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### Prepared For:

Mallesons Stephen Jaques Governor Philip Tower Sydney, NSW

Expert Report by Dr Paul Paterson of Concept Economics for Mallesons Stephen Jaques on the ACCC draft decision and proposed class exemption, 'Telstra's local carriage service and wholesale line rental exemption applications' April 2008

## Prepared By:

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Date: 11 June 2008

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RE: PUBLIC VERSION OF EXPERT REPORT BY DR PAUL PATERSON OF CONCEPT ECONOMICS FOR MALLESONS STEPHEN JAQUES ON THE ACCC DRAFT DECISION AND PROPOSED CLASS EXEMPTION, 'TELSTRA'S LOCAL CARRIAGE SERVICE AND WHOLESALE LINE RENTAL EXEMPTION APPLICATIONS' APRIL 2008

Please find enclosed the public version of Expert Report on the ACCC draft decision on LCS/WLR as outlined above.

Yours sincerely

**Dr Paul Paterson** 

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## 1. INTRODUCTION

My name is Dr Paul Paterson. I am employed in a senior role as an economist with Concept Economics, an Australian-based economic consulting firm. My curriculum vitae, including qualifications, experience and publications, is included in Appendix B.

On April 29, 2008 the Australian Competition and Consumer Commission ('the Commission') released a draft decision and proposed ordinary and class exemption ('Draft Decision') on Telstra's local carriage service and wholesale line rental ('LCS and WLR' or 'LCS/WLR') exemption applications.<sup>1</sup>

I have been asked by Telstra, through the offices of Mallesons Stephen Jaques ('MSJ'), to provide an expert report on the economic issues raised by this decision, in the context of the long term interests of end users (LTIE) focus required. My instructions from MSJ are reproduced in Appendix A. These instructions indicate that my report is to be prepared with regard to the Federal Court's 'Guidelines for Expert Witnesses and Proceedings in the Federal Court of Australia', which I have done. I note from these Guidelines that my overriding responsibility as an expert witness is to be of assistance to the body charged with considering the matter at hand (the Commission in the first instance).

Prior to the preparation of the current report, I prepared for MSJ four earlier expert reports relating to Telstra's LCS/WLR exemption applications:

- My original report ('original report') on this matter, in which I address in detail the
  question of whether Exemption Orders for LCS and WLR in the metropolitan areas of
  Australia would be in the LTIE;<sup>2</sup>
- A supplementary statement ('supplementary statement') in which I consider the implications for the conclusions reach in my original report of some additional data provided by MSJ;<sup>3</sup>

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ACCC, "Telstra's Local Carriage Service and Wholesale Line Rental Exemption Applications", Draft decision and proposed class exemption, April 2008 ('Draft Decision').

Telstra, "Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for LCS and WLR Exemptions", Annexure A to "Telstra's Local Carriage Service and Wholesale Line Rental Exemption Applications – Supporting Submission", July 2007.

Telstra, "Supplementary Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for LCS and WLR". October 2007

- A supplementary report ('supplementary report'), in which I address specific issues raised by the Commission in its Discussion Paper;<sup>4</sup> and
- A supplementary report addressing issues raised in industry submissions to the Commission's August 2007 Discussion Paper.<sup>5</sup>

In responding to my instructions, I believe that I can be of most assistance to the Commission by identifying the key economic issues raised in the Draft Decision and assessing whether the positions taken by the Commission on these issues have economic merit and whether they lead me to change my previously espoused views.

To foreshadow my conclusions, I agree with the general approach taken by the Commission to the assessment of competition and identification of circumstances in which exemption is likely to be appropriate. However, there are a number of specific issues (in particular on the design of exemption thresholds) on which my previously stated opinion differs from that of the Commission. On these issues I have carefully considered the Commission's arguments but have not found reason to change my opinion.

This remainder of this report is in two sections:

- In section 2 I assess the Commission's approach to issues of market definition, competition, infrastructure use and investment and the application of exemption thresholds; and
- In section 3 I consider whether any of the Commission's arguments persuade me to change my previously stated opinions.

Telstra, "Supplementary Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for LCS and WLR exemptions", annexure to "Telstra Response to Questions from ACCC Discussion Paper of August 2007", November 2007.

