



Information & Technology

2016 OPERATING BUDGET OVERVIEW

The Information & Technology Division provides leadership for the strategic investment, development and management of the City's Information Technology (IT) systems, including:

- Mission Critical Business System delivery and support for City Programs and service delivery to the public
- IT foundation infrastructure capacity that is adaptable to sustain and meet growing demand for City Program business needs
- Ensuring City business continuity and service excellence

2016 Budget Highlights

The total cost to deliver these services to Toronto residents is \$124.877 million gross and \$73.293 million net as shown below.

	2015		Change	
	Approved Budget	2016 Budget	\$	%
Gross Expenditures	121,540.9	124,877.2	3,336.3	2.7%
Gross Revenues	49,242.3	51,584.0	2,341.7	4.8%
Net Expenditures	72,298.6	73,293.2	994.6	1.4%

For 2016, Information & Technology identified a net pressure of \$2.767 million due to inflationary increases and operational requirements necessary to address demands to meet City business needs. Through efficiency savings, the Program was able to partially reduce these pressures by \$1.773 million.

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Fast Facts – Annual Systems Operations and Support

- 200,000+ citizen recreation program registrations processed for 70,000+ courses
- 1.38+ million general inquiries and service requests made to 311 Toronto
- 54,000+ business licenses, 29,000+ vehicle inspections, 45,000+ building permits and 4000 film permits issued
- 25,000 permits for use of City Facilities per year
- \$1.5+ billion in City procurement of goods and services processed (2014)
- 1.5 million tax bills for \$5.97 billion in revenue and 1.46 million Utility bills for \$1.02 billion in revenue (2014)
- 200,000+ service desk calls per year
- Support 22,000+ desktop/notebook computers, 3,500+ multi-function devices/printers/copiers, 24,800+ phones, 15,500 wireless devices
- Manages network for 650 City facilities, 3 data centres and 1500 servers 7/24/365

Trends

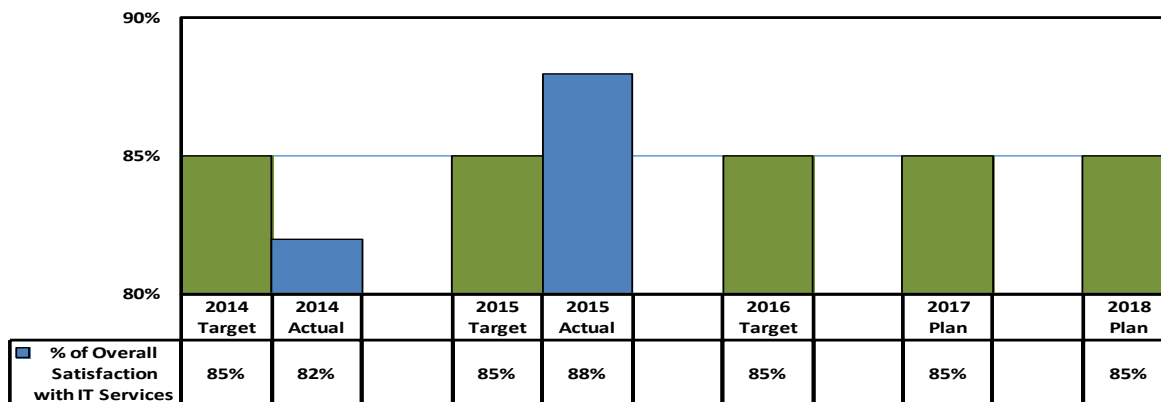
- Growth in IT Services demand continues in support of City business service needs and opportunities to realize efficiencies
- Technology infrastructure availability is expected to remain at 99.50% through optimization and effective management.
- IT Customer satisfaction has increased by 6% from 82% in 2014 to 88% in 2015.

Our Service Deliverables for 2016

Information & Technology provides effective shared services that deliver innovative IT business solutions and a secure, reliable and dependable IT infrastructure in support of City Programs and Services and ultimately, the public. The 2016 Operating Budget will enable the I&T Division to continue to:

- Enhance City Programs and Services in partnership with City divisions and to the public through the delivery and support for over 850+ enterprise and division business systems, including:
 - Responding to 38,000+ Service Requests for business systems.
 - Responding to 1000+ requests for enhancements and growth of business systems across the City to meet public demands and business needs.
- Maintain the City's technology network, application systems and technology infrastructure in a secure, reliable and high performance manner and state of good repair to ensure 7/24/365 availability.
- Deliver effective Client Support for over 23,000+ City employees through the City's IT service desk, desk side technical and business application support and IT education.

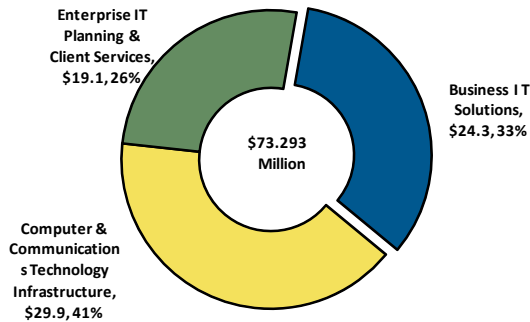
Overall IT Customer Satisfaction



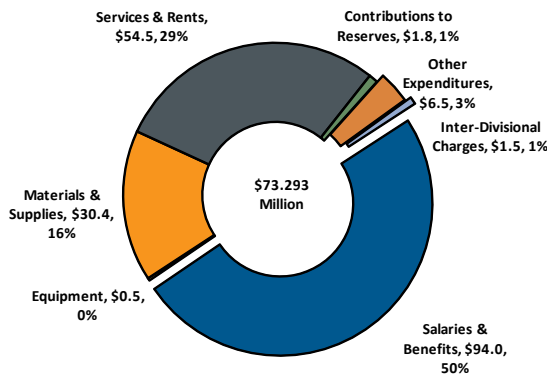
2016 Operating Budget Expenses & Funding

Where the money goes

2016 Budget by Service

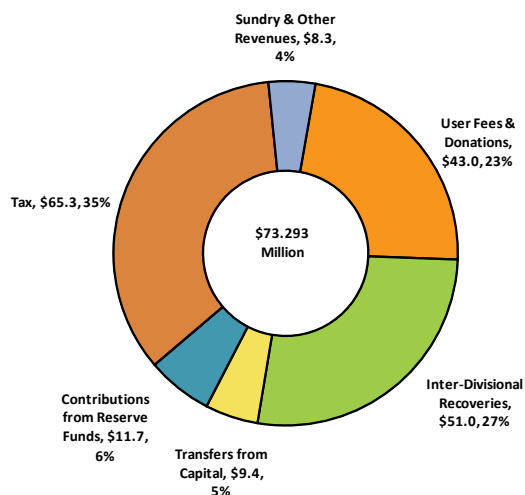


2016 Budget by Expenditure Category



Where the money comes from

2016 Budget by Funding Source



Our Key Issues & Priority Actions

To ensure continuous service excellence and effective delivery of public facing services, I&T Division's focus is to:

- Drive City business transformation and modernization initiatives in partnership with City Divisions, to meet business objectives, gain service efficiencies and improve the customer experience and services for City Programs and Service.
- Address a growing and diverse IT portfolio that is creating incremental pressure to maintain skills, technology and service levels.
- Ensure an agile and adaptable IT environment to address the increase in growth and demand on enhancements to business systems and address pressures to sustain new systems developed to meet emerging business needs and growth.
- Continuously monitor and review for efficiencies and savings in operations to run the business of IT, optimizing IT resources, IT processes and the IT environment.
- Ensure effective State of Good Repair and condition of the IT Assets of the City to meet City business needs in a secure, reliable and sustainable manner.
- Attract and develop a motivated and engaged high performance team and future leaders.

2016 Operating Budget Highlights

- The 2016 Preliminary Operating Budget for Information Technology of \$73.293 million in gross expenditures is for three services; Business IT Solutions, Computer & Communications Technology Infrastructure and Enterprise IT Planning & Client Services.
- The Program's 2016 Budget is 1.4% increase from the 2015 Approved Budget mainly due to the following criteria:
 - The identification of sustainable, on-going savings including line by line reductions (\$0.169 million) and 1.4% in efficiency savings / productivity gains (\$0.990 million);
 - Operating impact of \$1.056 million for support of City business systems with completion of capital projects;
 - Increased software/hardware maintenance of \$1.007 million;
 - Revenue adjustments to project management costs (\$0.614 million);
 - Any further reductions would impact Council approved Service Levels.

Actions for Consideration

Approval of the 2016 Preliminary Budget as presented in these notes requires that:

1. City Council approve the 2016 Preliminary Operating Budget for Information & Technology of \$124.877 million gross, \$73.293 million net for the following services:

<u>Service:</u>	Gross <u>(\$000s)</u>	Net <u>(\$000s)</u>
Business IT Solutions:	57,287.4	24,339.3
Computer & Communications Technology Infrastructure:	42,501.1	29,855.3
Enterprise IT Planning & Client Services:	25,088.6	19,098.6
Total Program Budget	<u>124,877.2</u>	<u>73,293.2</u>

2. City Council approve the 2016 service levels for Information & Technology as outlined on pages 14, 18-19 and 22-23 of this report, and associated staff complement of 850 positions, including 619 operating positions and 231 capital positions.
3. City Council approve the 2016 other fee changes above the inflationary adjusted rate for Information & Technology identified in Appendix 7, for inclusion in the Municipal Code Chapter 441 "Fees and Charges".



Part I:

