

COMMERCE COMMISSION CONFERENCE ON UNBUNDLING

Mark Corbitt

Manager Investment Strategy & Planning

Information Services

Telecom New Zealand Ltd

11 November 2003

Introduction

1. My name is Mark Corbitt. I am the Manager, Investment Strategy and Planning, in the Information Services team at Telecom. I am responsible for determining Telecom's Information Services roadmap and writing Telecom's Information Services plan as well as overseeing the investment strategy necessary to ensure that the plan and roadmap meets Telecom's business and strategic plans and is both achievable and economically viable. I also lead Telecom's Information Services input to Wholesale and Regulatory requirements. I have had 15 years experience in Information Services both in Telecom and other companies.
2. Today I will discuss firstly Telecom's principle concern for Operational Support Systems and Information Systems under unbundling, then our two key issues around this concern. I will then discuss these two key issues and address points from TelstraClear's response to the draft report and some other issues around OSS.

Principle Concern, Key Issues & Purpose

3. Telecom's principle concern is that the option to designate unbundled access to OSS is left open by the draft report without some of the issues, costs and complexities being fully understood by the Commission. We note also that TelstraClear has recommended this option to the Commission.
4. The key issues Telecom has with this concern are:
 - (a) That unbundled access to OSS is much more complex and costly than the standard access principles regime because it means regulating "how" OSS is provided rather than just "what" is provided. By a "standard access principles regime", I mean providing non-discriminatory operational processes for access seekers without regulatory intervention in the technical details. The complexity and cost of unbundled OSS access is at least four times greater than for standard principles type access.

- (b) New Zealand's size means that unbundling OSS and electronic OSS in particular may not be as feasible as in some other countries and will overwhelm or significantly decrease, any benefits of unbundling.
5. My purpose today is therefore to make sure the issues, costs and complexities of unbundling OSS are understood.
6. I would state at the outset that Telecom is committed to making the necessary OSS work, for both Wholesale and, if necessary, unbundling. We are willing to provide non-discriminatory operational processes and to do so using electronic interfaces wherever feasible. For example, we already have a customer electronic interface for Wholesale in our 2004 Information Systems plan, which will use the same system as Retail.

Key Issues

7. Taking Telecom's second key issues first, that New Zealand's size may mean that unbundling OSS and particularly electronic OSS is not as feasible as in other countries, I will use an example from Oftel, the UK regulator, that TelstraClear quote in their response to the Draft Report in support of their recommendation that OSS be unbundled.
8. TelstraClear quote Oftel as having mandated electronic OSS after an "initially poor experience"¹, for a service called Wholesale Line Rental (WLR). The quote used says
- There should be a highly automated transfer process.
- Oftel agrees that manual intervention should be used sparingly. **If possible** (emphasis added), all orders should be handled electronically. Nevertheless, manual intervention might be required if order requests are not correctly completed **or where automation is not cost effective**² (emphasis added)".
9. Oftel required BT to develop the Wholesale Line Rental (WLR) service. Although, this service is akin to a resale local access service, rather than an unbundled service³ it illustrates the differences between the UK and NZ volumes and market size.
10. BT developed WLR end-to-end including the OSS systems and the interfaces which an access seeker would use to resell the service. Oftel allowed BT to recover £14.2 million (\$40.5 million) of system setup costs incurred in developing the second version of WLR by means of a charge at £0.39 per line (included in a £28 quarterly line rental). Note that BT argued that £14.2 million / \$40.5 million was inadequate.

¹ TelstraClear Response 29 October 2003, p110

² TelstraClear Response 29 October 2003, p110

³ See Oftel, *Protecting consumers by promoting competition: Oftel's conclusions*, June 2002, paragraphs 3.1-3.5 for a description of the wholesale line rental service.

