

Annexure B

ULLS Specific Costs

1 The ULLS specific costs relevant to Telstra’s 2006-08 ULLS Monthly Charges Undertakings were outlined in “*Telstra’s Submission in Support of the ULLS Monthly Charges Undertakings Dated 23 December 2005*” (“**the December Submission**”).

2 This annexure provides further details regarding the ULLS specific costs.

A Capital Costs

3 The capital costs include:

- (a) the labour cost of developing the ULL Carrier Interface System (“ULLCIS”) and to implement changes to a number of Telstra’s existing systems to incorporate ULLS as follows¹:

Organisation	Labour Costs Incurred 1999/00	Labour Costs Incurred 2000/01	Labour Costs Incurred 2001/02	Labour Costs Incurred 2002/03
IBMGSA	[c-i-c]	[c-i-c] ²	[c-i-c]	[c-i-c] ⁴
EDS	[c-i-c]	[c-i-c]	[c-i-c] ⁵	[c-i-c] ⁶
Telstra	[c-i-c] ⁷	[c-i-c] ⁸	[c-i-c] ⁹	[c-i-c]

¹ Labour cost of developing ULLCIS are allocated 100% to ULLS. For the integration of ULL to existing systems, Telstra work specifications involve a number of products including ULLS. In this case, a percentage of the cost is allocated to ULLS. The appropriate percentage is estimated by the software company, IBMGSA or EDS, in their work orders.

² Calculated by reference to invoices received from IBMGSA.

⁴ Calculated by reference to invoices received from IBMGSA.

⁵ Calculated by reference to invoices received from EDS.

⁶ Calculated by reference to invoices received from EDS.

⁷ Calculated as follows:

Date	Hours Spent	Average Rate Per Hour
1999-2000	[c-i-c]	[c-i-c] per hour

⁸ Calculated as follows:

Date	Hours Spent	Average Rate Per Hour
2000-2001	[c-i-c]	[c-i-c] per hour

⁹ Calculated as follows:

Organisation	Labour Costs Incurred 1999/00	Labour Costs Incurred 2000/01	Labour Costs Incurred 2001/02	Labour Costs Incurred 2002/03
Total	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

- (b) the associated development processing costs incurred during the course of the IT systems development as follows:

[c-i-c]¹⁰ of [c-i-c] = [c-i-c] for 1999-2000

[c-i-c]¹¹ of [c-i-c] = [c-i-c] for 2000-2001

[c-i-c]¹² of [c-i-c] = [c-i-c] for 2001-2002

[c-i-c]¹³ of [c-i-c] = [c-i-c] for 2002-2003

- (c) accommodation and internal communications of IBM GSA staff which is estimated by Telstra to be 9% of the development labour as follows:

[c-i-c] of [c-i-c] = [c-i-c] for 2000-2001

[c-i-c] of [c-i-c] = [c-i-c] for 2001-2002

[c-i-c] of [c-i-c] = [c-i-c] for 2002-2003

- (d) a volume discount received from IBMGSA which is estimated to be 13% for the ULLS development costs as follows:

[c-i-c] of [c-i-c] = [c-i-c] for 2000-2001

[c-i-c] of [c-i-c] = [c-i-c] for 2001-2002

[c-i-c] of [c-i-c] = [c-i-c] for 2002-2003

with the total being (rounded to two decimal places):

	1999/00	2000/01	2001/02	2002/03
Labour Costs	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Less discount from IBM	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

Date	Hours Spent	Average Rate Per Hour
2001-2002	[c-i-c]	[c-i-c] per hour

¹⁰ Derived from Telstra's cost analysis of its IT investment spend in 1999-2000.

¹¹ Derived from Telstra's cost analysis of its IT investment spend in 2000/01.

¹² The average of the percentages in 1999/00 and 2000/01.

¹³ The average of the percentages in 1999/00 and 2000/01.

