

Appendix 01: EXTERNAL LABOUR - MEASURES AND METRICS – STATUS UPDATE

1 **TABLE NAME(s):** Figure IT App 1– 1 IT Personal / Figure IT App 1– 2 IT Personal
2 Costs

3 **REFERENCE:** Update on PUB (MPI) 1-31 (2018 GRA) & (II Exp. Appendix 18 PUB/MPI
4 1-18 (2017 GRA) - Figure IT - 1: IT Personal & Figure IT - 2: IT Personal Costs

5 **DESCRIPTION:** Figure 1 below contains a 5 year historical summary and a 3 year
6 forecast for both internal resources and consultants that have worked and are
7 expected to work within the Information Technology area. Figure 2 below provides the
8 actual spend for 2017/18 and also the forecasted spend on internal and external
9 resources for the next three years.

10 **ASSUMPTIONS / CONSIDERATIONS / NOTES:**

- 11 • Tables updated to include 2020/21 figures and revised forecasts for 2018/19
12 and 2019/20.
- 13 • Figure 1: Note - As of May 2018 # of external has been reduced to 82.
- 14 • Figure 1: Corporate Reorganizations occurred in 2017/18 and 2018/19 which
15 resulted in 35.6 internal FTE being transferred into the division from other
16 areas of the corporation. The increase has been identified as a separate line
17 item in Figure 1 below.
- 18 • Figure 1: 18 Consultant Conversions also appear as a separate line item below.
19 These positions were added into the operational budgets (2017/18 & 2018/19).
20 Note – Three additional conversions occurred in 2016/17...these positions are
21 reflected in the project budgets.
- 22 • Figure 1: Additional changes listed decrease the overall FTE totals by 2.5 in
23 2017/18 and 0.6 in 2018/19.

- 1 • Figure 2: Approximated internal costs based on budgeted/forecasted FTEs.
- 2 Approximated external costs based on anticipated consultants in relation to
- 3 known projects.

Figure IT App 1- 1: IT Personal – Updated chart previously submitted in response to PUB (MPI) 1-31 (2018 GRA – Question a)

Line No.	Year	2013/14	2014/15	2015/16	2016/17	2017/18(A)	2018/19 (B)	2019/20 (F)	2020/21 (F)
1	Internal FTE	212	210	223	235.7	235.7	271.8	290.2	290.2
2	Corporate Re-Organization(s)					27.6	8		
3	Consultant Conversions					11	7		
4	New Positions (security, etc.)					2	2		
5	Divisional Reductions					(4.50)	(2.60)		
6	Internal FTE Total	212	210	223	235.7	271.8	286.2	290.2	290.2
7	Consultants	120	110	114	107	107	82	80	80
8	Total	332	320	337	342.7	378.8	368.2	370.2	370.2

Figure IT App 1- 2: IT Personal Costs- - Updated chart previously submitted in response to PUB (MPI) 1-31 (2018 GRA – Question a)

Line No.	Year	2017/18(A)	2018/19(B)	2019/20(F)	2020/21(F)
	<i>(C\$000s except where noted)</i>				
1	Internal FTE Costs (\$)	\$ 22,392	\$ 24,119	\$ 25,417	\$ 26,203
2	Consultant Costs (\$) - Original	\$ 15,153	\$ 12,029	\$ 10,791	\$ 10,792
3	Consultant Costs (\$) - Revised	\$ 14,346	\$ 11,517	\$ 10,333	\$ 10,334
		\$ 36,738	\$ 35,636	\$ 35,750	\$ 36,537
4	* Two internal departments moved under IT umbrella during 2017/18				
5	Change - MPI deferred development costs were included in the original consultant cost calculation (in error).				

4 **TABLE NAME(s):** Figure IT App 1- 3 IBM Master Service Agreement / Figure IT App
5 1- 4 HP Master Service Agreement / Figure IT App 1-5 IBM Data Center Costs

6 **REFERENCE:** Update on PUB (MPI) 1-32 (2018 GRA) & II EXP Appendix 14 PUB/MPI
7 I-29 (2017 GRA) – Figure IT - 1: IBM Master Service Agreement / Figure IT - 2: HP
8 Master Service Agreement / Figure IT - 3: IBM Data Center Costs

9 **DESCRIPTION:** The first two tables below contains a 5 year historical summary of
10 the annual spend that occurred under the HP & IBM Master Services Agreement. The
11 last table provides an historical summary of the IBM Data Center Costs.

1 **ASSUMPTIONS / CONSIDERATIONS / NOTES:**

- 2 • Figure IT App 1- 3 & 4 updated to include 2017/18 figures.
3 • Figure IT App 1- 3 & 4 summaries capture all payment transactions that
4 occurred between March 1st and Feb 28th in each of the years listed.

Figure IT App1- 3: IBM Master Service Agreement– Updated chart previously submitted in response to PUB (MPI) 1-32 (2018 GRA question a)

Line No.	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
	<i>(C\$ 000,000)</i>					
1	8.92	16.71	13.4	12.68	14.52	14.4

Figure IT App 1- 4: HP Master Service Agreement Updated chart previously submitted in response to PUB (MPI) 1-32 (2018 GRA question a)

Line No.	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
	<i>(C\$ 000,000)</i>					
1	19.5	25.08	23.18	24.61	21.09	20.1

5 **TABLE NAME(s):** Figure IT App 1- 5 IT Personal – Internal (FTE) / Figure IT App 1-
6 6 IT Personal – Consultants (FTE) / Figure IT App 1- 7 IT Personal – Internal Costs /
7 Figure IT App 1- 8 IT Personnel - Consultant Costs / Figure IT App 1- 9 IT Personal -
8 FTE 2011/12 – 2020/21 / Figure IT App 1- 10 IT Personal – Costs 2011/12 – 2020/21
9 / Figure IT App 1- 11 Average Cost per FTE

10 **REFERENCE:** Update on PUB (MPI) 2-17 (2018 GRA) & PUB (MPI) 1-31, PUB (MPI) 1-
11 27 (2017 GRA) – Figure IT - 6 thru 12.

12 **DESCRIPTION:** The tables below contain a 5 year historical summaries of IT
13 Personal and their related costs. The last three tables provide a broader perspective
14 and cover a ten year period (7 years actual and 3 years forecast).

15 **ASSUMPTIONS / CONSIDERATIONS / NOTES:**

- 16 • Figure IT App 1- 5 to 8 updated to include forecasts to 2020/21
17 • Figure IT App 1- 9 to 11 updated to include forecasts to 2020/21

- 1 • Figure IT App 1- 5 to 7: Major changes for 2017/18 & 2018/19 include the
2 following:
- 3 ○ Corporate Reorganizations – 27.6 FTE added to division in 2017/18 & 8
4 FTE added in 2018/19
- 5 ○ Consultant Conversions – 11 FTE added to operational budget in
6 2017/18 and 7 FTE added in 2018/19
- 7 ○ New Positions/Reductions – Net change -2.5 FTE in 2017/18 and -0.6
8 FTE in 2018/19.
- 9 • Figure IT App 1- 5: The remaining consultant conversions will occur in the
10 2019/20 budget.
- 11 • Figure IT App 1- 6: Variance in 2017/18 was due to additional testing
12 requirements for the CLMS and the Infor Lawson upgrade projects. Projects
13 went a little longer than anticipated...as of May 2018 the number of consultants
14 has been reduced to 82. As noted in the IT Chapter, External Labour Update, it
15 is anticipated that there will be additional reductions to 2019/20 numbers.
16 Specific details are not available at the time of this submission so previous
17 forecasts have been leveraged.
- 18 • Figure IT App 1– 7: Variances due to the staff increase as explained in the
19 major changes note above.
- 20 • Figure IT App 1- 8: The variance mainly reflects changes to major projects
21 requiring fewer consultants and the external labour strategy accelerating vs.
22 plan.
- 23 • Figure IT App 1- 11: * denotes an increase in average consultant fee for
24 2013/14 is due to one-time transition/migration cost of IBM data center
25 operations. The additional reduction measures identified in the IT Chapter,
26 External Labour Update, are anticipated to further reduce average external
27 labour cost per hour.
- 28 An update is expected in 2018/19 and will be included in GRA 2020.

