REVIEW OF TELECOMMUNICATIONS SPECIFIC COMPETITION REGULATION

ACA SUBMISSION TO THE PRODUCTIVITY COMMISSION

August 2000

1 The Australian Communications Authority (ACA) submits to the Productivity Commission's Review of Telecommunications Specific Competition Regulation that the current regulatory approach has generally produced robust results for competition in the telecommunications sector. By measures such as the number of organisations taking up carrier licences, the growth of the sector, consumer awareness and use of choice, and price trends, the telecommunications sector is becoming increasingly competitive and consumers are deriving benefits from this, although to varying extents.

2. This Review is giving consideration to the specific question of whether it is time to remove the telecommunications-specific sections of the *Trade Practices Act 1974* and rely on the general access regime in Part IIIA of that Act, as well as the general protection against anti-competitive behaviour. The ACA will not respond in detail on this question since that is in the expertise of the Australian Competition and Consumer Commission (ACCC), but its general position is that there continues to be a need for a telecommunications-specific access regime and additional measures to guard against anti-competitive behaviour. It is when the ACCC, after a comprehensive study, makes a declaration that access should be provided in respect of a particular service, or directs the ACA to make rules about number portability for a particular service, that major advances in competition are made. Specialist telecommunications provisions are needed for these advances to be made, at least until there are sufficient precedents of successful access and continued service competition and any-to-any connectivity can be assumed.

3. A criticism that has been made of the current regime is that arbitrations by the ACCC or exemption decisions by the ACA take too long. While there is scope for process improvements in the latter (the ACA is not in a position to comment about the time taken for ACCC arbitrations), the ACA makes the point that removing recourse to telecommunications-specific competition regulation would add to the time taken for decisions. Where recourse to general litigation has been used, as in New Zealand, there were great delays. Bilateral negotiations are clearly not a possibility since it is their failure that has led to the arbitrations. The production of voluntary codes that have the authority to resolve questions of access is not yet a possibility. The industry is still struggling to produce agreed operational codes to deal with the details after a particular competition regulatory decision has been reached.

4. Competition in parts of the telecommunications industry is moving towards the point at which general competition regulation would be appropriate, and in particular the scope of industry self-management is increasing. For example, regulation of the cabling area, one of the first areas of the industry to be opened to competition, is now being dismantled. However, the current access and interconnection regime has been in place for only three years. It is the area of telecommunications liberalisation that is most difficult wherever the sector has been reformed. The absence of independent regulation of access would lead to lengthy arbitration and litigation and therefore to delays, the net effect of which could be to further entrench the market power of the largest incumbent integrated telecommunications organisation.

5. The ACA's responsibility for specific measures designed to promote competition is relatively minor, and is limited to those areas in which technical expertise is required. This submission focuses on those specific areas. For these areas, this submission addresses the following questions—

- what are the current arrangements?
- how well are they working, with respect to the promotion of a competitive market structure? and
- are the provisions still needed?

Appendices 1-4 consider these points for the areas highlighted in the terms of reference of this Review, that is—

- pre-selection;
- technical standards for interconnection
- number portability; and
- licence conditions for carriers set out in Schedule 1 of the *Telecommunications Act 1997* (the Telecommunications Act).

The Productivity Commission's Issues Paper also raised some question about the management of numbering and these are discussed in Appendix 7.

6 Pre-selection is now available both for standard telephone services and for fixed-to-mobile calls, and this has been of benefit for both new entrants and consumers. Pre-selection remains an important safeguard against 'locking in' customers, and the relatively high levels of consumer awareness of pre-selection enhance its effectiveness as a competition measure. Although no expansion of pre-selectable services are currently under consideration, it is expected that other services will need to be assessed in the future. For example, pre-selection of domestic and international long distance calls from mobiles, now available in a number of European countries, could be considered. It is a strength of this pro-competition provision that the ACA has the ability to initiate consideration of expanding the pre-selectable services.

7 The legislation provides a pre-selection exemption process, the details of which differ from the process for dealing with number portability exemption applications. The major differences are the tests and the arrangements for consulting with the ACCC. It would be preferable if these processes were more aligned, but processes are in place to ensure consistency. Appendix 1 deals with pre-selection in more detail.

8 A second area where there are specific provisions with competitive implications is the making of technical standards about the interconnection of facilities. The ACA can only make such standards if the ACCC directs it. To date there has been no need. However, there is another area where it would be useful if there were a power for the ACA to make technical standards in order to improve competitive outcomes: the protection of network integrity where access provisions give rise to interference between networks. There appear to be neither regulatory nor self-regulatory options to resolve this under current arrangements. Such a power could be subject to ACCC direction. See Appendix 2 for further details.

9 Perhaps the most significant area where there is shared responsibility for competitive outcomes is number portability. It has been a significant focus for the ACA over the last three years. Local number portability has been implemented,

portability of freephone and local rate numbers is due to be introduced in November of this year, with mobile number portability due in September of next year. Every phase of portability introduction has been time-consuming and difficult, but the relationship between the ACA and the ACCC has been a strength, not a weakness. While there is an opportunity for process improvements, the current legislative arrangements have allowed significant gains for new entrants and consumers. Australian progress on the introduction of number portability has gone well by international comparison. Number portability is further discussed in Appendix 3.

10 The ACA has not generally been asked to exercise its functions in Parts 2 to 5 of Schedule 1 (relating to various infrastructure access matters), but considers that the existence of the provisions has a positive effect. (See Appendix 4.)

