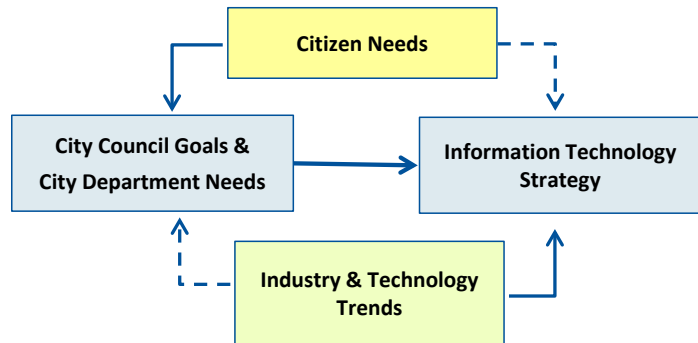


EXECUTIVE SUMMARY

The purpose of this document is to communicate the City of Cambridge Information Technology Strategy. It is intended to articulate how IT is being leveraged to enable and support the City's strategic priorities both today and over the next several years.

The IT Strategy is aligned with and driven by Cambridge's City Council goals. This alignment ensures IT priorities and investments are in direct support of the City's goals and provides a foundation to enable growth, stability and innovation. The IT Strategy reflects technology solutions and investments that are consistent with and leverage today's emerging technology and industry trends.



CITY COUNCIL GOALS

The City of Cambridge has eight key strategic goals:

- **Foster community** and support **neighborhood vitality**. Support opportunities for citizens to participate and to know each other within their neighborhoods and across the city;
- Evaluate City expenditures with a view of maintaining a **strong fiscal position** and awareness of the **impact on taxpayers** while providing a **high quality array of city services**;
- Strengthen and support **human services, public education and out of school learning** in Cambridge for the benefit of residents of all ages;
- Value and support the racial, socio-economic, cultural and religious **diversity** of our city;
- Promote **public safety** and address the challenges and opportunities for **multiple modes of transportation** to safely share roads and sidewalks;
- Promote a healthy community and environment to advance Cambridge as a leader in **public health and environmental sustainability**;
- Preserve and create **affordable housing** across the City for low, moderate and middle-income families and other residents; and
- **Promote doing business** in Cambridge and work to strengthen our mutually beneficial **partnerships with businesses and universities**.

Outreach activities conducted in 2013, including a Citizen's IT World Café and Citywide departmental technology survey, resulted in broad participation among Cambridge residents as well as employees across city departments. This feedback served as valuable input used to shape and validate the City's strategic direction and priorities for IT.

The Citywide departmental technology survey conducted in the Fall of 2013 was used to examine the current use of, as well as, the potential use of technology across the city. The survey, completed by 36 departments and the School Department, consisted of the following sections: (a) Fiscal questions; (b)

Human resource questions; (c) Managing workflow, Geographic Information Systems (GIS) & collaboration questions; (d) Public information and community engagement questions; (e) Hardware and network questions; and (f) Department specific and moving forward questions. The results of the survey validated the need to increase automation, reduce paperwork and streamline processes.

IT STRATEGIC IMPERATIVES

The City Council goals serve as the foundation for Cambridge's strategic direction and supporting plans. ITD plays an important role by providing the critical IT capabilities to enable the business activities required to achieve these goals.

With a clear understanding of the City's strategic goals, a focused set of IT strategic imperatives have been defined to outline what ITD must do to support the City without regard to how.

- Contribute to City and department leadership as a strategic advisor;
- Co-create innovative technology products/solutions across the city;
- Assess requirements from a Citywide perspective to maximize use and investment in technologies;
- Provide reliable, flexible, integrated and scalable technology platforms;
- Increase automation to reduce paperwork and streamline processes;
- Enable digital channels, social media and new technology for City relevancy and citizen value;
- Provide access to accurate, relevant, timely shared & secure data at point of need;
- Establish clear operating principles for distributed responsibility and shared decision making;
- Consistently and successfully execute projects of varying complexity with department sponsor(s); and
- Effectively partner with vendors and external service providers to complement internal capabilities.