Figure IT App 1- 5: IT Personnel - Internal (FTE) - Updated chart previously submitted in response to PUB (MPI) 2-17 (2018 GRA question a)

Line No.	Fiscal Year	2019 GRA Forecast	2018 GRA Forecast	Variance 2019 vs 2018
1	2016/17	235.7	235.7	0
2	2017/18	248.2	248.2	0
3	2018/19	286.2	253.2	33
4	2019/20	290.2	249.2	41
5	2020/21	290.2	n/a	

Figure IT App 1- 6: IT Personnel - Consultants (FTE) - Updated chart previously submitted in response to PUB (MPI) 2-17 (2018 GRA question a)

Line No.	Fiscal Year	2019 GRA Forecast	2018 GRA Forecast	Variance 2019 vs 2018
1	2016/17	107	107	0
2	2017/18	107	92	15
3	2018/19	82	81	1
4	2019/20	80	80	0
5	2020/21	80	n/a	

Figure IT App1- 7: IT Personnel - Internal Costs- Updated chart previously submitted in response to PUB (MPI) 2-17 (2018 GRA question a)

Line No.	Fiscal Year	2019 GRA Forecast	2018 GRA Forecast	Variance 2019 vs 2018	% Change
<i>(C\$000s except where noted)</i>					
1	2016/17	\$ 20,189	\$ 20,189	\$ -	0.0%
2	2017/18	\$ 22,392	\$ 22,199	\$ 193	0.9%
3	2018/19	\$ 24,119	\$ 23,584	\$ 535	2.3%
4	2019/20	\$ 25,417	\$ 24,655	\$ 762	3.1%
5	2020/21	\$ 26,203	n/a		

Figure IT App 1- 8: IT Personnel - Consultant Costs- Updated chart previously submitted in response to PUB (MPI) 2-17 (2018 GRA question a)

Line No.	Fiscal Year	2019 GRA Forecast (Revised)	2019 GRA Forecast (Original)	2018 GRA Forecast	Variance 2019 vs 2018	% Change
<i>(C\$000s except where noted)</i>						
1	2016/17	\$ 19,904	\$ 19,904	\$ 23,965	\$ (4,061)	-16.9%
2	2017/18	\$ 14,346	\$ 15,153	\$ 16,233	\$ (1,887)	-11.6%
3	2018/19	\$ 11,517	\$ 12,029	\$ 14,292	\$ (2,775)	-19.4%
4	2019/20	\$ 10,333	\$ 10,791	\$ 14,166	\$ (3,833)	-27.1%
5	2020/21	\$ 10,334	\$ 10,792	n/a		
6	*Change - MPI deferred development costs were included in the original consultant cost calculation (in error).					

- 1 Please see Figure IT App 1- 9 to 11 for historical IT Personnel FTE and Costs for
- 2 Internal and Consultants, respectively and average cost per FTE.

Figure IT App 1- 9: IT Personnel – (FTE) - Updated chart previously submitted in response to PUB (MPI) 2-17 (2018 GRA question b)

Line No.	Fiscal Year	Internal	Consultants
1	2011/12	215	98
2	2012/13	227	129
3	2013/14	212	120
4	2014/15	210	110
5	2015/16	223	114
6	2016/17	235.7	107
7	2017/18	281.2	107
8	2018/19F	286.2	82
9	2019/20F	290.2	80
10	2020/21F	290.2	80

Figure IT App 1- 10: IT Personnel - Costs- Updated chart previously submitted in response to PUB (MPI) 2-17 (2018 GRA question b)

Line No.	Fiscal Year	Internal	Consultants (Revised)	Consultants (Original)
1	2011/12	\$ 17,663	\$ 17,219	\$ 17,219
2	2012/13	\$ 19,043	\$ 29,468	\$ 29,468
3	2013/14	\$ 19,380	\$ 35,527	\$ 35,527
4	2014/15	\$ 17,588	\$ 23,158	\$ 23,158
5	2015/16	\$ 18,632	\$ 25,396	\$ 25,396
6	2016/17	\$ 20,189	\$ 23,965	\$ 23,965
7	2017/18	\$ 22,392	\$ 14,346	\$ 15,153
8	2018/19F	\$ 24,119	\$ 11,517	\$ 12,029
9	2019/20F	\$ 25,417	\$ 10,333	\$ 10,794
10	2020/21F	\$ 26,203	\$ 10,334	\$ 10,792
11	* Change - MPI deferred development costs were included in the original consultant cost calculation (in error).			

Figure IT App 1- 11: Average Cost per FTE- Updated chart previously submitted in response to PUB (MPI) 2-17 (2018 GRA question b)

Line No.	Fiscal Year	Internal	Consultants (Revised)	Consultants (Original)
<i>(C\$000s except where noted)</i>				
1	2011/12	\$ 82.15	\$ 175.70	\$ 175.70
2	2012/13	\$ 83.89	\$ 228.43	\$ 228.43
3 *	2013/14	\$ 91.42	\$ 296.06	\$ 296.06
4	2014/15	\$ 83.75	\$ 210.53	\$ 210.53
5	2015/16	\$ 83.55	\$ 222.77	\$ 222.77
6	2016/17	\$ 85.66	\$ 223.97	\$ 223.97
7	2017/18	\$ 79.63	\$ 134.07	\$ 141.62
8	2018/19F	\$ 84.27	\$ 140.45	\$ 146.70
9	2019/20F	\$ 87.58	\$ 129.16	\$ 134.89
10	2020/21F	\$ 90.29	\$ 129.18	\$ 134.90
11	Change - MPI deferred development costs were included in the original consultant cost calculation (in error).			

* Increase in average consultant fee for 2013/14 is due to one time transition/migration cost of IBM data center operations

- 1 **TABLE NAME(s):** Figure IT App 1-12 External IT Resources
- 2 **REFERENCE:** Update on PUB (MPI) 2-18 (2018 GRA) & PUB (MPI) 1-32
- 3 **Appendix 14, PUB (MPI) 1-29 (2017 GRA) – Figure 1: External IT Resources**
- 4 **DESCRIPTION:** The tables below contains a list of external labour resources who
- 5 provide Information Technology (IT) services to projects and operations.

1 **ASSUMPTIONS / CONSIDERATIONS / NOTES:**

- 2 The list below includes 82 Information Technology (IT) consultants from DXC and IBM
3 who are working within MPI on operational and project initiatives as at May 2018.

Figure IT App 1- 12: External IT Resources - Updated chart previously submitted in response to PUB (MPI) 2-18 (2018 GRA question a)

Line No.	Identifier	Role May 2018	Project/Ops
1	DXC - 001	Senior Systems Analyst	Operations
2	DXC - 002	Senior Software Designer	Operations
3	DXC - 003	SharePoint Developer	Operations
4	DXC - 004	Senior Informatica Developer	Operations
5	DXC - 005	Programmer Analyst	Operations
6	DXC - 006	SharePoint Developer	Operations
7	DXC - 007	Programmer Analyst	Operations
8	DXC - 008	Senior Informatica Developer	Operations
9	DXC - 009	Senior Systems Analyst	Operations
10	DXC - 010	Senior Business Analyst	Operations
11	DXC - 011	Senior Informatica Developer	Operations
12	DXC - 012	Senior Informatica Developer	Operations
13	DXC - 013	Intermediate Programmer Analyst	Operations
14	DXC - 014	SharePoint Consultant	Projects
15	DXC - 015	Intermediate Project Manager	Projects
16	DXC - 016	Senior Application Architect	Projects
17	DXC - 017	Application Architect	Projects
18	DXC - 018	Senior Systems Analyst	Projects
19	DXC - 019	Snr Data Architect	Projects
20	DXC - 020	Senior Business Analyst	Projects
21	DXC - 021	Intermediate Project Manager	Projects
22	DXC - 022	Technical Writer	Projects
23	DXC - 023	Intermediate Project Manager	Projects
24	DXC - 024	Senior Business Analyst	Projects
25	DXC - 025	Senior Systems Analyst	Projects
26	DXC - 026	Intermediate Project Manager	Projects
27	DXC - 027	Project Director	Projects
28	DXC - 028	Senior Software Designer	Projects
29	DXC - 029	Senior Business Analyst	Projects
30	DXC - 030	Senior Business Analyst	Projects
31	DXC - 031	Senior Software Designer	Projects

