

Innovation & Technology

FY2016 Strategic Operating Plan

July 31, 2015



CHARLOTTE

INNOVATION & TECHNOLOGY



Innovation & Technology FY2016 Strategic Operating Plan

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Memorandum

To: Randy Harrington, Chief Financial Officer
From: Jeffrey Stovall, Chief Information Officer
Date: July 31, 2015
Subject: I&T FY2016 Strategic Operating Plan

This memo communicates the FY2016 Strategic Operating Plan (SOP) for the Innovation & Technology Department (I&T). The FY2016 I&T budget strives to demonstrate fiscal responsibility while strategically aligning technology with City Strategy and business operations. The SOP budget will be applied to maintaining and resourcing the technology platform and to the degree possible advancing a resilient, modern technology infrastructure in a very challenging budget year. The FY2016 SOP includes an operating budget of \$24.6M. Funding for the budget includes 130 full time equivalent positions and a number of contractor positions for project management and ERP.

During FY2016, I&T will maintain and advance the service demand-based budget system developed in the previous year to evolve I&T to an internal service fund model. A new technology roadmap plan will be created to manage the lifecycle of technology investments and to synchronize imminent investments with resources and departmental dependencies.

These activities are planned as the demand for digital services by the departments is rapidly increasing. High visibility initiatives have emerged to enhance digital communications and to position Charlotte internationally as a smart city with the use of data analytics, connected devices and connected citizens for service delivery and resource optimization. Location-based analytics have never been more important as the departments express the need for business intelligence and GIS services to optimize outcomes. For the technology sector as a whole, cloud-based computing, data & analytics, mobile computing and social media are converging. Adequate I&T staff resources to support the departmental technology service demand, maintain technology operations and keep pace with technology advancements remains a top challenge: the number of technology projects from fiscal years 2008 to 2015 increased by 224% while staff levels remained flat.

The I&T FY2016 SOP reflects our dedication to meeting these challenges while advancing the City organization with technology services, investments and approaches that will deliver benefit to the departments and agencies and ultimately the citizens.

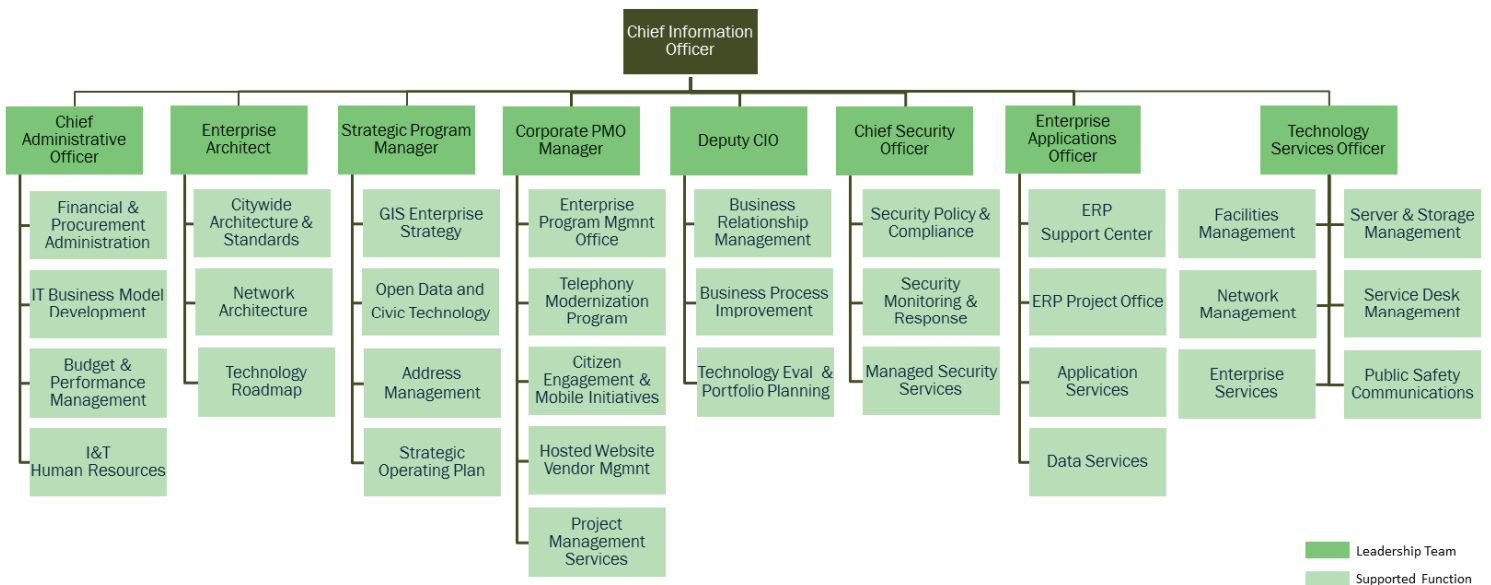
Executive Summary

The City of Charlotte Innovation & Technology department (I&T) provides executive-level leadership for the City's Technology Governance Policy, delivers technology services to City departments and partnership agencies, and coordinates information technology initiatives across the organization to support, enhance and advance citizen service delivery. In FY2016, I&T will:

- Maintain, operate and enhance the technology infrastructure to ensure the City receives the most reliable and best value with technology investments,
- Maintain and operate the City's financial management, budgetary, and procurement platforms,
- Develop technology plans, funding models and strategies to support the increasingly high demand for digital services, and
- Strengthen relationships at all levels— within I&T and with departments and agencies, to optimize collaboration and stimulate innovation.

Organization

The City of Charlotte Innovation & Technology department has a staff of 130 full time equivalent positions to provide strategic and operational services to departments and agencies. The I&T organization includes technical service areas for information security, public safety communications, enterprise applications, data, infrastructure and enterprise resource planning. Corporate program areas provide a focus on strategic investments for community engagement, open data, GIS and other high priority and high visibility initiatives. The I&T organization is grounded by a strong executive leadership team committed to public service and excellence in technology service delivery.



Mission: *Improving community service outcomes with business technology services, partnerships and innovation.*

Vision: *Position the City of Charlotte as an internationally-recognized municipal leader in the use of technology to achieve transparent comprehensive citizen service.*

Strategy & Planning

The Innovation & Technology department will continue a keen focus on resources to *build I&T as the City's primary provider and broker of strategically essential technology services*. To accomplish this, the I&T organization is dually purposed to provide a trusted technology infrastructure for operations and to enable business innovation.

Technology drivers will deliver expected technology services better, cheaper and faster. I&T will focus on 4-Rs: *reliability, resiliency, responsiveness and relationships* (internal and external). The very same 4-R terms are widely used in supply chain management which illustrates the intrinsic value of IT: information technology is a critical part of the “supply chain” for any service organization. Key to technology successes will be information technology service management (ITSM) improvement and sustained infrastructure reinvestment.

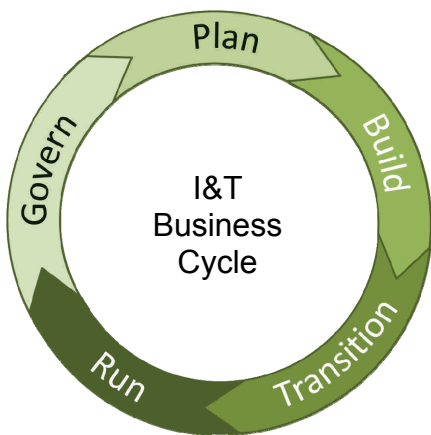
Innovation services are largely concentrated on discovering approaches to deliver client and citizen value. The key to innovation success will be to target new investments that demonstrate tangible, clearly articulated customer and citizen benefits. As such, innovation will emerge as a cultural expectation at all levels of I&T: rather than sanctifying a special group dedicated to innovation, staff will apply ingenuity in and between service areas to surface beneficial improvements and will foster citywide innovation in partnership with the City Manager's Office.

From a management perspective, I&T leadership will emphasize balancing capabilities in the areas of:

- ◆ Investing—Cost Transparency
- ◆ Governing—Demand/Supply Balance
- ◆ Sourcing and Funding—Capacity to Execute
- ◆ Staffing—Staff Competence and Capability
- ◆ Prioritizing—“Voice of the Customer”
- ◆ Maturing—Service Delivery Effectiveness

The Digital Services Platform. The I&T department will align and enhance technology investments to provide the City's *digital services platform*. Convergent trends of social, mobile, data and cloud will shape the platform:

- ◆ Social—using social media and collaborative tools for decisions and information sharing
- ◆ Mobile—using mobile computing devices (e.g., smart phones, tablets, laptops, etc.) for access anywhere and anytime
- ◆ Cloud—using off-premise infrastructure and applications to extend organizational capacity
- ◆ Data—using open data, big data, location-based data, and data analytics for current, relative, insightful, visual information products



I&T will apply the I&T Business Cycle approach move to higher degrees of technology maturity while fostering innovation, strengthening partnerships and maintaining a resilient, high availability digital services platform.

Open Data & the Application Economy: Advancing Transparency & Innovation with Civic Technology

I&T will build on the preference for mobile applications by expanding datasets in the [Charlotte Open Data Portal](#) and by sponsoring applications that enhance government transparency. Several applications are underway or planned with the Code for Charlotte Brigade including enhancement of Citygram and implementation of Open Budget. These efforts not only support community engagement by changing how the City interacts with citizens, but are expected to contribute to the [City's High Growth Entrepreneurial Strategy](#).