11 One of the singular features of the Australian regulatory approach is the involvement of both an industry-specific regulator (the ACA) and a general competition regulator (the ACCC). Appendix 5 addresses the issues of coordination and possible duplication that could arise from this divided responsibility. In practice, the division of responsibilities generally works well and has been increasingly fine-tuned over the past three years. Furthermore, the joint involvement of the regulators has ensured that a wide range of relevant considerations are taken into account, and helps to ensure the independence of the regulatory arrangements.

12 There have been considerable developments in industry self-regulation over the past three years, and therefore the issue of whether self-regulation can substitute for regulation in some areas arises. Appendix 6 deals with this issue.
The ACA believes it is still too early for industry to take responsibility, via the Australian Communications Industry Forum (ACIF), for roles currently performed by the ACCC or the ACA. Newer entrants have not yet become full participants in ACIF, so that handing functions in the area of access and interconnection to ACIF at this stage would most likely have the effect of strengthening the position of the stronger incumbents.

13 In conclusion, the key question of the Review is, in effect, 'is it time to dismantle industry-specific competition regulation?' The ACA believes it is too early. Although telecommunications competition has made enormous strides since open competition was introduced in July 1997, there is still a need for industry specific competition regulation. 'Any-to-any connectivity' is a telecommunications specific requirement that produces a very high level of dependence of new entrants on incumbents. Competition would be adversely affected without special provisions that gave industry participants methods of resolving access and interconnection disputes.

Appendix 1 Pre-selection

1.1 Pre-selection refers to the ability of an end-user to choose a particular provider to carry a particular call on either an on-going basis or a call-by-call basis. Pre-selection existed for fixed network calls before 1997, but only between the two existing fixed network carriers and a few eligible service providers (as the term was under the *Telecommunications Act 1991*). Part 17 of the Telecommunications Act broadened its availability. Part 17 requires the ACA to make a determination requiring carriers and carriage service providers that supply a standard telephone service to provide pre-selection in favour of specified carriage service providers (CSPs). The ACA's initial determination specified four services that must be able to be pre-selected:

- national long distance voice calls to a geographic location;
- international direct-dial voice calls;
- specified operator assisted calls; and
- international ring-back pricing code calls.

1.2 A second determination brought calls that originate on fixed networks and terminate on mobile networks into the existing single basket of pre-selectable services.

1.3 One measure of the effectiveness of the pre-selection regime in achieving competition is whether it has delivered benefits to industry and consumers in a timely manner. Development of the initial determination was particularly quick because it was largely based on work already done by the Pre-selection Working Group of the forum that preceded ACIF, the Network Interworking Industry Forum which had been operating for some time under the previous regulatory regime. The development process for the fixed to mobile pre-selection determination was also timely, involving approximately 6 months of industry consultation, research and analysis. In this respect it could be argued that the current regime has met the needs of industry by allowing for the timely achievement of competitive outcomes.

1.4 Another measure of effectiveness is cost of compliance. In this instance, the compliance costs to industry were minimal because the determination was building on existing arrangements.

1.5 The benefits of the determinations have been substantial. Firstly, there is now a requirement on all originating access service deliverers (OASDs) to provide pre-selection (on an on-going basis, not just through override codes) to all access seeking carriers or CSPs. It is not only Telstra which must provide pre-selection. All access seeking carriers and CSPs have the same right to negotiate with originating access service deliverers for pre-selection. Where the parties are unable to agree to the terms and conditions for making pre-selection available, the Act requires that they be determined by an arbitrator appointed by the parties or, failing agreement to this, by the ACCC. Prior to mandating the pre-selection requirement, negotiation about the prices, terms and conditions for enabling pre-selection was predominantly dictated by the dominant OASD – Telstra. This provides a safeguard for those participants that are not in a strong position to negotiate access.

1.6 The benefits to consumers of pre-selection are choice of supplier and, through increased competition between industry participants, a reduction in the prices of services for end-users. Competition in a market should also facilitate industry innovation and development – resulting in new services for consumers.

1.7 The ACA has investigated the possibility of introducing a further requirement on carriers to provide multi-basket pre-selection. Multi-basket pre-selection is the capability for an end-user to pre-select separate providers for separate pre-selectable services or bundles of services. Industry submissions on this proposal were divided about the demand for and feasibility of multi-basket pre-selection. However, the ACA believes that there are now grounds for multi-basket pre-selection to be considered further both because some time has elapsed since it was first investigated and technological solutions may now be available. There are also other services to which it may be appropriate to extend pre-selection in the future, especially mobile services.

1.8 The ACA has noted that industry interest in extending pre-selection requirements is limited. This is partly due to the inability of industry to resource the multitude of regulatory projects that are currently running, for example, implementation issues arising from the declaration of the unconditioned local loop (ULL, also referred to as the High Capacity Local Loop, or HCLL) and number portability implementation. Many key industry participants were involved in the ACCC's declaration process and are now heavily entrenched in industry code and standard development to support access to the ULL. The drain on industry resources cannot be overlooked as a major constraint on development and implementation of a variety of competitive outcomes, especially where the majority of effort is required to come from the carrier(s) which stand to lose market share.

1.9 This situation may change so that an extension of pre-selection becomes a focus for the expansion of competition. In that case, the most efficient consideration would be under industry-specific provisions, so that the features of the new services and the technical feasibility of pre-selection for those services can be taken into account at the same time as the long term interests of end users is considered.