Telstra, "Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the responses to the ACCC Discussion paper, 'Telstra's local carriage service and wholesale line rental exemption applications' August 2007", April 2008

#### 2. ASSESSMENT OF THE DRAFT DECISION

This section assesses some of the key aspects of the Draft Decision in light of established economic principles and the available evidence. The main issues explored are:

- The approach to market definition taken by the Commission;
- The assessment of competition in the relevant markets;
- The effect of exemption on the use of and investment in infrastructure;
- The exemption thresholds proposed in the Draft Decision; and
- The proposed delay in giving effect to exemption.

For each of these issues I express my views on the Commission's approach and whether I consider the draft proposals to be in the LTIE.

#### 2.1. Market definition

#### The Commission's Approach

In line with its previously stated preference for purposive market definition, the Commission has defined the relevant markets with a view to the present inquiry and the relevant fact situation. In particular, in determining the relevant geographic unit to be the ESA, the Commission is guided by the nature of Telstra's application and the availability of key data. In the product dimension, the Commission uses more traditional substitutability tests and concludes that the relevant market includes the full bundle of fixed voice services, excluding VoIP and mobile services.

#### My Views

I agree with most aspects of the ACCC's market definition, in particular the inclusion of the full bundle of fixed voice services in the product dimension and the use of ESA boundaries in the geographic dimension. Moreover, I consider the Commission's focus on (competition in) the retail market appropriate, since it is my view that consideration of the wholesale market is only relevant to the extent to which it affects downstream competition. However there are two related aspects of the Commission's market definition with which I do not agree.

First, I do not agree with the Commission's conclusion that VoIP *per se* is not at present a close substitute for traditional PSTN-based voice services. While it is possible that, as the Commission espouses, application layer VoIP provided over the public Internet is not yet of sufficient quality to provide a competitive constraint on traditional voice services, I believe that VoIP provided by carriers on their own transmission capacity for consumer and business customers must be considered differently. As I note in my original and subsequent reports, the evidence before me suggests that VoIP provided in this way is likely to be increasingly substitutable for traditional services.

From a functional perspective this service can, and typically is, indistinguishable from traditional voice services using standard switching technology. The technical fact that a range of grades of service can be engineered by carriers depending on such things as the dimensioning of transmission links and other critical network elements, or the priority afforded packets carrying voice traffic, a point on which the Commission appears to base its conclusion regarding VoIP substitutability, is to my mind not relevant. Rather, the telling fact is that VoIP carried on the carrier's own transmission capacity can be provided in such a way as to closely emulate the service quality of PSTN service. Moreover, recent market evidence suggests that end customer perceptions of this kind of service are changing and as a result, take-up is accelerating.

This point is important to my approach of not distinguishing between LSS-enabled and ULLS-enabled DSLAMs, focussing rather on the presence of competitor DSLAMs *per se* in an ESA.

Second, from both supply and demand side perspectives, it is certainly arguable that data services are worthy of inclusion in the relevant market. The fact that suppliers of data services very often also supply voice services suggests ready supply side substitution. Similarly, if one accepts the argument for the substitutability of all but public Internet VoIP (above), then a reasonable degree of demand side substitutability would also appear to be present. That said, however, I do not rely on the inclusion of data services in the relevant retail market in coming to the conclusions that I reach in my earlier LCS/WLR reports.

#### 2.2. Competition assessment

The Commission makes a number of important points with respect to the analysis of competition in the relevant markets. On each of these points I am in agreement with the Commission's general approach, as described below.

In approaching its analysis of competitive conditions, the Commission notes that both actual competition and the potential for competition are relevant. As a matter of principle, I strongly endorse this view. As I note in my original and subsequent reports, it is my view that regulation should be withdrawn where conditions are evidently conducive to competition, not just where competition has already emerged.

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Refer to the witness statement of **[c-i-c]** dated 25<sup>th</sup> June 2007. **[c-i-c]** notes that even where an IP path is congested, this will not result in a lower quality of service since voice packets may be afforded priority.

For example, two of the largest VoIP operators have reported strong increases in subscriber numbers over the past 2 years. In December 2007, iiNet reported 58,970 VoIP subscribers, a 58% increase on a year earlier (iiNet, Half year results, December 2007). Similarly, in June 2007, Engin reported 77,000 VoIP subscribers, a 71% increase on a year earlier (Engin, Annual Report 2007).