Service Delivery

The I&T department provides citywide technology leadership, operational services and strategic program management to support the City of Charlotte’s business priority for Comprehensive Citizen Service. The I&T organization provides executive leadership for the City’s Technology Governance Policy and enterprise technology investments through cross-departmental technology teams. The technology governance teams work collaboratively to manage technology investments required for delivering efficient, coordinate citizen services delivery and achieving the City’s strategy.

- ◆ Senior Business Team (SBT)
- ◆ Senior Technology Advisory Team (STAT)
- ◆ Web Governance Team
- ◆ Technology Project Evaluation Team (TPET)
- ◆ GIS Enterprise Team (GET)
- ◆ Address Governance Team

Operational technology services cover a broad range of areas that include information security, network management, applications management, server management, database management, public safety communications, and ERP support. Strategic program management resources are directed on technology investments that span multiple departments and high-priority, high visibility initiatives. Strategic resources coordinate technology initiatives across the City departments with strategies and plans, portfolio management services, project management capabilities, and process management services. Specific I&T service areas are highlighted as follows:

Enterprise Architecture & Strategic Planning	Lead the development of the architecture for use of technology to support City strategy and departments. Develop strategies to advance the collaborative use of technology.
Portfolio Management	Manage the collection of information on technology investments. Guide decisions about the investment mix to match the investments with the City’s business priority.
Program Management	Lead optimization & coordination of business technology projects to strategically support common technology investments including ERP, GIS, open data and community engagement.
Project Management	Lead the practice for enterprise project management to coordinate the supply and demand of technology resources.
Process Management	Lead the optimization of operational and business support processes to avoid functional silos and deliver efficiencies and effectiveness for seamless citizen service.
Information Security	Protect information and systems from unauthorized access and use. Focus on confidentiality and privacy protection and information integrity.
Applications Services	Provide end-to-end service for solving business needs with software applications including consulting , application management and application development.
Data Services	Provide database administration, data warehousing, open data support and business intelligence.
Infrastructure Services	Manage servers, storage, data center, desktops and wired/wireless networks. Manage enterprise services including Exchange, SharePoint, Active Directory and printing.
Public Safety Communications	Maintain the radio and data infrastructure for all public safety and public works agencies throughout the City, County and several surrounding counties.
Service Management	Provide technology change management, incident management, relationship management and service desk. Track, manage and report on technology assets.

Service Delivery Challenges

The I&T department faces multiple internal and external service delivery challenges. Cyber security services are rising annually as the type and frequency of threats to the network become more complex, varied and frequent. Additional resources are required to mitigate attacks and to respond to increasing e-Discovery and records management requests. At the same time, continuing investment is required to strengthen and fortify the technology infrastructure as departmental dependencies for digital services increases. Information security and infrastructure resiliency coupled with the growing demand for digital services has severely strained existing I&T staff. Levels of staff resources must be expanded to meet the service demand. While I&T has taken steps towards a demand-driven internal service funding model, regular capital allocations are also needed to maintain the vitality of technology infrastructure assets in a similar manner that physical facilities are maintained.

Security Threats

The range of malicious network invasions and other challenges that impact information security is rapidly evolving.

Infrastructure Resiliency

Ongoing investment in the technology infrastructure is required for preparedness, survivability and risk mitigation.

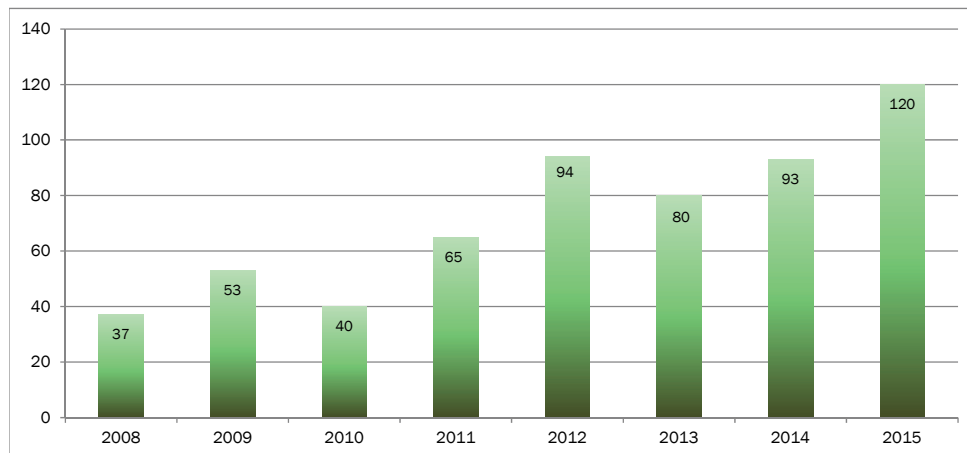
Staff Resources

Staffing levels have not kept pace with the increasingly high demand for digital services throughout all City departments.