2016 – 2018

Service Overview and
Plan

Program Map

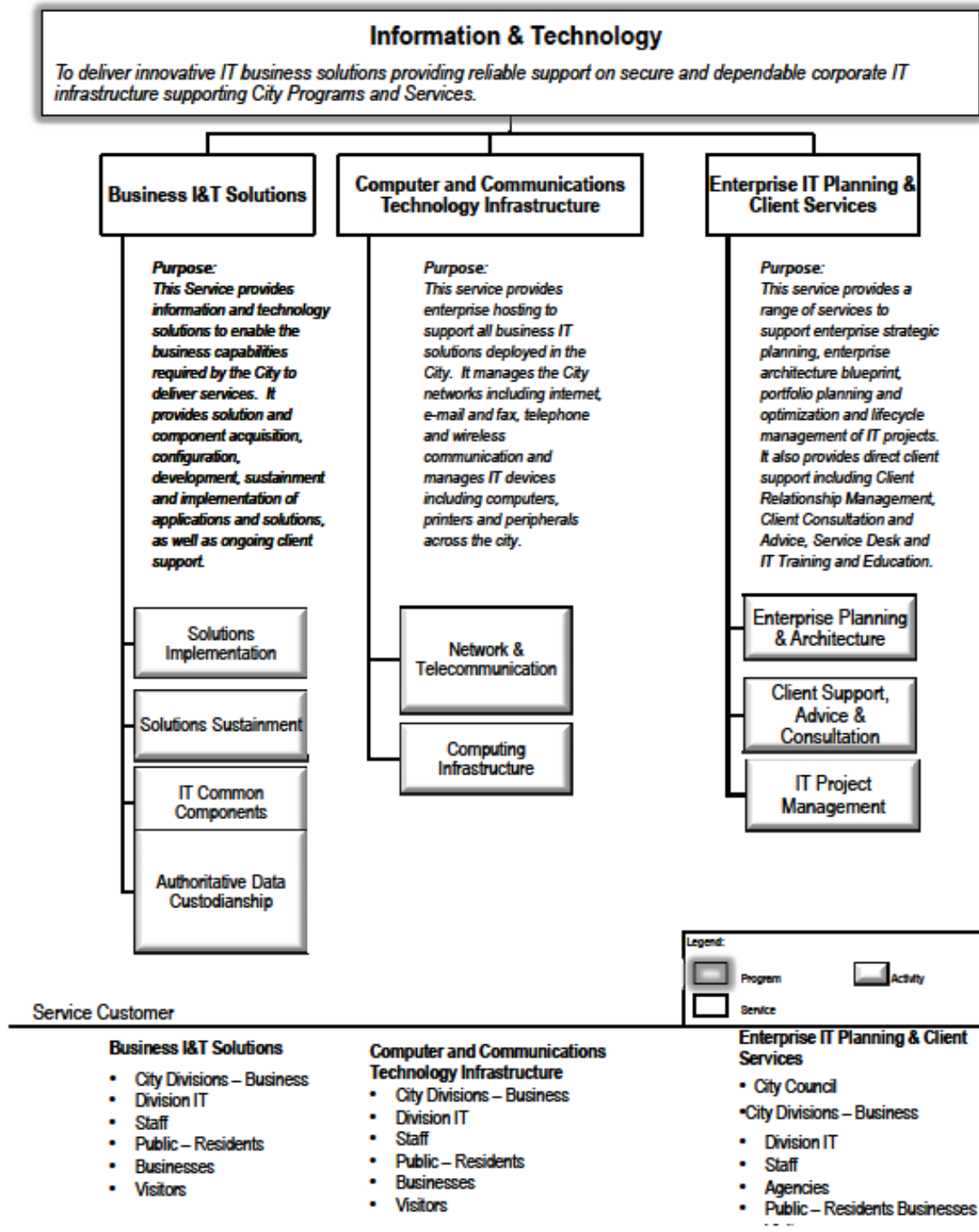


Table 1
2016 Preliminary Operating Budget and Plan by Service

(In \$000s)	2015		2016 Operating Budget			2016 vs. 2015 Budget		Incremental Change 2017 and 2018 Plan			
	Approved Budget	Projected Actual	2016 Base	2016 New/Enhanced	2016 Budget	Approved Changes		2017		2018	
	\$	\$				\$	%	\$	%	\$	%
Business IT Solutions											
Gross Expenditures	43,426.4	33,303.7	57,287.4		57,287.4	13,861.0	31.9%	1,762.1	3.1%	1,066.7	1.8%
Revenue	20,620.1	12,565.0	32,948.1		32,948.1	12,328.0	59.8%	154.9	0.5%	55.7	0.2%
Net Expenditures	22,806.3	20,738.7	24,339.3		24,339.3	1,533.0	6.7%	1,607.2	6.6%	1,011.0	3.9%
Computer & Communications Technology Infrastructure											
Gross Expenditures	45,687.1	44,346.0	42,501.2		42,501.2	(3,185.9)	(7.0%)	998.3	2.3%	517.3	1.2%
Revenue	15,379.9	14,605.6	12,645.9		12,645.9	(2,734.0)	(17.8%)	(114.0)	(0.9%)	(817.5)	(6.5%)
Net Expenditures	30,307.2	29,740.4	29,855.2		29,855.2	(451.9)	(1.5%)	1,112.3	3.7%	1,334.8	4.3%
Enterprise IT Planning & Client Services											
Gross Expenditures	32,427.4	27,002.2	25,088.6		25,088.6	(7,338.8)	(22.6%)	2,002.9	8.0%	579.8	2.1%
Revenue	13,242.3	5,402.1	5,990.0		5,990.0	(7,252.3)	(54.8%)	(818.6)	(13.7%)	(515.8)	(10.0%)
Net Expenditures	19,185.1	21,600.1	19,098.6		19,098.6	(86.5)	(0.5%)	2,821.5	14.8%	1,095.6	5.0%
Total											
Gross Expenditures	121,540.9	104,651.9	124,877.2		124,877.2	3,336.3	2.7%	4,763.3	3.8%	2,163.8	1.7%
Revenue	49,242.3	32,572.7	51,584.0		51,584.0	2,341.7	4.8%	(777.5)	(1.5%)	(1,277.6)	(2.5%)
Total Net Expenditures	72,298.6	72,079.2	73,293.2		73,293.2	994.6	1.4%	5,540.8	7.6%	3,441.4	4.4%
Approved Positions	838.0	695.0	850.0		850.0	12.0	1.4%	23.0	2.7%	3	0.3%

The Information & Technology 2016 Preliminary Operating Budget has been developed to address ongoing service delivery requirements and new growth in IT Solutions to meet City Program needs. The Program will realize savings to offset a portion of the budget pressures.

The 2016 Operating Budget is \$124.877 million gross and \$73.293 million net, representing a 1.4% increase of \$0.995 million over the 2015 Approved Net Operating Budget and is above the reduction target as set out in the 2016 Operating Budget Directions and Guidelines.

- Base pressures of \$2.767 million are mainly attributable to known salary adjustments, operating impacts from completed approved IT capital projects, increases for software and hardware maintenance costs, lease costs for the co-located data centre and conversion of temporary capital positions.
- To help mitigate the above pressures, the Program was able to achieve budget reductions through line by line reviews of accounts as well as efficiency savings from negotiated lower pricing in hardware and software maintenance contracts, optimizing telecommunication technologies and recovery of project management costs, totaling \$1.772 million.
- Approval of the 2016 Operating Budget will result in Information & Technology increasing its total staff complement by 12 positions from 838 (including 602 operating positions and 236 capital positions) to 850 (including 619 operating positions and 231 capital positions).
- The above increases are reduced by user fee inflationary rate changes of \$0.002 million in the Business IT Solutions service with increased recoveries from other City Program by \$1.026 million across all three services.

- The 2017 and 2018 Plan increases reflect the increases to salaries and benefits for progression pay, step increases, annualization of positions from 2013 and operating impacts of completed capital projects, as well as the increased revenue from annualized user fee increases. The staffing costs are partially reduced by increased recoveries from client programs for staffing commitments.

Table 2
Key Cost Drivers

(In \$000s)	2016 Operating Budget						2016 Base Budget	
	Business IT Solutions		Computer & Communications Technology Infrastructure		Enterprise IT Planning & Client Services		Total	
	\$	Position	\$	Position	\$	Position	\$	Position
Gross Expenditure Changes								
Prior Year Impacts								
Software & Hardware Maintenance	725.8		525.2		(243.9)		1,007.1	
Operating Impacts of Capital								
Operating Impact from Capital	651.6	5.5	280.5	4.0	123.7	2.5	1,055.8	12.0
Salary and Benefit Changes								
Progression Pay, Step Increases, Other Salary Adjustments	3,926.7	26.4	(403.3)	(8.3)	(2,254.5)	(18.1)	1,268.9	(0.0)
Maintain Gapping @ 2015 level	43.2		(56.6)		(106.4)		(119.8)	
Other Base Changes								
Telus Data Centre Co-Location Costs			101.8				101.8	
Convert 4 Temporary Capital Positions to Permanent Operating Positions	355.4				125.9		481.3	
Total Gross Expenditure Changes	5,702.7	31.9	447.6	(4.3)	(2,355.2)	(15.6)	3,795.1	12.0
Revenue Changes (Increase) / Decrease								
Recovery of Operating Impact from Capital	(379.8)				(84.4)		(464.2)	
Technical Adjustments	(182.3)		(169.5)		(210.0)		(561.8)	
User Fees Inflationary Increase	(2.0)						(2.0)	
Total Revenue Changes	(564.1)		(169.5)		(294.4)		(1,028.0)	
Net Expenditure Changes	5,138.6	31.9	278.1	(4.3)	(2,649.6)	(15.6)	2,767.1	12.0

Key cost drivers for Information & Technology are discussed below:

- **Prior Year Impacts:**
 - As a result of a 2% vendor contract inflationary increase for software and hardware maintenance required for various divisions, expenditures will increase by \$2.025 million of which \$1.018 will be funded by the IT Sustainment Reserve for a net cost of \$1.007 million.
- **Operating Impacts of Capital:**
 - Operating impacts of Capital account for gross pressures of \$1.056 million gross and net of \$0.591 million for completed capital projects such as Project Portfolio Management and Testing Tools Upgrade, Enterprise System Management Implementation, Web Revitalization Implementation, Business Continuation & Disaster Recovery and SharePoint Enterprise.
- **Salary and Benefit Changes:**
 - Progression Pay, Step and other known salary adjustments of \$1.269 million are included in 2016. Cost of living has not been included as 2016 is a collective bargaining year. Gapping is increased by \$0.120 million to maintain the 2015 rate of 5.5%.
- **Other Base Changes:**

- Lease costs for the co-located data centre to accommodate growth in City-wide business applications will result in an increase of \$0.102 million.
- The conversion of 4 temporary capital positions to operating for ongoing requirements will reduce recoveries from the capital budget by \$0.481 million.
- Revenue Changes:
 - Interdivisional recoveries will increase by of \$0.464 million to fund operating impacts from previously implemented projects.
 - Increased interdivisional recoveries from other City Program of \$0.562 million are mainly for staffing costs of positions transferred in 2015.

In order to offset the above net pressures, the 2016 service costs changes for Information & Technology consists of base expenditure savings of \$0.169 million net, service efficiency savings of \$0.990 million net and revenue adjustments of \$0.614 million for a total of \$1.773 million net as detailed below.

Table 3
2016 Total Service Change Summary

Description (\$000s)	2016 Service Changes						Total Service Changes			Incremental Change			
	Business IT Solutions		Computer & Communications Technology Infrastructure		Enterprise IT Planning & Client Services		\$	\$	#	2017 Plan		2018 Plan	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Pos.	Net	Pos.	Net	Pos.
Base Changes:													
Base Expenditure Changes													
<i>Line-By-Line Expenditure Reductions</i>	(87.8)	(87.8)	(18.1)	(18.1)	(62.6)	(62.6)	(168.5)	(168.5)					
Base Expenditure Change	(87.8)	(87.8)	(18.1)	(18.1)	(62.6)	(62.6)	(168.5)	(168.5)					
Sub-Total	(87.8)	(87.8)	(18.1)	(18.1)	(62.6)	(62.6)	(168.5)	(168.5)					
Service Efficiencies													
<i>Reduce Hardware & Software Maintenance Costs</i>	(182.0)	(182.0)	(389.8)	(389.8)	(152.0)	(152.0)	(723.8)	(723.8)					
<i>Telecom Optimization Initiative</i>			(216.2)	(216.2)			(216.2)	(216.2)					
<i>Reduce Standby & Call-back Pay</i>			(25.0)	(25.0)	(25.0)	(25.0)	(50.0)	(50.0)					
Sub-Total	(182.0)	(182.0)	(631.0)	(631.0)	(177.0)	(177.0)	(990.0)	(990.0)					
Revenue Adjustments													
<i>Project Management Costs Recovered from Capital</i>						(614.4)		(614.4)					
Sub-Total						(614.4)		(614.4)					
Total Changes	(269.8)	(269.8)	(649.1)	(649.1)	(239.6)	(854.0)	(1,158.5)	(1,772.9)					

Base Expenditure Changes (Savings of \$0.169 million gross & net)

Line by Line Review

- Savings of \$0.169 million net will be realized through a line by line review of all expenditure accounts, across all services, to reflect actual experience.