On the specific issue of barriers to market entry, I agree with the Commission's assessment of some of the potential barriers to entry raised in other parties' submissions. In particular I agree that sunk DSLAM costs do not provide a material barrier to market entry on the supply-side and that customer inertia, if it exists, is not of sufficient materiality to constitute a demand-side barrier.

I also concur with the Commission's assessment of the effect of exemption on the wholesale market. It is concluded that post-exemption, resale may still be available to competitors wishing to supply the full bundle of fixed voice services. As I note in my original and subsequent reports, it is my view that where there is already ULLS-based competition and barriers to further DSLAM-based entry are evidently low, Telstra and its infrastructure-based rivals will face competitive pressure to supply wholesale voice services to the extent that it is efficient. Indeed the Commission notes that such commercially negotiated resale agreements are in fact already emerging, with a number of ULLS-based competitors offering wholesale fixed voice bundles.<sup>8</sup> This implies that the range of alternative means of supplying the retail market will not necessarily be diminished by exemption.

Finally, the Commission notes the potential for exemption to promote network investment and superior forms of competition. In particular, it is concluded that removal of LCS/WLR regulation where there is potential for ULLS-based competition is likely to promote this form of competition:<sup>9</sup>

...while many access seekers may switch from acquiring LCS and WLR from Telstra to acquiring regulated ULLS in the event of the ACCC granting the Proposed Exemptions, the ACCC is also of the view that existing ULLS-based competitors may offer a Fixed Voice Bundle in response to any price increase by Telstra in its LCS and WLR product.

The Commission also rejects the argument that such investments will be stranded by fibre rollout in light of evidence indicating that an efficient access seeker will recoup this investment relatively quickly. Rather, it is suggested that investment in ULLS is likely to equip competitors for future fibre rollouts by allowing them to build their reputation and customer base. Once again, I concur with the Commission's conclusions on this issue and consider this to be an important argument in favour of the withdrawal of LCS/WLR regulation where conditions are conducive to competition.

#### 2.3. Efficient infrastructure investment and use

The Commission notes the strong relationship between promoting competition and promoting efficient infrastructure investment and use, particularly in the context of the current exemption inquiry. I concur with the views of the Commission in this respect.

<sup>8</sup> Draft decision at p69

<sup>9</sup> Draft decision at p70

As the Commission notes, the withdrawal of LCS/WLR regulation in certain geographic areas is likely to promote both greater deployment of DSLAM infrastructure and increased use of existing DSLAM infrastructure. As noted in section 2.2, from a competition perspective this implies a deepening and strengthening of competition as there is greater scope for rivalry on both price and non-price dimensions of the product. Additionally, greater use of existing infrastructure is likely to lead to an increase in productive efficiency as previously unused capacity is exploited, while increased deployment of ULLS-based infrastructure is likely to enhance dynamic efficiency.

Accordingly I am in agreement with the Commission that the increased use and investment in ULLS-based infrastructure brought about by exemption will be in the interests of efficiency.

## 2.4. Thresholds for exemption

#### The Commission's approach

The Commission notes that in determining the class of ESAs in which competitive conditions are sufficiently robust to warrant exemption, a threshold which takes into account actual deployment of ULLS-capable DSLAMs (rather than DSLAM deployment more generally) is likely to be useful. This is based on the observation that actual ULLS-based entry is likely to indicate conditions are conducive to ULLS-based competition: 10

...evidence of actual ULLS-based competition in an ESA will naturally provide robust evidence of where there is the potential for ULLS-based provision of fixed voice services.

The Commission concludes that the presence of four ULLS-based competitors (including Telstra) is sufficient evidence of strong competitive conditions to warrant exemption and hence proposes this as one threshold for exemption ('the entry threshold').

The Commission also notes that the size of an ESA (as measured by its number of SIOs) is likely to heavily influence the potential for competition. It is therefore proposed that an SIO threshold reflecting the ESA size which typically induces entry by four competitors ('the SIO threshold') be used in addition to the entry threshold. That is, exemption is to apply to ESAs with either four ULLS-based competitors <u>or</u> having the number of SIOs that typically induces this scale of competitive entry.

I do not disagree with the Commission's general approach of using an entry threshold and an SIO threshold, with either qualifying an ESA for exemption. However, for reasons I outline below, I do not believe the Commission's methodology for deriving the proposed specific thresholds to be robust.