11. Oftel forecast that 2.871 million orders for the WLR service were expected in the first two years after launch settling to 209,000 orders per month approximately one year after launch.⁴ I.e. over 10 million orders in five years.
12. Assuming depreciation over five years for the \$40 million BT developed WLR system each order carries system setup costs in the UK of \$3.90.
13. Assuming similar system setup costs in New Zealand the following costs can be derived:
 - (a) At 5,000 orders per month or 300,000 in five years each order would carry a cost of \$135.00.
 - (b) At 500 orders per month or 30,000 in five years (this figure is equivalent to the 18,000 unbundled services actually experienced in Australia to date) each order would carry a cost of \$1,350
14. Would there be greater cost efficiencies in developing a similar system in New Zealand? Yes, but only those related to the less expensive labour costs. Fixed costs, such as software, and maintenance costs are the same as Telecom knows from using UK software for its new fulfil system. And even should the \$40.5 million be reduced to \$25 million, which is Telecom's low estimate of systems for some form of copper unbundling using standard access principles, the cost per order is reduced by a little over one third.
15. To refer back to the Oftel quote, clearly, with the volumes expected in New Zealand, automation under these terms would not be cost effective. In the UK, as in the US with their greater market volumes, it is easier to make automation or electronic OSS cost effective.

Further Cost Issues

16. A further issue with regard to costs is the difficulty in accurately forecasting unbundling demand and the consequent implications on cost recovery.
17. In Australia, the ACCC estimated cumulative demand forecast between 2000 and 2003 at 140,000 LLU services⁵. The actual cumulative demand over this period is 18,000 services, less than 13% of the forecast.
18. On the basis of the forecast, the ACCC reviewed Telstra's system development costs and set a recovery rate of \$30 per service per annum to recover the costs that were designated as "ULL specific costs". The ACCC demand estimates anticipated that

⁴ Wholesale Line Rental: Oftel's Conclusions – statement – 11 March 2003, p6, p87 & p90

⁵ ACCC, Final Determination for Model Price Terms and Conditions, October 2003, p80

Telstra would recover approximately \$21.75 million up to the end of 2004/2005 and at least \$12 million per annum thereafter. For the demand to date, Telstra should have recovered \$4.2 million but have actually only recovered \$540,000, again less than 13% of what was forecast. With the actual demand so low Telstra will never recover its ULL specific system costs. This is of concern to Telecom.

19. There are also barriers to entry by way of cost to access seekers. TelstraClear quote e-Bill in their response to the Draft Report as an example of the systems provided by Telstra. E-Bill is a system relating to wholesale not unbundling. However, to illustrate the costs for an access seeker, the cost to AAPT to interface the e-Bill system into their own systems to create electronic OSS is approximately 6 times the cost TelstraClear charged AAPT to use e-Bill.
20. Finally on cost issues, TCL have requested that a neutral third party be appointed to facilitate the implementation of unbundling⁶ for entrants and that the third party, as in the US, test the incumbent's compliance with regulatory and agreed industry requirements for OSS. One example of this in the US environment is Pacific Bell in California. The test of their OSS lasted 16 months from start to finish, at a cost of US\$25 million⁷. Note I am not saying that using a neutral third party is wrong or too hard, rather that, if one is used, there are costs that must be properly accounted for in the CBA.

Cost Issues Summary

21. I have discussed three cost issues related to unbundling that concern Telecom.
 - (a) Market volume costs related to New Zealand's size versus other markets
 - (b) The effect of actual demand versus forecast demand on cost recovery
 - (c) Additional compliance costs that result from unbundling OSS.
22. And a fourth that relates to access seekers
 - (a) System and/or interface cost barriers to entry for access seekers.

Comparison of Complexity – Unbundled Access to OSS Vs Standard Access Principles

23. Moving now to the first of Telecom's key issues with respect to OSS – that unbundled OSS access is much more complex and costly than standard principle access.

⁶ TelstraClear Response 29 October 2003, p99

⁷ The 1996 Telecom Act What Went Wrong with Broadband by John Thorne, September 2001, p8

