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ASSET MANAGEMENT PLAN

INFORMATION TECHNOLOGY

2024

OWENSOUND.CA

1.0 Introduction

The City's Information Technology (IT) asset management report card includes assets that support the provision of administrative and corporate-wide services, and technology solutions that support service delivery.

The City's IT services is broken out into 3 asset classes and includes the following:

- **Computer Hardware** - all physical devices used in computing, such as desktops, laptops, monitors and tablets.
- **Network Hardware** - equipment that facilitates network connectivity and communication, including routers, switches, firewalls, and access points.
- **General Hardware** - devices like cellphones, cameras, and printers, essential for organizational operations.

The City also runs various software and licensing to support the City operations, however, since software isn't a physical asset with a defined useful life, it won't be included in this plan. The City is looking into ways to incorporate software and licensing in future versions of the plan.

2.0 State of Infrastructure

2.1 Inventory

The IT asset registry is being updated at the time of this report, and all assets may not be captured in this asset management plan. Future plans will have a comprehensive, accurate inventory.

Table 2.1.1 summarizes the IT inventory by asset class.

Table 2.1.1 IT Inventory

Asset Class	Asset Type	Current Inventory
Computer Hardware	Desktops	32
	Laptops	63
	Monitors	221
	Tablets/iPads	17
	Docking Stations	60
Network Hardware	Servers	4
	Storage	2
	Firewalls	7
	Switches	44
	Fibre	Not currently tracked
	Wi-Fi Access Points	41
General Hardware	Printers/Copiers/Scanners	Not currently tracked

	Cameras	Not currently tracked
	Cell phones	73

2.2 Valuation

Replacement Cost Valuation

The 2024 replacement costs were determined based on estimated replacement value, historical costs updated by inflation, market research, and other industry standards. Assets that are not currently tracked, such as switches, and Fibre, are not included in the replacement cost. The estimated replacement cost of the City’s IT equipment in 2024 dollars is \$642,525.

Table 2.2.1 IT Replacement Valuation

Asset Class	Unit Replacement Cost	Replacement Cost	% of Total Value
Computer Hardware	Pooled	\$248,105	39%
Network Hardware	Pooled	\$365,220	57%
General Hardware	Pooled	\$29,200	5%
	Total	\$642,525	100%

2.3 Assessment Approach

The City does not currently undertake third-party or internal condition inspections for its IT assets. Therefore, the condition of these assets is estimated using the remaining useful life (RUL) method. It is important to note that the RUL method used to determine the condition is solely age-

based and does not consider any maintenance activities undertaken to extend the useful life of the assets. The confidence in the accuracy of the condition with this method is low.

Table 2.3.1 IT Assets Condition Rating

Rating	RUL % (Age Based)
Very Good	95-100
Good	80-94
Fair	40-79
Poor	10-39
Very Poor	<9