Line No.	Identifier	Role May 2018	Project/Ops
32	DXC - 032	Technical Consultant	Projects
33	DXC - 033	Senior Technical Architect	Projects
34	DXC - 034	Senior Systems Analyst	Projects
35	DXC - 035	Senior Systems Analyst	Projects
36	DXC - 036	Senior Systems Analyst	Projects
37	DXC - 037	Senior Software Designer	Projects
38	DXC - 038	Senior Systems Analyst	Projects
39	DXC - 039	Intermediate Project Manager	Projects
40	DXC - 040	Business Consultant	Projects
41	DXC - 041	Technical Consultant	Projects
42	DXC - 042	Project Control Analyst	Projects
43	DXC - 043	Project Control Analyst	Projects
44	DXC - 044	Project Director	Projects
45	DXC - 045	Senior Business Analyst	Projects
46	DXC - 046	Senior Project Manager	Projects
47	DXC - 047	Senior Project Manager	Projects
48	DXC - 048	Senior Systems Analyst	Projects
49	DXC - 049	Business Analyst	Projects
50	DXC - 050	Senior Systems Analyst	Projects
51	DXC - 051	Senior Instructional Designer	Projects
52	DXC - 052	Senior Application Architect	Projects
53	DXC - 053	Senior Software Designer	Projects
54	DXC - 054	Senior Program Manager	Projects
55	DXC - 055	Project Control Analyst	Projects
56	DXC - 056	Senior Application Architect	Projects
57	DXC - 057	Snr Systems Analyst	Projects
58	DXC - 058	Snr Software Designer	Projects
59	DXC - 059	Intermediate Project Manager	Projects
60	DXC - 060	Technical Writer	Projects
61	DXC - 061	Senior Systems Analyst	Projects
62	DXC - 062	Senior Systems Analyst	Projects
63	DXC - 063	Application Architect	Projects
64	DXC - 064	Senior Business Analyst	Projects
65	DXC - 065	Senior Systems Analyst	Projects
66	DXC - 066	Senior Systems Analyst	Projects
67	DXC - 067	Business Architect	Projects
68	DXC - 068	Senior Business Analyst	Projects
69	DXC - 069	Technical Writer	Projects
70	DXC - 070	Senior Business Analyst	Projects
71	DXC - 071	Senior Software Designer	Projects

Line No.	Identifier	Role May 2018	Project/Ops
72	DXC - 072	Business Architect	Projects
73	DXC - 073	Senior Business Architect	Projects
74	DXC - 074	Senior Business Analyst	Projects
75	DXC - 075	Senior Project Manager	Projects
76	DXC - 076	Systems Analyst	Projects and Operations
77	DXC - 077	Intermediate Programmer Analyst	Projects and Operations
78	DXC - 078	Systems Analyst	Projects and Operations
79	DXC - 079	DBA	Projects and Operations
80	DXC - 080	SharePoint Developer	Projects and Operations
81	IBM-001	Senior DBA	Projects and Operations
82	IBM-002	Senior DBA	Projects and Operations

Appendix 19: INFORMATION TECHNOLOGY COSTS

The following tables provide a comprehensive analysis of Corporate Information Technology (CIT) expenses and capital expenditures. This includes both historical actual from 2013/14 to 2017/18 and the forecast period from 2018/19 to 2022/23.

The first table provides a summary, including compounded annual growth rates for all corporate expense costs related to IT within MPI.

Figure EXP App 19 – 1: Information Technology Costs (Corporate)

Line No.	Summary	2013/14A	2014/15A	2015/16A	2016/17A	2017/18A	2018/19B	2019/20F	2020/21F	2021/22F	2022/232F	Compound Annual Growth	
												13/14A-17/18A (5 years)	18/19B-22/23F (5 years)
<i>(C\$000s, except where noted)</i>													
1	Total IT Expenses	61,237	64,170	57,479	64,289	85,093	76,218	70,813	74,372	82,656	84,255	8.6%	2.5%
2	Deferred Development Costs	29,819	17,079	20,847	27,671	204	10,902	25,757	33,409	26,500	25,250		
3	Data Processing Equipment	1,155	1,029	624	110	142	2,485	2,928	1,653	1,230	1,625		
4	Total IT Costs	30,974	18,108	21,471	27,781	346	13,387	28,685	35,062	27,730	26,875		

The following two tables provide detail for the summary showing budgeted and forecasted amounts for the three IT related departments within the Corporation as well as all of the capital IT costs within the Corporation.

Figure EXP App 19 – 2: Total Information Technology Expenses

Line No.	IT Expenses	2013/14A	2014/15A	2015/16A	2016/17A	2017/18A	2018/19B	2019/20F	2020/21F	2021/22F	2022/23F
1	<i>(SC 000s, except where noted)</i>										
2	CIT Departmental Expenses:										
3	Data processing:										
4	Computer Costs	377	14	-	-	-	-	-	-	-	-
5	Licence Charges	6,431	5,698	6,219	5,826	7,408	8,126	8,342	8,720	8,894	9,072
6	Computer Maintenance	1,683	1,348	1,371	1,484	1,787	1,689	1,715	1,748	1,783	1,819
7	Software	1,668	702	277	805	176	352	258	258	263	268
8	IBM Data Centre	-	6,080	7,276	9,550	9,176	9,790	9,972	10,558	10,769	10,984
9	IBM Security Operations Centre	-	-	-	-	-	550	550	550	561	572
10	External Labour										
11	AOL	3,145	2,955	2,313	2,305	1,230	2,201	1,887	1,887	1,924	1,963
12	CARS	793	739	578	576	308	624	535	535	546	557
13	Other	3,832	2,414	1,522	2,324	1,672	730	634	627	639	659
14	Total Data Processing	17,929	19,950	19,556	22,870	21,756	24,062	23,893	24,883	25,379	25,894
15	Compensation	10,382	9,388	10,044	11,231	11,521	13,314	14,100	14,511	14,764	15,056
16	Training	103	144	142	132	127	129	140	143	146	149
17	Special Services	1,203	969	766	991	1,024	926	944	963	982	1,002
18	Printing, Stationery and Supplies	596	338	295	231	169	582	564	225	229	234
19	Telephone and Telecommunications	3,049	2,562	2,377	2,221	2,054	2,121	2,174	2,231	2,275	2,321
20	Computer Equipment Expense	645	674	289	167	295	1,161	878	969	989	1,008
21	Miscellaneous	291	115	30	116	42	80	81	83	84	86
22	Total CIT Dept Exp (before Dep'n/Amort)	34,198	34,140	33,499	37,959	36,989	42,375	42,774	44,008	44,848	45,750
23	Depreciation - Data Processing Equipment	1,847	826	1,075	672	411	813	1,526	2,176	2,176	2,176
24	Amortization of Deferred Dev Costs	-	7,941	8,534	9,415	12,702	14,573	6,125	6,125	2,835	1,683
25	Total CIT Direct Departmental Expenses	36,045	42,907	43,108	48,046	50,103	57,761	50,425	52,309	49,859	49,609
26	Allocated Building Expenses	1,264	1,293	1,292	1,309	1,112	1,311	1,347	1,362	1,384	1,406
27	Allocated Corporate Benefits	2,786	2,870	2,951	3,092	3,304	3,997	4,119	4,196	4,275	4,275
28	DP - Microfiche	42	44	43	43	43	44	44	45	46	46
29	DP - External Labour - Other	118	247	376	264	244	310	310	316	323	323
30	Total CIT Departmental Expenses including allocations	40,255	47,361	47,770	52,754	54,806	63,423	56,245	58,228	55,887	55,659
31	Implementation Expense:										
32	Licence Charges	10	52	33	12	243	5	-	-	-	-
33	Computer Maintenance	-	-	-	-	-	-	-	-	-	-
34	IBM Data Centre	-	-	-	150	161	500	500	500	500	500
35	Software	-	-	5	-	-	500	-	-	-	-
36	Deferred Development Impairment	-	-	-	-	20,258	-	-	-	-	-
37	External Labour	4,955	5,707	4,891	4,290	1,571	3,050	350	350	350	350
38	Total Implementation Expense	4,965	5,759	4,929	4,452	22,233	4,055	850	850	850	850
39	Ongoing expense:										
40	Licence Charges	-	-	-	205	-	-	233	308	955	955
41	Amortization of Deferred Dev Costs	-	-	-	-	-	-	3,477	6,052	15,676	21,376
42	Computer Maintenance	-	-	-	-	-	-	-	-	-	-
43	Software	-	-	-	-	-	-	50	50	50	50
44	IBM Data Centre	7,170	1,513	1,808	-	-	-	1,217	1,630	4,136	4,432
45	Total Ongoing Expense	7,170	1,513	1,808	205	-	-	4,977	8,041	20,817	26,812
46	Total other CIT Exp	16,345	11,726	11,399	9,365	26,936	9,717	11,647	14,810	27,695	33,712
47	Depreciation - Data Processing	-	903	-	-	-	-	-	-	-	-
48	Amortization of Deferred Dev Costs	8,847	8,634	2,972	6,878	8,055	8,740	8,740	7,253	5,102	934
49	Total CIT other Exp (after Dep'n/Amort)	25,192	21,263	14,371	16,243	34,991	18,457	20,388	22,063	32,797	34,646
50	Total IT Expenses	61,237	64,170	57,479	64,289	85,093	76,218	70,813	74,372	82,656	84,255