Service Efficiencies (Savings of \$0.990 million gross & \$0.990 million net)

Reduce Hardware & Software Maintenance Costs

- Savings of \$0.723 million from lower pricing from contract negotiations, replacement of older technologies, and efficiencies will result in reductions in hardware and software maintenance contract costs.

Telecom Optimization Initiative

- Optimizing telecommunication technologies will save an additional \$0.216 million net in 2016 in its final phase of implementation due to lower monthly rates per phone line as a result of the new contract for voice and data services and converting over 16,000 existing Centrex telephone lines across 90 sites in the City with Unified Communication implementation to VoIP (Voice over Internet Protocol). No further savings are to be achieved.

Reduce Standby & Call-back Pay

- As a result of efficiencies through time management and reducing the standby pay and overtime budget for less critical IT Infrastructure platforms, savings of \$0.050 million will be realized.

Revenue Adjustments (Savings of \$0.614 million net)*Project Management Costs Recovered from Capital*

- Annualized salary costs recovered from I&T Capital Budget for 7 project managers in 2016 will increase recoveries by \$0.114 from the \$0.875 million approved in 2015.
- An additional recovery of salary costs from I& T Capital Budget for 4 project managers in 2016 will increase recoveries by \$0.500 million.

Approval of the 2016 Budget for Information & Technology will result in a 2017 incremental net cost of \$5.541 million and a 2018 incremental net cost of \$3.442 million to maintain the 2016 service levels, as discussed in the following section and detailed in Table 5.

Table 5
2017 and 2018 Plan by Program

Description (\$000s)	2017 - Incremental Increase					2018 - Incremental Increase				
	Gross Expense	Revenue	Net Expense	% Change	# Positions	Gross Expense	Revenue	Net Expense	% Change	# Positions
Known Impacts:										
Progression Pay and Step Increases	266.1		266.1			861.9		861.9		
Annualization of Positions Approved in 2013		(1,775.0)	1,775.0				(1,775.0)	1,775.0		
Operating Impacts of Capital										
Operating Impact of Capital	4,429.7	257.0	4,172.7		23.0	1,234.3	(19.3)	1,253.6		3.0
Revenue										
Annualized User Fees		(14.6)	14.6				(3.2)	3.2		
Increased recovery from Clients		755.1	(755.1)				519.7	(519.7)		
Other (specify)										
Growth in Data Centre Co-location	67.5		67.5			67.5		67.5		
Sub-Total	4,763.3	(777.5)	5,540.8		23.0	2,163.7	(1,277.8)	3,441.5		3.0
Total Incremental Impact	4,763.3	(777.5)	5,540.8		23.0	2,163.7	(1,277.8)	3,441.5		3.0

Future year incremental costs are primarily attributable to the following:

Known Impacts:

- The 2017 and 2018 Plan reflects inflationary cost increases and adjustments for salaries, progression pay and step increases of \$0.266 million net in 2017 and \$0.862 million net in 2018.
- Funding of \$1.775 million for the Council approved phase in funding for the resources pool of 58 positions to support delivery of capital projects.
- The operating impact of capital will increase costs in 2017 by \$4.173 million net for 23 positions deferred from 2013 and by \$1.254 million net in 2017.
- Mapping Fees revenues will decrease by \$0.015 million in 2017 and \$0.003 million in 2018.
- Growth in the Data Centre Co-location leased space in 2017 and 2018 of \$0.068 million and \$0.068 million, respectively, will be required as a result of ongoing and anticipated initiatives including Exchange Email and SharePoint.
- Inter-divisional recoveries will increase by \$0.755 million in 2017 and \$0.520 million in 2018.



Part II: 2016 Budget by Service

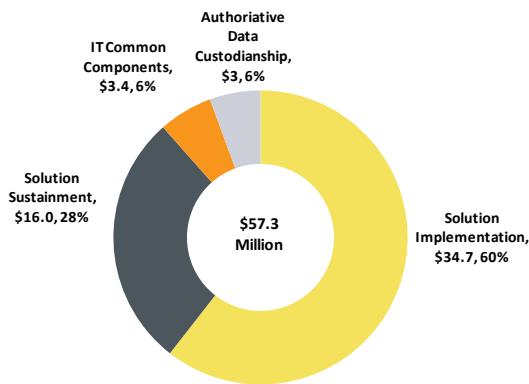
Business IT Solutions



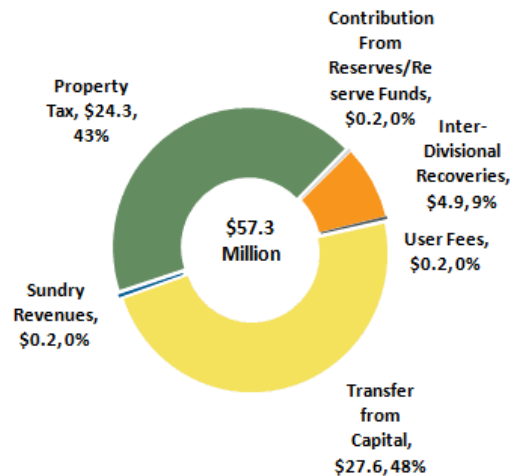
What We Do

- Information Technology (IT) Solutions to enable the business capabilities required by the City to deliver services.
- Provides solution and component acquisition, configuration, development, sustainment and implementation of applications and solutions, as well as ongoing client support.

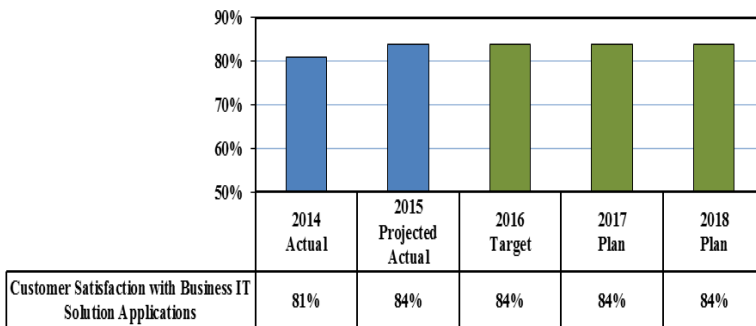
2016 Service Budget by Activity (\$000s)



Service by Funding Source (\$000s)



Business IT Solutions Performance



- The percent of overall customer satisfaction with Business IT Solutions services increased from by 3% from 81% in 2014 to 84% in 2015.
- The level of overall client satisfaction with IT services is expected to remain steady at 85% or increase over the next 3 years as a result of continuous client service improvement initiatives.

**2016 Service Levels
Business IT Solutions**

	Activity Type	Type	Status	Approved Service Levels				2016
				2012	2013	2014	2015	
Business I&T Solutions	Solutions Implementation	<ul style="list-style-type: none"> • Program and Service Management Solutions Development • Process Management Solutions Development • Enterprise Asset Management Solutions Development • Financial Management Solutions Development • Supply and Inventory Management Solutions Development • Rules Management Solutions Development • Property Stewardship Solutions Development • Risk Management Solutions Development • Customer Relationship Management Solutions Development • Service Delivery Solutions Development • Human Resource Management Solutions Development • Information Management Solutions Development 	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Consultation or per agreed work plan				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Email Response within 2 business days 90% of the time
	Solutions Sustainment	<ul style="list-style-type: none"> • Program and Service Management Solutions Sustainment • Process Management Solutions Sustainment • Enterprise Asset Management Solutions Sustainment • Financial Management Solutions Sustainment • Supply and Inventory Management Solutions Sustainment • Rules Management Solutions Sustainment • Property Stewardship Solutions Sustainment • Risk Management Solutions Sustainment • Customer Relationship Management Solutions Sustainment • Service Delivery Solutions Sustainment • Human Resource Management Solutions Sustainment • Information Management Solutions Sustainment 	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Consultation or per agreed work plan				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Email Response within 2 business days 90% of the time
	IT Common Components	<ul style="list-style-type: none"> • Business solution/application development • Geospatial 	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Consultation or per agreed work plan				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Email Response within 2 business days 90 % of the time
	Authoritative Data Custodianship	<ul style="list-style-type: none"> • Geographic Information dataset/map • Geospatial/Location Data 	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Standard incident management targets or consultation per agreed work plan				Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Email Response within 2 business days 90 % of the time Standard incident management targets or consultation per agreed work plan. Email Response within 2 business days 90% of the time

Overall, the 2016 Service Levels are consistent with the approved 2015 Service Levels. Several technical adjustments to align customer service response to the City's new email system have been reflected.

Table 6

2016 Preliminary Service Budget by Activity

(\$000s)	2015	2016 Operating Budget							2016 Budget vs. 2015 Budget		Incremental Change			
	Approved Budget	Base Budget	Service Changes	2016 Base	Base Budget vs. 2015 Budget		New/Enhanced	2016 Budget	\$	%	2017 Plan		2018 Plan	
					% Change	%					\$	%	\$	%
GROSS EXP.														
Authoritative Data Custodianship	2,864.1	3,224.9		3,224.9	360.8	12.6%		3,224.9	360.8	12.6%	140.1	4.3%	78.9	2.3%
IT Common Components	3,969.1	3,438.4	(52.7)	3,385.7	(583.4)	(14.7%)		3,385.7	(583.4)	(14.7%)	145.0	4.3%	98.4	2.8%
Solution Implementation	22,993.6	34,742.6	(45.3)	34,697.3	11,703.7	50.9%		34,697.3	11,703.7	50.9%	715.1	2.1%	557.3	1.6%
Solution Sustainment	13,599.5	16,063.6	(84.0)	15,979.6	2,380.1	17.5%		15,979.6	2,380.1	17.5%	761.9	4.8%	332.1	2.0%
Total Gross Exp.	43,426.3	57,469.5	(182.0)	57,287.5	13,861.2	31.9%		57,287.5	13,861.2	31.9%	1,762.1	3.1%	1,066.7	1.8%
REVENUE														
Authoritative Data Custodianship	980.3	1,430.3		1,430.3	450.0	45.9%		1,430.3	450.0	45.9%	(106.0)		5.8	0.4%
IT Common Components	1,611.1	718.5		718.5	(892.6)	(55.4%)		718.5	(892.6)	(55.4%)	(139.8)		(96.4)	(16.7%)
Solution Implementation	16,176.8	28,598.8		28,598.8	12,422.0	76.8%		28,598.8	12,422.0	76.8%	(140.1)	-0.5%	(95.6)	(0.3%)
Solution Sustainment	1,851.8	2,200.5		2,200.5	348.7	18.8%		2,200.5	348.7	18.8%	540.9		242.0	
Total Revenues	20,620.0	32,948.1		32,948.1	12,328.1	59.8%		32,948.1	12,328.1	59.8%	155.0		55.8	0.2%
NET EXP.														
Authoritative Data Custodianship	1,883.8	1,794.6		1,794.6	(89.2)	(4.7%)		1,794.6	(89.2)	(4.7%)	246.1	13.7%	73.1	3.6%
IT Common Components	2,358.0	2,719.9	(52.7)	2,667.2	309.2	13.1%		2,667.2	309.2	13.1%	284.8	10.7%	194.8	6.6%
Solution Implementation	6,816.8	6,143.8	(45.3)	6,098.5	(718.3)	(10.5%)		6,098.5	(718.3)	(10.5%)	855.2	14.0%	652.9	9.4%
Solution Sustainment	11,747.7	13,863.1	(84.0)	13,779.1	2,031.4	17.3%		13,779.1	2,031.4	17.3%	221.0	1.6%	90.1	0.6%
Total Net Exp.	22,806.3	24,521.4	(182.0)	24,339.4	1,533.1	6.7%		24,339.4	1,533.1	6.7%	1,607.1	6.6%	1,010.9	3.7%
Approved Positions	332.4	435.8		435.8	103.4	31.1%		435.8	103.4	31.1%	10.5	2.4%	2.0	0.4%

Business IT Solutions provides information technology solutions to enable the business capabilities required by the City to deliver services.