24. As I said earlier, my estimate is that the increased complexity and hence cost of unbundled OSS access is four times that of standard access principles. I would also repeat my earlier statement that Telecom is committed to making the necessary OSS work, for both Wholesale and, if necessary, unbundling.
25. To address the differences in complexity I will compare the United States regulatory regime, where OSS access is unbundled, to the Australian regime, where standard access principles are used. Both require access to OSS, both specify **what** is required albeit at differing levels of detail. However, only the US with unbundled access to OSS specifies **how** the requirements are provided, in microscopic detail.
26. Unbundling access to OSS in the United States has led to huge complexity for telecommunications companies. The following quote from⁸ expresses why:
- The Commission has insisted on regulating every last detail of the operations support systems (“OSS”) – the personnel, back-office computer systems, electronic interfaces, and manual processes – that might be involved.
- The FCC has required incumbents to develop entire new systems – at the cost of millions of dollars – to support the ordering, provisioning, repair and billing...
27. In Australia, by contrast, the ACCC broadly treats OSS as a non-price term. Electronic interfaces rather than systems access are encouraged and are developed by industry forum and bilateral agreement.
- While there can be a ‘grey area’ between describing a service and the terms and conditions upon which the service is supplied, the Commission’s preference is to treat OSS issues as a matter more appropriately addressed through the terms and conditions of supply. These arrangements can be developed bilaterally or as part of an industry-wide approach rather than through inclusion with the description of the service to be declared.⁹
28. So, the comparison between the US unbundled access to OSS compared to the Australian standard access principles is of entire new systems regulated for all aspects of OSS access compared to terms and conditions of supply.
29. Since 1999 the bilateral and industry-wide approach adopted in Australia has resulted in the development of the EIEnet (“Electronic Information Exchange Network) as the basis by which OSS interfaces between carriers are developed. The ACCC now says¹⁰

⁸ The 1996 Telecom Act What Went Wrong by John Thorne – September 2001, p7

⁹ ACCC, Declaration of Local Telecommunications Services, p33

¹⁰ ACCC, Final Determination – Model Non-price Terms and Conditions, October 2003, p48

The Commission therefore recommends and expects that development and implementation of a common system interface,, whether it be through the EInet project or some other means, occur as a priority so that the concerns of access seekers in relation to timeframes and other areas of concern, are addressed.

30. The ACCC is not suggesting that OSS be designated as a separate service, nor that unbundled access to it should be provided, only recommending interfaces, not complete systems access. Interfaces are the means by which information and transactions are exchanged between companies, they do not require direct access to the same OSS nor development of entire new systems as unbundling OSS access has meant in the US.
31. This creates a further comparison between unbundled access to OSS where every last detail of access to systems is regulated compared to compared to standard access principles of common systems interfaces recommendations
32. Both Australia and US regimes require OSS. The difference in complexity is due to the additional requirements of the US environment over Australia. Some of these are:
 - (a) Significantly more and entirely new systems required including in reporting and compliance. This will mean a redesign of large parts of Telecoms Enterprise Architecture framework as covered in our response to the draft report¹¹
 - (b) More interfaces – more systems means more interfaces.
 - (c) Security compliance and accreditation issues. The more systems to access the greater the security requirements. Direct access to systems used by retail also greatly increases the complexity of security. Telecom’s response to the draft report stresses this point¹².
 - (d) Increased time delay for wholesale and retail as well as NGN and other IS work - additional systems, interfaces, security take additional resources, time to develop and implement.
 - (e) Increased costs - additional systems, interfaces and security create additional purchase costs for software and hardware as well as maintenance. Also the additional resource cost.
 - (f) Increased likelihood for non-recovery of costs and stranded assets if volumes do not support electronic OSS

¹¹ Telecom Response 29 October 2003, section 8 paras 1109 to 1119

¹² Telecom Response 29 October 2003, p236

- (g) Increased regulatory administration and audit requirements including expensive test requirements to demonstrate initial and continued compliance
- (h) Decreased flexibility in enhancing or altering systems.
- (i) Increased likelihood of litigation – each company will have its own view on the systems it requires.
- (j) "Management by committee" - as I have just said, each company - and the Commission - will have different views on the appropriate management and development of Telecom's OSS and IS, and any decisions will have to be negotiated by committees of representatives.

33. In summary, the complexity between the US or unbundled OSS access and Australia or access through standard access principles results from the additional requirements and compliance driven by the extra systems, interfaces, resources and compliance necessary.

34. The complexity and the consequent cost of this option of designating OSS access as a separate service that is left open by the draft report also overwhelms the benefits claimed in the OXERA model. Telecom's response to the Cost Benefit Analysis demonstrates this¹³. The cost of this option is also unlikely to be supported by the unbundling volumes in the NZ market.

Points from TelstraClear's Response and Other Issues

35. I would now like to address several points raised by TelstraClear in their submission, which are either incorrect, or misleading.