Figure EXP App 19 – 3: Corporate Capital Expenditures - Deferred Development Costs

Line No.	Project Description	2013/14A	2014/15A	2015/16A	2016/17A	2017/18A	2018/19B	2019/20F	2020/21F	2021/22F	2022/23F	Unassigned Capital
1	<i>(C\$000s, except where noted)</i>											
2	Projects that do not impact Basic	-	135	533	3,154	31	2,000	3,029	-	1,500	-	-
3	Projects that impact Basic											
5	IT Optimization	2,688	-	-	46	-	-	-	-	-	-	-
6	Disaster Recovery	11,826	-	-	14	-	-	-	-	-	-	-
7	HR Management System Phase 1 & 2	2,945	(302)	-	1,579	-	-	-	-	-	-	-
8	HR Management System Phase 3 & 4	102	145	-	-	-	-	-	-	-	-	-
9	Physical Damage Re-engineering	-	1,674	-	390	-	-	-	-	-	-	-
10	PDR Opt Repair - Collaborative Estimating & JSST	-	9,676	387	688	-	-	-	-	-	-	-
11	PDR Opt Repair - Distributed	-	1,296	1,593	2,343	2	-	-	-	-	-	-
12	Physical Damage Re-engineering Main/Phase 3	11,350	(4,529)	4,707	(2,434)	282	-	-	-	-	-	-
13	PDR Opt Repair - Remote Estimating	-	1	42	70	115	-	-	-	-	-	-
14	BI3 Fineos Upgrade 2016	257	1,462	2,002	577	-	-	-	-	-	-	-
15	BI3 Fineos Upgrade 2020	-	-	-	-	-	1,257	1,020	-	-	-	-
16	BI3 Fineos Upgrade 2024	-	-	-	-	-	-	-	-	-	1,250	-
17	Enterprise Data Masking	651	1,189	1,077	3	-	-	-	-	-	-	-
18	High School Driver Education Phase 2	-	314	327	1,333	112	-	-	-	-	-	-
19	High School Driver Education Phase 3	-	-	-	-	681	900	-	-	-	-	(882)
20	Infor/Lawson Upgrade	-	172	978	1,258	1,101	-	-	-	-	-	31
21	Infor Major Upgrade 2022	-	-	-	-	-	-	-	2,000	1,000	-	-
22	ITO - High Availability	-	2,919	4,881	938	-	-	-	-	-	-	-
23	Legal Management Project	-	1,086	1,536	(8)	-	-	-	-	-	-	-
24	Predictive Analytics	-	1,578	600	1	-	-	-	-	-	-	-
25	Corporate Learning Management	-	263	-	1,123	1,406	250	-	-	-	-	129
26	Physical Damage - Centre of	-	-	537	283	-	-	-	-	-	-	-
27	Information Security Strategy and Road Map Phase 1	-	-	1,298	1,934	130	-	-	-	-	-	11
28	Information Security Strategy and Road Map Phase 2	-	-	337	659	1,756	-	-	-	-	-	206
29	Technology Innovation & Capabilities	-	-	12	(12)	-	-	-	-	-	-	-
30	Technology Risk Management -	-	-	-	2,213	145	-	-	-	-	-	25
31	Technology Risk Management - 2017	-	-	-	-	2,902	228	-	-	-	-	325
32	Technology Risk Management - 2018	-	-	-	-	-	3,772	-	-	-	-	-
33	Technology Risk Management - 2019	-	-	-	-	-	-	4,000	-	-	-	-
34	Technology Risk Management - 2020	-	-	-	-	-	-	-	4,000	-	-	-
35	Technology Risk Management - 2021	-	-	-	-	-	-	-	-	4,000	-	-
36	Technology Risk Management - 2022	-	-	-	-	-	-	-	-	-	4,000	-
37	Appointment Manager	-	-	-	2	1,402	-	-	-	-	-	-
38	Customer Claims Reporting System	-	-	-	10,592	5,032	-	-	-	-	-	-
39	Enhanced DR Capabilities	-	-	-	292	1,422	-	-	-	-	-	658
40	Partner Portal	-	-	-	291	2,256	-	-	-	-	-	(140)
41	Financial Re-Engineering Initiative	-	-	-	342	1	-	6,708	6,409	-	-	-
42	Customer Self Service	-	-	-	-	1,679	1,500	1,000	1,000	-	-	(709)
43	Credit Card Strategy	-	-	-	-	255	995	-	-	-	-	249
44	Legacy Systems Modernization	-	-	-	-	-	-	10,000	20,000	20,000	20,000	-
45	Total Deferred Development Costs	29,819	17,079	20,847	27,671	20,710	10,902	25,757	33,409	26,500	25,250	(97)
46	Impairment of Deferred Development	-	-	-	-	(20,506)	-	-	-	-	-	-
46	Data Processing Equipment:											
47	Provision for New and Replacement	1,019	1,029	624	110	142	2,485	2,928	1,653	1,230	1,625	-
48	Projects that impact Basic											
49	IT Optimization	136	-	-	-	-	-	-	-	-	-	-
50	Total Data Processing Equipment	1,155	1,029	624	110	142	2,485	2,928	1,653	1,230	1,625	-
51	Total Capital Requirements for IT	30,974	18,108	21,471	27,781	346	13,387	28,685	35,062	27,730	26,875	(97)

The table below provides the number of Consultants supporting IT operational activities as well as Consultants utilized on projects. The subsequent Basic Program costs for these Consultant activities are also provided. [Improvement Initiative Costs do not include deferred development costs.](#)

Figure EXP App 19 – 4: Summary of Consultant Costs and FTE

Line No.	Consultants - Corporate ⁽¹⁾	2013/14A ⁽³⁾	2014/15A	2015/16A	2016/17A	2017/18A	2018/19B	2019/20F ⁽⁴⁾	2020/21F ⁽⁴⁾
1	IT Operational Activities	49	40	37	31	17	16	20	20
2	Improvement Initiatives	71	70	77	76	90	66	60	60
3	Total	120	110	114	107	107	82	80	80
4	Consulting Costs - Basic only						2,800	2,400	2,400
5	IT Operational Activities ⁽²⁾	6,311	5,084	3,831	4,376	2,568	2,880	2,480	2,480
						12,585	9,229	8,391	8,392
6	Improvement Initiatives	23,100	14,553	17,214	15,528	11,778	8,637	7,853	7,854
						15,153	12,029	10,791	10,792
7	Total	29,411	19,637	21,045	19,904	14,346	11,517	10,333	10,334

(1) Contractor counts vary throughout the year. For this table on September of each fiscal year (mid-point) thus 2016-17 actuals do not reflect all contractor conversions in Q3 and Q4.

