



Comments on Telstra's Undertaking for Line Sharing Service

(Public Version)

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January 2004**

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Comments on Telstra's Undertaking for Line Sharing Service

Chime is a wholly owned subsidiary of iiNet Ltd, a publicly listed Australian company. Chime holds the Australian carrier licence for the iiNet group and is commenting on behalf of the group generally.

Background.

In the best interests of Australian broadband end-users it is important that competition in the broadband arena extends from access based competition to facilities based competition.

Currently, very few companies are providing facilities based competition to Telstra. It is Chime's belief that both Telstra's current commercial pricing and Undertaking are much too high and that the natural consequences of this high pricing will be reduced facilities based competition and high end user charges.

There is a significant gap between Telstra's forecasts for Line Sharing (Spectrum Sharing) and those of almost every other participant in the Australian industry. As the unit costs for the service flow from these forecasts, it is essential that this divergence is addressed to arrive at a useful conclusion.

Growth in the DSL market will be driven from two directions. One will be the migration of services from other broadband platforms and the second from new broadband customers. We make no distinction in this paper between the customers in our existing customer base.

Chime believes that national demand for LSS based DSL services could be as high as 600,000¹ by 2010.

Telstra believes that the figure should be only [Confidential] by mid 2006².

Telstra has, therefore, calculated its cost distribution over a very small base, thus calculating an artificially high unit cost for its Spectrum Sharing service.

Chime suggests that Telstra is in error over the number of services used in its calculations and will demonstrate from its own experience that Telstra is wrong.

Existing Customer base.

Chime's parent company, iiNet, had [Confidential] ADSL services in operation in Australia at 1 December, 2003. Based on figures compiled by the ACCC,³ iiNet

¹ "Cost Modeling of the Line Sharing Service" – report by Gibson Quai Pty Ltd for Chime Communications, May 2003.

² "Assumption of SIO take-up rate" in Telstra's confidential information in relation to the Line Sharing Service, Dec 2003.

³ ACCC Snap Shot of Broadband Deployment as at 30 June 2003 (September 2003)

enjoys just over 10% of the installed base of ADSL services, nationally. This provides us with a reliable base from which to draw some conclusions.

Given that the current growth rate being experienced continues, adding an additional [Confidential] services per month until mid 2005, iiNet would have in excess of [Confidential] ADSL lines in service. This accords with the growth expectations of Telstra⁴ for broadband services which indicate a 278% increase from July 03 to 2005.

If this growth forecast by Telstra in ADSL services continues, iiNet alone could have in excess of [Confidential] ADSL services in operation by the end of 2010.

If this rate is only half this Telstra forecast, more than [Confidential] could be still be in service for iiNet in the same period.

Obviously a number variables can be expected to have a bearing on the achievement of this growth, however, it is Chime's belief that numbers significantly in excess of Telstra's low forecasts are achievable.

Chime's infrastructure has extended well beyond the metropolitan area, however the widespread nature of Telstra's exchanges means that our access to Telstra's TEBA space is currently largely confined to metropolitan areas.

⁴ Telstra Wholesale "Wholesale Broadband Analyst Briefing", 18 July 2003.

Distribution of iiNet ADSL services

As access to TEBA space is a significant factor in the decision making process for the rollout of our on DSLAMs, it is important to consider where our customer base is located.

iiNet's existing ADSL services are distributed in the Metro, Region 1 and Region 2 categories⁵ as follows –

[Confidential]

Chime's current network coverage includes a significant number of capital cities and metropolitan areas, it is fair to assume that of the [Confidential] % of services currently provided by ADSL in metropolitan areas, some proportion already meet our business case requirements for migration to a Spectrum Sharing delivery.

Economic Migration from ADSL to LSS

In migrating our existing customer base onto our own facilities, it has been our practice to build a customer base first and then (using the information derived from servicing those customers) move to construction of our own facilities when a business case determines that such a building programme is economically viable.

We can now confidently say that our customer base is of an adequate size and that those customers are sufficiently concentrated that building our own network facilities for DSL is warranted in an increasing number of locations.

Table 1 below indicates those metropolitan exchanges in which we already have a presence (in TEBA space) and [Confidential] services that could be migrated with a minimum of investment.

Table 2 below details the 48 exchange areas in each of which iiNet has in excess of 100 ADSL customers - a number which we expect will be sufficient to justify building a presence.

⁵ As per Telstra Wholesale Broadband DSL Layer 2 Service Schedule.

Table 1

ADSL Service distribution by exchange – Chime presence.

Exchange	N° ADSL services
[Confidential]	296
[Confidential]	485
[Confidential]	469
[Confidential]	290
[Confidential]	88
[Confidential]	65
Total	1,693

[Confidential] 307

[Confidential] 269

[Confidential] 258

[Confidential] 255

[Confidential] 253

[Confidential] 218

[Confidential] 218

[Confidential] 213

[Confidential] 212

[Confidential] 205

[Confidential] 177

[Confidential] 176

[Confidential] 171

[Confidential] 163

[Confidential] 147

[Confidential] 143

[Confidential] 139

[Confidential] 137

[Confidential] 131

[Confidential] 129

[Confidential] 129

[Confidential] 125

[Confidential] 124

[Confidential] 122

[Confidential] 120

[Confidential] 118

[Confidential] 117

[Confidential] 116

[Confidential] 114

[Confidential] 113

[Confidential] 112

[Confidential] 112

Table 2

ADSL Service distribution by exchange – No Chime presence, greater than 100 services.