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<sup>10</sup> Draft decision p98

#### Entry thresholds

#### (i) The exclusion of LSS DSLAMs

I do not agree with the Commission that LSS DSLAMs should be excluded from consideration of an ESA's suitability for exemption. As I note in my supplementary report on the responses to the Commission's August Discussion Paper, I do not consider any distinction between LSS and ULLS DSLAMs necessary, for two main reasons. <sup>11</sup> First, it is my view that LSS-based entrants have the ability to provide a competitive constraint on Telstra, at least at the margin, as they have the ability to respond to price increases by Telstra with competitive offerings. Second, given that the focus of the entry threshold is on the nature of competitive conditions signaled by DSLAM-based entry, with these conditions not substantially different for those intending to use LSS or ULLS as the core input for downstream service provision, any distinction between LSS and ULLS DSLAMs is largely irrelevant. That is, the entry of a DSLAM-based competitor alone, whether it be for the purposes of acquiring LSS or ULLS to provide downstream services, signals demand and supply conditions that are conducive to this deeper form of competition.

#### (ii) The requirement for three ULLS-based competitors

The Commission acknowledges that determining the height of the entry threshold will necessarily involve making some judgment. However it then simply suggests that four ULLS-based competitors is likely to form a basis for effective competition and therefore provides an appropriate threshold, without providing reasons for this apparently subjective judgment. In dismissing Telstra's proposed 'one competitor DSLAM' threshold, it is argued that the entry of just one ULLS-based competitor to Telstra is insufficient evidence of competitive conditions since it may not reflect 'the extent of barriers to entry faced by the majority of access seekers'. <sup>12</sup> Moreover, the Commission suggests that just one entrant is unlikely to provide a constraint on Telstra's behavior. For reasons I outline below, neither of these arguments persuades me to change my previously espoused view that the presence of one DSLAM-based competitor is an appropriate threshold for exemption, nor do they convince me that four ULLS competitors (including Telstra) is apposite.

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For further discussion of this issue, please refer to my April 2008 supplementary report on the responses to the Commission's Discussion Paper: Telstra, "Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the responses to the ACCC Discussion paper, 'Telstra's local carriage service and wholesale line rental exemption applications' August 2007", April 2008

<sup>12</sup> Draft decision at p102

There is no evidence before me to suggest that different access-seekers may face higher or lower barriers to entry in the same ESA, and therefore that the entry of a single ULLS-based competitor is evidence of low entry barriers for that access seeker and not others. As the Commission notes in its Draft Decision, the key factors affecting the viability of ULLS-based entry are likely to include: 13 the size of the addressable market; the costs of DSLAM deployment; availability of other inputs such as transmission capacity; non-price impediments to exchange access; demand characteristics; and any risk of asset stranding. While the impact of each of these factors will clearly vary between exchanges, I see no reason why this should vary among access seekers considering entry into the same ESA. Thus it follows that the entry of one DSLAM-based competitor into a given ESA will be a strong signal not only of the absence of material barriers to entry faced by that access seeker, but indeed by potential access seekers in general.

Evidence presented in my previous reports on this matter suggests that barriers to entry into a given ESA are unlikely to vary materially among different access seekers. As I note in my supplementary report on the submissions to the Discussion Paper, <sup>14</sup> the entry of one access seeker is often followed closely by the entry of others. For example, in the two months from June to August 2007, 44% of one-DSLAM ESAs in band 2 became two- or three-DSLAM ESAs. <sup>15</sup> Similarly, 45% of two-DSLAM ESAs and 43% of three-DSLAM ESAs saw further DSLAM deployment.

This is consistent with evidence of further growth in competitor DSLAM activity in the more recent period between August 2007 and April 2008. In this period, nearly 40% of one-DSLAM ESAs and nearly 80% of two-DSLAM ESAs saw the entry of at least one new DSLAM-based competitor (Figure 1). As a result, by April 2008, 311 (more than 80%) of the 387 ESAs in relation to which Telstra originally applied for exemption had three competitor DSLAMs and just 39 ESAs still only had one DSLAM based competitor. This evidence of further competitive entry closely following the entry of just one DSLAM-based competitor implies that the entry of just one access seeker is a strong indication that conditions in that ESA (including demand characteristics and costs of entry and supply) are suitable to competitive entry by not just that access seeker, but also by others.