2.4 Asset Condition Assessment

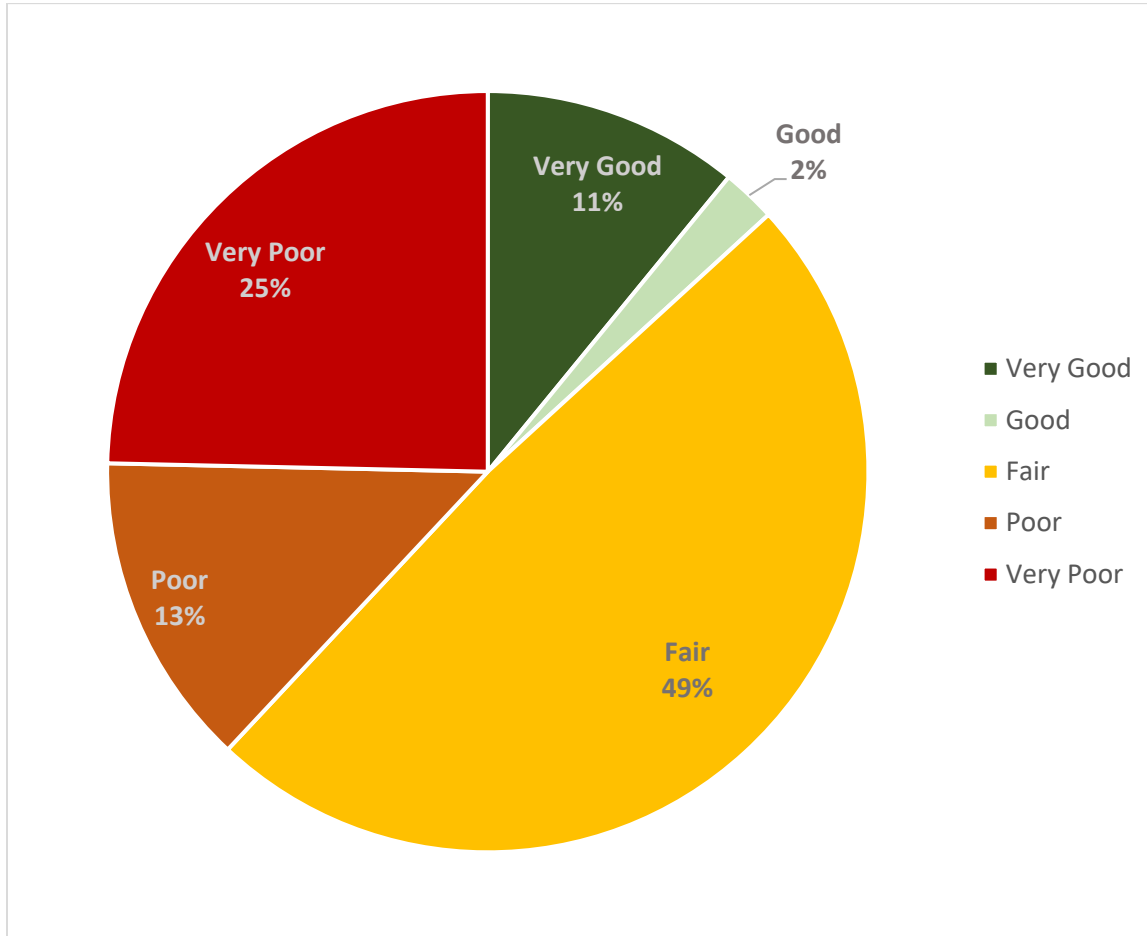
The table below provides the pooled condition score of IT assets by class determined through the RUL method. Specific to IT, assets are often promptly replaced at the end of their useful life due to the substantial decrease in productivity and functionality of these assets, affecting daily operations. Additionally, due to their short lifespan, many assets are due for replacement each year, and the overall condition of each asset class changes frequently. For example, an asset with a 3-year life span will drop to poor in year 2 with the current condition system.

Table 2.4.1 IT Condition Assessment

Asset Class	Condition Score	Condition System
Computer Hardware	Fair (50%)	RUL (Age Based)
Network Hardware	Fair (74%)	RUL (Age Based)
General Hardware	Poor (16%)	RUL (Age Based)

A pie chart breaking out the assets by condition for the IT assets is shown in Chart 2.4.1 below.

Chart 2.4.1 Visual IT Network Condition Assessment



The State of Assets with the most recent 2024 data, indicates that 13% of IT Assets are in very good or good condition, 49% are in fair condition, and 38% are in poor or very poor condition.

2.5 Useful Life

The useful life of the IT assets will vary by component. The nature of IT assets makes it so that maintenance activities do not significantly extend their useful life. As noted previously, IT assets are often replaced promptly at the end of their useful life due to the substantial decrease in productivity and functionality of these assets. It is possible to have some assets, such as computer monitors, that exceed the lives defined and some that require replacement before the end of their anticipated life.

Table 2.5.1 outlines the anticipated useful life for each asset class. These lives are used for PSAB purposes and align with the Municipality's tangible capital asset (TCA) policy.

Table 2.5.1 Useful Life by Asset Class -

Asset Class	Anticipated Useful Life (years)
New Asset / Replacement	
Computer Hardware	5
Network Hardware	3-7
General Hardware	3-5

3.0 Level of Service

Unlike the 2022 Asset Management Plan for Core Assets (roads, bridges, stormwater, water, and wastewater), O. Reg. 588/17 does not identify requirements for reporting on non-core Levels of Services such as IT.

As a result, the only measurable LOS statement currently available is based on the condition of the assets. Until more comprehensive LOS targets are developed, using asset condition as a key indicator will help guide strategic planning and resource allocation.

The following table shows the current performance of the level of service statement developed.

Strategic Priority/Values	Level of Service Statement	Technical Level of Service	Current Performance	Target Performance
Service Excellence	Assets are maintained	% of IT assets in	62%	TBD

	in a state of good repair and are reliable.	fair or better condition.		
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The City will need to consider the development of both Community and Technical Levels of Services to be maintained by the City as it continues to develop its asset management program. The 2025 asset management plan will outline the proposed levels of service as defined by City Council.

3.1 Corporate Objective

The corporate objective of Information Technology at the City is to provide innovative, reliable, and secure technology solutions that enhance municipal operations and improve service delivery to residents, businesses, and visitors. IT aims to leverage digital tools to support efficient governance, ensure data integrity, and drive continuous improvement in public services, fostering a connected and sustainable community.