Exchange	N° ADSL services
[Confidential]	538
[Confidential]	530
[Confidential]	512
[Confidential]	507
[Confidential]	455
[Confidential]	433
[Confidential]	415
[Confidential]	411
[Confidential]	411
[Confidential]	385
[Confidential]	374
[Confidential]	370
[Confidential]	350
[Confidential]	327
[Confidential]	324

[Confidential] 307

[Confidential] 269

[Confidential] 258

[Confidential] 255

[Confidential] 253

[Confidential] 218

[Confidential] 218

[Confidential] 213

[Confidential] 212

[Confidential] 205

[Confidential] 177

[Confidential] 176

[Confidential] 171

[Confidential] 163

[Confidential] 147

[Confidential] 143

[Confidential] 139

[Confidential] 137

[Confidential] 131

[Confidential] 129

[Confidential] 129

[Confidential] 125

[Confidential] 124

[Confidential] 122

[Confidential] 120

[Confidential] 118

[Confidential] 117

[Confidential] 116

[Confidential] 114

[Confidential] 113

[Confidential] 112

[Confidential] 112

[Confidential]	102	Table 1 + Table 2 = 13,480
Total	11,787	

It is clear to us that an established customer base is already available to migrate to our own infrastructure and significant, ongoing demand exists for new services. The absolute numbers remain to be seen, however 13,480 services are currently earmarked for conversion onto Chime’s own infrastructure.

Given that we are only one player in this market, it is fair to assume that other wholesale acquirers of Telstra’s ADSL would come to similar conclusions about the desirability of moving to a lower cost, higher performance platform.

Reasonable forecasts for iiNet alone, based on our understanding of our own existing customer base would be as follows –

Table 3 - Forecast iiNet Customers on Line Sharing based services

	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
End of year SIOs	[Confidential]		[Confidential]		[Confidential]	

This table is based on the analysis of the existing customer base and implementation of our own DSLAM rollout. These are not all new customers, the majority will be from the migration of existing ADSL customers.

We expect initial deployment of our own infrastructure by end Q1 2004 and deployment nationally throughout 2004-05.

The growth forecast in this table is well within existing performance and consistent with trends forecast by Telstra.

Our existing customer base continues to show above target growth. This will be boosted by iiNet marketing initiatives planned for early 2004.

In addition, Chime has commenced marketing its wholesale DSL product to ISPs in competition to Telstra’s Wholesale ADSL product. This will be a new source of customers unavailable under the existing arrangements.

It is unreasonable to assume that iiNet would be alone in its thinking or that the factors we describe here are applicable only to our own situation.

As the broadband market matures and continues to grow, normal market pressures will ensure that alternative, lower cost, higher performing DSL platforms will be developed and rolled out to compete against the current Telstra offering.

Commercial Viability

One of the component charges of our commercial modeling is the \$15.00 LSS monthly access fee proposed by Telstra. We believe this figure is considerably higher than it ought to be and should be reduced. Telstra has supplied Chime with a copy of their modeling for the LSS which contains a “Monthly levelised cost per SIO” of [Confidential], based on [Confidential] SIOs at end of year 2005-06.

Using this same model, but entering the iiNet forecasts in Table 3 above, this figure reduces to [Confidential]. Given that iiNet represents only 10% of the ADSL market, it is appropriate to increase the numbers in the Telstra model to reflect the total market. When this is done, the figure reduces to \$[Confidential].

Leaving those thoughts aside, however, the following modeling (of our own costs) is based on the \$15.00 figure given in Telstra’s undertaking. We believe a lower figure would only encourage greater facilities based competition.

Chime has conducted preliminary investigations into DSLAMs and will make an evaluation of products in 2004 Q1. From our investigations, however, it is possible to produce a cost model that illustrates the likely costs associated with a DSLAM rollout in metropolitan areas.

This modeling supports our contention that new hardware options and installation techniques have improved the business case for our deployment of DSLAMS.

Table 4 - Costs⁶ associated with DSLAM rollout

Capex	Total
[Confidential]	
[Confidential]	
[Confidential]	
[Confidential]	
[Confidential]	
Total	\$ [Confidential]⁷

Per port over 24 months	\$ [Confidential]
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Disconnect fee over 24 mths	\$ [Confidential]
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⁶ Based on Chime actual data for similar requirements for interconnect costs.

⁷ Based on 720 port installation in single exchange.

Opex	
[Confidential]	[Confidential]
[Confidential]	[Confidential]
[Confidential]	[Confidential]
Port cost / month	[Confidential]

The makeup of the resulting port/access cost per month is highly dependant on Telstra's charges for TEBA, cabling and LSS charges which together, still account for approximately 80% of expected costs.