The Business IT Solutions' 2016 Preliminary Operating Budget of \$57.287 million gross and \$24.339 million net is \$1.533 million or 6.7% over the 2015 Approved Net Budget.

Aside from base budget pressures common across all services, base pressures totalling \$5.139 million in Business IT Solutions services are primarily due to the following:

- Salary alignment between services as well as salary increases for progression pay, step increases and annualization of previously approved positions and maintaining gapping rate resulting in an increase of \$3.970 million in salaries and benefits.
- Increase due to operating impacts of previously approved capital projects amount of \$0.652 million and vendor contract inflationary increase by 2% for software and hardware maintenance increase of \$0.726 million.
- Conversion of temporary capital positions to operating for ongoing requirements of \$0.355 million.
- Internal recovery of inflationary increases and operating impacts that increased revenues by \$0.564 million.

In order to offset the above pressures, the 2016 service changes for Business IT Solutions consists of base budget savings of \$0.088 million and service efficiency savings of \$0.182 million as detailed below:

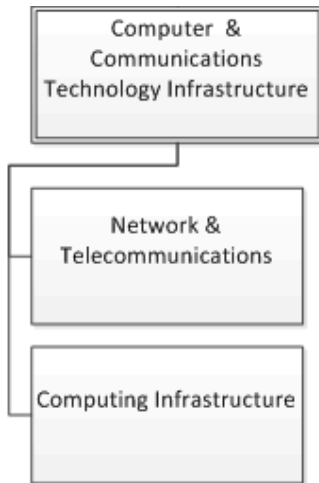
Base Budget (savings of \$0.088 million gross and net)

- Expenditures have been reduced by \$0.088 million based on a line by line review of recent spending and considering future requirements.

Service Efficiency (savings of \$0.182 million gross and net)

- Savings of \$0.182 million from lower pricing from contract negotiations, replacement of older technologies and efficiencies resulted in reductions in hardware and software maintenance contract.

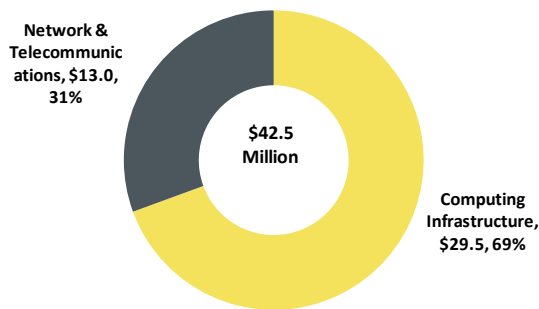
Computer & Communications Technology Infrastructure



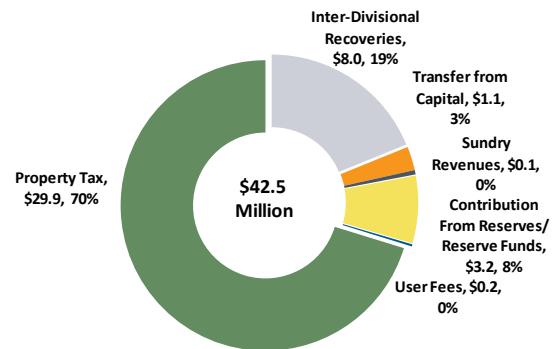
What We Do

- Provides enterprise data centre hosting support to all business IT solutions deployed in the City.
- Manages the City networks including internet, e-mail and fax, telephone and wireless communication and IT devices including computers, tablets, printers, and peripherals across the City.

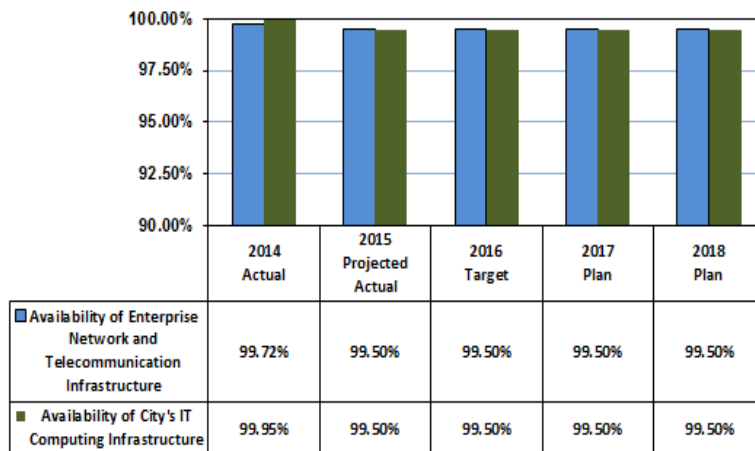
2016 Service Budget by Activity (\$000s)



Service by Funding Source (\$000s)



Efficiency Measure – Computer and Communications Technology Infrastructure



- Sustain availability of enterprise network and telecommunications infrastructure at 99.50% or better in 2016.
- Technology infrastructure availability is expected to remain constant at the 99.50% level due to ongoing planning, testing, and sustainment

2016 Service Levels

Computer & Communications Technology Infrastructure

	Activity Type	Type	Status	Approved Service Levels				2016
				2012	2013	2014	2015	
Computer & Communications Technology Infrastructure	Network & Telecommunications	Internet	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Standard incident management targets Service Availability 24/7/365 with 99% up time.				Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays). Email Response within 2 business days 90% of the time Standard incident management targets Service Availability 24/7/365 with 99.50% up time.
	Network & Telecommunications	Telephone	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Standard incident management targets Service availability is 7/24/365 excluding scheduled maintenance and releases				Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays). Email Response within 2 business days 90% of the time Standard incident management targets Service availability is 7/24/365 excluding scheduled maintenance and releases
	Network & Telecommunications	Wireless Telecommunication & Devices	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Standard incident management targets Service availability is 7/24/365 excluding scheduled maintenance and releases				Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Email Response within 2 business days 90% of the time Standard incident management targets Service availability is 7/24/365 excluding scheduled maintenance and releases
	Network & Telecommunications	Wired Network	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Standard incident management targets Service availability is 7/24/365 excluding scheduled maintenance and releases 99.99% Availability between 8:30am – 4:30pm on business days. *Availability time excludes scheduled maintenance.				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Email Response within 2 business days 90% of the time Standard incident management targets Service availability is 7/24/365 excluding scheduled maintenance and releases 99.99% Availability between 9:00am – 5:00pm on business days. *Availability time excludes scheduled maintenance.
	Network & Telecommunications	Wireless Network	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Standard incident management targets Service Availability 24/7/365 with 99% up time				Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays). Email Response within 2 business days 90% of the time Standard incident management targets Service Availability 24/7/365 with 99% up time
	Network & Telecommunications	E-mail	Approved	Standard incident management targets Service availability is 7/24/365 excluding scheduled maintenance and releases. New account created within 48 hours 98% of the time Service Availability 24/7/365 with 98% up time	Standard incident management targets Service availability 24/7/365 with 98% up time (excluding scheduled maintenance)			Core Business Hours are Monday to Friday 8:30am -4.30pm (excluding statutory holidays) Standard incident management targets Service availability 24/7/365 with 98% up time (excluding scheduled maintenance) Email Response within 2 business days 90% of the time
	Network & Telecommunications	Enterprise Fax	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Standard incident management targets Service Availability 24/7/365 with 98% up time				Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays). Email Response within 2 business days 90% of the time Standard incident management targets Service Availability 24/7/365 with 98% up time
	Computing Infrastructure	Application Platforms	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Standard incident management targets Service availability is 7/24/365 excluding scheduled maintenance and releases				Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays). Email Response within 2 business days 90% of the time Standard incident management targets Service availability is 7/24/365 excluding scheduled maintenance and releases

Activity Type	Type	Status	Approved Service Levels				2016
			2012	2013	2014	2015	
Computer & Communications Technology Infrastructure	Server Computing Hardware	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Standard incident management targets Service Availability 24/7/365 with 99% up time (excluding scheduled maintenance) On-site support 7:30am - 5:00pm on business days, with on-call support for off-hours.				Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays). Email Response within 1 business day 90% of the time Standard incident management targets Service Availability 24/7/365 with 99.50% up time (excluding scheduled maintenance) support 7:00am - 5:00pm on business days, with on-call support for off-hours.
	Data Storage Platform	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Standard incident management targets Service availability 24/7/365 with 99% up time.				Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays). Email Response within 2 business days 90% of the time Standard incident management targets Service availability 24/7/365 with 99.50% up time.
	Enterprise Printing & Peripherals	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Standard incident management targets. Service Availability 24/7/365 with 99% up time				Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays). Email Response within 2 business days 90% of the time Standard incident management targets. Service Availability 24/7/365 with 99% up time
	Client Computing Hardware	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Standard incident management targets				Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays). Email Response within 2 business days 90% of the time Standard incident management targets

Overall, the 2016 Service Levels are consistent with the approved 2015 Service Levels. Several technical adjustments to align customer service response to the new City email system have been reflected.

Table 6
2016 Preliminary Service Budget by Activity

(\$000s)	2015	2016 Operating Budget						Incremental Change							
	Approved Budget	Base Budget	Service Changes	2016 Base Budget	Base Budget vs. 2015 Budget	% Change	New/Enhanced	2016 Budget	2016 Budget vs. 2015 Budget		2017 Plan		2018 Plan		
	\$	\$	\$	\$	\$	%	\$	\$	\$	%	\$	%	\$	%	
GROSS EXP.															
Computing Infrastructure	30,524.7	29,748.0	(294.8)	29,453.2	(1,071.5)	(3.5%)		29,453.2	(1,071.5)	(3.5%)	922.1	3.1%	454.0	1.5%	
Network & Telecommunications	15,162.5	13,384.1	(336.2)	13,047.9	(2,114.6)	(13.9%)		13,047.9	(2,114.6)	(13.9%)	76.1	0.6%	63.3	0.5%	
Total Gross Exp.	45,687.2	43,132.1	(631.0)	42,501.1	(3,186.1)	(7.0%)		42,501.1	(3,186.1)	(7.0%)	998.2	2.3%	517.3	1.2%	
REVENUE															
Computing Infrastructure	9,951.4	7,364.1		7,364.1	(2,587.3)	(26.0%)		7,364.1	(2,587.3)	(26.0%)	(143.6)		(607.7)	(8.4%)	
Network & Telecommunications	5,428.5	5,281.7		5,281.7	(146.8)	(2.7%)		5,281.7	(146.8)	(2.7%)	29.5		(209.8)	(4.0%)	
Total Revenues	15,379.9	12,645.8		12,645.8	(2,734.1)	(17.8%)		12,645.8	(2,734.1)	(17.8%)	(114.1)		(817.5)	(7.0%)	
NET EXP.															
Computing Infrastructure	20,573.3	22,383.9	(294.8)	22,089.1	1,515.8	7.4%		22,089.1	1,515.8	7.4%	1,065.7	4.8%	1,061.7	4.6%	
Network & Telecommunications	9,734.0	8,102.4	(336.2)	7,766.2	(1,967.8)	(20.2%)		7,766.2	(1,967.8)	(20.2%)	46.6	0.6%	273.1	3.5%	
Total Net Exp.	30,307.3	30,486.3	(631.0)	29,855.3	(452.0)	(1.5%)		29,855.3	(452.0)	(1.5%)	1,112.3	3.7%	1,334.8	4.1%	
Approved Positions	247.9	208.0		208.0	(39.9)	(16.1%)		208.0	(39.9)	(16.1%)	4.5	2.2%			

The Computer and Communications Technology Infrastructure's 2016 Preliminary Operating Budget of \$42.501 million gross and \$29.855 million net is \$0.452 million or 1.5% under the 2015 Approved Net Budget.

