INFORMATION TECHNOLOGY

DEPARTMENT MISSION STATEMENT

We protect all city departments from the ever-present threat of cyberattack and enhance employee productivity and efficiency through software and hardware solutions and online training as well as the development of public-facing interfaces that allow residents to perform a number of tasks remotely like applying for a building permit, submitting certain types of routine police reports from the comfort of their home or office, and navigating through the labyrinth of government services offered by the City of Miami Beach with a computer or smartphone. We work with each city department to protect sensitive data that is critical to the collective mission of delivering world-class service to residents and visitors.

DEPARTMENT DESCRIPTION

The Information Technology Department serves all functional areas of Miami Beach government. We purchase and maintain all of the laptops, desktop computers, printers, computer tablets, and cellphones used by the City's 2,200+ employees as well as the necessary software and apps to accomplish a wide variety of tasks needed to operate a modern city. The Information Technology Department has implemented a three-year technology refresh schedule to ensure City users have up-to-date technology to perform their jobs as efficiently as possible. The Information Technology Department supports all Miami Beach departments by creating and updating web-pages as well as assisting in the identification of technology to improve the efficiency and effectiveness of business processes in accordance with the city's strategic plan.

FUNCTIONAL AREAS

Our capabilities are spread among functional groups that stay abreast of the latest and best industry practices for incorporation into our services:

- **Information Technology Operations** — The team provides enterprise-wide support for computers, tablets, smartphones and laptops that are connected to the City's network. It supports servers, network printers, network and wireless connectivity, wiring, the city's interactive voice response system, Automated Call Distribution, call accounting, telephone maintenance, Voice Over IP infrastructure, as well as wireless voice and data services. Our technicians strive to create an environment of trust and improved customer service with respect to any hardware and software issues that we are called upon to troubleshoot.

- **Information Technology Software Engineering** — This group is responsible for the ongoing development and technical support of departmental and enterprise-wide application systems and databases.

FUNCTIONAL AREAS CONT'D

- **Data & Analytics** — This group has provided residents with unprecedented transparency through customized systems like the G.O. Bond dashboard and the financial transparency portal. It has also empowered internal departments with new or enhanced technologies to support secure access to systems from anywhere, expanding the boundaries of City Hall for more direct interaction with residents.

- **Information Security Office** — This group ensures that the City of Miami Beach remains secure from bad actors who want to interrupt City services or otherwise do harm to City systems by exploiting vulnerabilities.

Security

The security team employs multifaceted and layered intrusion detection systems as well as 24/7 monitoring to protect City data and resident services. It leverages emerging technologies and industry best practices to defend the City from cyberattacks and to help the City quickly recover from any potential breaches. The Information Technology Department manages a comprehensive information security training program for all city staff, which includes a recurring phishing campaign to test the vulnerability of users. It also chairs a citywide cybersecurity tabletop exercise initiative in coordination with the Division of Emergency Management. Information security remains a core component of the Information Technology Department and plays a critical role in all decision making and design initiatives.

Commercially Available Solutions

The Information Technology Department actively encourages partnerships with the private sector, as appropriate, and where it makes financial sense to do so. Commercially proven solutions are considered whenever equivalent services can be acquired more economically and still meet City requirements. The City must be willing to make changes in business procedures to better leverage the benefits of commercial solutions rather than relying on custom solutions.

INFORMATION TECHNOLOGY

FUNCTIONAL AREAS CONT'D

Accessibility of Government Services

The Information Technology Department continues to innovate and use digital services to reduce the time and cost required for members of the workforce and community to access information and services. In addition to internal services that enhance efficiency, such as automated workflows, business intelligence tools and digitization services, the Information Technology Department has worked extensively with the public, City departments, facilities, Customer Service, Code Compliance, neighborhood services and others to enhance technology with respect to resident engagement.

Systems Integration

The Information Technology Department examines possibilities for data integration whenever possible. As requirements for business information evolve beyond single-user department custodians, it is critical that applications support data integration. Values and definitions of data that span organizations or systems must be maintained consistently to ensure accuracy of reporting and decision making even though the data may not all be stored in a single location.

Governance

The Information Technology Department empowers each department by encouraging teams to take an active role in actively designing new technology. This governance is the process of securing user input on such issues as direction, priorities, the review of technology decisions and providing effective user communication in systems development and daily operations. Partnerships between each department and the Information Technology Department are necessary to ensure that results of successful explorations can be realized.

Business Continuity

The Information Technology Department focuses on a business continuity strategy to ensure technologies are streamlined without adversely affecting compliance, risk, or security.