3.2 Legislative Requirements – General

Legislative requirements impacting the use and management of IT services frequently originate from the various City departments that the IT assets support. A non-exhaustive list of these are as follows:

- Municipal Freedom of Information and Protection of Privacy Act (MFIPPA)
- Accessibility for Ontarians with Disabilities Act (AODA)
- Electronic Commerce Act, 2000
- Bill 194 – Enhancing Digital Security and Trust Act

4.0 Asset Management Strategy

4.1 Lifecycle Activities and Planned Actions

To effectively maintain the IT assets at the established service levels, they require the appropriate maintenance or rehabilitation strategy applied throughout an asset’s lifecycle. There are six lifecycle maintenance

strategies considered in the overall sustainable management of IT assets, described in Table 4.1.1 below.

Table 4.1.1 Lifecycle Activities - IT

Activities	Planned Actions	Lifecycle Activities
Non-infrastructure Solutions	Actions or policies that can lower costs or extend life and can include adjustments to levels of service	<ul style="list-style-type: none"> • Needs Studies
Maintenance	Regularly scheduled inspection and maintenance, or more significant repair and activities associated with unexpected events.	<ul style="list-style-type: none"> • Manufacturer Maintenance Guidelines • Hardware Enhancements
Renewal/Rehabilitation	Significant repairs designed to extend the life of the asset.	<ul style="list-style-type: none"> • Fibre Network Infrastructure Upgrades
Replacement	Activities that are expected to occur once an asset has reached the end of its useful life and renewal/rehabilitation is no longer an option.	<ul style="list-style-type: none"> • Condition Based Replacement
Disposal	Activities associated with disposing of an asset once it has reached its useful life, or is otherwise no longer needed by the municipality.	<ul style="list-style-type: none"> • Secure disposal through the Municipal Information Systems Association (MISA)

Activities	Planned Actions	Lifecycle Activities
Expansion	Planned activities required to extend services to previously unserved areas – or expand services to meet growth demands.	<ul style="list-style-type: none"> <li data-bbox="1117 422 1230 453">• N/A

4.2 Risks Associated with the Strategy

The City does not currently have a corporate risk management strategy or risk profiles for assets. It is recommended that the City develop a corporate wide risk management toolkit for the next Asset Management Plan update in 2025.

Risks associated with not completing the above lifecycle activities is as follows:

Needs Studies

Without regular needs studies, the city could miss critical insights into evolving technology requirements. This oversight makes it difficult to plan for future upgrades and expansions accurately, potentially leading to misaligned investments and the inability to address emerging challenges effectively.

Manufacture Guideline Maintenance

Ignoring manufacturer maintenance guidelines may lead to premature hardware failures and increased downtime. This compromises the reliability of IT systems, making them more prone to breakdowns and potentially leading to costly emergency repairs.

Hardware Enhancements

Delays in hardware enhancements can mean operating on outdated and less efficient technology. This reduces the productivity and functionality of the services provided, preventing the municipality from leveraging new capabilities and efficiencies that modern IT infrastructure can offer.

Network Upgrades

Failing to complete fibre network infrastructure upgrades can result in network unavailability, slower connectivity, and potential data transmission issues. This negatively impacts municipal operations and citizen services, leading to inefficiencies and potential dissatisfaction among residents who rely on swift and reliable digital communications.

Condition Based Replacements

Neglecting condition-based replacements can lead to continued reliance on deteriorating assets. This escalates repair costs and poses a significant risk of sudden system breakdowns that disrupt daily operations, further stressing the importance of timely and condition-based asset renewal strategies.

Secure Disposal

Insecure disposal practices not in compliance with MISA standards can result in data breaches and non-compliance with data protection regulations. This not only risks legal repercussions but also erodes community trust if citizen data is compromised due to poor asset disposal protocols.

4.3 Lifecycle Analysis

The City does not have a defined lifecycle strategy implementation plan for its non-core assets. The above lifecycle activities are typically undertaken as needed, rather than within a predetermined timeframe, usually when an asset begins to deteriorate or fail. These strategies are prioritized through the capital and operating budget processes, guided by needs studies, the IT strategy, and internal assessments that help identify the needs of the IT assets.

During the capital budget process, staff identify the most cost-effective options for completing projects while maintaining the current level of service.

It is recommended to develop a comprehensive lifecycle strategy aligned with the levels of service for non-core assets in the future when the proposed levels of service are defined in the 2025 asset management plan, through consultation with Council. This strategy will be crucial to ensure a systematic approach to asset management, allowing for proactive maintenance and timely upgrades. By aligning the strategy with the established levels of service, the City can optimize resource allocation,

minimize unexpected failures, and maintain infrastructure quality, ultimately leading to cost savings and improved public satisfaction. It is important to note that balancing these costs within the City's budgets may necessitate reducing levels of service and seeking additional funding sources.