1.10 In some situations there can be an overlap between the access regime and the regulatory responsibilities of the ACA. For example, in some respects the pre-selection regulatory regime can be seen as duplicating the effect of an ACCC declaration on originating and terminating public switch telecommunications network (PSTN) access in that both processes can be used as an unbundling tool. However, one major difference in the two regulatory regimes is that pre-selection requirements apply to all parties providing a standard telephone service, regardless of market dominance or incumbency. In contrast, the access regime is primarily intended to address 'bottleneck markets' where competition in a market requires an incumbent to give access to the bottleneck service as well as to promote any-to-any connectivity and other situations where access is in the LTIE. It is also important to note that the pre-selection and over-ride code regime is significant for two reasons:

- it enables all CSPs and carriers to gain access to customers that would normally be locked into service arrangements with one provider; and

- it provides for extensive customer choice by allowing the customer to pre-select a particular provider for the pre-selectable services but also to override that choice by selecting another provider for the particular service – on a call by call basis.

1.11 These are fundamental aspects of pre-selection that are not achievable through the access regime. If multi-basket multi-deliverer pre-selection were to be introduced, the customer's choice would be opened up even further to allow multiple providers for different packages of services, on an ongoing basis.

1.12 Levels of consumer awareness of pre-selection appear to be high, enhancing its effectiveness as a competitive measure. A survey conducted for the ACA in March 1999 showed residential consumers were well informed about—

- availability of choice between long distance providers (94% aware)
- availability of choice between local call providers (73% aware).

1.13 The pre-selection legislation also provides for the ACA to exempt a carrier or CSP from a requirement to provide pre-selection on the grounds of technical feasibility and/or unreasonable financial hardship. The ACA is not limited to these matters and can take into account other relevant issues when considering whether to make a pre-selection exemption. These provisions have a similar intent to the provisions relating to number portability exemptions, but have some differences. There is no formal requirement to consult the ACCC, and there is not a formal LTIE test, although clearly the grounds for exemptions overlap with LTIE tests. These differences can make for divergence, and the ACA is aware that industry participants do not make the distinctions that it sees between the two sets of exemptions. However, the ACA has recently undertaken some measures to ensure that considerations of the two kinds of exemptions will follow similar processes. Even though formal ACCC consultation is not required, the ACA has consulted about pre-selection exemption applications as a matter of course.

1.14 The exemption process provides a safety mechanism for situations where there are special circumstances that make it difficult for carriers or CSPs to comply with the pre-selection requirements. This is a standard aspect of regulatory frameworks and is useful where the industry is fluid and fast moving and it is difficult to predict what future developments will occur. For example, where new and innovative services are introduced, the requirement to make pre-selection available might have detrimental effects on the commercial viability of the product during the early implementation phase. In such a case, the ACA might grant a pre-selection exemption for a limited period of time, after which it would be reviewed and possibly revoked if the circumstances had changed.

Appendix 2 Network Integrity Standards

2.1 In July 1998 the ACCC, under *Part XIC of the Trade Practices Act 1974*, declared the unconditioned local loop (ULL) service. This declaration allows access to the unconditioned local loop for the supply of a range of services. These include basic telephone services, services using ISDN technology and high bandwidth carriage services using digital subscriber (xDSL) technology.

2.2 The Australian Communications Industry Forum (ACIF) had, by July 1998, commenced work into how services over physical copper lines could be supplied without giving rise to interference between transmission systems. ACIF has since pursued the development of a number of technical and operational specifications and guidelines to ensure that ULL services are made available to access seekers.

2.3 ACIF has developed a draft industry code *ACIF DR G559 Unconditioned Local Loop Service - Network Deployment Rules* and a draft guideline *ACIF DR G560 Spectral Compatibility of Systems Using the Unconditioned Local Loop Service.* Industry is desirous of enforcement of the deployment rules under the *Telecommunications Act 1997* (the Act). The Act in its present form allows for an interconnection standard to be made under Part 21 section 384, or registration of an industry code or industry standard under Part 6.

2.4 The ACA may not make an interconnection standard unless it is directed to do so by the ACCC. The Telecommunications Act requires that the ACCC must not direct the ACA unless it is necessary either to promote the long term interests of end users or reduce or eliminate the likelihood of hindrance to the provision of access to declared services. Section 152AR of the Trade Practices Act enforces interconnection standards developed under section 384 of the Telecommunications Act. The provision in the Trade Practices Act requires that the technical and operational quality and timing of the interconnection be equivalent to that which the access provider provides to itself.

2.5 The ACA may register a document as an industry code under Part 6 of the Telecommunications Act. The ACA may not register an industry standard unless an industry code becomes deficient, fails to operate or fails to be developed. The ACA may not register an industry code that imposes undue financial and administrative burdens on participants in sections of the telecommunications industry. Section 115 of the Act nullifies an industry code or industry standard that requires certain design features or performance requirements. It is also relevant to note that industry codes and industry standards are not an alternative to technical standards under Division 5 of Part 21. Section 113 of the Telecommunications Act sets out examples of matters that may be dealt with by industry codes and industry standards. None of the examples given are examples of interconnection standards or network integrity standards.

2.6 There is provision in section 115 of the Telecommunications Act to use regulations to avoid the basic prohibition on design features and performance requirements. However in the ACA's view utilisation of this provision may not be entirely adequate for enforcing requirements which protect the integrity of networks, or are more properly the substance of an interconnection standard. Nor does it appear

to be an appropriate substitute for a standard which is intended to work in unison with the Trade Practices Act.

