

TO:	CHAIR AND MEMBERS STRATEGIC PRIORITIES AND POLICY COMMITTEE MEETING ON OCTOBER 28, 2019
FROM:	MARTIN HAYWARD CITY MANAGER AND ANNA LISA BARBON MANAGING DIRECTOR, CORPORATE SERVICES AND CITY TREASURER, CHIEF FINANCIAL OFFICER
SUBJECT:	REVIEW OF CITY SERVICES FOR POTENTIAL REDUCTIONS & ELIMINATIONS – INFORMATION TECHNOLOGY SERVICES

RECOMMENDATION

That, on the recommendation of the City Manager and the Managing Director, Corporate Services and City Treasurer, Chief Financial Officer, this report **BE RECEIVED** for information.

PREVIOUS REPORTS PERTINENT TO THIS MATTER
--

Strategic Priorities and Policy Committee, meeting on May 6, 2019, agenda item 4.1 – 2020-2023 Multi-Year Budget:
<https://pub-london.escribemeetings.com/filestream.ashx?DocumentId=62405>

Strategic Priorities and Policy Committee, meeting on July 29, 2019, agenda item 4.1 – Review of City Services for Potential Reductions and Eliminations:
<https://pub-london.escribemeetings.com/filestream.ashx?DocumentId=65965>

BACKGROUND

At its meeting on July 30, 2019, Council resolved:

That the following actions be taken with respect to the review of City of London services for potential reductions and eliminations:

a) the staff report dated July 29, 2019 detailing the cost savings and avoidance initiatives ongoing and recently undertaken by the City of London BE RECEIVED for information; and

b) the following specific areas BE CONSIDERED for further review for potential service reductions and eliminations:

i) the Downtown and Industrial CIPs, with consideration for a reduced level of subsidy;

ii) Information Technology, with a report back with a summary of past initiatives and potential future review tools; and,

iii) a review of reserve funds with uncommitted balances, (excluding capital asset renewal/replacement funds, and capital asset growth funds) for an analysis of funding contributions to those funds where the annual contributions from the tax levy may be scaled back;

it being noted that the Strategic Priorities and Policy Committee received a communication dated July 25, 2019 and a verbal delegation from C. Butler, and a communication dated July 25, 2019 from W. H. Brock with respect to this matter. (4.1/16/SPPC) (2019-F05/F05A) (AS AMENDED)

This report addresses clause b) subsection ii) of the above Resolution of Council.

ITS COST SAVINGS INITIATIVES AND POTENTIAL FUTURE OPPORTUNITIES

What Have We Done?

Over the past seven years, Information Technology Services (ITS) has successfully delivered cost management actions totaling over **\$1.5 million** in ongoing savings and avoidance. Further information on the below actions has been presented in 'Appendix A'. This review has been structured using the City of London Service Review Toolkit as a framework (Appendix B).

Year	Service Review Tool	Cost Management Action	Annual Savings
2012	Organizational Reviews	<ul style="list-style-type: none"> Five management positions were cut from the ITS budget with no changes to Information Technology service delivery expectations. 	\$500,000
2014	Organizational Reviews	<ul style="list-style-type: none"> Two management positions were cut from the ITS budget with no changes to Information Technology service delivery expectations. 	\$200,000
2015	Zero- based Review	<ul style="list-style-type: none"> The ITS operating budget was reviewed and rebuilt from the ground up resulting in significant savings. These savings were reallocated to Non-ITS Corporate Strategic Priorities. 	\$320,000
2017	Program Reviews	<ul style="list-style-type: none"> ITS reviewed and re-negotiated the Corporate Mobility Contract resulting in considerable savings that were then redirected to the delivery of Non-ITS Corporate Strategic Priorities. 	\$183,000
2018	Program Reviews	<ul style="list-style-type: none"> ITS assessed and re-negotiated the Corporate Print and Print room contracts resulting in substantial savings. These savings were redirected to enhance the City of London's information security posture and respond to the increased international cybersecurity threat. 	\$200,000
2019	Zero-based Review	<ul style="list-style-type: none"> Annual Corporate technology licensing costs increase 2-6% per year. Corporate multiyear budget targets are set at 1.5%. ITS successfully responded to this cost pressure through undertaking a zero-based review resulting in the reduction of other ITS areas and the absorption of almost \$100,000 in costs. 	\$95,000
Several	Asset Reviews	<ul style="list-style-type: none"> ITS has improved the overall condition of City of London Information Technology assets and removed the infrastructure gap without incurring significant additional costs or negatively impacting service delivery. 	Capital Plan fully funded
Several	Continuous Improvement	<ul style="list-style-type: none"> As part of the ITS business management framework, ITS undertook over 150 specific actions in 2019 to increase the efficiency and effectiveness of service delivery. These process improvements resulted in the decrease of labour, reduction of overtime, and rightsizing of technological solutions. ITS removed high-cost consultants in key service delivery areas to respond to and eliminate other cost pressures. 	\$81,000
Annual Total			\$1,579,000