Each imperative addresses one or more of the City's goals, and all of the City's goals are addressed by one or more of the IT strategic imperatives. In this way, the City can be assured that investments and actions in support of these IT strategic imperatives will directly support the City's strategic goals.

IT PRINCIPLES

The City has adopted a clear set of principles to guide IT related decisions, investments and actions across all departments:

- The City Governance body will be informed of all key technology investments and will communicate decisions about funding for technology investments in an open, clear format;
- IT investments that exhibit citywide contribution and applicability will be given strong consideration of funding prioritization;
- The City will allocate an annually determined % of the IT budget for each of IT's core missions: Run , Grow/Enhance, and Transform;
- The City will provide high-value applications and services that are secure and do not negatively impact overall IT infrastructure and, where possible, support environmental sustainability;
- The City will aim to buy IT solutions or services from financially stable, experienced vendors, where possible;

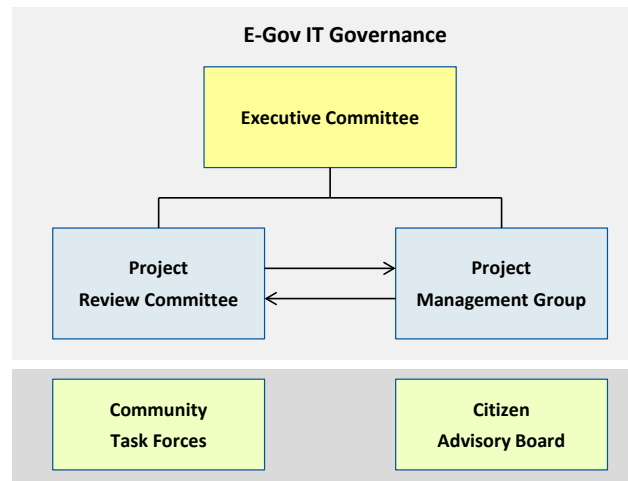
- The City prefers technologies and services that are mature, stable, secure and proven in the field. Less mature, stable, secure and proven technologies will be considered when deemed low risk; and
- The City will prepare regular progress reports for Run, Grow, Enhance and Transform investments to ensure investments deliver value to the City. Key metrics will be reviewed when available.

IT GOVERNANCE

The City of Cambridge has implemented a new IT Governance Model (EGov). The goal of this Governance Model is to ensure that IT spending decisions reflect the goals of the City Council and help achieve clearly articulated principles and criteria that meet the needs of the organization. This governance process results in recommendations to fund critical IT needs to keep the organization running, in addition to new initiatives that will help the City grow and transform practices.

The City’s E-Gov IT Governance Model establishes a transparent, informed, accountability framework to ensure IT related decisions and investments are made by the right parties, with the benefit of the right input, and are communicated to all appropriate stakeholders.

The governance structure consists of three committees – the Executive Committee, Project Review Committee, and Project Management Group that work collaboratively to ensure IT spending decisions reflect the goals of the City Council and help achieve clearly articulated principles and criteria that meet the needs of the City as an organization. In addition, community advisory groups provide valuable input into the City’s IT strategy and portfolio of investments.



Executive Committee

- Serves as the primary decision-making body for IT investments in the City;
- Prioritize approved projects and determine if and when projects and change requests will be funded based on established evaluation criteria;
- Maintain distribution of “Run, Grow, Transform” projects in alignment with agreed-upon allocation ranges;
- Review lessons learned for “Grow” and “Transform” projects to inform future IT investments;
- Align technology initiatives and investments with the City strategy and portfolio;
- Ensure a steady flow of communications. Communicate strategy and committee investment decisions to stakeholders to create understanding at all levels of the enterprise about which investments have been approved;
- Ensure the progress of technology projects, services and investments at the strategic level are successful. Resolve issues that impede the effective delivery of investments; and

- Explore opportunities to tap into the Cambridge educational and technology ecosystem, as well as leverage Commonwealth or other municipal IT services to foster innovation and maximize use of available resources.