2.7 The dilemma that the ACA and industry face is that ACIF's G559 is neither an interconnection standard nor is it suitable for registration as an industry code. It is not an interconnection standard because it does not define and specify the characteristics of the interface which interconnect networks. It is not suitable for registration as an industry code because it specifies particular design features. The enforcement of particular design features can also have particularly undesirable effects on competition. A potential solution, however, lies in the specification of interference limits to protect the integrity of each network while providing for some flexibility in the way services are deployed.

2.8 While Part 21 of the Act does provide for making technical standards for interconnection between networks and interconnection between customer equipment and networks, it does not adequately provide for protection of the integrity of networks at the point of interconnection between networks nor at points along a transmission line between the points of interconnection. A network integrity standard, however, could work in conjunction with a network design guide. The guide could provide guidance to access seekers on how various xDSL deployments could be designed to not exceed the interference limits specified in the standard. Compliance would then be dependent on ULL systems not exceeding the limits rather than on how a particular deployment is configured.

2.9 In conclusion the Telecommunications Act is currently deficient in its limited provisions for network integrity standards. This is currently a dilemma for the ACA in dealing with the ULLS in that it is not fully appropriate to make a network integrity standard or an interconnection standard, nor to register an industry code or make a standard. An analogous provision to make radiocommunications standards which protect the integrity of radiocommunications networks exists in the *Radiocommunications Act 1992*. A specific provision in the Telecommunications Act would not only address this problem, but would enable industry bodies such as ACIF prepare standards which specifically address interference matters and partition out design configuration advice on how to not exceed interference levels in a design guide. In addition, section 384 of the Telecommunications Act should be retained for the purpose of making an interconnection standard if a need arises.

Appendix 3 Number Portability

3.1 The portability of allocated numbers (ie. number portability) refers to the ability of customers to change their CSP and retain the same telephone number. Number portability is a critical factor in promoting competition in a multi-CSP environment. It enables consumers of telecommunications services to make a choice between CSPs based on price, quality, and service without the inconvenience and costs associated with a number change.

3.2 Its crucial role was recognised in the Telecommunications Act. The accompanying Explanatory Memorandum noted that:

> The provision of number portability is important to opening up the market in the provision of carriage services to competition because the need to change telephone numbers is removed as a barrier to end-users changing carriage service providers.

3.3 The ACA believes that industry specific competition regulation is the appropriate mechanism for number portability for the two to seven year time frame within consideration of this review, and that desired policy objectives could not be achieved in the short to medium term through reliance on the more general provisions of the Trade Practice Act. Nor could number portability objectives be achieved through self-regulation alone.

3.4 Regulation of number portability under the Telecommunications Act provides for a phased approach to be taken towards its planning, mandating, and implementation:

- The ACCC, with assistance from the ACA, determines whether portability for a particular telecommunications service is in the long-term interests of end-users.

- If number portability for a particular telecommunication service is in the LTIE, the ACCC directs the ACA to set the earliest practicable date for its implementation.

- Industry self-regulation, through ACIF, contributes to this implementation by the development of appropriate codes. This has been a vital stage in the implementation of portability targets, but is dependent on the previous steps.

- Once implementation of number portability for a telecommunications service has occurred, the ACA then monitors its continued provision and takes responsibility for dealing with applications for exemptions, in consultation with the ACCC.

3.5 In accordance with the ACCC's Directions of September 1997 and October 1999, the following services were declared portable services:

- local services;

- freephone services;
- local rate services; and
- mobile services.

The first is now implemented, freephone and local rate portability is to be implemented on 16 November 2000, while mobile number portability will be introduced on 25 September 2001.

- ***Local Number Portability***

3.6 Local Number Portability (LNP) was implemented in Australia in two stages: limited LNP from 1 May 1998, and full LNP from 1 January 2000. There has been significant porting activity, both during the interim 'limited' phase and since 1 January 2000. Local number porting activity from May 1998 to December 1999 was in the order of 160,000 ports. Since the implementation of full LNP in January 2000, an additional 125,000 ports (approx.) have occurred, taking the cumulative total since May 1998 to approximately 285,000. Caution must be exercised in interpreting porting statistics. Even if the volume of ports seems low, it may be the existence of greater contestability has had positive impacts as CSPs have to offer more to retain customers.

3.7 In general, the implementation of LNP has been successful. To the extent that there is a reservation on this judgement it relates to industry's inability to complete, via ACIF, codes necessary for the implementation of LNP in a timely manner. Although ACIF played a key role in fulfilling the ACA's achievement of its limited and full LNP implementation objectives, it was unable to complete its LNP operations code on schedule. This delay is likely to have been further exacerbated without the roles played by the ACA and ACCC in ACIF fora.

3.8 This delay directly contributed to a number of successful LNP exemption applications. The ACA was required to consider two separate rounds of exemption applications in relation to limited LNP for three different CSPs, thereby delaying consumers' early access to widened LNP across all industry participants. Since LNP is the only form of number portability in operation, it is the only area in which the issue of number portability exemptions has arisen. There have been some lessons from this experience which are being addressed in the arrangements being put into place for mobile number portability (MNP).

3.9 One issue relates to the number of stages in the LNP exemption process and the time allowed for each. It can become drawn out. The ACA has 90 calendar days to reach a decision on initial applications (during which time the applicant is effectively exempted). Requests for additional information can extend this time. After that the CSP has 28 days to request a reconsideration, followed by an additional 90 days for the ACA to reconsider its decision. However, it is within the scope of the ACA and ACCC to address this issue.