Aside from base budget pressures common across all services, base pressures totalling \$0.278 million in Computer and Communications Technology Infrastructure's services are primarily due to the following:

- Base budget pressures are primarily attributable to salary increases for progression pay, step increases and annualization of previously approved positions and maintaining gapping rate reduced by salaries alignment between activities resulting in a decrease of \$0.460 million in salaries and benefits.
- Increase due to operating impacts of previously approved capital projects amount of \$0.281 million and vendor contract inflationary increase by 2% for software and hardware maintenance increase of \$0.525 million.
- Rate increase and additional space for the co-location of the IT hardware at the Telus building increased costs by \$0.102 million.
- Internal recovery of inflationary increases and operating impacts that increased revenues by \$0.170 million.

In order to offset the above pressures, the 2016 service costs changes for Computer and Communications Technology Infrastructure consists of base budget savings of \$0.018 million and service efficiency savings of \$0.631 million as detailed below:

Base Budget (savings of \$0.018 million gross and net)

- Expenditures have been reduced by \$0.018 million based on a line by line review of recent spending and considering future requirements.

Service Efficiency (savings of \$0.631 million gross and net)

- Savings of \$0.390 million from lower pricing from contract negotiations, replacement of older technologies and efficiencies resulted in reductions in hardware and software maintenance contract.
- Specific to this service is the telecommunication technologies implementation that will save an additional \$0.216 million net in 2016 from lower monthly rates per phone line as a result of the new contract for voice and data services and converting over 16,000 existing Centrex telephone lines across 90 sites in the City with Unified Communication implementation to VoIP (Voice over Internet Protocol).
- No further savings are to be achieved as this is the final phase of a 4-year implementation that will generate a total of \$4.722 million in savings from this initiative.
- As a result of efficiencies, through time management, reducing the standby pay and overtime budget for less critical platform, will result in savings of \$0.025 million.

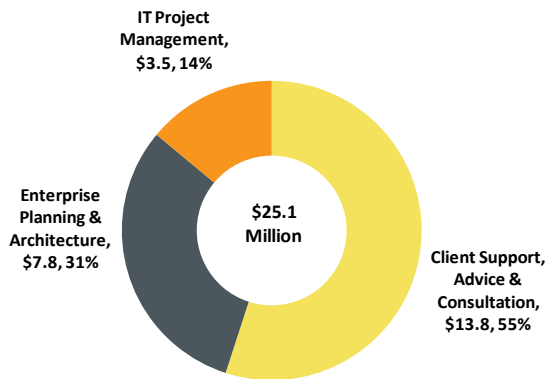
Enterprise IT Planning & Client Services



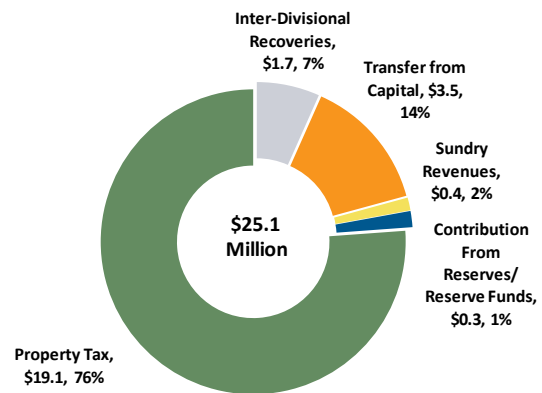
What We Do

- Provides a range of services to support enterprise strategic planning, enterprise architecture blueprint, portfolio planning and optimization and lifecycle management of IT projects.
- Provides direct client support including client relationship management, client consultation and advice, service desk and IT training and education.

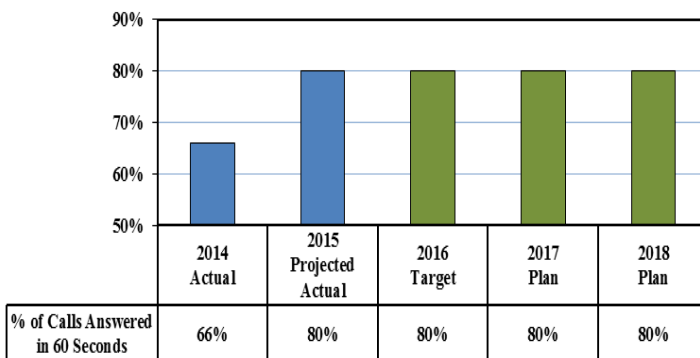
2016 Service Budget by Activity (\$000s)



Service by Funding Source (\$000s)



% of Calls Answered in 60 Seconds – Service Desk



- In 2015, the percentage of calls to the IT Service Desk answered within 60 seconds is projected to be 80% or 14% better than 2014.
- The volume of calls supported by the Service desk are expected to increase due to availability of additional application support.
- An increase in the volume of users requesting support via the E-mail channel as compared to the phone is expected to continue over the next three years.

2016 Service Levels
Enterprise IT Planning & Client Services

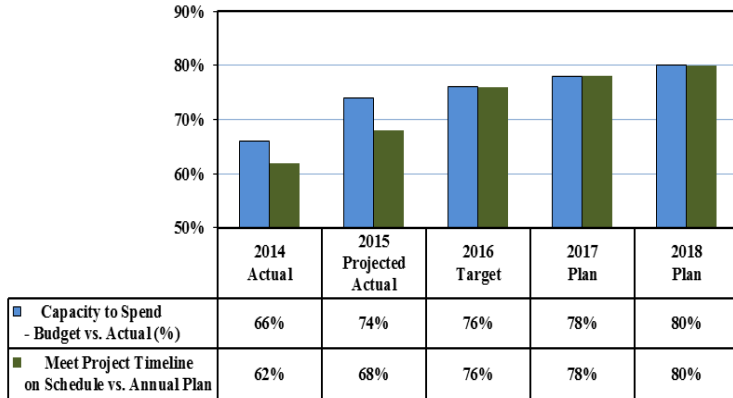
	Activity Type	Type	Status	Approved Service Levels				2016
				2012	2013	2014	2015	
Enterprise IT Planning & Client services	Enterprise Planning & Architecture	Enterprise Architecture – Blueprint	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Consultation or per agreed work plan				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays). Email Response within 2 business days 90% of the time Consultation or per agreed work plan
	Enterprise Planning & Architecture	Portfolio Investment Management	Approved	Core business hours: Monday – Friday 8:30am – 4:30pm (excluding weekends and holidays) Consultation or per agreed work plan / In support of I&T services				Core business hours: Monday – Friday 9:00am – 5:00pm (excluding weekends and holidays). Email Response within 2 business days 90% of the time Consultation or per agreed work plan / In support of I&T services
	Enterprise Planning & Architecture	Enterprise wide IT strategic plan - IT Strategic Planning	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Consultation or per agreed work plan / In support of I&T services				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays). Email Response within 2 business days 90% of the time Consultation or per agreed work plan / In support of I&T services
	Enterprise Planning & Architecture	I&T Division Business Strategy/Plan - IT Strategic Planning	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Consultation or per agreed work plan / In support of I&T services				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Email Response within 2 business days 90% of the time Consultation or per agreed work plan / In support of I&T services
	Enterprise Planning & Architecture	Business Continuity Planning	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Consultation or per agreed work plan / In support of I&T services				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays). Email Response within 2 business days 90% of the time Consultation or per agreed work plan / In support of I&T services
	Enterprise Planning & Architecture	Risk Assessments (Privacy Impact Assessment, Threat Risk Assessment) & Investigations Privacy Impact Assessment, Risk Management Plan, Vulnerability/TRA	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Consultation or per agreed work plan / In support of I&T services				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays). Email Response within 2 business days 90% of the time. Consultation or per agreed work plan / In support of I&T services
	Enterprise Planning & Architecture	IT Policies, Standards & Research	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Consultation or per agreed work plan / In support of I&T services				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays). Email Response within 2 business days 90% of the time. Consultation or per agreed work plan / In support of I&T services
	Client Support, Advice & Consultation	Business Process Analysis and Design	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Target response within 1 business day Consultation or per agreed work plan.				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays). Email Response within 2 business days 90% of the time. Consultation or per agreed work plan
	Client Support, Advice & Consultation	Service Desk	Approved	Support is available from the Service Desk Mon-Fri 7:00a.m to 5:00 p.m and at all other hours (evenings/overnight) and weekend/holidays, calls are re-directed to Computer Operations. Response Targets: - Phone: 80% of Calls Answered within 1 minute - Voicemail: Response within 4 hours - E-Mail: Response within 48 hours Desktop Management (Workstations, Peripherals, Software) Support available Mon-Fri 8:30 a.m. to 4:30 p.m. (excluding statutory holidays). Both Service Desk and Desktop Management incidents are prioritized and resolved in accordance with standard Incident Management (IM) Targets. Standard Incident Management Resolution Targets: Priority 1: 2 business hours Priority 2: 8 business hours (1 day) Priority 3: 24 business hours (3 days) Priority 4: 48 business hours (6 days)				Support is available from the Service Desk Mon-Fri 7:00a.m to 5:00 p.m. All other hours (evenings/overnight) and weekend/holidays, limited support is available. Response Targets: - Phone: 80% of Calls Answered within 1 minute - Voicemail: Response within 4 hours - E-Mail: Response within 48 hours Desktop Management (Workstations, Peripherals, Software) Support available Mon-Fri 8:30 a.m. to 4:30 p.m. (excluding statutory holidays). Both Service Desk and Desktop Management incidents are prioritized and resolved in accordance with standard Incident Management (IM) Targets. Standard Incident Management Resolution Targets: Priority 1: 2 business hours Priority 2: 8 business hours (1 day) Priority 3: 24 business hours (3 days) Priority 4: 48 business hours (6 days)

	Activity Type	Type	Status	Approved Service Levels				2016
				2012	2013	2014	2015	
Enterprise IT Planning & Client services	Client Support, Advice & Consultation	Business Requirement Analysis	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Target response within 1 business day Consultation or per agreed work plan				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Email Response within 2 business days 90% of the time
	Client Support, Advice & Consultation	Business Case Co-ordination	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Target response within 1 business day Consultation or per agreed work plan				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Email Response within 2 business days 90% of the time
	Client Support, Advice & Consultation	IT Procurement Consultation	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays)				Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Email Response within 2 business days 90% of the time
	Client Support, Advice & Consultation	IT Consultation & Facilitation	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Consultation Only				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Email Response within 2 business days 90% of the time
	Client Support, Advice & Consultation	Client Relationship Management	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Target response within 1 business day Consultation or per agreed work plan				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Email Response within 2 business days 90% of the time Escalations within 1 business day 90% of the time Consultation or per agreed work plan
	Client Support, Advice & Consultation	Service Level Management	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Target response within 1 business day Consultation or per agreed work plan				Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Email Response within 2 business days 90% of the time
	Client Support, Advice & Consultation	IT Training & Education	Approved	Core business hours: Monday – Friday 8:30am – 4:30pm (excluding weekends and holidays) Per agreed work plan / schedule 99.00% Availability between 8:30am - 4:30pm				Core business hours: Monday – Friday 8:30am – 4:30pm (excluding weekends and holidays) Email Response within 2 business days 90% of the time Per agreed work plan / schedule 99.00% Availability between 8:30am - 4:30pm
	Client Support, Advice & Consultation	IT Contract Management	Approved	Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays) Consultation or per agreed work plan / In support of I&T services				Core business hours are Monday to Friday 8:30am – 4:30pm (excluding statutory holidays). Email Response within 2 business days 90% of the time.
	IT Project Management	IT Project Management Services	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Consultation or per agreed work plan / In support of I&T services				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Email Response within 2 business days 90% of the time
	IT Project Management	IT Project Management Expertise & Support	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Consultation or per agreed work plan / In support of I&T services				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Email Response within 2 business days 90% of the time
IT Project Management	IT Project Management Methodologies and Tools	Approved	Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Consultation or per agreed work plan / In support of I&T services				Core business hours are Monday to Friday 9:00am – 5:00pm (excluding statutory holidays) Email Response within 2 business days 90% of the time	

Overall, the 2016 Service Levels are consistent with the approved 2015 Service Levels. Several technical adjustments to align customer service response to new City email system have been reflected.