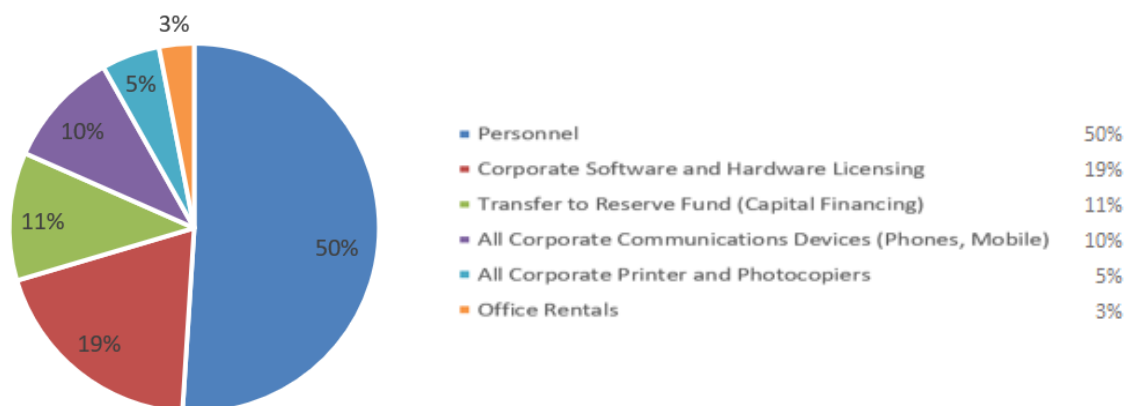
What Are the Risks?

The City of London is facing increased risk from a technological, Information Security and service delivery perspective:

- Security is a major risk that ITS faces daily.
 - ITS intercepts over 36 million vulnerability exploit attempts each year;
 - South Western Ontario recently experienced the largest number of cyber-attacks in its history;
 - Cyber-attacks in Baltimore and Atlanta have been costed in the tens of millions of dollars.
- The majority of City of London services rely on ITS delivered computer hardware and software. ITS successfully responds to over 24,000 requests for service annually; achieving a 97% customer satisfaction level and a computing uptime of 99.97%
- Public discussion on the value of the ITS service, while welcomed, does create uncertainty for the staff which affects the retention and/or attraction of the necessary qualified staff in a very competitive market.
- The cost associated with maintenance of systems, especially those on the cloud continues to escalate at a significant rate.

What Are the Costs?

The following represents the six largest cost centers in the ITS budget accounting for 98% of all ITS expenditures:



- Within the personnel line, non-unionized and unionized staffing ratios have remained consistent over the last ten years at approximately 70% union and 30% non-union.
- When 2010 is compared to 2019, a total of four union resources and four non-union resources have been added primarily to respond to the evolving cybersecurity threat and to deliver Council approved significant new technology projects for City of London Service Areas. Examples include the Transportation Intelligent Mobility Management System (TIMMS) and the Computerized Maintenance Management System (CMMS).
- Between 2015 and 2019, ITS delivered over 300 digital solutions.
- The majority of digital solutions were delivered with existing staffing levels.
- The capacity to deliver these new projects was realized through the implementation of operational and project management best practices.

How Do We Compare?

To support Financial and Human Resource planning, ITS has also undertaken budget and staffing ratio benchmarking:

Benchmark	City of London ITS	Comparator	Impact
IT Spending as a % Revenue - Government	1.15%	2.5% ¹	The City of London would need to increase the ITS budget by \$19 million to meet the Computer Economics benchmark.
IT Staffing Ratios - State and Local Government	2.92%	3.6% - 4% ²	The City of London would need to add 21 ITS employees to reach 3.6% or 34 employees to reach 4% to meet Gartner benchmarks.

1. Computer Economics, *IT Spending & Staffing Benchmarks 2018/2019 – Chapter 16 Government Sector Benchmarks*.
2. Gartner, *IT Key Metrics Data 2019: Key Industry Measures: Government – State and Local Analysis: Multiyear*.