(2) Please see GRA 2017 Volume I, Chapter 8, IT.2 for details on this.

(3) Basic IT Operational Activities are estimated at 80% of Corporate

(4) Adjusted as the improvement initiatives total had previously included IT Operational Activities, some license fees and software maintenance.

(5) Any changes to the planned improvement initiatives for 2019/20 and 2020/21 will impact the number of consultants.

Appendix 01: EXTERNAL LABOUR - MEASURES AND METRICS – STATUS UPDATE

1 **TABLE NAME(s):** Figure IT App 1– 1 IT Personal / Figure IT App 1– 2 IT Personal
2 Costs

3 **REFERENCE:** Update on PUB (MPI) 1-31 (2018 GRA) & (II Exp. Appendix 18 PUB/MPI
4 1-18 (2017 GRA) - Figure IT - 1: IT Personal & Figure IT - 2: IT Personal Costs

5 **DESCRIPTION:** Figure 1 below contains a 5 year historical summary and a 3 year
6 forecast for both internal resources and consultants that have worked and are
7 expected to work within the Information Technology area. Figure 2 below provides the
8 actual spend for 2017/18 and also the forecasted spend on internal and external
9 resources for the next three years.

10 **ASSUMPTIONS / CONSIDERATIONS / NOTES:**

- 11 • Tables updated to include 2020/21 figures and revised forecasts for 2018/19
12 and 2019/20.
- 13 • Figure 1: Note - As of May 2018 # of external has been reduced to 82.
- 14 • Figure 1: Corporate Reorganizations occurred in 2017/18 and 2018/19 which
15 resulted in 35.6 internal FTE being transferred into the division from other
16 areas of the corporation. The increase has been identified as a separate line
17 item in Figure 1 below.
- 18 • Figure 1: 18 Consultant Conversions also appear as a separate line item below.
19 These positions were added into the operational budgets (2017/18 & 2018/19).
20 Note – Three additional conversions occurred in 2016/17...these positions are
21 reflected in the project budgets.
- 22 • Figure 1: Additional changes listed decrease the overall FTE totals by 2.5 in
23 2017/18 and 0.6 in 2018/19.

- 1 • Figure 2: Approximated internal costs based on budgeted/forecasted FTEs.
- 2 Approximated external costs based on anticipated consultants in relation to
- 3 known projects.

Figure IT App 1- 1: IT Personal – Updated chart previously submitted in response to PUB (MPI) 1-31 (2018 GRA – Question a)

Line No.	Year	2013/14	2014/15	2015/16	2016/17	2017/18(A)	2018/19 (B)	2019/20 (F)	2020/21 (F)
1	Internal FTE	212	210	223	235.7	235.7	271.8	290.2	290.2
2	Corporate Re-Organization(s)					27.6	8		
3	Consultant Conversions					11	7		
4	New Positions (security, etc.)					2	2		
5	Divisional Reductions					(4.50)	(2.60)		
6	Internal FTE Total	212	210	223	235.7	271.8	286.2	290.2	290.2
7	Consultants	120	110	114	107	107	82	80	80
8	Total	332	320	337	342.7	378.8	368.2	370.2	370.2

Figure IT App 1- 2: IT Personal Costs- - Updated chart previously submitted in response to PUB (MPI) 1-31 (2018 GRA – Question a)

Line No.	Year	2017/18(A)	2018/19(B)	2019/20(F)	2020/21(F)
	<i>(C\$000s except where noted)</i>				
1	Internal FTE Costs (\$)	\$ 22,392	\$ 24,119	\$ 25,417	\$ 26,203
2	Consultant Costs (\$)	\$ 14,346	\$ 11,517	\$ 10,333	\$ 10,334
3		\$ 36,738	\$ 35,636	\$ 35,750	\$ 36,537
4	* Two internal departments moved under IT umbrella during 2017/18				

4 **TABLE NAME(s):** Figure IT App 1- 3 IBM Master Service Agreement / Figure IT App
5 1- 4 HP Master Service Agreement / Figure IT App 1-5 IBM Data Center Costs

6 **REFERENCE:** Update on PUB (MPI) 1-32 (2018 GRA) & II EXP Appendix 14 PUB/MPI
7 I-29 (2017 GRA) – Figure IT - 1: IBM Master Service Agreement / Figure IT - 2: HP
8 Master Service Agreement / Figure IT - 3: IBM Data Center Costs

9 **DESCRIPTION:** The first two tables below contains a 5 year historical summary of
10 the annual spend that occurred under the HP & IBM Master Services Agreement. The
11 last table provides an historical summary of the IBM Data Center Costs.

1 **ASSUMPTIONS / CONSIDERATIONS / NOTES:**

- 2 • Figure IT App 1- 3 & 4 updated to include 2017/18 figures.
3 • Figure IT App 1- 3 & 4 summaries capture all payment transactions that
4 occurred between March 1st and Feb 28th in each of the years listed.

Figure IT App1- 3: IBM Master Service Agreement– Updated chart previously submitted in response to PUB (MPI) 1-32 (2018 GRA question a)

Line No.	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
	<i>(C\$ 000,000)</i>					
1	8.92	16.71	13.4	12.68	14.52	14.4

Figure IT App 1- 4: HP Master Service Agreement Updated chart previously submitted in response to PUB (MPI) 1-32 (2018 GRA question a)

Line No.	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
	<i>(C\$ 000,000)</i>					
1	19.5	25.08	23.18	24.61	21.09	20.1

5 **TABLE NAME(s):** Figure IT App 1- 5 IT Personal – Internal (FTE) / Figure IT App 1-
6 6 IT Personal – Consultants (FTE) / Figure IT App 1- 7 IT Personal – Internal Costs /
7 Figure IT App 1- 8 IT Personnel - Consultant Costs / Figure IT App 1- 9 IT Personal -
8 FTE 2011/12 – 2020/21 / Figure IT App 1- 10 IT Personal – Costs 2011/12 – 2020/21
9 / Figure IT App 1- 11 Average Cost per FTE

10 **REFERENCE:** Update on PUB (MPI) 2-17 (2018 GRA) & PUB (MPI) 1-31, PUB (MPI) 1-
11 27 (2017 GRA) – Figure IT - 6 thru 12.

12 **DESCRIPTION:** The tables below contain a 5 year historical summaries of IT
13 Personal and their related costs. The last three tables provide a broader perspective
14 and cover a ten year period (7 years actual and 3 years forecast).

15 **ASSUMPTIONS / CONSIDERATIONS / NOTES:**

- 16 • Figure IT App 1- 5 to 8 updated to include forecasts to 2020/21
17 • Figure IT App 1- 9 to 11 updated to include forecasts to 2020/21

- 1 • Figure IT App 1- 5 to 7: Major changes for 2017/18 & 2018/19 include the
2 following:
- 3 ○ Corporate Reorganizations – 27.6 FTE added to division in 2017/18 & 8
4 FTE added in 2018/19
 - 5 ○ Consultant Conversions – 11 FTE added to operational budget in
6 2017/18 and 7 FTE added in 2018/19
 - 7 ○ New Positions/Reductions – Net change -2.5 FTE in 2017/18 and -0.6
8 FTE in 2018/19.
- 9 • Figure IT App 1- 5: The remaining consultant conversions will occur in the
10 2019/20 budget.
- 11 • Figure IT App 1- 6: Variance in 2017/18 was due to additional testing
12 requirements for the CLMS and the Infor Lawson upgrade projects. Projects
13 went a little longer than anticipated...as of May 2018 the number of consultants
14 has been reduced to 82. As noted in the IT Chapter, External Labour Update, it
15 is anticipated that there will be additional reductions to 2019/20 numbers.
16 Specific details are not available at the time of this submission so previous
17 forecasts have been leveraged.
- 18 • Figure IT App 1– 7: Variances due to the staff increase as explained in the
19 major changes note above.
- 20 • Figure IT App 1- 8: The variance mainly reflects changes to major projects
21 requiring fewer consultants and the external labour strategy accelerating vs.
22 plan.
- 23 • Figure IT App 1- 11: * denotes an increase in average consultant fee for
24 2013/14 is due to one-time transition/migration cost of IBM data center
25 operations. The additional reduction measures identified in the IT Chapter,
26 External Labour Update, are anticipated to further reduce average external
27 labour cost per hour.
- 28 An update is expected in 2018/19 and will be included in GRA 2020.

