it.

Regional monopolies

Alternative solutions may have been along the lines of Telstra providing open and equal access to its Visionstream service or via Optus' suggestion of the creation of regional monopolies for cable operators, creating a regulated cable market rather than unrestricted competition, with each carrier being given equal shares of the market.

Telstra naturally opposed this notion as it would see the erosion of its monopoly of local telephony. The Government opposed it because it saw it as an erosion of the value of Telstra that had been built up over many years of monopoly.

The regional monopolies proposal would provide that the company with the rights to an area would have four years to lay its cable, after which the right would expire and another party could move in.

It was thought that the establishment of regional monopolies would accelerate the rollout of cable around the nation and reduce the associated capital cost. It would also create a totally open access system nation-wide.

Michael Lee's policy statement in November 1994 put paid to all such proposals by restating the then government's commitment to the duplication of infrastructure - that this was essential for effective competition.

Changing the ground rules

One of the most interesting aspects of the current debate about how things might be fixed relates to the section 70 binding agreements between the former government and Optus, made at the time of Optus' acquisition of AUSSAT.

This agreement provides that a financial penalty will be imposed in the event of a breach of the agreement. The most significant aspect of the agreement is that it extends to 31 December 2015 and it limits the capacity of the Commonwealth to alter Optus' existing licence conditions or impose new conditions.

Writing in the May issue of *Communications Update*, Leo Grey concludes that any condition imposed by the Minister on Optus requiring it to lay its cable underground would raise serious question about whether the agreement had been breached.

Co-operation

A brief word about whether councils, communities and carriers can co-operate? I mentioned earlier that local solutions are being found to a national issue.

The Nillumbik Shire in Victoria has written in this month's issue of *Communications Update* that negotiations have resulted in agreement being reached between parties. Conditions include that Optus will not cut down trees in heritage areas, there will be no overhead cabling in new estates and any tree cutting will be under the supervision of the council. Furthermore a council representative is to be consulted on a daily basis to ensure these terms are

enforced. Optus has also agreed to inform council of its rollout plans three months before the commencement of any work in the area.

Nillumbik also reports that Telstra and Optus have reached an agreement whereby Telstra will provide details of where underground ducting capacity exists and parties have arranged to share this capacity where possible.

On a more national front, the Australian Local Government Association (ALGA)has recently issued a statement covering its proposals for a new National Code. These proposals include the need for the separation of infrastructure provision from competition in the delivery of services.

The ALGA has suggested that the installation of all telecommunications infrastructure should comply with a range of provisions, including:

- in areas of high environmental impact, technical and economic considerations should not prevail over environmental considerations except where it is acceptable to the public authority, having consulted adequately with the local community;
- local government bodies should be able to implement locality planning statements, identifying those areas within their locality considered to be suitable for particular facilities or types of facilities;
- a report should be prepared on the options for cabling in a street where there is sufficient capacity to co-locate cabling underground;
- reports, recommendations and decisions of the proposed dispute resolution panel and AUSTEL should be publicly available;
- a public asset levy should be imposed on carriers where the assets of a public authority (eg a local council) are used and different levy rates should apply depending on the type of infrastructure proposed; and
- an expert panel should formulate and review standard rates to be adopted by public authorities across Australia.

The National Trust has supported action by the ALGA and individual councils to stop the rollout of overhead cabling on the grounds of environmental degradation. The National Trust believes that telecommunications companies should be required to obtain approval from councils for the installation of infrastructure, and provide environmental and heritage statements about the effects of such cabling.

Conclusion

While in opposition, Senator Alston criticised aspects of the National Code. Now in government, he has the opportunity to do something about those deficiencies. However, he recently commented at the ATUG '96 conference that it must be recognised that carriers have proceeded with their rollouts in accordance with plans and predictions based on a set of rules put in place several years ago.

He said:

"...In these circumstances it would be like moving the goal posts at three quarter time (or twenty minutes into the second half...) To now unilaterally intervene and require the carriers to dramatically reconfigure their networks."

In proposing to tighten the National Code, though, Senator Alston must bear in mind issues such as the speed of introduction of new communications services, the degree of competition in those services, the investment and capitalisation commitments for the services and greater obligations to consult and to have regard to those consultations.

AUSTEL commented in its recent review of the National Code:

"...Any revised code must be drafted in terms sufficiently open and flexible to accommodate technological advances which will inevitable affect the focus and conduct of business entities involved in the industry over the medium to long term. A code which is drawn too narrowly and technologically specific will require further significant revision in an inordinately short time frame."

However, conflicts remain in terms of what the Government wants and what it is prepared to pay for. When it wants someone else to pay for it, then certain sacrifices must be made. Again, quoting Leo Grey from *Communications Update:*

"In the mega-corporate privatised world of the late twentieth century, cash-strapped governments are looking for large-scale business investment rather than taxpayers' dollars to deliver on major infrastructure policy commitments. To secure that investment, there is always a price that government is asked to pay. That price is an assurance of stability and certainty for the investors in government policy. Without it, the investment and commitment to long-term involvement in a particular industry will not be forthcoming."

It is clear from the public outcry, though, that the full social costs of network rollouts are not being taken into account. The section 70 agreement between Optus and the Government forces the full social costs of the network rollouts to be borne, not by the carrier, but by the community as a whole. The effect is to impose the costs back on to the community.

What can we do about this? The awkward reality is that if we want to change the situation then it will not be cost-free. Our choices seem to be to live with the infrastructure and enjoy the benefits of competition or to bear the cost of change and to lose potential benefits.

Decisions about facilities based competition were made many years ago, with the environment being sacrificed and accepted as the price to be paid for telecommunications competition.

The commercial, political and environmental consequences of those decisions are now being felt. Today, however, it is not the environment that will be sacrificed for telecommunications competition.

Rather, competition in telecommunications may be the price that is paid to save the environment.

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