CONCLUSION

ITS has successfully delivered cost management actions totaling over \$1.5 million in ongoing savings and avoidance using a broad range of Service Review Tools. To continue to manage costs and as outlined further in 'Appendix A', ITS will zero-base the budget as part of each Multi-year budget process, further evolve the business management framework and Program Review undertakings, institute a new strategic approach to procurement, broaden the implementation of Continuous Improvement to all ITS employees and further manage the risk based relationship between public service delivery and the increasing cybersecurity threat.

PREPARED BY:	
MAT DALEY MB, MPA, PMP DIRECTOR, INFORMATION TECHNOLOGY SERVICES	
RECOMMENDED BY:	RECOMMENDED BY:
ANNA LISA BARBON, CPA, CGA MANAGING DIRECTOR, CORPORATE SERVICES AND CITY TREASURER, CHIEF FINANCIAL OFFICER	MARTIN HAYWARD, CPA, CGA CITY MANAGER

Appendix A - ITS COST SAVINGS INITIATIVES AND POTENTIAL FUTURE OPPORTUNITIES

Zero-Based Budgeting

Key Outcome: ITS undertook two zero-based reviews between 2015 and 2019 resulting in \$415,000 in annual savings.

In 2015, \$320,000 in annual savings was identified in ITS and reallocated to the Multi-year base budget. In 2019 and on an annualized basis, \$95,000 was absorbed within the ITS budget to balance the 1.5% City of London budget target with vendor driven 2-6% increases in Corporate technology licensing and maintenance costs.

As part of the ITS financial strategy and with the support of Finance, ITS will continue to zero-base the ITS budget at the beginning of each Multi-year Budget process.

Program Reviews

Key Outcome: ITS led program reviews have realized \$383,000 in ongoing annual cost savings and avoidance.

ITS has been identified as a corporate leader in Business Planning, Key Performance Indicator (KPI) Management and Efficiency and Effectiveness driven service improvement. The ITS business management framework has been adopted by other City of London Service Areas to support the effective delivery of service. Since 2014, an annual program review of the sixteen work areas within ITS has been undertaken as part of our business management process. Through the ITS business management framework, the review of over 200 KPIs on a monthly basis works in concert with the delivery of 172 efficiency and effectiveness undertakings resulting in ongoing service improvement.

Building on this business management framework, ITS reviewed and renegotiated the Corporate Mobile Devices and Services contract resulting in \$150,000 annual savings and \$33,000 in cost avoidance. ITS has also reviewed and renegotiated the Corporate print contract multiple times in the last three years resulting in over \$200,000 of annual cost avoidance.

ITS will continue to iterate and improve program reviews within the ITS business management framework resulting in efficiency and effectiveness gains. ITS will employ a cost certainty focused procurement strategy by leveraging Federal and Provincial Vendor of Records (VoR). ITS and Purchasing and Supply have created a new strategic procurement approach associated with VoR benchmarked RFPs that could yield additional cost savings.

Continuous Improvement

Key Outcome: ITS has undertaken 172 Efficiency and Effectiveness and thirteen Lean Six Sigma specific actions resulting in \$81,000 in annual cost avoidance.

ITS has been identified as an early adopter of Continuous Improvement – Lean Six Sigma. Since 2014, ITS has taken a Service Area wide approach to driving continuous improvement. In 2019, ITS worked closely with the City Manager's Office to train all ITS managers in Lean Six Sigma best practices and identify thirteen additional processes for improvement. These best practices were then adopted in the ITS business management framework with an expectation that elements of all 16 ITS work areas will undertake Continuous Improvement reviews on an annual basis.

This service area wide adoption and direct connection of Continuous Improvement best practices to annual business planning is the first of its kind at the City of London. Key Continuous Improvement reviews were completed in the ITS Hardware and Division Support work areas yielding \$81,000 in annual cost avoidance.

Defects are identified as a waste in the Lean Six Sigma methodology and are addressed by ITS through our Customer Satisfaction Surveys. ITS provides the opportunity for feedback on all operational touch points with customers. ITS receives over 1700 completed surveys per year and in 2018 achieved a 97% satisfaction rating. All surveys yielding negative results are investigated by ITS management to ensure customer satisfaction and address any potential systemic concerns.