36. In their response TelstraClear have said that¹⁴:

Telecom will shift to an "all electronic" retail environment and leave access seekers in an "all manual" world.

The separate development of the retail and wholesale systems may add to the costs of the development of wholesale systems.

37. Firstly Telecom will only move its retail environment to "all electronic" where volumes make it economically feasible. Secondly, Telecom is planning to use the same systems for wholesale as for retail, and therefore to move the same parts of its wholesale environment to "all electronic" processes where volumes make it economically feasible.

¹³ Appendix A – LECG Economic and Technical Critique of the OXERA Unbundling Cost Benefit Analysis, p11,12

¹⁴ TelstraClear Response 29 October 2003, p114, 115

Anything else would add cost and complexity to its IS environment. And thirdly, even retail systems are unlikely ever to be “all electronic”.

38. TelstraClear have also said that¹⁵:

Telecom has implemented and is continuing to implement electronic systems to support its retail operations. The non-discriminatory standard either requires that access be provided to the same systems or, given the differences between manual and electronic systems as to information, timeliness of provisioning service quality etc, electronic access is the only feasible way to meet the non-discrimination standard.

Automation reduces the opportunities for Telecom to raise its rivals' costs and to delay or impede inter-operator processes required by entrants to use unbundled services to compete.

39. Telecom agrees that electronic access or automation is preferable to manual. However, I have discussed above the complexity and costs associated with access to the electronic systems. And, also discussed above, with the Australia cost recovery, electronic access and automation is volume-sensitive - there is no point designing and building an automated process, interface or access capable of dealing with thousands of service requests every day if only 3,000 requests are likely in a year. This would either inflate the costs for access seekers through the increased cost recovery; or limit the likelihood of Telecom ever recovering the onset costs of the interface from unbundling charges. Telecom recommends that, should unbundling be implemented, a lead-in time of 12-24 months after implementation should be allowed for the industry as a whole to assess unbundling take-up volumes before electronic access is designed and built. However, it is also possible, that the same interface in plan for Wholesale, could also be used for unbundling although this will only address part of the requirements.

40. For the non-discriminatory standard, I believe that agreed service levels, under the standard access principles and as for Wholesale, can mitigate, if not remove, issues of timeliness addressed by TelstraClear. As already stated these same principles also provide the statutory remedy for access seekers should they feel that Telecom is not complying with its obligations.

41. TelstraClear also argue that¹⁶:

It is not appropriate for access seekers to bear all of the costs of the implementation of electronic OSS.

¹⁵ TelstraClear Response 29 October 2003, p110

¹⁶ TelstraClear Response 29 October 2003, p111

42. Telecom believes that, given that the costs are specific to unbundling, they should be recovered from the operators taking that service. Both the ACCC and Oftel support this view for Telstra and BT respectively. Oftel says¹⁷

...the reasonably and necessarily incurred costs of BT's Operational Support Systems development and other costs which will specifically be incurred in the provision of services to other Operators should also be met by Operators taking the service.

43. The ACCC says¹⁸

ULLS-specific costs represent the efficient forward looking costs that an access provider would incur in establishing and operating its systems for the provision of the ULLS and should be recovered throughout the course of the assumed project life.

44. TelstraClear also endeavour to give the Commission an example of Telecom's unwillingness to effect improvements in electronic systems using the current negotiations for residential resale as an example. They say¹⁹

Efforts to negotiate improvements in the inter-operator systems, particularly to implement electronic systems, have met with strong resistance from Telecom. Residential resale is a case in point.

45. These negotiations are confidential and therefore my ability to rebut this assertion is constrained. However, as TelstraClear themselves in the May workshop on Residential Resale, pointed out, ideally, only mature processes are automated. Telecom agrees with this. To stress Telecom's resistance to electronic systems improvements because of this process is stretching the truth and not appropriate to this unbundling investigation.

46. Further, I have already stated today our acceptance of the benefit of electronic interfaces subject to cost and volume provisos.

Allocation of onset and ongoing OSS and IS costs

47. OXERA and TelstraClear have both advocated sharing Telecom's onset and ongoing OSS and IS costs among all of the lines in New Zealand, seemingly on the grounds that Oftel came to a similar conclusion with respect to cost recovery for its "Wholesale Line Rental" service. In fact, the "wholesale line rental" service is akin to a resale local access service, and its relevance to the present investigation is therefore questionable

¹⁷ Oftel, *Access Network Facilities: Oftel Guidelines on Condition 83 of BT's Licence*, September 2000, Ch 9.