3.10 Another lesson relates to the phased introduction. Because the ACIF LNP Code was not completed, a need for exemptions became evident. The introduction of MNP will not be similarly affected because the ACCC's October 1999 Direction specifically precludes the development of an interim implementation date or technical

solution for MNP. The main effect of LNP exemptions has now finished and there are only two exemptions still in force, neither of which have significant impacts on competition. Telstra has an exemption for its (non-ETSI) ISDN Microlink service. It is currently phasing out this obsolescent service and the affected customer base is decreasing. C&W Optus has an exemption for its MultiNet SVC service and this is of little consequence to the general provision of LNP as the geographic numbers concerned are in fact 'invisible' to affected customers, used only for data traffic addressing and not able to be 'dialled' by outside callers.

3.11 The MNP Direction will lead to improvements in the processes for handling exemption applications as well as minimising the occasion for them, by changing the administrative processes and the review and appeal mechanisms. Once the necessary amendments to the Numbering Plan have been completed, the process of considering an application for exemption will be simplified and the roles of both the ACA and the ACCC clarified.

3.12 Number portability for each service the ACCC has declared portable has been addressed on a service by service basis. The exception to this is that of freephone and local rate number portability which are being addressed together since they are both global inbound services. These services are being implemented by a different mechanism than LNP and MNP: via a centralised database solution maintained by an industry established independent body; Industry Number Management Services Ltd (INMS).

3.12 Industry made separate decisions about the technical solutions for LNP and MNP, since the declarations of the services as portable were two years apart. In each case, an industry-wide intelligent network solution was rejected on the grounds of the associated costs. These separate processes have made it harder to achieve efficiencies, but it was not a possibility that industry would have introduced either form of portability under its own volition.

3.13 As mentioned above, self-regulatory processes play an essential role in the introduction of number portability, in particular in the development of network plans and operational procedures. This aspect of number portability implementation has had mixed success. The code development process is arduous. At times it appears as though some participants in such code development have a particular vested interest in delaying the process; particularly when the implementation of number portability is reliant upon its completion. Further discussion of self-regulation appears in Appendix 6.

Appendix 4 Licence conditions relating to industry development plans and access

4.1 The role of the ACA in relation to industry development plans (IDP) (Part 2 of Schedule 1 of the Telecommunications Act) is limited to requiring proof that an IDP has been approved by the Minister before granting a carrier licence. It is, however, the ACA's observation that the development of an IDP is not a barrier to market entry. An industry development plan is fundamentally the extension of a person's business plan, amended as required to address the specific requirements of Part 2 of Schedule 1 to the Telecommunications Act. It is expected that a person intending to apply for a carrier licence would have such a business plan before deciding to establish a telecommunications network or own a network unit.

4.2 The provisions relating to access to supplementary facilities in Part 3 of Schedule 1 to the Telecommunications Act send clear signals about access to supplementary facilities to access providers. An advantage of the current placement of these provisions is that they have the status of a licence condition, and therefore provide more enforcement options. In practice, the occasion for this has not arisen, suggesting that the provisions have achieved their effect. Their removal could send the signal that less emphasis was being placed on the provision of access to supplementary facilities.

4.3 An issue relating to investment which is discussed below in relation to Part 5 of Schedule 1—whether there is a disincentive to investment where the investing carrier may have to allow another carrier to use the facilities paid for by that investment— also applies here. There needs to be a balance made between a carrier making reasonable provision for the future use of its own capacity on the one hand and providing reasonable access on the other. It is sensible that a regulator with industry-specific expertise should have a power to make judgements about that balance where the parties cannot reach agreement.

4.4 Part 4 of Schedule 1 relates to access to network information. Sharing of information about matters such as forecasting traffic is necessary to the successful implementation of the competitive regime, for example, so that network dimensioning for proper performance of interconnected networks is in place. Although such matters are best dealt with through self-regulatory processes and bilateral agreements, this does not always occur, and the absence of specific agreements about information sharing can lead to disputes. There can be suspicion that commercial information, for example about the expected number of business ports, may be misused when supplied to the carrier standing to lose business. Therefore, there is value in having these provisions that could be enforced if warranted by the circumstances.

4.5 Under Part 5 of Schedule 1, which deals with access to telecommunications transmission towers and to underground facilities, carriers are required to give access to towers, the sites of towers and eligible underground facilities to other carriers. Under clause 37 of Part 5 of Schedule 1, the ACCC has also developed the *Code of Access to Telecommunications Transmission Towers, Sites of Towers and Underground Facilities* (the Facilities Access Code) which the ACA enforces. This code was gazetted by the ACCC on 13 October 1999. It sets out the administrative

arrangements for applying for access to facilities covered by Schedule 1 of the Telecommunications Act.

4.6 The effect of Part 5 of Schedule 1 is that carriers do not have the right to reserve capacity on a facility that they have built, except where it is not technically feasible to provide access in which case the ACA may issue an certificate. The ACA has provided some advice on technical feasibility issues (mostly to local councils), but it has never received an application for a technical feasibility certificate.

4.7 During 1999, DoCITA issued a discussion paper, *Proposed Amendments to Part 5 of Schedule 1 of the Telecommunications Act 1997*, and asked for submissions. Telstra, C&W Optus and Vodafone put in a joint submission. This submission argued that the current arrangements could have an adverse impact on investment activity. The basis for their view was that under the current arrangements carriers do not have the right to reserve capacity for future needs. It was argued that the inability to reserve capacity would act as a deterrent to investment.