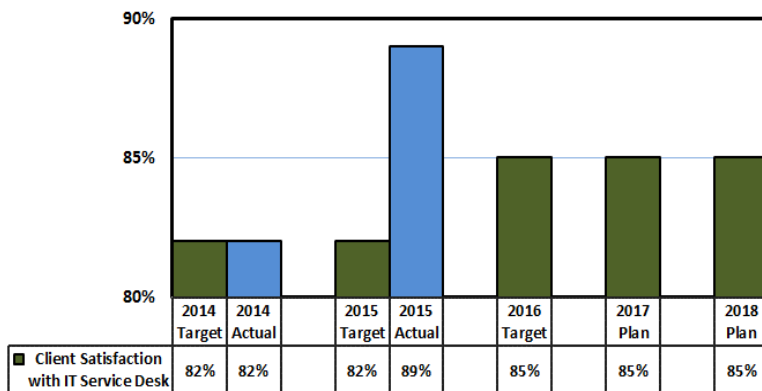
Service Performance

Efficiency Measure – Project Management Performance



- This measure indicates completed project deliverables in development by using IT capital spend rate as an indication of the progress of capacity to spend.
- I&T is projecting to improve meeting project timelines to 68% or better in 2015.
- I&T is projecting to deliver completed projects within managed budget to 74% or better.
- The rate of meeting project timelines and capacity to spend has been increasing annually and is expected to continue, due to improved project management controls, processes, addressing IT resourcing, and improved IT planning.

Enterprise IT Service Desk Performance



- Satisfaction with the customer experience with the IT Service Desk has increased by 7% from 82% in 2014 to 89% in 2015.
- It is forecasted that the level of satisfaction will remain constant at 85% over the next three years as a result of continuous improvement initiatives.

Table 6

2016 Preliminary Service Budget by Activity

	2015	2016 Operating Budget							2016 Budget vs. 2015 Budget		Incremental Change				
	Approved Budget	Base Budget	Service Changes	2016 Base	Base Budget vs. 2015 Budget	% Change	New/Enhanced	2016 Budget			2017 Plan	2018 Plan			
	(\$000s)	\$	\$	\$	\$	%	\$	\$	\$	%	\$	%	\$	%	
GROSS EXP.															
Client Support, Advice & Consultation	16,300.1	13,811.5	(22.8)	13,788.7	(2,511.4)	(15.4%)		13,788.7	(2,511.4)	(15.4%)	454.3	3.3%	235.0	1.6%	
Enterprise Planning & Architecture	12,000.6	7,924.6	(154.3)	7,770.3	(4,230.3)	(35.3%)		7,770.3	(4,230.3)	(35.3%)	526.3	6.8%	304.9	3.7%	
IT Project Management	4,126.7	3,529.7		3,529.7	(597.0)	(14.5%)		3,529.7	(597.0)	(14.5%)	1,022.4	29.0%	39.9	0.9%	
Total Gross Exp.	32,427.4	25,265.8	(177.1)	25,088.7	(7,338.7)	(22.6%)		25,088.7	(7,338.7)	(22.6%)	2,003.0	8.0%	579.8	2.1%	
REVENUE															
Client Support, Advice & Consultation	5,306.1	2,123.7		2,123.7	(3,182.4)	(60.0%)		2,123.7	(3,182.4)	(60.0%)	(478.5)		(412.4)	(25.1%)	
Enterprise Planning & Architecture	5,469.7	2,502.0		2,502.0	(2,967.7)	(54.3%)		2,502.0	(2,967.7)	(54.3%)	(340.1)		(90.5)	(4.2%)	
IT Project Management	2,466.5	1,364.4		1,364.4	(1,102.1)	(44.7%)		1,364.4	(1,102.1)	(44.7%)			(12.9)	(0.9%)	
Total Revenues	13,242.3	5,990.1		5,990.1	(7,252.2)	(54.8%)		5,990.1	(7,252.2)	(54.8%)	(818.6)		(515.8)	(11.1%)	
NET EXP.															
Client Support, Advice & Consultation	10,994.0	11,687.8	(22.8)	11,665.0	671.0	6.1%		11,665.0	671.0	6.1%	932.8	8.0%	647.4	5.1%	
Enterprise Planning & Architecture	6,530.9	5,422.6	(154.3)	5,268.3	(1,262.6)	(19.3%)		5,268.3	(1,262.6)	(19.3%)	866.4	16.4%	395.4	6.4%	
IT Project Management	1,660.2	2,165.3		2,165.3	505.1	30.4%		2,165.3	505.1	30.4%	1,022.4	47.2%	52.8	1.7%	
Total Net Exp.	19,185.1	19,275.7	(177.1)	19,098.6	(86.5)	(0.5%)		19,098.6	(86.5)	(0.5%)	2,821.6	14.8%	1,095.6	4.8%	
Approved Positions	255.6	206.2		206.2	(49.4)	(19.3%)		206.2	(49.4)	(19.3%)	7.9	3.8%	1.0	0.5%	

The Enterprise IT Planning & Client Services' 2016 Preliminary Operating Budget of \$25.089 million gross and \$19.099 million net is \$0.087 million or 0.5% under the 2015 Approved Net Budget.

Aside from base budget pressures common across all services, salary adjustment between activities resulted in a decrease in base pressures of \$2.650 million in Enterprise IT Planning & Client Services' primarily due to the following:

- Base budget pressures are primarily attributable to salary increases for progression pay, step increases and annualization of previously approved positions and maintaining gapping rate reduced by salaries alignment between activities resulting in a decrease of \$2.360 million in salaries and benefits.
- Increase due to operating impacts of previously approved capital projects amount of \$0.124 million and an adjustment to software and hardware maintenance resulted in a decrease of \$0.244 million.
- Conversion of temporary capital positions to operating for ongoing requirements of \$0.126 million
- Internal recovery of inflationary increases and operating impacts that increased revenues by \$0.295 million.

In order to offset the above pressures, the 2016 service cost changes for Enterprise IT Planning & Client Services' consists of base budget savings of \$0.063 million, service efficiency savings of \$0.177 million and revenue adjustments of \$0.614 million as detailed below:

Base Budget (savings of \$0.063 million gross and net)

- Expenditures have been reduced by \$0.063 million based on a line by line review of recent spending and considering future requirements.

Service Efficiency (savings of \$0.177 million gross and net)

- Savings of \$0.152 million from lower pricing from contract negotiations, replacement of older technologies and efficiencies resulted in reductions in hardware and software maintenance contract.

- As a result of efficiencies, through time management, reducing the standby pay and overtime budget for less critical platform, will result in savings of \$0.025 million.

Revenue Adjustments (savings of \$0.614 million net)

- Annualization of salary costs recovered from IT Capital Budget for 7 project managers in 2016 will increase recoveries by \$0.114 from the \$0.875 million approved in 2015.
 - The IT Project Management Office currently has 14 permanent project managers who manage IT projects with salaries and benefits charged against the operating budget.
 - The current practice common across most of the divisions is that salaries and benefits of temporary project managers are fully recovered from the capital projects they manage.
 - It is requested that salaries and benefits for 7 out of the 14 project managers be recovered from 6 capital projects those 7 managers will manage in 2016, based on current common practice.
- Additional recovery of salary costs from IT Capital Budget for 4 project managers in 2016 will increase recoveries by \$0.500 million.



Part III:

Issues for Discussion

Issues for Discussion

Issues Impacting the 2016 Budget

The IT Portfolio of projects was established in 2013 to ensure IT foundation technologies are in place to meet these growing business needs and demand for technology from City Programs. Completed projects have sustainment requirements and therefore have created incremental operating pressures to maintain skills, technology and service levels. During the past years, I & T Division has diligently absorbed these pressures within its base budget and by re-assigning resources working on capital projects to provide sustainment support.

To ensure continuous service excellence and effective delivery of public facing programs and services, the following key issues will impact IT Operating Budget in 2016 and beyond.

Enhancements and Expansion To Meet City Business Requirements

- There is a growing need from City Programs as well as at the corporate enterprise level for transformation and process improvements. Information & Technology, in partnership with City Programs and Agencies, drive City business transformation and modernization initiatives to meet business objectives, gain service efficiencies, and improve the customer experience.
 - City Programs are consistently looking for innovative technology to address opportunities to meet business needs. The delivery of City programs and services has a core requirement for effective IT as part of the business transformation.
- The IT Portfolio Integrated Plan adopted by the Business Executive Committee in November 2015 includes a significant amount of growth in business systems corporate-wide to meet business demands which the I&T Division must deliver a significant portion (in partnership with Programs and Agencies) as well as ensure supporting infrastructure. The City-wide 2016 IT Portfolio Integrated Plan include 143 projects, demonstrating the corporate demand. Highlights include:
 - 114 Active projects from the 2015 IT Portfolio Integrated Plan that will continue into 2016 forward for business requirements across the City to Transform, Grow and Run City Programs and Services and IT Infrastructure.
 - 29 New projects added into the IT Portfolio Integrated Plan for 2016 to address urgent needs and provide future seed funding to scope solution requirements. Needs were assessed against criteria including Urgency, Corporate Value, Achievability, and Business Capacity to select these new initiatives to move forward.
 - The overall IT Portfolio Integrated Plan has a very large proportion of 'Transform the Business' projects (57%) as compared to industry-standard recommended rates of 20% for optimal results and ability to absorb change. The City's significant 'Transform the Business' requirements are attributable to urgent needs and demands for the opportunities technology offers to address key City business capability requirements at the enterprise level, and divisional service delivery requirements.
 - The growth in capital investments in new business systems to meet enterprise and division-specific business needs leads to an increased demand for operational sustainment support in

the I&T Division. Once systems are implemented through capital investments the ongoing maintenance, support and enhancement of the system transitions to an ongoing operating requirement. Depending on the technology involved there is often new skill sets required to manage and maintain the system over its lifecycle as well as ongoing costs for software licensing and maintenance needs.