Draft Decision at p98

Telstra, "Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the responses to the ACCC Discussion paper, 'Telstra's local carriage service and wholesale line rental exemption applications' August 2007", April 2008

<sup>&</sup>lt;sup>15</sup> [c-i-c].

<sup>16</sup> I have been provided with this data as part of my instructions and asked to assume that it is correct

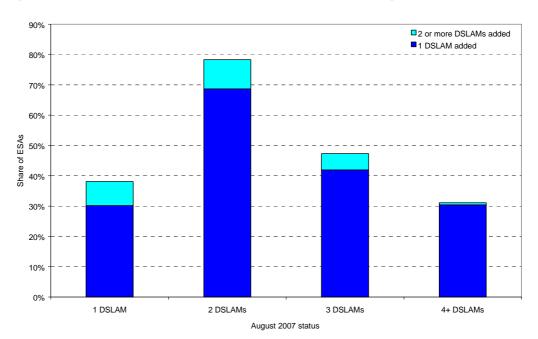


Figure 1: Increase in DSLAM-based competitor activity between August 2007 and April 2008

Source: [c-i-c]

Additionally, it is worth noting that in many cases the first entrant in a particular ESA is not the largest player with the greatest financial means. For example, analysis of ESA entry between 2005 and 2007 indicates that DSLAM deployment was not consistently led by one major player with evidently greater means than others. **[c-i-c]** was the clear leader in only a small minority of the 387 band 2 ESAs in which DSLAM deployment was observed and in total there were nine different carriers who took the DSLAM deployment lead in different ESAs.<sup>17</sup>

<sup>17</sup> [c-i-c].

On the issue of whether one entrant is of itself capable of constraining Telstra's behavior in the downstream market, while I point out there are good reasons to believe this may well be the case, in reaching my conclusions and position in earlier reports I do not rely on this being so. <sup>18</sup> Rather, I rely on the economic logic that the presence of one DSLAM-based competitor provides concrete evidence of low barriers to this form of competition and is therefore an appropriate threshold for exemption. This proposed threshold reflects my view that regulators should forbear where there is potential for competition, rather than waiting for competition to emerge. In this way regulation can promote competition rather than simply reacting to it. I note the ACCC in its Draft Decision expresses a similar view, noting that the potential for competition, as well as the current state of competition, is relevant: <sup>19</sup>

Importantly, assessing the state of competition is not a static analysis limited to a description of current conditions and behaviour. Rather it should also take into account dynamic factors such as the potential for sustainable competition to emerge and the extent to which the threat of entry (or expansion by existing suppliers) constrains pricing and output decisions.

In my view the presence of one DSLAM-based competitor provides evidence of the potential for this form of competition and implies that any attempt by Telstra to act supracompetitively will be met by a response not only from present competitors, but also from potential entrants. The Commission has provided no evidence that convinces me that the DSLAM-based presence of three competitors is a materially stronger indication of the existence of competitive conditions than the presence of one DSLAM-based competitor.

#### SIO thresholds

I agree in principle with the Commission's application of an independent ESA size threshold since this is likely to capture ESAs where the sheer size of the addressable market creates fertile ground for competition but the otherwise requisite number of competitors may not have arrived yet. However, as with the entry threshold, I am not persuaded that the Commission's method of deriving this scale threshold is robust.

The Commission seeks to apply a SIO threshold that reflects the size of the addressable market that can support its desired number of ULLS-based competitors (in its view, four including Telstra). The proposed SIO threshold is therefore set close to the average number of SIOs in ESAs with four ULLS-based competitors.

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As I note in my supplementary report on the submissions to the discussion paper, competition in telecommunications markets is more likely to bear the hallmarks of Bertrand rather than Cournot competition, for which economic theory suggests that just two competitors operating in a market may be enough to produce competitive outcomes. Nonetheless, I do not rely on this to support my argument for a one-DSLAM decision rule. Rather, I rely one the argument that the deployment of one competitor DSLAM is evidence of strong competitive conditions exist in that ESA. For further discussion of this issue, refer to: Telstra, "Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the responses to the ACCC Discussion paper, 'Telstra's local carriage service and wholesale line rental exemption applications' August 2007", April 2008

<sup>19</sup> Draft Decision at p45

As noted above, it is my view that the Commission's entry threshold is unnecessarily high. Since the SIO threshold is linked to the entry threshold, this implies that the SIO threshold is also likely to be too high.