Wasted time and effort are identified as a waste in the Lean Six Sigma methodology and are addressed by ITS through a robust resource management program and system. ITS line managers, Business System Analysts and Hardware Service Technicians must account for their time on an hourly basis based on task assignment. This insight into labour allocation allows for focused follow-up should time waste be occurring while also providing aggregated information to support business planning, scheduling and strategic pivots.

Unused talent is identified as a waste in the Lean Six Sigma methodology and is addressed at ITS through a transparent and expectation driven performance management process. The ITS performance management process has been identified by Human Resources as a leading practice and is currently being augmented for use across the Corporation.

Through the ITS business management framework and with the help of the City Manager's Office, ITS will continue to iterate and improve the Continuous Improvement based elements identified above. Continuous Improvement training and direct involvement will be extended beyond Management to all ITS team members. ITS will undertake third-party resource management reviews focusing on the wastes identified in the Lean Six Sigma methodology.

Internal Audit

Key Outcome: All currently identified ITS audit observations have been completed and signed-off by Deloitte.

Through the internal audit process, Deloitte reviewed and prepared two reports associated with Project Management in April of 2019.

1. ITS Portfolio Management and Project Management – Project Compliance
2. ITS Portfolio Management and Project Management – Methodology Maturity

The first report reviewed the ITS project management process and identified three medium priority observations for ITS to address. All three of the identified medium priority observations were addressed on-time and signed-off by Deloitte.

The second report reviewed project management from a broader Corporate perspective and identified one high priority observation. The conclusion of this Deloitte audit was as follows:

“The project management function within ITS is reaching a point where further efforts to mature the process will not result in significant benefits, unless the non-ITS functions of a PM methodology are implemented. Two options are available to further mature the current methodology: Option One (preferred), implement an organizational level Project Management Office (PMO); or Option Two, obtain greater non-ITS commitment to the current methodology.”

The Project Management Institute (PMI), a worldwide authority on project management, has determined that inadequate project management increases average project costs by 12%. ITS has implemented a PMI project management model from a service delivery and education perspective resulting in the highest concentration of certified Project Management Professionals (PMP) in the Corporation.

Further to the Summary 2019-2021 Audit Plan by Audit Universe Area presented by Deloitte, ITS will be involved in nine corporate audit items during this time period. ITS will be involved in 35% of all corporate audit items during the 2019-2021 time period. The ITS operating budget accounts for 2.7% of the operating budget of the City of London.

Organization Reviews

Key Outcome: ITS has successfully completed three Organizational Reviews in the past seven years resulting in \$700,000 in annual savings.

To ensure ITS organizational structure aligns with Council Strategy, service delivery expectations, industry changes and resourcing, Organizational Reviews were undertaken in 2012, 2014 and 2017. The 2012 and 2014 Organizational reviews resulted in a complete overhaul of how ITS is structured. Analysis was undertaken to best connect technical and customer needs with ITS resources and expertise. These reviews resulted in an annual savings of \$700,000.

The 2017 Organizational review was in response to the ever-evolving Information Security threat environment. On an annual basis the City of London experiences over 36,000,000 confirmed vulnerability exploitation attempts on our systems and this number is expected to increase annually. To respond to this environmental change and associated threat, greater focus and additional resources were dedicated to the Information Security and Network Services work areas of ITS.

Given the nature of the Technology Industry, and as seen in the above actions, ITS will continue to monitor shifts and changes from a Council Strategy, service delivery expectation, industry trends and resourcing perspective. In response to these shifts, ITS will undertake additional organizational reviews.

Asset Reviews

Key Outcome: Through the implementation of thoughtful financial, technical and project planning, ITS has improved the overall condition of City of London Information Technology Assets without incurring significant additional costs or negatively impacting service delivery.

Result	ITS 2014	ITS 2019
Percent of assets in Good or Very Good condition	38%	61%
Percent of assets in Poor or Very Poor condition	17%	9%

ITS will continue to work with Corporate Asset Management (CAM) and Finance to ensure lifecycle driven Capital and Operating budgets are closely aligned with asset condition resulting in a reduction in the probability of public service disruption.

Cybersecurity Risk Management

In addition to the cost savings, cost avoidance and continuous improvement actions identified in this report, it is essential to also articulate the work of ITS to reduce and manage cybersecurity risk. The direct financial impact and service delivery disruption that can be caused by malware, ransomware, phishing and data breaches can be expressed in a financial range from thousands of dollars to the tens of millions. Recent cybersecurity events in Atlanta and Baltimore have been estimated at a cost of \$17 million and \$18 million, respectively. Unfortunately, there is no 'safe harbour' free from Information Technology risks: all systems have vulnerabilities. The ITS team works closely with cybersecurity experts to mitigate risk to the degree that is feasible while balancing service delivery expectations and resourcing. These actions serve to reduce overall Information Technology risk and potential financial impacts.