4.8 It appears reasonable to suggest that a carrier's decision to invest and build telecommunications facilities will be influenced by its ability to ensure those facilities will be available for its own use. Presumably, if carriers' future rights to use their own infrastructure is constrained by the requirement to provide access to other carriers, regardless of their own needs, then this will affect investment decisions.

4.9 Nevertheless, the right to reserve access could potentially operate to frustrate or undermine the policy goals of co-location and access for new entrants to the telecommunications market. The ACA notes that the submission did not provide any empirical evidence to substantiate the view that the current arrangements could be a deterrent to investment. Nor is the ACA aware of any specific instances where investment has been affected because of the current access regime

4.10 The policy goals of Part 5 of Schedule 1 include encouraging co-location of facilities, which relates more to environmental objectives than to competition, although there is not a conflict in this case. Generally speaking those parts of the Telecommunications Act which give effect to environmental goal are primarily administered by the ACA, so that this part of Schedule 1, in contrast to other parts, is primarily administered by the ACA. The ACA is also responsible for administering the provisions contained in Schedule 3 to the Act that deal with the installation of a telecommunications facility. This role is to ensure compliance with the Facilities Access Code and to assess applications to refuse access on technical feasibility grounds. The ACA has not received any complaints under the Facilities Access Code.

4.11 The ACA's view is that on balance there is a rationale for having provisions in the Telecommunications Act that facilitate access. On the positive side of this balance is that access to facilities may well involve technical issues with which the ACA is best placed to deal. Also on this side of the balance is that the presence of these provisions within the Telecommunications Act allows a range of policy goals to be taken into account. The co-location provisions strike a balance between the need to facilitate network rollouts against the need to limit the impact of facility installations on urban amenity. On the negative side of the balance is that the provisions have not been much used, and in practice an access dispute would be either

dealt with by way of ACCC arbitration or circumvented by the construction of separate facilities.

4.12 A recent development could have implications for these access provisions. C&W Optus has sold its portfolio of approximately 700 mobile telephone towers (including ground leases, freehold title where applicable, associated fixtures and access rights) to Crown Castle International. It has retained ownership over the equipment on the towers, such as antennas, microwave dishes, equipment shelters at the bases, electronics and feeders and cable trays linking the equipment on the tower with the shelter.

4.13 As a non-carrier owner of towers, Crown Castle is not subject to Part 5 of Schedule 1. Access of other carriers becomes a commercial, not a regulatory matter. As the owner of the tower infrastructure, Crown Castle will enter into a commercial sub-leasing arrangement with Optus and any other third party for access to and use of the towers at each site. Optus will retain responsibility for the carrier licensing obligations in respect of each of the base stations it owns that are located at the Crown Castle tower sites. Crown Castle would therefore not be required to hold a carrier licence or ensure a nominated carrier declaration is in place in relation to these assets.

4.14 It would appear to be in Crown Castle International's commercial interest to give carriers access to the towers, but it is unclear what the long-term impact of the sale will be on the policy objectives of Part 5 of Schedule 1. Another factor is that carriers will be able to install low impact facilities on these towers under Schedule 3 of the Telecommunications Act without paying Crown Castle or seeking its consent. On balance, this development is not expected to impact adversely on other carriers' access to towers formerly owned by Telstra, and may be an initial indicator that carrier access to each other's towers will increasingly be managed by commercial arrangements, not regulation.

Appendix 5 Dual regulation: the existence of two regulators

5.1 Over the last three years, there has been a high degree of co-operation and collaboration between the ACA and ACCC. The ACCC's nominated Commissioner for Telecommunications is an Associate Member of the ACA, and the ACA's Chair is an Associate Commissioner of the ACCC. In addition, the senior management of the two agencies holds regular forums, and there is extensive officer consultation.

5.2 The ACA must consult the ACCC prior to making a range of decisions, both those clearly connected with competition, for example local number portability exemptions, and those where the decision could have competition impacts, such as the making of service provider rules or changes to the Numbering Plan. As well, there are some areas where the ACA may only take action in response to an ACCC direction, as in making rules about number portability or making a technical standard about the interconnection of facilities. These provisions ensure that factors relating to competition and competition aspects are fully considered in the ACA's decisions. Even where such consultation is not mandated (for example, pre-selection exemption considerations) consultation is routinely undertaken.

5.3 An advantage of the present arrangements is that the joint involvement of a competition regulator and an industry-specific regulator permits a wide range of considerations to be brought to bear on particular decisions. The ACA would regret changes to the regulatory framework that lessened the opportunity to consider this range of considerations. Two examples are given below, relating to the Universal Service Obligation, and national interest considerations.

5.4 It is generally recognised that ensuring the availability of telecommunications to all geographic regions of a country is not something that can be left to the market. There is recognition of this in the Reference Paper to the World Trade Organisation's Agreement on Basic Telecommunications, which says

> *Any Member has the right to define the kind of universal service obligation it wishes to maintain. Such obligations will not be regarded as anti-competitive per se, provided they are administered in a transparent, non-discriminatory and competitively neutral manner and are not more burdensome than necessary for the kind of universal service defined by the Member.*

5.5 The administration of the Universal Service Obligation in Australia meets those requirements, since the governing arrangements are set out in legislation and regulation that is publicly available and the levy arrangements fall upon all carriers in a non-discriminatory and competitively neutral manner. (Carriers may have reservations about the cost of the obligation to which they contribute, but the methodology of that costing is made generally available.)