Figure IT App 1- 5: IT Personnel - Internal (FTE) - Updated chart previously submitted in response to PUB (MPI) 2-17 (2018 GRA question a)

Line No.	Fiscal Year	2019 GRA Forecast	2018 GRA Forecast	Variance 2019 vs 2018
1	2016/17	235.7	235.7	0
2	2017/18	248.2	248.2	0
3	2018/19	286.2	253.2	33
4	2019/20	290.2	249.2	41
5	2020/21	290.2	n/a	

Figure IT App 1- 6: IT Personnel - Consultants (FTE) - Updated chart previously submitted in response to PUB (MPI) 2-17 (2018 GRA question a)

Line No.	Fiscal Year	2019 GRA Forecast	2018 GRA Forecast	Variance 2019 vs 2018
1	2016/17	107	107	0
2	2017/18	107	92	15
3	2018/19	82	81	1
4	2019/20	80	80	0
5	2020/21	80	n/a	

Figure IT App1- 7: IT Personnel - Internal Costs- Updated chart previously submitted in response to PUB (MPI) 2-17 (2018 GRA question a)

Line No.	Fiscal Year	2019 GRA Forecast	2018 GRA Forecast	Variance 2019 vs 2018	% Change
<i>(C\$000s except where noted)</i>					
1	2016/17	\$ 20,189	\$ 20,189	\$ -	0.0%
2	2017/18	\$ 22,392	\$ 22,199	\$ 193	0.9%
3	2018/19	\$ 24,119	\$ 23,584	\$ 535	2.3%
4	2019/20	\$ 25,417	\$ 24,655	\$ 762	3.1%
5	2020/21	\$ 26,203	n/a		

Figure IT App 1- 8: IT Personnel - Consultant Costs- Updated chart previously submitted in response to PUB (MPI) 2-17 (2018 GRA question a)

Line No.	Fiscal Year	2019 GRA Forecast	2018 GRA Forecast	Variance		
				2019 vs 2018	% Change	
<i>(C\$000s except where noted)</i>						
1	2016/17	\$ 19,904	\$ 23,965	\$ (4,061)	-16.9%	
2	2017/18	\$ 14,346	\$ 16,233	\$ (1,887)	-11.6%	
3	2018/19	\$ 11,517	\$ 14,292	\$ (2,775)	-19.4%	
4	2019/20	\$ 10,333	\$ 14,166	\$ (3,833)	-27.1%	
5	2020/21	\$ 10,334	n/a			

- 1 Please see Figure IT App 1- 9 to 11 for historical IT Personnel FTE and Costs for
- 2 Internal and Consultants, respectively and average cost per FTE.

Figure IT App 1- 9: IT Personnel – (FTE) - Updated chart previously submitted in response to PUB (MPI) 2-17 (2018 GRA question b)

Line No.	Fiscal Year	Internal	Consultants
1	2011/12	215	98
2	2012/13	227	129
3	2013/14	212	120
4	2014/15	210	110
5	2015/16	223	114
6	2016/17	235.7	107
7	2017/18	281.2	107
8	2018/19F	286.2	82
9	2019/20F	290.2	80
10	2020/21F	290.2	80

Figure IT App 1- 10: IT Personnel - Costs- Updated chart previously submitted in response to PUB (MPI) 2-17 (2018 GRA question b)

Line No.	Fiscal Year	Internal Consultants	
1	2011/12	\$ 17,663	\$ 17,219
2	2012/13	\$ 19,043	\$ 29,468
3	2013/14	\$ 19,380	\$ 35,527
4	2014/15	\$ 17,588	\$ 23,158
5	2015/16	\$ 18,632	\$ 25,396
6	2016/17	\$ 20,189	\$ 23,965
7	2017/18	\$ 22,392	\$ 14,346
8	2018/19F	\$ 24,119	\$ 11,517
9	2019/20F	\$ 25,417	\$ 10,333
10	2020/21F	\$ 26,203	\$ 10,334

Figure IT App 1- 11: Average Cost per FTE- Updated chart previously submitted in response to PUB (MPI) 2-17 (2018 GRA question b)

Line No.	Fiscal Year	Internal Consultants	
<i>(C\$000s except where noted)</i>			
1	2011/12	\$ 82.15	\$ 175.70
2	2012/13	\$ 83.89	\$ 228.43
3 *	2013/14	\$ 91.42	\$ 296.06
4	2014/15	\$ 83.75	\$ 210.53
5	2015/16	\$ 83.55	\$ 222.77
6	2016/17	\$ 85.66	\$ 223.97
7	2017/18	\$ 79.63	\$ 134.07
8	2018/19F	\$ 84.27	\$ 140.45
9	2019/20F	\$ 87.58	\$ 129.16
10	2020/21F	\$ 90.29	\$ 129.18

* Increase in average consultant fee for 2013/14 is due to one time transition/migration cost of IBM data center operations

- 1 **TABLE NAME(s):** Figure IT App 1-12 External IT Resources
- 2 **REFERENCE:** Update on PUB (MPI) 2-18 (2018 GRA) & PUB (MPI) 1-32
- 3 **Appendix 14, PUB (MPI) 1-29 (2017 GRA) – Figure 1: External IT Resources**

1 **DESCRIPTION:** The tables below contains a list of external labour resources who
2 provide Information Technology (IT) services to projects and operations.

3 **ASSUMPTIONS / CONSIDERATIONS / NOTES:**

4 The list below includes 82 Information Technology (IT) consultants from DXC and IBM
5 who are working within MPI on operational and project initiatives as at May 2018.

Figure IT App 1- 12: External IT Resources - Updated chart previously submitted in response to PUB (MPI) 2-18 (2018 GRA question a)

Line No.	Identifier	Role May 2018	Project/Ops
1	DXC - 001	Senior Systems Analyst	Operations
2	DXC - 002	Senior Software Designer	Operations
3	DXC - 003	SharePoint Developer	Operations
4	DXC - 004	Senior Informatica Developer	Operations
5	DXC - 005	Programmer Analyst	Operations
6	DXC - 006	SharePoint Developer	Operations
7	DXC - 007	Programmer Analyst	Operations
8	DXC - 008	Senior Informatica Developer	Operations
9	DXC - 009	Senior Systems Analyst	Operations
10	DXC - 010	Senior Business Analyst	Operations
11	DXC - 011	Senior Informatica Developer	Operations
12	DXC - 012	Senior Informatica Developer	Operations
13	DXC - 013	Intermediate Programmer Analyst	Operations
14	DXC - 014	SharePoint Consultant	Projects
15	DXC - 015	Intermediate Project Manager	Projects
16	DXC - 016	Senior Application Architect	Projects
17	DXC - 017	Application Architect	Projects
18	DXC - 018	Senior Systems Analyst	Projects
19	DXC - 019	Snr Data Architect	Projects
20	DXC - 020	Senior Business Analyst	Projects
21	DXC - 021	Intermediate Project Manager	Projects
22	DXC - 022	Technical Writer	Projects
23	DXC - 023	Intermediate Project Manager	Projects
24	DXC - 024	Senior Business Analyst	Projects
25	DXC - 025	Senior Systems Analyst	Projects
26	DXC - 026	Intermediate Project Manager	Projects
27	DXC - 027	Project Director	Projects