Project Review Committee

- Ensure new IT projects and project change requests align with IT Principles;
- Analyze proposed projects to assess cross-departmental impacts, resource needs, and impact to current capacity;
- For IT projects that require funding or a level of effort lower than a defined threshold, or which do not involve key technologies: approve or deny new IT project requests and major change requests;
- For projects in that require funding or a level of effort greater than a defined threshold, or which involve key technologies: recommend approval or denial of new IT project requests and major change requests; and
- Ensure a steady flow of communication. Communicate strategy and committee investment decisions to stakeholders to create understanding at all levels of the enterprise about which investments have been approved.

Project Management Committee

- Conduct analyses of proposed projects to assess cross-departmental impacts, resource needs, and impact to current IT capacity;
- Provide support, technical assistance, and advice to departments with technology needs to assist throughout the project scoping and execution process ;
- Monitor ongoing projects on a quarterly basis, recommending project changes to the Executive Committee as appropriate, and summarizing status of “Grow” and “Transform” projects to the Executive Committee; and
- Manage special projects on an as needed basis.

Community Advisory Groups

Cambridge residents and individuals who work in the technology industry provide valuable input to City’s use of technology in the service of public needs. They provide on-going review and input into the City’s IT strategy and portfolio of investments. Focused Community Task Forces have been created to address priority topics including Municipal Broadband, Open Data, and Digital Access. In addition, plans are underway to create, when appropriate, a Citizen Advisory Board consisting of residents and representatives of industry that conduct business with the City and represent key demographics of the city including youth, the Cambridge Housing Authority, and the Digital Divide Committee.

IT Governance Process and Continuous Improvement

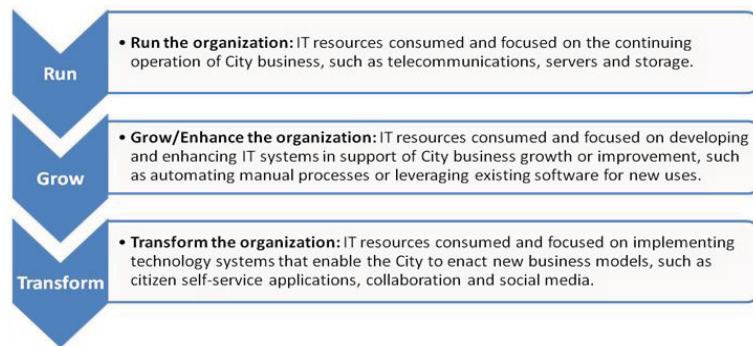
The new governance process ensures increased transparency and understanding of the City’s IT capabilities in alignment with needs across the City. In FY14, a comprehensive review of IT investments and project requests was conducted with all participating departments. The City reviewed projects for

funding based on the following evaluation criteria: strategic alignment, investment, benefits (hard and soft), public impact, resource and business process impact, architectural and infrastructure fit, and risk. In future years, incremental reviews will build off this initial year and are expected to be more efficient. The governance process will be periodically reviewed and refinements continuously made to ensure an effective and efficient IT investment approach for the City.

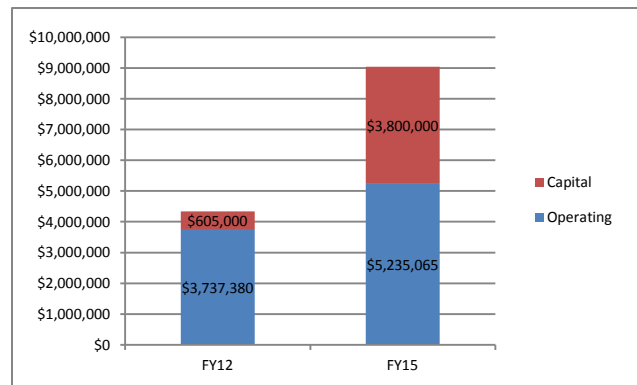
IT FINANCIAL MANAGEMENT & METRICS

The City’s FY15 Budget and IT investments set a bold agenda for the City that closely links with the priorities established by the City Council. The City is committed to sufficiently funding maintenance and operations activities needed to “keep the lights on,” while at the same time investing in growth and transformative projects that embrace innovation to enhance service delivery to the community

The City will manage on an ongoing basis IT investments and expenditures across these IT core missions: Run, Grow and Transform

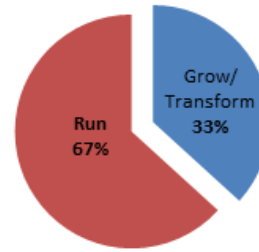


Today, the City’s IT spend in operations and capital has increased by 108% since FY12. The Operating Budget increase of 40% from FY12 is mainly due to an increase in salary and wages to support the realignment. The FY15 Capital Budget is over 5 times what it was in FY12.