5.6 An issue in relation to the interaction of the Universal Service Regime and competition considerations is the potential for the provision of universal service to constrain the availability of facilities which might otherwise be available to access-seekers. This has been an issue for industry participants developing codes governing access to the Unconditioned Local Loop. Telstra's copper network is distributed in such a way that the cable capacity is greater close to the exchange with lower cable

pair densities branching off with distance from the exchange. Because of its USO, Telstra would like to hold back some of the copper pairs at the outer edges of the network so as to be sure it could meet demand if new customers appeared in those areas. Access-seekers may have characterised this as withholding access. A compromise approach has been developed on this issue and it remains to be seen if the compromise holds; whereby the access seeker takes contractual, though not statutory, responsibility for the USO on copper which it has taken over.

5.7 Another area in which competition could be in conflict with what is done for other reasons is assistance to law enforcement and national security. Government agencies with functions of law enforcement and national security have a legislated right to seek assistance from carriers and carriage service providers in pursuit of their functions. Similarly, in emergency situations, agencies may seek immediate assistance from carriers and providers. As the industry structure becomes more deregulated and complex, tension develops between these imperatives and those of competition.

5.8 An example of this comes from number portability. Number portability, as discussed in Appendix 3 above, is important to contestability, but it has the effect of complicating police and national security work. These effects can be mitigated by the development of procedures, but such procedures are more difficult to develop if the need for them is only appreciated after implementation.

5.9 Another example is a life threatening situation in which access to customer information could be vital. Currently there is a requirement on providers who hold customer information to have arrangements so that they can be contacted 24 hours a day 7 days a week and customer information can be accessed at that time. Some new providers, especially relatively small resellers, have suggested that this is a significant impost on their business in the start up phase.

5.10 In summary, the ACA has not experienced inefficiencies as a result of two regulatory agencies being involved in certain decisions, and believes that there has been robust and balanced consideration of all relevant factors, whether competition-related or not, as a result of the current arrangements.

Appendix 6 The role of industry codes of practice

6.1 The self-regulatory body set up and funded by the telecommunications industry, ACIF, has considerable achievements to its credit, for example, seven codes of practice have been registered under section 117 of the Telecommunications Act. Notwithstanding these achievements, it is the ACA's belief that enhanced self-regulation arrangements cannot currently replace the need for an underpinning by a formal competition-specific regime.

6.2 ACIF is currently heavily involved in the implementation of two projects crucial to the further development of competition: the unconditioned (or high capacity) local loop, which ACIF refers to as its HCLL Project; and mobile number portability. In both cases, a project management group has been set up with a variety of working groups developing documents under its aegis. In the case of the HCLL Project, three codes, seven standards and some supporting documents are being developed. It is a huge effort that has involved groups meeting on a weekly basis or even more frequently. By the time the internal resources of the organisations providing representatives to the groups are factored in, time spent at ACIF meetings is probably only about a sixth of the total resources consumed. In spite of this extraordinary commitment, the fact remains that it was the ACCC's declaration of the unconditioned local loop that made this effort possible. Without that trigger, it is unlikely that the telecommunications industry would have voluntarily embarked on this course of action.

6.3 The similar efforts put into mobile number portability were also triggered by an ACCC Direction.

6.4 Nevertheless, it is necessary to record some caveats about the ability of the ACIF process to bring about competitively neutral outcomes, and to do it in a timely way. This is not a criticism of ACIF; it is a reflection of the current state of the Australian telecommunications industry. It is the larger more established organisations that inevitably dominate ACIF forums. Smaller firms are less likely to participate in industry self-regulatory mechanisms, usually because they do not have sufficient resources to provide representatives to a range of committees and working groups. Larger firms may have five or ten people who spend a very significant proportion of their time on ACIF activities, and who call upon further internal resources. This kind of commitment is hard to justify for new entrants at a time when they have crucial operational and marketing imperatives. As a result, the outcomes of ACIF processes may tend to reflect the views of a minority (the larger and better resourced) of industry participants.

6.5 The experience with the ACIF processes to address the technical and operational issues arising out of the ACCC's ULL declaration illustrate this situation. The ACIF operational code working committees are predictably dominated by larger carriers, and to that extent apparently multi-lateral documents take on a bilateral character. This may have the unintended effect of limiting competition by requiring smaller firms to ultimately comply with an industry code that represents the interests of larger firms rather than the industry as a whole.

6.6 This has the potential to influence the decision of the ACA in deciding whether or not to register a code. The act of registration means that the code may be used as a basis for direction against a party in the section of the telecommunications industry to which the code is expressed to apply, even where the party did not participate in the development of the code. It may not even have been aware that the code was being developed, although it did have the right to participate.

6.7 A further constraint on ACIF's ability to promote competition is the balance it has to achieve among its own differing interests and functions. It has a role to represent industry at various forums, including when engaging in dialogue with government. In developing industry codes, ACIF is also required to balance the competing commercial interests of its members to develop a code that all members are satisfied with.

6.8 The ACA does not mean to suggest with these comments that ACIF is not a valuable part of the Australian telecommunications scene. Code development is of considerable assistance to the development of competition, for example, as a way of shortening the process of bilateral negotiations and providing guidance as to what are industry practices and expectations. However, widening its competition role in the current state of competition would operate to the disadvantage of newer entrants. This assessment relates to the time of writing, and could change within a two or three year period.