Line No.	Identifier	Role May 2018	Project/Ops
28	DXC - 028	Senior Software Designer	Projects
29	DXC - 029	Senior Business Analyst	Projects
30	DXC - 030	Senior Business Analyst	Projects
31	DXC - 031	Senior Software Designer	Projects
32	DXC - 032	Technical Consultant	Projects
33	DXC - 033	Senior Technical Architect	Projects
34	DXC - 034	Senior Systems Analyst	Projects
35	DXC - 035	Senior Systems Analyst	Projects
36	DXC - 036	Senior Systems Analyst	Projects
37	DXC - 037	Senior Software Designer	Projects
38	DXC - 038	Senior Systems Analyst	Projects
39	DXC - 039	Intermediate Project Manager	Projects
40	DXC - 040	Business Consultant	Projects
41	DXC - 041	Technical Consultant	Projects
42	DXC - 042	Project Control Analyst	Projects
43	DXC - 043	Project Control Analyst	Projects
44	DXC - 044	Project Director	Projects
45	DXC - 045	Senior Business Analyst	Projects
46	DXC - 046	Senior Project Manager	Projects
47	DXC - 047	Senior Project Manager	Projects
48	DXC - 048	Senior Systems Analyst	Projects
49	DXC - 049	Business Analyst	Projects
50	DXC - 050	Senior Systems Analyst	Projects
51	DXC - 051	Senior Instructional Designer	Projects
52	DXC - 052	Senior Application Architect	Projects
53	DXC - 053	Senior Software Designer	Projects
54	DXC - 054	Senior Program Manager	Projects
55	DXC - 055	Project Control Analyst	Projects
56	DXC - 056	Senior Application Architect	Projects
57	DXC - 057	Snr Systems Analyst	Projects
58	DXC - 058	Snr Software Designer	Projects
59	DXC - 059	Intermediate Project Manager	Projects
60	DXC - 060	Technical Writer	Projects
61	DXC - 061	Senior Systems Analyst	Projects
62	DXC - 062	Senior Systems Analyst	Projects
63	DXC - 063	Application Architect	Projects
64	DXC - 064	Senior Business Analyst	Projects
65	DXC - 065	Senior Systems Analyst	Projects
66	DXC - 066	Senior Systems Analyst	Projects
67	DXC - 067	Business Architect	Projects

Line No.	Identifier	Role May 2018	Project/Ops
68	DXC - 068	Senior Business Analyst	Projects
69	DXC - 069	Technical Writer	Projects
70	DXC - 070	Senior Business Analyst	Projects
71	DXC - 071	Senior Software Designer	Projects
72	DXC - 072	Business Architect	Projects
73	DXC - 073	Senior Business Architect	Projects
74	DXC - 074	Senior Business Analyst	Projects
75	DXC - 075	Senior Project Manager	Projects
76	DXC - 076	Systems Analyst	Projects and Operations
77	DXC - 077	Intermediate Programmer Analyst	Projects and Operations
78	DXC - 078	Systems Analyst	Projects and Operations
79	DXC - 079	DBA	Projects and Operations
80	DXC - 080	SharePoint Developer	Projects and Operations
81	IBM-001	Senior DBA	Projects and Operations
82	IBM-002	Senior DBA	Projects and Operations

Appendix 19: INFORMATION TECHNOLOGY COSTS

The following tables provide a comprehensive analysis of Corporate Information Technology (CIT) expenses and capital expenditures. This includes both historical actual from 2013/14 to 2017/18 and the forecast period from 2018/19 to 2022/23.

The first table provides a summary, including compounded annual growth rates for all corporate expense costs related to IT within MPI.

Figure EXP App 19 – 1: Information Technology Costs (Corporate)

Line No.	Summary	2013/14A	2014/15A	2015/16A	2016/17A	2017/18A	2018/19B	2019/20F	2020/21F	2021/22F	2022/232F	Compound Annual Growth	
												13/14A-17/18A (5 years)	18/19B-22/23F (5 years)
<i>(C\$000s, except where noted)</i>													
1	Total IT Expenses	61,237	64,170	57,479	64,289	85,093	76,218	70,813	74,372	82,656	84,255	8.6%	2.5%
2	Deferred Development Costs	29,819	17,079	20,847	27,671	204	10,902	25,757	33,409	26,500	25,250		
3	Data Processing Equipment	1,155	1,029	624	110	142	2,485	2,928	1,653	1,230	1,625		
4	Total IT Costs	30,974	18,108	21,471	27,781	346	13,387	28,685	35,062	27,730	26,875		

The following two tables provide detail for the summary showing budgeted and forecasted amounts for the three IT related departments within the Corporation as well as all of the capital IT costs within the Corporation.

Figure EXP App 19 – 2: Total Information Technology Expenses

Line No.	IT Expenses	2013/14A	2014/15A	2015/16A	2016/17A	2017/18A	2018/19B	2019/20F	2020/21F	2021/22F	2022/23F
1	<i>(SC 000s, except where noted)</i>										
2	CIT Departmental Expenses:										
3	Data processing:										
4	Computer Costs	377	14	-	-	-	-	-	-	-	-
5	Licence Charges	6,431	5,698	6,219	5,826	7,408	8,126	8,342	8,720	8,894	9,072
6	Computer Maintenance	1,683	1,348	1,371	1,484	1,787	1,689	1,715	1,748	1,783	1,819
7	Software	1,668	702	277	805	176	352	258	258	263	268
8	IBM Data Centre	-	6,080	7,276	9,550	9,176	9,790	9,972	10,558	10,769	10,984
9	IBM Security Operations Centre	-	-	-	-	-	550	550	550	561	572
10	External Labour										
11	AOL	3,145	2,955	2,313	2,305	1,230	2,201	1,887	1,887	1,924	1,963
12	CARS	793	739	578	576	308	624	535	535	546	557
13	Other	3,832	2,414	1,522	2,324	1,672	730	634	627	639	659
14	Total Data Processing	17,929	19,950	19,556	22,870	21,756	24,062	23,893	24,883	25,379	25,894
15	Compensation	10,382	9,388	10,044	11,231	11,521	13,314	14,100	14,511	14,764	15,056
16	Training	103	144	142	132	127	129	140	143	146	149
17	Special Services	1,203	969	766	991	1,024	926	944	963	982	1,002
18	Printing, Stationery and Supplies	596	338	295	231	169	582	564	225	229	234
19	Telephone and Telecommunications	3,049	2,562	2,377	2,221	2,054	2,121	2,174	2,231	2,275	2,321
20	Computer Equipment Expense	645	674	289	167	295	1,161	878	969	989	1,008
21	Miscellaneous	291	115	30	116	42	80	81	83	84	86
22	Total CIT Dept Exp (before Dep'n/Amort)	34,198	34,140	33,499	37,959	36,989	42,375	42,774	44,008	44,848	45,750
23	Depreciation - Data Processing Equipment	1,847	826	1,075	672	411	813	1,526	2,176	2,176	2,176
24	Amortization of Deferred Dev Costs	-	7,941	8,534	9,415	12,702	14,573	6,125	6,125	2,835	1,683
25	Total CIT Direct Departmental Expenses	36,045	42,907	43,108	48,046	50,103	57,761	50,425	52,309	49,859	49,609
26	Allocated Building Expenses	1,264	1,293	1,292	1,309	1,112	1,311	1,347	1,362	1,384	1,406
27	Allocated Corporate Benefits	2,786	2,870	2,951	3,092	3,304	3,997	4,119	4,196	4,275	4,275
28	DP - Microfiche	42	44	43	43	43	44	44	45	46	46
29	DP - External Labour - Other	118	247	376	264	244	310	310	316	323	323
30	Total CIT Departmental Expenses including allocations	40,255	47,361	47,770	52,754	54,806	63,423	56,245	58,228	55,887	55,659
31	Implementation Expense:										
32	Licence Charges	10	52	33	12	243	5	-	-	-	-
33	Computer Maintenance	-	-	-	-	-	-	-	-	-	-
34	IBM Data Centre	-	-	-	150	161	500	500	500	500	500
35	Software	-	-	5	-	-	500	-	-	-	-
36	Deferred Development Impairment	-	-	-	-	20,258	-	-	-	-	-
37	External Labour	4,955	5,707	4,891	4,290	1,571	3,050	350	350	350	350
38	Total Implementation Expense	4,965	5,759	4,929	4,452	22,233	4,055	850	850	850	850
39	Ongoing expense:										
40	Licence Charges	-	-	-	205	-	-	233	308	955	955
41	Amortization of Deferred Dev Costs	-	-	-	-	-	-	3,477	6,052	15,676	21,376
42	Computer Maintenance	-	-	-	-	-	-	-	-	-	-
43	Software	-	-	-	-	-	-	50	50	50	50
44	IBM Data Centre	7,170	1,513	1,808	-	-	-	1,217	1,630	4,136	4,432
45	Total Ongoing Expense	7,170	1,513	1,808	205	-	-	4,977	8,041	20,817	26,812
46	Total other CIT Exp	16,345	11,726	11,399	9,365	26,936	9,717	11,647	14,810	27,695	33,712
47	Depreciation - Data Processing	-	903	-	-	-	-	-	-	-	-
48	Amortization of Deferred Dev Costs	8,847	8,634	2,972	6,878	8,055	8,740	8,740	7,253	5,102	934
49	Total CIT other Exp (after Dep'n/Amort)	25,192	21,263	14,371	16,243	34,991	18,457	20,388	22,063	32,797	34,646
50	Total IT Expenses	61,237	64,170	57,479	64,289	85,093	76,218	70,813	74,372	82,656	84,255