- The operating impacts of capital projects arise subsequent to the completion of IT capital investment in new business systems to meet enterprise and program-specific business needs growing. There is a corresponding investment need in both the ongoing infrastructure and the required expertise and costs to ensure the continued availability and support of the systems.
- The daily operational and management of the IT environment including applications / software maintenance, computer hardware, and client support for completed capital initiatives, has faced many challenges due to financial constraints over the past four years.
- Every year, I&T Division must manage increased costs for hardware/software maintenance, service and equipment due to usage growth, license model changes, price increases, and/or life cycle replacement.
 - In 2016, I&T has reviewed and replaced older technologies and at the same time reduced hardware and software maintenance, service and equipment costs through contract negotiations. However, with increasing business demands for service efficiencies and public expectations for online services impacting infrastructure capacity and sustainment, Information & Technology is faced with increased costs in 2016 and future years.
 - Operating impact from completed capital projects required in 2016 (excluding maintenance of \$0.367 million) was \$2.440 million for 30 positions.
- I&T is unable to continue to absorb these operational sustainment support and maintenance pressures in the current fiscal climate, especially since the vacancy rate is declining significantly and options for gapping are very limited. 4 vacant positions have been re-aligned to provide the sustainment support required by the Data Integration and the Web Revitalization projects.
- The Division will implement the following steps to provide sustainable funding for incremental operating impacts from capital projects, in 2016.
 - Establish a full costing model for IT services provided to individual City Divisions with the objective of reflecting the true service cost to Rate-Supported Programs and Programs providing services for a user fee and create an inter divisional recovery model.
 - Identify benefits from IT capital investments through the IT governance structure and establishing an inter-divisional recovery model to enable the I&T Division to utilize financial benefits to fund the incremental costs.

Talent Management:

- With the IT Capital investment in new business systems to meet enterprise and division-specific business needs growing, there is also a corresponding investment needed in both the ongoing

infrastructure and the required skills and expertise to ensure the continued availability and support of the systems.

- The City is focused on the outcomes achievable by attracting and developing a motivated and engaged high performance team and future leaders.
 - Today's environment demands agility, adaptability and a need to have teams that can evolve and be effective as demands change. The City need high performing teams ready to embrace change and new directions.
 - The I&T Division has taken a strategic and holistic approach to Talent Management that considers aspects including:
 - Talent Assessment and Sourcing
 - Strategic Recruitment, Career Planning, Succession Planning
 - Performance Management
 - Talent Development, Skills and Leadership development
 - Recognition.
- The nature of work and the workforce is changing, including significant competition for highly skilled professionals, in some cases for scarce resource sets as technology rapidly evolves and changes, and different expectations across the generations as to workplace culture. The focus is now on the knowledge worker with more emphasis on flexible work approaches including telework.
- Further to this, the talent market is evolving with the employer evolving to be more as a seller and marketing to prospective candidates, and the employee as buyer with significant choice. The City and I&T Division recognizes this in its recruitment and workforce planning approaches.
- There are opportunities to acquire contract resources in some cases to meet short term specialized requirements or where there are skills needed as City resources evolve, however these need to be considered in terms of overall cost considerations which can be higher.
- In the technology field the City continues to find competition for at times scarce and highly skilled resources. This shortage of resources will mean a need to focus on retention strategies and evolving service delivery models.
- I&T is exploring various options to address these issues in a cost effective way.

Issues Impacting Future Years

Funding Model for Solutions as a Service

- The sustainment and maintenance of new business systems to meet City needs includes opportunities to acquire solutions as a service offered by service providers online, such as through Cloud Computing.

- Cloud Computing enables organizations to consume IT resources as a utility rather than having to build and maintain infrastructure in-house.
- The solution is now a viable choice commonly used in the industry to meet certain requirements as it provides opportunities for agility, adaptability and scalability to meet evolving and growing needs of organization like the City of Toronto.
- These kind of services are not the same as traditional capital investment to build a system in-house or simply acquire an off-the-shelf solution and then house the corresponding IT infrastructure on premise. Instead, requirements are managed through a service provider with all the business systems and infrastructure managed by the vendor off premise and accessed via the internet.
- This model entails necessary service level agreements between the City and the service provider to ensure the City's interests and requirements are met and protected including performance, privacy and security. The City can scale up as needs increase and then scale down as needs decrease.
- The adoption of implementing business systems and IT services through a service provider acquired on an annual or term basis requires a new operating funding model to be considered, as it has evolved from the traditional capital investment approach. The City will only need to pay to the service provider for the resources and workload based on utility as a buyer and any associated initial setup costs.
- It is expected that the City will likely and adopt similar IT solutions through service contracts such as Cloud Computing in the very near future. Financial Planning and I&T will be working together to explore options on how to address the funding requirements of solutions as a service, as these will place significant ongoing pressure on the City's Operating Budget.

Strategies To Rationalize Technology Requirements

- I&T to develop strategies to mitigate maintenance, storage and other pressures arising from completed capital projects. Increasing storage requires capital investments and continuing maintenance support which in turn increases funding requirements each year. Actions to reduce such ongoing activities will impact the future budgets.
- I&T is continuously looking at means to reduce unit costs associated with server and storage growth, but if the volume of projects and utilization of technology increases the amount of infrastructure required is beyond I&T's ability to find efficiencies through economies.
- I&T will:
 - Reinforce the process to review the decommissioning of obsolete systems (hardware and software) in a timely manner.
 - Continue to reduce the number of physical servers by virtualization. Encourage all new applications to adopt server virtualization vs standalone servers.
 - Develop policy to better manage & control usage growth (e.g. set limit on mailbox size).
- I&T, in partnership with Financial Planning, will ensure that the Project Review Team gating process better manage capital project submissions to yield positive Return on Investment and/or reduced total cost of ownership.



Appendices:

Appendix 1

2015 Service Performance

2015 Key Service Accomplishments

In 2015, Information & Technology accomplished the following:

- ✓ Launched a Smart City Framework to drive forward and plan for opportunities to enhance quality of life for residents and performance of City services, reduce costs, improve customer service, and transform citizen experiences.
- ✓ Enhanced the Online Citizen experience improving access to City services for residents and businesses with several new services on the City's website.
 - Implemented numerous toronto.ca website enhancements including updated and mobile friendly content and more online services, improving public access to City services and information for 12,000,000+ visitors annually.
- ✓ Modernized City's business processes and systems with a focus on employee productivity and the next generation Toronto Public Service digital worker including:
 - In partnership with City divisions and the delivery of City services to the public, provided application development, enhancement, maintenance and support for over 850 enterprise and division business applications and over 130 IT projects.
 - Completed 1300+ change requests to enhance over 340 applications.
 - Resolved 32,000+ Service Requests associated with a variety of business applications that support City Programs and Services.
 - Increased Self-Service options for City Staff to get IT Support for incidents and service requests by implementing IT Self-Service on the City Intranet.
 - Increased employee productivity by setting up corporate Wi-fi infrastructure for City laptops and smartphones access.
- ✓ Improved overall customer satisfaction with IT services by 6% in 2015 to 88% overall, compared to 2014. All categories of IT services showed increased satisfaction.
- ✓ Provided support for over 22,000 City users and managed 200,000+ requests for IT support, advice and consultation through the I&T Service Desk.
- ✓ Provided IT Training and Education to 5900+ staff, including significant support for the implementation of the City's new E-Mail system.
- ✓ Provided support for over 22,000 desktop and notebook computers, 24,000 phones, 15,500 wireless devices, network to 650+ City facilities and 3 Data Centres 7/24/365.
 - Delivered City Network & Telecommunications Internet services 7/24/365 at 99.50% availability

- Delivered City Computing Infrastructure – Servers/Storage Platform services at 99.50% availability
- Completed Windows 7 upgrade across City desktop and notebook computers
- ✓ Maintained State of Good Repair and refreshed IT equipment across the City as part of life cycle management completing 4,000 desktops/notebooks/tablets, 192 servers, 400 printers, 550 monitors, 300 network devices and implementing a Mobile Device Management solution.
- ✓ Implemented several initiatives in support of Pan Am Games including Pan Am Sports Centre technology infrastructure design and web-based incident management system for Office of Emergency Management.

Appendix 2

2016 Preliminary Operating Budget by Expenditure Category

Program Summary by Expenditure Category

Category of Expense (\$000's)	2013	2014	2015	2015	2016	2016 Change from		Plan	
	Actual	Actual	Budget	Projected	Budget	2015 Approved		2017	2018
	\$	\$	\$	\$	\$	\$	%	\$	\$
Salaries and Benefits	79,920.5	66,528.4	94,653.8	77,275.7	96,805.7	2,151.9	2.3%	99,448.9	101,447.1
Materials and Supplies	220.5	110.8	122.4	118.5	115.1	(7.3)	(6.0%)	115.1	115.1
Equipment	546.3	620.5	1,243.2	791.2	905.4	(337.8)	(27.2%)	2,354.4	2,361.9
Services & Rents	25,582.2	24,378.8	24,903.6	25,193.4	26,439.2	1,535.6	6.2%	27,110.3	27,268.3
Contributions to Reserve/Res Funds	108.4	104.8	126.6	127.0	126.6			126.6	126.6
Other Expenditures	0.4	1.1	0.4	0.6	0.4			0.4	0.4
Interdivisional Charges	436.7	923.5	490.9	1,145.5	484.8	(6.1)	(1.2%)	484.8	484.8
Total Gross Expenditures	106,815.0	92,667.9	121,540.9	104,651.9	124,877.2	3,336.3	2.7%	129,640.5	131,804.2
Interdivisional Recoveries	12,573.4	12,906.2	13,508.9	12,872.6	14,528.4	1,019.5	7.5%	15,610.5	16,130.9
User Fees & Donations	79.2	141.8	186.1	104.2	396.9	210.8	113.3%	382.3	379.1
Transfers from Capital Fund	21,355.1	11,385.6	30,600.9	15,716.6	32,226.6	1,625.7	5.3%	30,381.6	28,586.6
Contribution from Reserve/Reserve Funds	4,234.5	1,141.0	4,220.1	3,636.8	3,705.8	(514.3)	(12.2%)	3,705.8	3,705.8
Sundry Revenues	726.3	217.6	726.3	242.5	726.3			726.3	726.3
Total Revenues	38,968.5	25,792.2	49,242.3	32,572.7	51,584.0	2,341.7	4.8%	50,806.5	49,528.7
Total Net Expenditures	67,846.5	66,875.7	72,298.6	72,079.2	73,293.2	994.6	1.4%	78,834.0	82,275.5
Approved Positions	748.0	612.0	838.0	695.0	850.0	12.0	1.4%	873.0	876.0

* Based on the 2015 9-month Operating Variance Report

For additional information regarding the 2015 Q3 operating variances and year-end projections, please refer to the attached link for the report entitled "Operating Variance Report for the Nine-Month Period Ended September 30, 2015" approved by City Council at its meeting on December 9, 2015.