6.9 At the current stage of development, the involvement of industry-specific regulators has a positive effect, in particular, in offsetting the trend towards the domination of a few big industry participants. In addition both the ACA and the ACCC have specific roles within ACIF. The ACIF has decided that it wants the codes it has developed to be registered, and so the ACA provides guidance as to the criteria for registration, while the ACCC provides guidance on the intent of directions and declarations.

Appendix 7 Telecommunications Numbering Plan

7.1 The Commission invited views on the effect on competition of the ACA's Numbering Plan. The following comments respond to this invitation, and do not contain recommendations for change.

7.2 Telecommunications numbers are regarded as a national resource under government management. For the past nine years, responsibility for management of the assignment and use of numbers has been vested in an independent regulator, initially in AUSTEL and, since 1997, in the ACA. Australia was one of the first countries to vest responsibility for numbering in a body independent of any market participant.

7.3 In a number of cases responsibility for numbering was not initially transferred to an independent body after liberalisation. The experiences of these countries in respect of the management of numbering are informative:

- In the United Kingdom, the telecommunications regulator took over management of numbering from the incumbent network operator in 1994, some 12 years after liberalisation commenced and three years after the fixed network duopoly ended.

  The gap between the start of liberalisation and the transfer of numbering responsibility led to some decisions by the incumbent network operator that disadvantaged its main competitor. For example, whereas the incumbent adopted 0800-prefix numbers for its freephone service, it assigned a less recognisable series of numbers with the prefix 0345 to its main competitor for an equivalent service.

- Administration of numbering in New Zealand rested until recently with the incumbent network operator.

  In December 1998, the New Zealand Government facilitated the establishment of an industry-run Number Administration Deed that deals with allocation of numbers and number portability. The Deed was established as a means of ensuring greater neutrality in the administration of numbering, to overcome problems arising from the incumbent managing the allocation of numbers to its competitors.

  Ownership of the New Zealand numbering plan, however, remains vested in the incumbent.

- In the United States, management of numbering was transferred to Bellcore in 1984 as part of the divestiture of AT&T. Bellcore was, at that time, owned and controlled jointly by six of the carriers that were the local access successors to AT&T.

  As more new entrants entered the telecommunications market, particularly mobile entrants that were competing directly with fixed network providers, the continued management of numbering by the main fixed network providers was increasingly regarded as unacceptable.

  In 1995, the Federal Communications Commission (FCC) established the North American Numbering Council (NANC), with representation from across the telecommunications industry, to -

- provide advice and recommendations to the FCC on numbering issues,
- select and oversee neutral numbering and local number portability administrators, and
- conduct resolution of certain numbering disputes.

In 1997, the FCC appointed a North American Numbering Plan Administrator, on the advice of the NANC, to manage planning for future availability of telephone numbers and to allocate numbers to carriers.

7.4 The design of the telecommunications numbering plan makes no distinction between individual carriage service providers or classes of carriage service providers, and numbers may be allocated to any entity that is a carriage service provider. In allocating numbers, the key criterion is ensuring that a carriage service provider's requirement for numbers is adequately substantiated. The administrative procedures for allocation largely operate in a transparent manner, and only one (internal) review of a decision to refuse the allocation of numbers has occurred under the current plan. A project to streamline and improve the transparency and objectivity of the ACA's number allocation procedures has just commenced.

7.5 The ACA's arrangements for consultation with the telecommunications industry and with users over numbering issues enable industry and users to readily contribute ideas, criticisms and advice to the ACA. The ACA's Numbering Advisory Committee, a forum for discussion of numbering issues, meets regularly and represents a broad spectrum of relevant interests. This extensive and regular consultation, combined with the ACA's statutory independence, has enabled the Australian numbering resource to be managed in a way that guarantees competitive neutrality and respects the interests of industry and users.

7.6 There is a continuing need for the Australian numbering resource to be managed with probity, fairness, independence, transparency and professionalism. This is not to suggest that it is a given that a regulator must maintain total responsibility for numbering, or that there is not potential for some responsibility for numbering to be assumed by industry. The United States provides a working example of how administrative functions related to numbering can be delegated to a non-government body, operating under contract and with close regulatory oversight. The same example also demonstrates that responsibility for numbering policy matters can — with the right structures and support — be effectively shared with industry.

7.8 The ACA will take the first steps in this direction later this year with the outsourcing of administrative functions associated with freephone and local rate numbers to a company established collaboratively by several carriage service providers. Based on the experience of this initiative, it is likely that the ACA will give consideration to outsourcing of administrative functions in respect of other types of numbers.

7.9 As the Commission's Issues Paper notes, the allocation of internet domain names has competitive implications. To some extent, management arrangements for the sub-domains within the .au domain predate the recognition that this management is crucial to the so-called "new economy". The Government has been seeking to

bring these arrangements into a dedicated and professional industry body, so that management of domain names can be both appropriate to the new environment and largely self-regulated. AuDA (standing for .au Domain Administration) is a company formed in April 1999 by key industry and user groups with the support of the Commonwealth Government. While it is facing considerable challenges in its task of assuming management of the .au domain, and has experienced difficulties in holding the support of the sub-domain managers, there are insufficient grounds at this stage to replace self-regulation with Government control. The ACA and the ACCC share powers under the Telecommunications Act to intervene in the management of the .au domain. They are intended as reserve powers, and provide some assurance against the event that the arrangements under AuDA lead to outcomes that are inconsistent with the promotion of competition or proper management of the internet name resource. These reserve powers should remain.