This aside, however, there are two methodological aspects of the Commission's derivation of the SIO threshold from the entry threshold which in my view are likely to distort the SIO threshold upwards.

First, the SIO threshold has been calculated based on DSLAM deployment and SIO data which is now outdated. If a SIO threshold is to be used, it should be based on *current* SIO numbers in ESAs which *currently* have four ULLS-based competitors (including Telstra). Basing it on the ESAs which had four competitors at an earlier point in time will lead to overestimation with regard to the current situation, since ESAs that have become four competitor ESAs since then can reasonably be expected to be smaller than those that had already reached the threshold at the earlier point and the larger ESAs in the class are likely to acquire more DLAMs. In other words, since competitive entry is likely to occur in the largest ESAs first, basing the scale threshold on older entry data will bias this threshold upwards.

This is borne out in a simple comparison of SIO thresholds based on the class of ESAs meeting the Commission's three-competitor threshold in August 2007 and April 2008 respectively. Since the class of ESAs meeting the Commission's entry threshold changes considerably in this period with the inclusion of smaller ESAs that newly meet the entry threshold and the exclusion of larger ESAs that become 5 or 6 DSLAM ESAs, the average size of ESAs in this class shrinks from [c-i-c] to [c-i-c].<sup>20</sup> This downward trend in the SIO threshold is likely to continue as the class of ESAs meeting the Commission's proposed entry threshold changes. Setting the SIO threshold should take these dynamics into account.

Second, in determining which ESAs are above the SIO threshold and therefore meet the proposed exemption condition, the Commission has deducted LPGS lines from the total number of lines in each ESA. However, it would appear that the same adjustment has not been made to the number of SIOs in each of the four-DSLAM ESAs prior to averaging them to derive the SIO threshold. If the size of ESAs tested against the threshold is to exclude LPGS lines then the threshold itself must be derived excluding LPGS lines. This inconsistency is also likely to create an SIO threshold that overstates the size of the addressable market required to support the desired level of entry.

<sup>20</sup> [c-i-c].

#### Conclusions

Whilst I agree in principle with the Commission's application of exemption thresholds which reflect the potential for competition in certain areas, I do not believe its method for deriving the specific proposed thresholds to be robust. In particular, I am not persuaded by the Commission's argument that one competitive DSLAM is not a strong indicator of competitive conditions and accordingly do not see any compelling reason for moving to a 'three ULLS-based competitor' threshold. Furthermore, even if this DSLAM number rule is to be used for one limb of the test, its translation by the Commission into the number of SIOs in an ESA above which competitive conditions can reasonably be taken to occur is flawed.

## 2.5. Timing of exemption

The Commission has proposed delaying the effect of exemption by one year from the decision date to allow access seekers time to adjust their business plans. As stated in my previous reports on this matter, I do not see such a delay as necessary from a competition perspective. Furthermore, this delay is not only unnecessary but costly. As indicated by the Commission in its draft determination and discussed at some length above, there is likely to be a material cost imposed by regulation in the form of investment incentive distortions, meaning it should be removed quickly wherever and whenever it is no longer needed. In exemption area ESAs, conditions for workable competition already exist and hence there would be no benefit to competition from delaying exemption and an opportunity cost imposed.

## 3. ARE MY ORIGINAL VIEWS CHANGED?

The views expressed by the Commission in its Draft Decision are broadly in line with my previously espoused views on a number of key points. In particular, the Commission has taken an appropriately rigorous yet practical approach to defining the relevant markets and a proactive, forward-looking approach to the assessment of competition. Whilst I do not entirely agree on some of the finer points, I endorse the general approach taken by the Commission to assessing competition in the relevant markets. I agree that the potential for competition is highly relevant to this inquiry and that observed entry is a useful indicator of this.

The key difference between my conclusions and those of the Commission lies in the proposed thresholds for exemption, and the timing of implementation. In particular, I am not persuaded by the Commission's arguments that the 'one competitor DSLAM' threshold is too low and a three-DSLAM (excluding Telstra) threshold is appropriate. Specifically, I do not share the Commission's view that the entry of one DSLAM-based competitor is evidence of low entry barriers for that competitor alone and not for access seekers more generally. Rather, the evidence before me reveals a pattern of DSLAM-based entry which is consistent with my previously stated view that the presence of one DSLAM-based competitor indicates conditions conducive to the growth of competition.