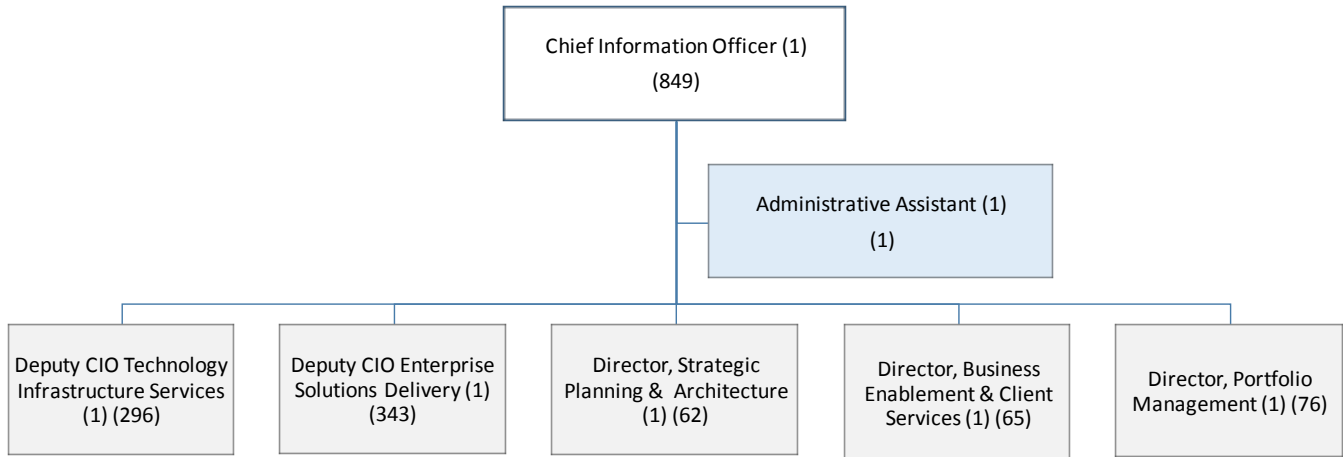
<http://www.toronto.ca/legdocs/mmis/2015/ex/bgrd/backgroundfile-85887.pdf>

Impact of 2015 Operating Variance on the 2016 Preliminary Budget

The Program has revised its expenditures based on projected spending in 2015.

Appendix 3

2016 Organization Chart



2016 Complement

Category	Senior Management	Management	Exempt Professional & Clerical	Union	Total
Permanent	6.0	121.0	96.0	408.0	631.0
Temporary			111.0	108.0	219.0
Total	6.0	121.0	207.0	516.0	850.0

Appendix 4

Summary of 2016 Service Changes

2016 Operating Budget - Preliminary Service Changes Summary by Service (\$000's)

Form ID		Internal Focused Services Program - Information & Technology	Adjustments				2017 Plan Net Change	2018 Plan Net Change
Category	Priority		Gross Expenditure	Revenue	Net	Approved Positions		
2016 Preliminary Base Budget Before Service Changes:			125,867.2	51,584.0	74,283.2	850.00	5,540.9	3,441.3

6722	Telecom Optimization Initiative
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51	0	Description:
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Optimizing telecommunication technologies will save an additional \$0.216 million net in 2016 in the final phase from lower monthly rates per phone line as a result of the new contract for voice and data services and converting over 16,000 existing Centrex telephone lines across 90 sites in the City with Unified Communication implementation to VoIP (Voice over Internet Protocol). No further savings are to be achieved.

Service Level Impact:

Service: IT-Computer & Communications Technology Infrastructure

Preliminary Service Changes	(216.2)	0.0	(216.2)	0.00	0.0	0.0
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Total Preliminary Service Changes:	(216.2)	0.0	(216.2)	0.00	0.0	0.0
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6808	Reduced Standby & Call-back Pay -TIS
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51	0	Description:
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As a result of efficiencies, through time management, reducing the standby pay and overtime budget for less critical platform, will result in savings of \$0.050 million.

Service Level Impact:

Service: IT-Computer & Communications Technology Infrastructure

Preliminary Service Changes	(25.0)	0.0	(25.0)	0.00	0.0	0.0
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Service: IT-Enterprise IT Planning & Client Services

Preliminary Service Changes	(25.0)	0.0	(25.0)	0.00	0.0	0.0
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Total Preliminary Service Changes:	(50.0)	0.0	(50.0)	0.00	0.0	0.0
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2016 Operating Budget - Preliminary Service Changes Summary by Service (\$000's)

Form ID		Internal Focused Services Program - Information & Technology	Adjustments				2017 Plan Net Change	2018 Plan Net Change
Category	Priority		Gross Expenditure	Revenue	Net	Approved Positions		
7710		HW & SW Maintenance Reduction						
51	0	Description:						

Savings of \$0.723 million from lower pricing from contract negotiations, replacement of older technologies, and efficiencies resulted in reductions in hardware and software maintenance contract costs.

Service Level Impact:

Service: IT-Business IT Solutions						
Preliminary Service Changes	(182.0)	0.0	(182.0)	0.00	0.0	0.0
Service: IT-Computer & Communications Technology Infrastructure						
Preliminary Service Changes	(389.8)	0.0	(389.8)	0.00	0.0	0.0
Service: IT-Enterprise IT Planning & Client Services						
Preliminary Service Changes	(152.1)	0.0	(152.1)	0.00	0.0	0.0

**2016 Operating Budget - Preliminary Service Changes
Summary by Service (\$000's)**

Form ID		Internal Focused Services Program - Information & Technology	Adjustments				2017 Plan Net Change	2018 Plan Net Change
Category	Priority		Gross Expenditure	Revenue	Net	Approved Positions		
		Total Preliminary Service Changes:	(723.8)	0.0	(723.8)	0.00	0.0	0.0
Summary:								
		Total Preliminary Service Changes	(990.0)	0.0	(990.0)	0.00	0.0	0.0
		Total Preliminary Base Budget:	124,877.2	51,584.0	73,293.2	850.00	5,540.9	3,441.3

Appendix 6

Inflows/Outflows to/from Reserves & Reserve Funds

Corporate Reserve / Reserve Funds

Reserve / Reserve Fund Name (In \$000s)	Reserve / Reserve Fund Number	Projected Balance as of Dec. 31, 2015 \$	Proposed Withdrawals (-) / Contributions (+)		
			2016 \$	2017 \$	2018 \$
Projected Beginning Balance			266,812.9	263,233.7	259,654.5
Insurance Reserve Fund	XR1010	25,335.2	116.2	116.2	116.2
Vehicle Reserve Fund	XQ1509	61.7	10.4	10.4	10.4
Capital Financing Reserve	XQ0011	232,041.0	(600.0)	(600.0)	(600.0)
IT Equipment Reserve	XQ1508	9,375.0	(3,105.8)	(3,105.8)	(3,105.8)
Total Reserve / Reserve Fund Draws / Contributions		266,812.9	263,233.7	259,654.5	256,075.3
Other Program / Agency Net Withdrawals & Contributions					
Balance at Year-End		266,812.9	263,233.7	259,654.5	256,075.3

Appendix 7a User Fees Adjusted for Inflation and Other

Rate Description	Service	Fee Category	Fee Basis	2015	2016		2017	2018
				Approved Rate	Inflationary Adjusted Rate	Budget Rate	Plan Rate	Plan Rate
Property data map (1:4,000)	Business IT Solutions	Full Cost Recovery	Map	4.36	4.46	4.46	4.55	4.64
Paper index map illustrating the boundaries of the PDM maps	Business IT Solutions	Full Cost Recovery	Map	27.24	27.83	27.83	28.39	28.97
Property data map (1:2,000)	Business IT Solutions	Full Cost Recovery	Map	6.53	6.67	6.67	6.80	6.94
Municipal map book-1:4,000	Business IT Solutions	Full Cost Recovery	Book	43.60	44.55	44.55	45.45	46.38
Municipal map book set - 1:4,000	Business IT Solutions	Full Cost Recovery	Map	152.58	155.91	155.91	159.06	162.30
Set of four property data map district book -1:2,000	Business IT Solutions	Full Cost Recovery	Map	1386.21	1447.59	1447.59	1476.83	1506.96
Electronic pdf municipal map book set	Business IT Solutions	Full Cost Recovery	Map	152.58	155.91	155.91	159.06	162.30
Community council boundaries & electoral wards map - 11"x17"	Business IT Solutions	Full Cost Recovery	Map	10.89	11.13	11.13	11.35	11.58
Community council boundaries & electoral wards maps - 24"x36	Business IT Solutions	Full Cost Recovery	Map	16.35	16.71	16.71	17.05	17.40
Community council boundaries & electoral wards map - 36"x70"	Business IT Solutions	Full Cost Recovery	Map	27.24	27.83	27.83	28.39	28.97
36"x60" Paper or PDF map at 1:30,000 scale or provide non-ge	Business IT Solutions	Full Cost Recovery	Map	27.24	27.83	27.83	28.39	28.97
Provide paper or electronic PDF Ward maps - 36"x26"	Business IT Solutions	Full Cost Recovery	Map	6.53	6.67	6.67	6.80	6.94
Provide paper or electronic PDF Ward maps - 11"x17"	Business IT Solutions	Full Cost Recovery	Map	5.44	5.56	5.56	5.67	5.79
Aerial photo enlargement (letter sized)	Business IT Solutions	Full Cost Recovery	Print	5.44	5.56	5.56	5.67	5.79
Aerial photo enlargement - 11"x17"	Business IT Solutions	Full Cost Recovery	Print	7.63	7.80	7.80	7.96	8.12
Electronic property data maps	Business IT Solutions	Full Cost Recovery	Map	108.98	111.36	111.36	113.61	115.93
ESM topographic mapping (electronic CAD).	Business IT Solutions	Full Cost Recovery	Sq Km.	326.92	334.05	334.05	340.80	347.75
Digital terrain model, full resolution electronic maps.	Business IT Solutions	Full Cost Recovery	Sq Km.	272.44	278.38	278.38	284.00	289.79
Parcel mapping (electronic)	Business IT Solutions	Full Cost Recovery	Sq Km.	130.78	133.63	133.63	136.33	139.11
Orthoimage 0.075m resolution quad tiles (electronic)	Business IT Solutions	Full Cost Recovery	Image Tile	27.24	27.83	27.83	28.39	28.97
Orthoimages 0.30 resolution electronic maps.	Business IT Solutions	Full Cost Recovery	Image Tile	53.32	55.68	55.68	56.80	57.96
Electronic images of 2003 aerial photos (black & white 1:6,0	Business IT Solutions	Full Cost Recovery	Image Tile	16.35	16.71	16.71	17.05	17.40
Create enterprise stereoscopic electronic models DVP - 2003	Business IT Solutions	Full Cost Recovery	Transaction	54.49	55.68	55.68	56.80	57.96
Ravine Ward Map 11"x17" PDF or Paper drawing	Business IT Solutions	Full Cost Recovery	Map	10.89	11.13	11.13	11.35	11.58
Ravine By-Law Maps 11"x17" PDF or Paper drawing	Business IT Solutions	Full Cost Recovery	Map	4.27	4.45	4.45	4.54	4.63
Provides Digital or Paper drawing	Business IT Solutions	Full Cost Recovery	Case	70.83	72.37	72.37	73.83	75.34
Archival former Toronto topographic map, 1985	Business IT Solutions	Full Cost Recovery	Map	6.39	6.67	6.67	6.80	6.94
Electoral Ward Boundaries (Paper or PDF)	Business IT Solutions	Full Cost Recovery	Map	27.24	27.83	27.83	28.39	28.97
File formats - ESRI Shape File, DGN, DWG, DXF (per dataset)	Business IT Solutions	Full Cost Recovery	Set	1386.21	1447.59	1447.59	1476.83	1506.96
File formats - ESRI Shape File, DGN, DWG, DXF (per feature)	Business IT Solutions	Full Cost Recovery	Transaction	346.56	361.90	361.90	369.21	376.74
The District Maps cover one City of Toronto District Service	Business IT Solutions	Full Cost Recovery	Map	16.00	16.71	16.71	17.05	17.40
PDM set, Street Centreline TCL, Terrain Model & Orthoimagery	Business IT Solutions	Full Cost Recovery	Package	2179.54	2227.05	2227.05	2272.04	2318.39