The City’s strategy for IT is to provide reliable, cost efficient and effective IT services across the city, leverage inter-departmental collaboration, while fostering transparency and promoting innovation. The City’s IT Strategic Investment Plan provides a roadmap for the City’s IT investments and activities in FY14 & FY15 and beyond. New IT project requests are continually submitted by City departments, reviewed in a timely manner by ITD and reviewed by the Project Review Committee and Executive Committee, on a continuing as-needed basis.

Recently, the City received requests from twenty-five departments that were reviewed and considered for FY14 and FY15 funding. Forty-one project requests were approved for FY14 and fifty-one requests were approved for FY15. Of the fifty-one requests approved for FY15, 33% are focused on innovation, growth and transformation.



Six focus areas of investment are required to develop essential IT capabilities to support the City’s key goals and objectives. All of the IT projects and investments approved for FY14 & FY15 align with these focus areas of investment.

Investment Area	Description and Examples
Citizen	Technological capabilities to increase citizen outreach and/or participation in City services or initiatives. Example: <ul style="list-style-type: none"> Technologies to allow public to register and/or pay for City services online
Productivity	Internal technologies that increase the efficiency and effectiveness of City staff and, as a result, the value provided to public. Examples: <ul style="list-style-type: none"> CRM - technological capabilities for managing (e.g. organizing, automating, tracking) the City’s interactions with current and future constituencies Energov - expansion of Energov permitting, licensing, pay online and mobile operations
Software	Installation, replacement or upgrades to the City’s departmental or enterprise, cross departmental applications
Infrastructure	Installation, replacement or upgrades to the technical components that underlie the City’s computing environment (e.g. network, server management, security, email)
Equipment	Installation, replacement or upgrade of City owned and operated equipment (e.g. tablets, PCs, printers, copiers, physical servers)
Telecom	Strategy and equipment to improve internet access and enhance the City’s WiFi offerings to the public and/or City employees; Technological capabilities for the delivery of voice communications and multimedia sessions over Internet Protocol networks