Figure EXP App 19 – 3: Corporate Capital Expenditures - Deferred Development Costs

Line No.	Project Description	2013/14A	2014/15A	2015/16A	2016/17A	2017/18A	2018/19B	2019/20F	2020/21F	2021/22F	2022/23F	Unassigned Capital
1	<i>(C\$000s, except where noted)</i>											
2	Projects that do not impact Basic	-	135	533	3,154	31	2,000	3,029	-	1,500	-	-
3	Projects that impact Basic											
5	IT Optimization	2,688	-	-	46	-	-	-	-	-	-	-
6	Disaster Recovery	11,826	-	-	14	-	-	-	-	-	-	-
7	HR Management System Phase 1 & 2	2,945	(302)	-	1,579	-	-	-	-	-	-	-
8	HR Management System Phase 3 & 4	102	145	-	-	-	-	-	-	-	-	-
9	Physical Damage Re-engineering	-	1,674	-	390	-	-	-	-	-	-	-
10	PDR Opt Repair - Collaborative Estimating & JSST	-	9,676	387	688	-	-	-	-	-	-	-
11	PDR Opt Repair - Distributed	-	1,296	1,593	2,343	2	-	-	-	-	-	-
12	Physical Damage Re-engineering Main/Phase 3	11,350	(4,529)	4,707	(2,434)	282	-	-	-	-	-	-
13	PDR Opt Repair - Remote Estimating	-	1	42	70	115	-	-	-	-	-	-
14	BI3 Fineos Upgrade 2016	257	1,462	2,002	577	-	-	-	-	-	-	-
15	BI3 Fineos Upgrade 2020	-	-	-	-	-	1,257	1,020	-	-	-	-
16	BI3 Fineos Upgrade 2024	-	-	-	-	-	-	-	-	-	1,250	-
17	Enterprise Data Masking	651	1,189	1,077	3	-	-	-	-	-	-	-
18	High School Driver Education Phase 2	-	314	327	1,333	112	-	-	-	-	-	-
19	High School Driver Education Phase 3	-	-	-	-	681	900	-	-	-	-	(882)
20	Infor/Lawson Upgrade	-	172	978	1,258	1,101	-	-	-	-	-	31
21	Infor Major Upgrade 2022	-	-	-	-	-	-	-	2,000	1,000	-	-
22	ITO - High Availability	-	2,919	4,881	938	-	-	-	-	-	-	-
23	Legal Management Project	-	1,086	1,536	(8)	-	-	-	-	-	-	-
24	Predictive Analytics	-	1,578	600	1	-	-	-	-	-	-	-
25	Corporate Learning Management	-	263	-	1,123	1,406	250	-	-	-	-	129
26	Physical Damage - Centre of	-	-	537	283	-	-	-	-	-	-	-
27	Information Security Strategy and Road Map Phase 1	-	-	1,298	1,934	130	-	-	-	-	-	11
28	Information Security Strategy and Road Map Phase 2	-	-	337	659	1,756	-	-	-	-	-	206
29	Technology Innovation & Capabilities	-	-	12	(12)	-	-	-	-	-	-	-
30	Technology Risk Management -	-	-	-	2,213	145	-	-	-	-	-	25
31	Technology Risk Management - 2017	-	-	-	-	2,902	228	-	-	-	-	325
32	Technology Risk Management - 2018	-	-	-	-	-	3,772	-	-	-	-	-
33	Technology Risk Management - 2019	-	-	-	-	-	-	4,000	-	-	-	-
34	Technology Risk Management - 2020	-	-	-	-	-	-	-	4,000	-	-	-
35	Technology Risk Management - 2021	-	-	-	-	-	-	-	-	4,000	-	-
36	Technology Risk Management - 2022	-	-	-	-	-	-	-	-	-	4,000	-
37	Appointment Manager	-	-	-	2	1,402	-	-	-	-	-	-
38	Customer Claims Reporting System	-	-	-	10,592	5,032	-	-	-	-	-	-
39	Enhanced DR Capabilities	-	-	-	292	1,422	-	-	-	-	-	658
40	Partner Portal	-	-	-	291	2,256	-	-	-	-	-	(140)
41	Financial Re-Engineering Initiative	-	-	-	342	1	-	6,708	6,409	-	-	-
42	Customer Self Service	-	-	-	-	1,679	1,500	1,000	1,000	-	-	(709)
43	Credit Card Strategy	-	-	-	-	255	995	-	-	-	-	249
44	Legacy Systems Modernization	-	-	-	-	-	-	10,000	20,000	20,000	20,000	-
45	Total Deferred Development Costs	29,819	17,079	20,847	27,671	20,710	10,902	25,757	33,409	26,500	25,250	(97)
46	Impairment of Deferred Development	-	-	-	-	(20,506)	-	-	-	-	-	-
46	Data Processing Equipment:											
47	Provision for New and Replacement	1,019	1,029	624	110	142	2,485	2,928	1,653	1,230	1,625	-
48	Projects that impact Basic											
49	IT Optimization	136	-	-	-	-	-	-	-	-	-	-
50	Total Data Processing Equipment	1,155	1,029	624	110	142	2,485	2,928	1,653	1,230	1,625	-
51	Total Capital Requirements for IT	30,974	18,108	21,471	27,781	346	13,387	28,685	35,062	27,730	26,875	(97)

The table below provides the number of Consultants supporting IT operational activities as well as Consultants utilized on projects. The subsequent Basic Program costs for these Consultant activities are also provided. Improvement Initiative Costs do not include deferred development costs.

Figure EXP App 19 – 4: Summary of Consultant Costs and FTE

Line No.	Consultants - Corporate ⁽¹⁾	2013/14A ⁽³⁾	2014/15A	2015/16A	2016/17A	2017/18A	2018/19B	2019/20F ⁽⁴⁾	2020/21F ⁽⁴⁾	
1	IT Operational Activities	49	40	37	31	17	16	20	20	
2	Improvement Initiatives	71	70	77	76	90	66	60	60	
3	Total	120	110	114	107	107	82	80	80	
4	Consulting Costs - Basic only									
5	IT Operational Activities ⁽²⁾	6,311	5,084	3,831	4,376	2,568	2,880	2,480	2,480	
6	Improvement Initiatives	23,100	14,553	17,214	15,528	11,778	8,637	7,853	7,854	
7	Total	29,411	19,637	21,045	19,904	14,346	11,517	10,333	10,334	

- 8 (1) Contractor counts vary throughout the year. For this table on September of each fiscal year (mid-point) thus 2016-17 actuals do not reflect all contractor conversions in Q3 and Q4.
9 Please see GRA 2017 Volume I, Chapter 8, IT.2 for details on this.
10 (2) Basic IT Operational Activities are estimated at 80% of Corporate
11 (3) Adjusted as the improvement initiatives total had previously included IT Operational Activities, some license fees and software maintenance.
12 (4) Any changes to the planned improvement initiatives for 2019/20 and 2020/21 will impact the number of consultants.