5.0 Financing Strategy

5.1 Annual Funding vs Investment Required

O. Reg. 588/17 requires the Municipality to identify the cost of the lifecycle activities that would need to be undertaken to maintain the current levels of service for each of the ten years following the year for which the current levels of service are determined along with the costs of providing those activities.

The below chart outlines the 10-year lifecycle costs of IT network assets currently being funded:

Funding

Table 5.1.1 Annual Funding – IT

Activities	Annual Costs (\$)										
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Non-Infrastructure Solutions	200,000	35,000	-	-	-	-	-	-	-	-	-
Maintenance	101,000	103,525	106,113	108,766	111,485	114,272	117,129	120,057	123,059	126,135	129,289
Renewal/Rehabilitation	-	-	-	-	-	-	-	-	-	-	-
Replacement	268,500	117,000	100,100	175,400	-	248,700	151,617	151,617	151,617	151,617	151,617
Disposal	-	-	-	-	-	-	-	-	-	-	-
Expansion	-	-	-	-	-	-	-	-	-	-	-
Total	569,500	255,525	206,213	284,166	111,485	362,972	268,746	271,674	274,675	277,752	280,905

The City's IT program is structured in a more ideal fashion than other asset portfolios in that the use of technology is relatively new compared to many other assets and is used by every department. The City uses a financing model that collects fees from all user departments with technology and includes consideration for both operating and capital needs.

The average annual investment, as included in the City's annual operating budget, approved multi-year capital plan, and adjusted for the five years outside of the multi-year capital plan is \$ 287,601.

Non-Infrastructure Solutions is derived from the Multi-Year Capital Plan, and operating budget, where applicable and are identified in the lifecycle strategy section above. Maintenance costs have been

determined through the 2024 Operating budget and are inflated by 2.5% each year for the period of this plan. Renewal/Rehabilitation costs will be derived from the Multi-Year Capital Plan as the City better defines these activities in future capital detail sheets. For the purposes of this report, these activities have been identified as replacement activities. Replacement costs have been taken from the Multi-Year Capital Plan. The multi-year capital plan is approved out to 2029. To forecast the subsequent years, an average of the previous years was used for the final five years of this plan.

Investment Required

The below chart outlines the 10-year annual investment required to maintain the current level of service of IT network assets.

Table 5.1.2 Annual Investment Required - IT

Activities	Annual Costs (\$)										
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Non-Infrastructure Solutions	200,000	35,000	-	-	-	-	-	-	-	-	-
Maintenance	101,000	103,525	106,113	108,766	111,485	114,272	117,129	120,057	123,059	126,135	129,289
Renewal/Rehabilitation	-	-	-	-	-	-	-	-	-	-	-
Replacement	268,500	117,000	100,100	175,400	-	248,700	151,617	151,617	151,617	151,617	151,617
Disposal	-	-	-	-	-	-	-	-	-	-	-
Expansion	-	-	-	-	-	-	-	-	-	-	-
Total	569,500	255,525	206,213	284,166	111,485	362,972	268,746	271,674	274,675	277,752	280,905

Currently, the City's IT portfolio is adequately funded. As mentioned, The City uses a financing model that collects fees from all user departments with technology and includes consideration for both operating and capital needs. However, continued work is required to further build out and componentize the asset database to reflect the useful lives of smaller components.

5.3 Annual Funding vs Annual Investment Required Analysis

With the current financing model It employs, there currently is no funding gap. Each level of service need is currently being met through collecting fees from user departments with technology. It is important to note that this is based on meeting the current level of service activities.

5.4 Lifecycle Financing Strategy Limitations

The Lifecycle Financing Strategy has been developed on the current levels of service and programs being delivered by the Municipality. This model implies that these practices have been in place since the installation of the assets and does not recognize the impacts of previous investments that have resulted in the current system condition, nor does it take into account any backlog. Additionally, the current strategy was produced with the limited data available, and therefore, there are inaccuracies with the number of assets, and there may be inaccuracies in replacement costs, end of useful life, replacement timing, etc.

6.0 Improvement Plan and Recommendations

The following recommendations are based on the review of current management practices; and inventory, valuation and condition analysis.

Table 6.0.1 Asset Management Planning Recommendations – IT Network

	Recommendations
1.	Collect all IT assets and create a comprehensive asset register prior to the 2025 asset management plan.
2.	Continue to utilize needs studies to inform future IT infrastructural plans.
3.	Develop a schedule for regular hardware upgrades and enhancements to keep the technology up to date.
4.	Explore the feasibility and effectiveness of maintaining a redundancy register, to minimize downtime and inefficiencies.