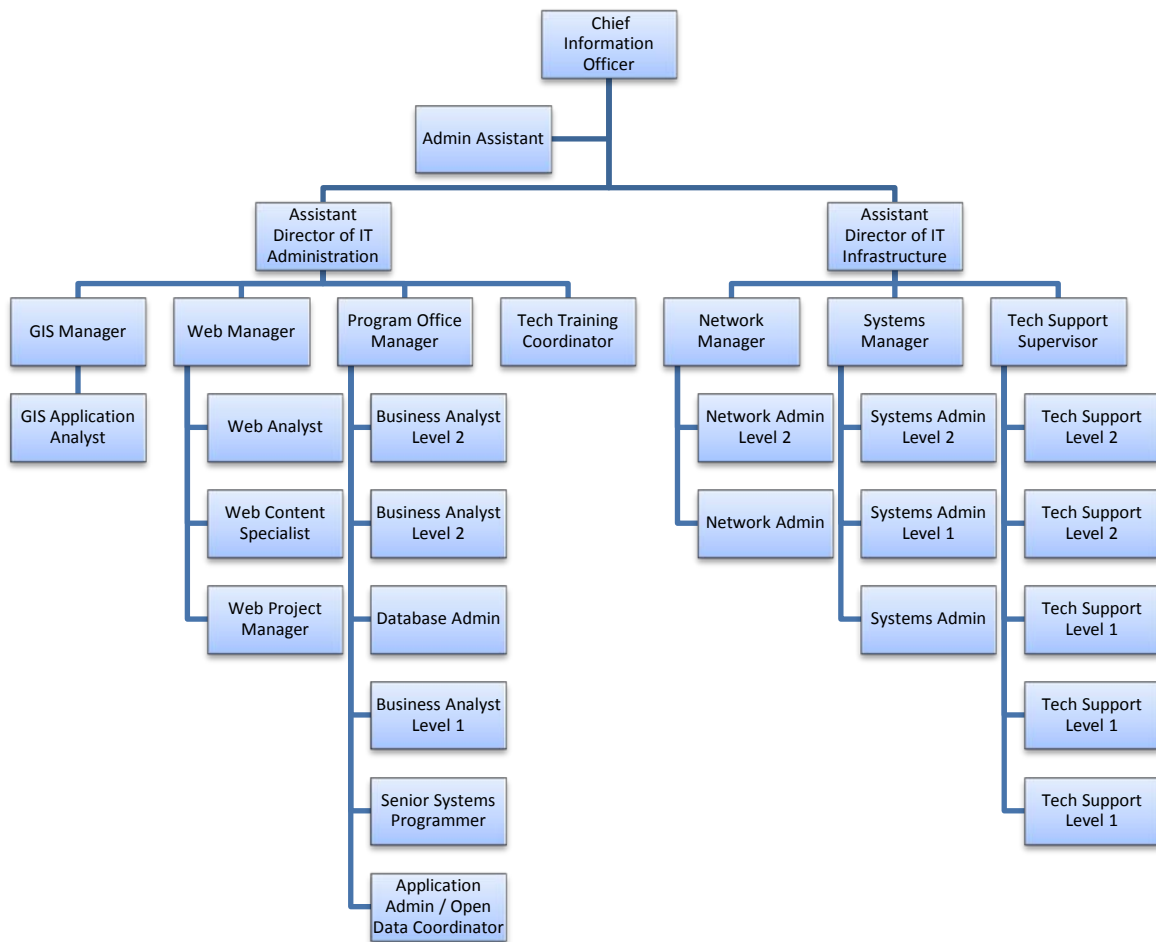
IT ORGANIZATION, SERVICES AND PROCESSES

ITD provides centralized technology services to approximately 1,400 users working in 34 departments located in 40 municipal buildings across the city. ITD is responsible for managing, developing, implementing, and maintaining all technology for the City, where:

- Managing consists of vendor contracts, licensing, governance, budgeting and strategic planning;
- Developing includes application integration, programming, application development, research and web based systems;
- Implementing comprises project management and business analysis of all applications; and
- Maintaining and supporting includes infrastructure, software, hardware and security projects.

Building on staffing investments made last year, ITD underwent an extensive process to evaluate its current organizational structure with the goal of realigning the organizational structure in a way that allows the department to grow and meet future needs of the City. This process resulted in new roles being defined and responsibilities being categorized into seven functional areas:

Information Technology Department



1. Management – each functional area will have a manager or supervisor position which will be responsible for setting goals aligned with City and department goals, creating plans for performance management and professional development.
2. Technical Support- provides the first level of technical support for City staff related to computer and peripheral deployment and troubleshooting and basic enterprise application problem reporting and support.

3. Systems Management- provides server administration, server operations, core systems support, virtualization, storage, data center, and application support services to determine end-users' needs, and identify and resolve system issues. Provides knowledge transfer and training to Technical Support.
4. Network/Telecommunications- designs, maintains and supports the network and telephony infrastructure for the City, Public Safety and School Department.
5. Web Applications/Development- Consults, develops, implements and maintains web applications and websites.
6. Program Management- leads or consults on major enterprise application projects defined through the EGov process or required as maintenance to existing applications.
7. Geographic Information Systems- collaborates with all City departments to define the features and functionality required from GIS. Designs, implements and supports the GIS database, applications and websites

The ITD organization will continually review its capabilities and investments to ensure alignment with the City's priorities and ability to deliver relevant and quality IT solutions.

CONCLUSION

The IT Strategy will continue to evolve as the City's circumstances change and new technology possibilities emerge. The IT governance process will ensure a transparent and effective decision-making process across the City to manage the demand and supply of well-managed IT assets while encouraging stakeholder engagement. ITD will ensure the City is well positioned and supported today and in the future with the most effective and efficient IT solutions and services.