Innovation

The Information Technology Department stays on the cutting edge of new technologies that can streamline operations and resident engagement. The department also provides other City departments with the tools and expertise needed to facilitate innovation, ideation, and process execution.
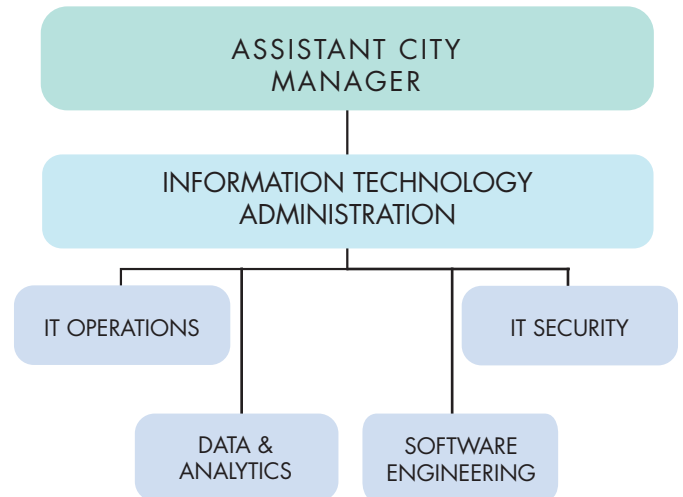
Maximize ROI

The Information Technology Department funds information technology projects with the highest return on investment (ROI).

FUNCTIONAL AREAS CONT'D

Resources

Information Technology Department staff members are responsible for the preservation of information technology standards and procedures. We support, maintain and service all City of Miami Beach departments. The City's strategic plan stresses the need to use technology that improves the efficiency and effectiveness of each departmental business process. Technology can transform the way we conduct business. Our staff is focused on delivering technology initiatives to enhance resident communication.

ASSISTANT CITY MANAGER
INFORMATION TECHNOLOGY ADMINISTRATION
IT OPERATIONS — IT SECURITY
DATA & ANALYTICS — SOFTWARE ENGINEERING

FISCAL ENVIRONMENT

The Information Technology Department is an Internal Service Department. The Information Technology Department currently uses a charge-back process to reconcile the cost of services by recovering its costs from user departments. Chargebacks provide a level of financial resources to support the effective and efficient use of Information Technology Department resources. The department has instituted a three-year technology refresh schedule to ensure City users have up-to-date technology to perform their job functions.

INFORMATION TECHNOLOGY

STRATEGIC ALIGNMENT

Main Vision Area:

Organizational Innovation

Management Objectives:

- **Organizational Innovation**

  - Maximize the use of innovative technology to help us be a Smart City, including open data, online transactions for customers, and threats like cyber-security
  - Support all objectives to improve decision making and financial stewardship, making the city more business friendly, with an employee culture of problem solving and engagement

- **Neighborhoods**

  - Prevent and solve crime for residents and visitors through the use of (but not limited to) communications, community policing, technology, cameras, park rangers, professional and ethical policing and code enforcement

Strategic Plan Actions

- **MAKE** 50% of all customer (and financial) transactions with the City available online within two years
- **CONTINUE** the implementation of an open data program
- **EXPAND** digitization and access to government services by utilizing innovative technology and modernized applications to increase customer service
- **EXPAND** analytics and automation services for transparency and operational decision-making
- **PROTECT** City digital assets and systems and ensure business continuity through IT security programs
- **CONTINUE** to improve the enhanced use of technology and crime data by the Police Department
- **COMPLETE** construction of the Real Time Crime Center as soon as feasible
- **COMPLETE** analysis by Computer-aided dispatch (CAD)/ Records Management system (RMS) consultant with a final recommendation of an upgrade or new system. This will improve crime data for analysis
- **INCREASE** compliance with the Building Code by streamlining the process and providing continued training to the public and applicants on the process

Budget Enhancement Actions:

- Customer Relationship Management (CRM) Application System

BUSINESS ENVIRONMENT

The department is located in the multi-purpose garage facility on the 4th & 5th floors. In addition to in-house staff, the City uses Information Technology Department contractors where appropriate. The City periodically uses interns and contractors to handle temporary peaks in workload and to perform work in which outside expertise or objectivity is required.

The Information Technology Operations team supports more than 30 million lines of in-house developed code and more than 40 off-the-shelf applications. In addition, Information Technology Operations has developed more than 100 online services and several smartphone applications. The City's official website receives 5.1 million views per year and now hosts over 9,000 web-pages for visitors, residents, businesses, and employees.

Information Technology Operations also provides service to thousands of desktops, laptops and mobile devices on the City's network and supports hundreds of servers, Storage Area Network architecture, archival services as well as backup and recovery strategies. IT Operations provides support for network connectivity to at least 41 remote locations, including the City's Emergency Operations Center and business continuity sites. We provide secure, reliable infrastructure in Category 5 hurricane-rated buildings. Additionally, the team provides support to wireless devices and Voice Over IP (VOIP) locations.

SIGNIFICANT ACCOMPLISHMENTS

- **Police Department** — The Information Technology Department worked with the Miami Beach Police Department to expand surveillance technology through City facilities and public areas. These new installations and expansions will improve public safety. The department has also significantly expanded analytics capabilities to improve public safety.