	1999/00	2000/01	2001/02	2002/03
Plus associated processing costs	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Plus other costs of IBM GSA	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Total Development Cost	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

- 4 In addition Telstra estimates that the following additional costs were incurred in 2004/05 and 2005/06:

CAPEX	2004/05	2005/06
New ULL Deployment Class, PCMS Codes	[c-i-c]	[c-i-c]
ULLS Enhancements	[c-i-c]	[c-i-c]
SSS to ULLS Connection Process	[c-i-c]	[c-i-c]
SSS on ULLS Upper Spectrum	[c-i-c]	[c-i-c]
Total	[c-i-c]	[c-i-c]

Development Processing Cost	2004/05	2005/06
New ULL Deployment Class, PCMS Codes	[c-i-c]	[c-i-c]
ULLS Enhancements	[c-i-c]	[c-i-c]
SSS to ULLS Connection Process	[c-i-c]	[c-i-c]
SSS on ULLS Upper Spectrum	[c-i-c]	[c-i-c]
Total	[c-i-c]	[c-i-c]

- 5 The costs incurred in 1999/00, before the ULLS specific assets became operational, are carried forward to 2000/01. The cost of capital and depreciation are calculated on assets from 2000/01 to 2007/08.

- 6 Therefore the total capital costs in the model are as follows (rounded to two decimal places):

Capex	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Total development labour cost	[c-i-c] ¹⁴	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Total development processing cost	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Total CAPEX	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

- 7 Telstra has taken a conservative approach of only including the cost of implementing changes to its core systems to incorporate ULLS. It has not allocated any of the joint and common costs of those systems to ULLS. Telstra reserves the right to quantify the joint and common costs associated with the core systems that should be allocated to ULLS in the future.

B Annual Capital Charge

- 8 The capital costs are converted to an annual capital charge (which includes depreciation and cost of capital) using the following formula:

$$V * \frac{(1+r)^N (r-\alpha)}{(1+r)^N - (1+\alpha)^N}$$

where:

- (a) the post-tax WACC “vanilla” is as set out in Appendix C to the December Submission;
- (b) general inflation rate is [c-i-c] per annum. This is as determined by the capital markets;
- (c) cost trend of direct assets is assumed to go down at the rate of [c-i-c] per annum; and
- (d) the life of the assets used in provision of ULLS is [c-i-c] years.

¹⁴ This is the cost in 2000/01 and the net present value of the cost in 1999/00.

	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
labour								
ULLCIS maintenance	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Maintenance processing	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Total	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

(b) front-of-house connection group costs

This group handles inquiries from access seekers, processes ULLS orders and undertakes related tasks in relation to single ULLS connections. The costs of this group are:

- (i) for the period 2000/01 to 2004/05, calculated by determining the number of staff necessary to perform the connections as follows:

$$\text{Number of staff} = \text{Number of new Connections} / [(\text{Number of Connections per staff per working day}) \times 5 \times 52]$$

	2000-01	2001-02	2002-03	2003-04	2004-05
Number of new connections	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Number of connections per staff per working day ¹⁵	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Number of staff	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

and determining the cost of those staff as follows:

Year	No of Staff	Cost per Staff Member	Total
2000/01	[c-i-c]	[c-i-c]	[c-i-c]
2001/02	[c-i-c]	[c-i-c]	[c-i-c]
2002/03	[c-i-c]	[c-i-c]	[c-i-c]

¹⁵ The connection rate was estimated to be [c-i-c] connections per day per staff member in 2000/01 and was expected to increase linearly to [c-i-c] connections per day per staff member in 2004/05. The connection rate was lower in the first three years because of the high level of rejections, issues arising during cutover and manual fall out from the automatic service qualification test.

Year	No of Staff	Cost per Staff Member	Total
2003/04	[c-i-c]	[c-i-c]	[c-i-c]
2004/05	[c-i-c]	[c-i-c]	[c-i-c]

- (ii) from 2005/06 onward, based on the actual number of staff in 2005/06 and forecast number of staff required for 2006/07 and 2007/08, as follows:

	No of Staff		
	2005/06	2006/07	2007/08
CSSW3 ¹⁶	[c-i-c]	[c-i-c]	[c-i-c]
CSSW5 ¹⁷	[c-i-c]	[c-i-c]	[c-i-c]
Team Leader ¹⁸	[c-i-c]	[c-i-c]	[c-i-c]
Total	[c-i-c]	[c-i-c]	[c-i-c]

multiplied by the annual labour cost for each category as follows:

	CSSW3	CSSW5	CSSW8 (Team Leader)
Annual Labour Cost	[c-i-c]	[c-i-c]	[c-i-c]

with total costs as follows:

Year	Total Labour Cost
2000/01	[c-i-c]
2001/02	[c-i-c]
2002/03	[c-i-c]
2003/04	[c-i-c]
2004/05	[c-i-c]
2005/06	[c-i-c]
2006/07	[c-i-c]
2007/08	[c-i-c]

¹⁶ Customer Sales and Service Workstream Band 3

¹⁷ Customer Sales and Service Workstream Band 5

¹⁸ Customer Sales and Service Workstream Band 8

(c) product management

The costs of the equivalent of two full-time product managers in managing and selling the product at a total of [c-i-c] per annum.