From this it can be seen that a cost per service competitive with Telstra's Wholesale ADSL is possible, although not significantly lower. The attraction is that this is a fixed cost and does not increase as the speed of the service to be delivered increases.

Comparing the modeled costs to the existing Telstra Wholesale DSL rates we see the following –

[Confidential]

The conclusion we arrive at from this approach is that even with the Telstra charges at current levels, there is now scope to introduce a product competitive, at higher speeds, with the Telstra Wholesale ADSL offering.

New DSLAM availability

We believe that ongoing developments in DSLAM technology and reducing hardware prices also have a bearing on the commercial viability of services delivered over spectrum sharing.

We suggest that earlier generations of DSLAMs were not suitable for the scale being considered by companies such as ourselves.

Since September 2003, a number of manufacturers have released new DSLAM hardware on the Australian market.

NEC, Siemens, Huawei and Ericsson have all approached Chime to explain the benefits of their latest offerings. Of particular note, is the approach adopted by

Ericsson, who have presented a modular DSLAM with capability for servicing blocks of 10 services.

This should have the effect of reducing the incremental steps in infrastructure costs. This means that the business case for rollout can be made on a much smaller scale. Once the cost of TEBA is met, ongoing increases are minimal and matched closely to the actual demand, reducing financial exposure and risk. This modular approach will also allow re-distribution of capacity as required with the plug-in design will also allow rapid deployment as demand is experienced.

This deployment option illustrates the recognition by manufacturers of the role smaller players will play in the delivery of broadband services. Alternatives to the massive carrier rollout will speed up the availability in selected areas and will increase the competitive offerings.

External Interconnect Cable

Telstra's offering of an external Interconnect cable changes the way in which Chime can approach the need for "TEBA" space. With the ability to establish an interconnect presence outside the actual Telstra exchange building, establishment and ongoing costs may be reduced significantly. This will allow more exchanges to be serviced at lower cost, further increasing the potential coverage for Chime.

In addition, the scope exists for infrastructure sharing with other carriers in a similar vein to the peering exchanges which have become a feature of the Australian internet industry. It is our expectation that this will further reduce the costs associated with establishing a presence in a growing number of exchange areas across Australia.

Disconnection Charges

Telstra has introduced a disconnection charge with the spectrum sharing service pricing schedule.

We have factored the disconnection charge into our modeling above and amortised it over 24 months. We do not believe that this charge can be passed on to the end-user and it would appear therefore to be structured simply as a penalty or disincentive for seeking to use LSS as an alternative to Telstra's ADSL.

In the event that a customer cancels a service outright, we don't believe that a physical removal of the pair is essential unless the customer wishes to churn to another provider. If this is the case, then a connection charge for the new service will be charged, thus a double charging scenario exists.

We believe that allowing this disconnection charge to be levied without being challenged will only lead to the introduction of similar charges across other products.

As Telstra's retail customers are not charged when disconnecting from Telstra, it appears to us that this charge is, in fact, discriminatory.

Connection fees

Both the connection and disconnection charges appear to be unrelated to any economies of scale that may be achieved by acquirers who may be able to "batch" orders.

Telstra charges for connection of service on a fixed fee per service regardless of the actual labour and materials required.

This is unreasonable where economies of scale are clearly applicable. In the event that a significant number of services are to be connected at the same exchange at the same time, a charge more closely related to the actual cost of providing the services should be charged. Telstra refers to this as "fee for service" in their retail dealings. In this case a charge based on time and materials is routinely calculated and charged. This method could be used in the wholesale environment where volumes of work justify a more appropriate approach.

We have approached Telstra with a request that an option to batch multiple requests for a specific exchange should be made available. At this stage, no such option appears forthcoming. We understand the need for some jumpering work, but it appears that this charge is an arbitrary one and one which is unreasonable given the nature of the work.

Conclusion

At the outset, the point was made that the difference between Telstra and ourselves regarding the Spectrum Sharing service is the quantum of services likely to be required in the Australian market.

We have argued in this paper that (regardless of current take up) an opportunity exists for significant take up of LSS.

We have based this conclusion on the fact that a customer base already exists, especially in metropolitan areas. This customer base is sufficiently concentrated on ADSL services to warrant a build of our own utilising LSS.

The cost analysis indicates that a product can now be built at a lower cost to alternatives previously available and that new, lower cost hardware will also allow improved service definition.

All this points to the inevitable conclusion that Telstra's pessimistic forecast of limited take-up is in error. The number of services required will be significantly greater than the [Confidential] services they suggest in their modeling for 2006.

Our estimate of [Confidential] SIOs for iiNet at end of 2005-06 would reduce the TSLRIC monthly cost per SIO down to \$[Confidential] and Monthly levelised cost per SIO (\$) to \$[Confidential] using Telstra's model.

Assuming 50% of Telstra's forecast 1 million Broadband SIOs by 2005 is via the Wholesale channel and 50% of that customer base can be migrated to LSS, then again Telstra's model would reduce the TSLRIC monthly cost per SIO down to \$[Confidential] and Monthly levelised cost per SIO (\$) to \$[Confidential].

A reduced cost will ensure two things, both of which are in the best interests of the end-user:

1. Lower charges for end users.
2. Increased services based competition.

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