- **Building Department** — We worked with the Building Department to improve customer service offerings by providing more stable digital permitting services, expanding technology tools that aide in call center operations, and enabling more effective analytics to streamline services

- **Digitization** — We have improved website search capabilities, revamped the City's website and numerous portals, implemented expanded digitized services, and automated internal systems for efficiencies. We developed a digital review and routing system for legal documents citywide and enhanced the continued development of analytics with more than 35 dashboards for decision making and smart city initiatives.

INFORMATION TECHNOLOGY

SIGNIFICANT ACCOMPLISHMENTS CONT'D

The Information Technology Department continues to implement and expand secure, citywide digital systems and automated workflows. These new systems and the yearly increase in digital signatures enabled the City to execute decisions while working remotely. Additionally, several digital workflows using electronic signatures were developed and implemented to streamline internal processes. IT also continues to modernize the Share Point platform. Upgrades included better integration with City services more efficient communication, easier access to resources, training materials and digital solutions.

- **Customer Service Center** — The Information Technology Department continued to make improvements to the Customer Service Center as the City strives to improve customer service and streamline services using innovative technology. Staff was able to improve communication and services with citizens, including telephony services and mobile solutions.

- **Business Intelligence** — The department built upon the success of its G.O. Bond Executive Dashboard and departmental dashboards to grow data-driven service offerings. Financial, public safety and building tools were developed to enhance decision making and resident experiences. These tools have empowered the agency to create better data analytics by transforming complex government data sets to deliver the transparency that is demanded by residents and business owners.

- **Information Technology Security** — The Information Technology Security Division continues to develop and enhance policy and compliance measures, as well as to ensure adherence to technology audits, PCI compliance, information security, governance and enhance existing proactive security measures. The Information Technology Department strives to improve the tools and methods to keep our data and systems resilient and safe from those with malicious intent.

- **Application Modernization** — The department maintains over 400 custom systems, including more than 100 custom applications. As part of its modernization and mobility strategy, the Application Engineering team continues to develop and expand upon its digital services to meet staff and resident needs. These systems include the Resort Tax, lien recording, parking revenue systems as well as operational solutions.

- **Automation of Transactions** — The Information Technology Department has continued to automate the number of financial transactions that can be accomplished virtually to reduce the need to visit City Hall to transact business.

> **IT continues to implement and expand secure, citywide digital systems and automated workflows.**

MAJOR INITIATIVES:

The following is a list of major technology initiatives being undertaken by the department:

- **Enterprise Resource Planning** — The Information Technology Department is working with an intradepartmental task force in conjunction with Tyler Technologies to implement modern financial and permitting systems. This will assist the City administration in maximizing value, improve the performance services, and establishing enterprise system strategic planning and upgrades.

- **Digital Services** — Department continues to enhance current citizen engagement digital services and will continue to implement new features as the City transitions to more digital and mobile-friendly solutions

- **Data & Analytics** — The Information Technology Department will continue to establish data management best practices and develop analytic and business intelligence systems for citywide operational needs and decision-making purposes. We will continue to incorporate new public service offerings to further enhance government transparency.

- **Timekeeping** — Information Technology is working to implement new time-keeping solutions for public safety. These will improve staff efficiencies, enhance accountability and provide modern technology to fit City needs.

INFORMATION TECHNOLOGY

CRITICAL SUCCESS FACTORS CONT'D

The following factors have been identified as critical to the successful implementation of the FY 2024 Work plan. Each of the factors must be achieved in order to maximize the potential benefit of the plan.

Disaster Recovery:

- Continue to support disaster recovery and business continuity strategies, while managing collocation and cloud presence

Cyber Security:

- Continue to promote citywide cyber security awareness. As government employees, we need to be aware of possible threats and what we can do to protect our information and systems since we all share the responsibility of promoting a safer cyberspace

Network Security strategy and standards:

- Continue to follow industry best practices and security standards for PCI compliance, Criminal Justice Information Systems, Identity Theft Red Flag Compliance and Presidential Decision Directive 63 (specifies City responsibilities for protecting the nation's infrastructure)

CRITICAL SUCCESS FACTORS CONT'D

IT Governance:

- Revamp the Information Technology Steering Committee process for the planning, prioritizing and funding approval of enterprise information technology-related projects

FUTURE OUTLOOK

The City must continue to leverage the use of current technology to optimize and streamline business processes, thus instituting efficiencies within the organization. The Information Technology Department will continue to explore new and innovative use of technology to accomplish this goal. Future projects to be considered include:

- Expansion of secure citywide digital services
- Expansion of citywide enterprise infrastructure
- Expansion of citywide mobility services
- Optimization of e-government services
- Unified communication and messaging
- Reduction of reliance on a paper environment
- Enhancing disaster recovery and business continuity strategy