D Indirect O&M Costs

12 The indirect O&M costs are indirect costs associated with the front of house connection group and the product managers as follows:

		Cost		
		Product Managers	Front of house connection group	Total
	Indirect O&M percentage	[c-i-c]	[c-i-c]	
2000/01	O&M Costs	[c-i-c]	[c-i-c]	[c-i-c]
	Indirect O&M costs	[c-i-c]	[c-i-c]	[c-i-c]
2001/02	O&M Costs	[c-i-c]	[c-i-c]	[c-i-c]
	Indirect O&M costs	[c-i-c]	[c-i-c]	[c-i-c]
2002/03	O&M Costs	[c-i-c]	[c-i-c]	[c-i-c]
	Indirect O&M costs	[c-i-c]	[c-i-c]	[c-i-c]
2003/04	O&M Costs	[c-i-c]	[c-i-c]	[c-i-c]
	Indirect O&M costs	[c-i-c]	[c-i-c]	[c-i-c]
2004/05	O&M Costs	[c-i-c]	[c-i-c]	[c-i-c]
	Indirect O&M costs	[c-i-c]	[c-i-c]	[c-i-c]
2005/06	O&M Costs	[c-i-c]	[c-i-c]	[c-i-c]
	Indirect O&M costs	[c-i-c]	[c-i-c]	[c-i-c]
2006/07	O&M Costs	[c-i-c]	[c-i-c]	[c-i-c]
	Indirect O&M costs	[c-i-c]	[c-i-c]	[c-i-c]
2007/08	O&M Costs	[c-i-c]	[c-i-c]	[c-i-c]
	Indirect O&M costs	[c-i-c]	[c-i-c]	[c-i-c]

E Calculation of monthly ULLS specific costs per service

- 13 The following steps were carried out to calculate the monthly ULLS specific costs per service:
- (a) first, operating costs and annualised capital costs for each undertaking period (1 January to 30 June 2006, 2006/07 and 2007/08) are divided by the respective forecast ULLS volumes in these periods. These annualised costs are then divided by 6 for the period 1 January to 30 June 2006 and by 12 for 2006/07 and 2007/08 to determine the level of unit costs for each period;
 - (b) second, the annual costs that have been recovered from the ULLS between 2000/01 and 31 December 2005 is calculated by multiplying average demand in each year¹⁹ by the relevant contribution made to ULLS-specific costs in each period;²⁰
 - (c) the annual costs recovered to date in step (b) were deducted from the total annual costs for each period from 2000/01 to 31 December 2005 to arrive at unrecovered ULLS specific costs in each period;
 - (d) the present value (as at 1 January 2006) of the unrecovered ULLS specific costs across all periods from 2000/01 to 31 December 2005 were calculated and these values summed to arrive at the present value of unrecovered ULLS specific costs. The formula to calculate the Present Value for each year is as follows:

$$[\text{Unrecovered ULLS specific cost}] / [(1+\text{WACC})^{\text{(year of operation)}}]$$

These costs are as follows:

	2000/01 (\$M)	2001/02 (\$M)	2002/03 (\$M)	2003/04 (\$M)	2004/05 (\$M)	2005/06 H2
Unrecovered ULLS-specific costs	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
NPV of unrecovered ULLS-specific costs	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

¹⁹

	2000/01	2001/02	2002/03	2003/04	2004/05
Average Demand	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

²⁰

	2000/01	2001/02	2002/03	2003/04	2004/05
Per Month Amount Recovered	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

- (e) the sum of the present value of unrecovered costs calculated in (d) was divided by the net present value of demand for the undertaking period (1 January 2005 to 30 June 2008). This was then divided by 12 to convert to a monthly unit cost;
- (f) the results of step (e) were added to the results of step (a) to determine the total monthly unit costs for ULLS-specific costs.