APPENDIX B – CITY OF LONDON SERVICE REVIEW TOOLKIT

Service Review Tool	Description	Purpose
Lean Six Sigma	<p>Lean Six Sigma (LSS) is defined as a set of concepts, principles and tools used to create and deliver the most value from the customer’s perspective while consuming the fewest resources and fully utilizing the skills and knowledge of those who do the work.¹</p> <p>The City’s LSS initiative is based upon a team structure where members work collaboratively to identify opportunities for improvement in service delivery and operational practices to increase efficiency, capacity and quality of the product or service.</p>	<p>LSS identifies and eliminates unnecessary steps, streamlines processes and ultimately improves value for the end users (our customers).</p> <p>LSS aligns with Council’s 2019-23 Strategic Plan vision, mission and values, as well as the strategy to “Promote and strengthen continuous improvement practices” under the “Leading in Public Service” strategic area of focus.</p>
Internal Audit	<p>Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization’s operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.²</p>	<p>Assist Civic Administration, Audit Committee and Council in fulfilling their oversight responsibilities.</p> <p>Provide independent, objective audit and advisory services designed to add value and improve the effectiveness of the City’s control, compliance and governance processes.</p>
Zero-based Budgeting	<p>Zero-based Budgeting (or Zero-based Reviews) refers to the methodology of building a budget “from the ground up” to achieve the level of service planned. Zero-based Reviews are scalable and may be conducted at the service, business unit or object account level.</p>	<p>Identification of the necessary resources to deliver the unit’s objectives/outcomes asking the following questions:</p> <ul style="list-style-type: none"> • Is the program/service effective? – Are we doing the right thing? Is the service achieving the objectives desired by Council or the Administration? • If effective, is the program/service efficient? – Are we doing things in the right way? Could this program be delivered in a way that is less costly, but achieves the same goals? <p>Avoids an “incremental increase” budget approach.</p> <p>Identify opportunities to reallocate budget to higher priority corporate initiatives (i.e. Service Review Targets).</p>

¹ As defined by the Lean Enterprise Institute.

² As defined by the Institute of Internal Auditors.

Service Review Tool	Description	Purpose
Program Reviews	Program Reviews refers to the detailed analysis of existing programs (e.g. grants, loans, revenue streams) provided and/or delivered by the Corporation.	<p>Determine the alignment of the program being reviewed with the Corporation's Strategic Plan.</p> <p>Assess the effectiveness and efficiency of the program in achieving the stated goals and associated key performance metrics of that program. Consider the financial sustainability of the program.</p>
Organizational Reviews	Organizational reviews help ensure Service Area organizational structures are designed to be able to deliver on Council's Strategic Plan, leverage best practices, enhance collaboration and eliminate duplication within and across Service Areas with the goal to create effective and efficient organizational structures that provide optimum service delivery and flexibility for future growth and increased work demands.	<p>Refine our structure to ensure it aligns and supports Council's Strategic Plan.</p> <p>Instil clarity of focus and accountability by clearly defining roles and responsibilities.</p> <p>Eliminate duplication and confusion in service delivery including examining forms of alternate service delivery.</p> <p>Promote efficiencies and effectiveness by bringing activities that require co-ordination together under one Division/Service Area with clear boundaries and defined processes.</p> <p>Ensure both internal and external models for delivering services are aligned and mutually supportive with clearly defined roles.</p>
Asset Reviews	Administration is undertaking a comprehensive review of major City-owned assets to assess the future of the assets and whether any candidates for disposal/sale emerge for Council consideration.	<p>Establish a Council policy to inform the allocation of proceeds from the sale of a major asset.</p> <p>Establish a clear timeline for future reviews of City-owned assets.</p> <p>Review two categories of assets:</p> <ul style="list-style-type: none"> • Class A (Vacant Land and Buildings) • Class C (Major Venues, Non-Core Services and Assets)
"Deep Dive" Reviews	"Deep Dive" Reviews examine service delivery and opportunities for associated cost savings. Reviews will be prioritized based on a review of baseline information and community perspectives.	<p>Comprehensive review of City of London services to examine the following:</p> <ul style="list-style-type: none"> • Levels of service and possible service level adjustments • Alternative service delivery opportunities • Potential service reductions or eliminations