¹⁸ ACCC, *Final Determination for Model Price Terms*, October 2003, p79

¹⁹ TelstraClear Response 29 October 2003, p90

at best.²⁰ If any international comparisons are to be made, they should at least be made with unbundled services overseas.

48. As stated previously, Telecom's position is that the costs of setting up and managing OSS and IS for unbundled services should be spread across those that benefit from those OSS and IS: the access seekers that take unbundled services. As stated above, this is the position that the Australian and UK regulators have taken in applying similar pricing methodologies to our TSLRIC methodology, to unbundled services:

(a) The rationale given by Oftel was that:²¹

...BT is developing a system to implement LLU; other operators are developing systems to use LLU. The obligation to set up these systems is only on BT.

...

Oftel therefore confirms that BT should be able to recover its reasonable system set-up costs. Oftel is content that these be recovered from the connection charge on individual loops. BT is further proposing that the length of time over which the charge can be made should be varied to ensure that costs are fully recovered, rather than under or over recovered. The alternative is for charges to be varied over time in order to ensure full recovery after exactly five years. Oftel is of the view that altering the time of cost recovery is less disruptive to the market than frequent changes in the amount recovered. Oftel is therefore of the view that BT's proposal is reasonable.

49. Therefore, Telecom believes that the OXERA CBA's current treatment of OSS costs is incorrect and that, as in Australia and the UK, 100% of the costs for setting up and managing OSS and IS for unbundled services should be spread across those that benefit from those OSS and IS: ie the access seekers that take unbundled services

50. For the US, the picture on costs is confused, clouded by a particular trade-off between the Regional Bell Operating Companies (RBOCs) and the long-distance market, which makes the US experience difficult to compare to New Zealand. We note that it does appear, according to para 8.46 of TelstraClear's submission²² that even the US allows costs incurred by the RBOCs to be fully recovered, in some if not all states.

Overall Summary

51. To summarise what I have presented today:

²⁰ See Oftel, *Protecting consumers by promoting competition: Oftel's conclusions*, June 2002, paragraphs 3.1-3.5 for a description of the wholesale line rental service.

²¹ Oftel, *Access to Bandwidth: Conclusions on charging principles and further indicative charges*, August 2000, paragraphs 3.32, 3.33.

²² TelstraClear Response, 29 October 2003, p114

- (a) Telecom's principle concern is that the option to designate unbundled access to OSS is left open by the draft report without some of the issues, costs and complexities being fully understood by the Commission
52. This concern raises two key issues for Telecom:
- (a) That unbundled access to OSS is much more complex and costly than the standard access principles regime because it means regulating "how" OSS is provided rather than just "what" is provided. The complexity and cost of unbundled OSS access is at least four times greater than for standard principles type access.
- (b) New Zealand's size means that unbundling OSS and electronic OSS in particular may not be as feasible as in some other countries due to their market size and volumes.
53. Examples from the UK and the US have been used to illustrate the quantum difference of their market volumes over New Zealand – 35 to 250 times greater volume. This makes cost effective automation or electronic OSS access much more difficult.
54. Where cost recovery is based on demand forecasts I have used Australia as an example showing that actual unbundled volumes are currently 13% of forecast. This makes cost recovery of unbundling specific systems costs very difficult if not impossible.
55. The complexity of unbundled access to OSS was shown to be much greater than that of standard principles type access using information from the US and Australia and an overview of additional requirements. I estimate at least four times greater.
56. Several incorrect or misleading points raised by TelstraClear in their submission including that Telecom is only implementing electronic OSS for retail have been corrected.
57. I have also restated Telecom's position, support by the UK and Australia regulatory regimes and at least some states of the US regime, that onset and ongoing unbundled systems costs should be recovered from the access seekers taking the unbundled service.
58. Finally, I restate Telecom's commitment to making the necessary OSS work for Wholesale and, if necessary, unbundling. We are willing to provide non-discriminatory operational processes and to do so using electronic interfaces wherever feasible.
59. Thank you