Whilst I note that the Commission's proposed exemption is clearly preferable to the *status quo*, it is my view that it would not promote efficient competition, and efficient use of and investment in infrastructure, to the same extent as exemption based on a one DSLAM threshold. Maintaining LCS/WLR regulation in some ESAs where there is evidently potential for deeper competition (namely those ESAs with one or two DSLAM-based competitors) would deny end users in those ESAs the long term benefits that exemption would bring.

## **APPENDIX A: INSTRUCTION FROM MSJ**

[c-i-c]

## APPENDIX B: CURRICULUM VITAE

## DR PAUL PATERSON

Bachelor of Agricultural Economics (First Class Honours) University of New England

> Master of Economics Australian National University

Ph D (Economics) Australian National University

Paul Paterson is Executive Director, Operations and Head of Telecommunications Consulting at Concept Economics, an Australian-based consulting firm with particular expertise in competition economics. Paul has been with Concept Economics and its predecessor CRA International since 2004, bringing commercial and government experience in industry analysis, corporate strategies, regulation and policy development. Paul has senior executive experience in the telecommunications industry. Prior to commencing consulting in 2004 Paul worked at Telstra Corporation Ltd, occupying the position of Director Regulatory from 2001.

Prior to his appointment as Director Regulatory at Telstra, Paul was the Group Manager Competition, Regulatory and External Affairs for Telstra from 1998 to 2001. Until leaving Telstra he was on the Board of the Australian Communications Industry Forum. Paul has authored numerous economic reports and publications since 1978.

As a founding member of the Regulated Industries Forum in 2003, and convener since then, Paul also has extensive insight into regulatory issues in the utilities and transport sectors.

## **EXPERIENCE**

Paul has provided advice on regulatory, competition, commercial, strategic and government policy matters to major corporations and government agencies in telecommunications and other network industries. Jurisdictional experience spans Australia, New Zealand, Singapore, Hong Kong, Japan, United Kingdom, Ireland, Italy and the USA.

### **PROFESSIONAL HISTORY**

March 2008 – present	Consulting, Concept economics
2004 – 2008	Vice President, CRAI, Australia
2004	Principal, NECG, Australia
2001 – 2004	Director Regulatory, Telstra
1998 – 2001	Group Manager Competition, Regulatory and External Affairs, Telstra

1992 – 1998	Executive Director, Policy & Resources, Department of State and Regional Development (previously Chief Business Economist, Office of Economic Development, New South Wales Premier's Department), Sydney
1988 – 1992	Chief Economist, OTC Limited (now Telstra), Sydney
1987	Visiting Economist, Department of the Treasury, Canberra
1986	Special Advisor, Department of Trade, Canberra
1985 – 1986	Assistant Director, Bureau of Labour Market Research, Canberra
1983 – 1984	Administrator, Organisation for Economic Co-Operation and Development, Paris
1980 – 1983	Senior Project Manager, Bureau of Labour Market Research
1977 – 1980	Project Manager, Bureau of Agricultural Economics

## SELECTED PUBLICATIONS, PRESENTATIONS AND REPORTS

H Ergas & P Paterson (1990) **The Joint Provision of International Telecommunications services: An Economic Analysis of Alternative Settlement Arrangements** 8<sup>th</sup> International Telecommunications Society Conference, Venice, March 1990.

D Shiff & P Paterson (1990) Regulatory Issues for International Telecommunications in the New Environment: How do Overseas Arrangements Inform the Australian Situation? Paper presented to the International Telecommunications Law and Policy Conference, Sydney, December 1990.

OTC Ltd OTC's Operating Environments to the Year 2000: A Scenario Analysis (research leader and joint author of this confidential OTC report).

OTC Ltd **OTC Economic Forecasts** (author of this quarterly OTC report).

OTC Ltd (1991) AUSTEL Study of Arrangements for Interconnection and Equal Access. Part B: Economic /Commercial Arrangements, OTC submission to AUSTEL on this issue.

OTC Ltd (1991) **Price Cap Issues: OTC comments**, OTC submission to DOTAC on price cap arrangements.

OTC Ltd (1991) **Considerations for Reform,** paper presented to the 13-14 May meeting of the OECD Ad Hoc Group of Experts on International Telecommunications Charging Practices and Procedures, Paris.

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