Funding Model

A capital funding approach is required for the ongoing maintenance and replacement of technology infrastructure assets.

Total Number and Value of Technology Project Evaluation Team (TPET) Approvals by Fiscal Year, FY2008-FY2015. Staff resources for corporate technology services have remained flat throughout the FY2008 to FY2015 time period, with the exception of the new ERP function. This 224% increase in the number of technology projects since 2008 is indicative of the demand for digital services.



Fiscal Year	Number of Requests	Total Value
2008	37	\$17,174,985
2009	53	\$8,169,880
2010	40	\$7,990,533
2011	65	\$4,780,392
2012	94	\$42,638,704
2013	80	\$12,733,352
2014	93	\$35,917,024
2015	120	\$27,400,000
Total	582	\$156,804,870

Innovation & Technology FY2016 Balanced Scorecard

Perspective	Corporate Objective	Department Objective		Measure
Serve the Customer	Increase Perception of Safety	<i>Build I&T as the provider of strategically essential services</i>	Maintain the high standards of availability for the Public Safety Communications Radio Network	99.9% Availability over FY2016
Run the Business	Develop Collaborative Solutions		Lead the Enterprise Architecture Practice	Complete the Technology Plan schedule by March 31, 2016
Manage Resources	Deliver Competitive Services		Maintain the high standards of availability for the City's core infrastructure	99.7% Availability over FY2016
	Invest in Infrastructure		Manage the server infrastructure	Remove all Windows 2003 servers by June 30, 2016
			Optimize data services	Complete the datacenter co-location RFP document by June 30, 2016
			Optimize citizen communications channels	Deploy 1/3rd of end-user devices to Cisco VoIP by June 30, 2016
Develop Employees	Achieve Positive Employee Climate		Strengthen the I&T Team Culture	Achieve three all-hands team building events by June 30, 2016
			Promote holistic employee wellness	Include a Spotlight on Wellness at 100% of all-hands meetings through June 30, 2016

Resource Allocation Summary

The FY2016 I&T budget includes an increase for Broadband Technology Opportunity Program (BTOP) operations and maintenance costs. Although requested, no new capital funds were allocated for FY2016.

Budget	FY2014	FY2015	FY2016
	Actual	Revised	Proposed
Personnel	\$11,987,771	\$14,161,484	\$14,360,705
Maintenance & Operations	\$15,217,572	\$15,465,741	\$16,457,998
Grants and Contributions			
Department Charges	-\$5,597,780	-\$6,871,366	-\$6,242,591
Total Expenditures	\$21,607,563	\$22,755,859	\$24,576,112
Total Revenues	-	-	
Net Expenditures	\$21,607,563	\$22,755,859	\$24,576,112
Staff			
Full Time Equivalent Positions	129	130	130
Temporary Positions	3.25	3.25	3.25
Total Positions	132.25	133.25	133.25

Decreases, FY2016	
	-\$0-
Increases, FY2016	
BTOP Operations & Maintenance Staff	\$780,120
ESRI Software Maintenance	\$15,644
Enterprise Address Solution maintenance	\$4,817
Geospatial Imagery	\$7,370
Internet Access Services	\$64,286
Smartnet Switch Maintenance	\$92,000
Data Circuits	\$86,000
Managed Security	\$200,000

Measure Validation Forms

Innovation & Technology Maintain the high standards of availability for the Public Safety Communications Radio Network		
Corporate Objective: Increase Perception of Safety		
Dept Initiative: Build I&T as the City's primary provider and broker of strategically essential technology services		
Measure and Target: Measure – Maintain the high standards of availability for the Public Safety Communications Radio Network Target – 99.9% availability		
Units of Measure: Percent available	Frequency of Update: Quarterly	
Measurement Intent: Achieve high availability of service		
Measurement Formula: Percent of uptime		
Data Elements and Sources: Objective assessment from system metrics		
Source For and Approach to Setting Targets: Measurement and target were set to meet expectations set by public safety agencies		
Data Contact: Danny Lovett		
Target Setting Responsibility: Radio Communications Council	Accountability for Meeting Target: Danny Lovett	Tracking/Reporting Responsibility: Danny Lovett
Notes/Assumptions:		

Innovation & Technology Lead the Enterprise Architecture Practice		
Corporate Objective: Develop Collaborative Solutions		
Dept Initiative: Build I&T as the City's primary provider and broker of strategically essential technology services		
Measure and Target: Measure – Complete the Technology Plan Schedule Target – 100% Complete by March 31, 2016		
Units of Measure: Percent complete	Frequency of Update: Quarterly	
Measurement Intent: Manage technology investments		
Measurement Formula: Estimated completion percentage of the solution. No specific elements other than Percent Complete value can be identified.		
Data Elements and Sources: Subjective assessment to determine percent completion		
Source For and Approach to Setting Targets: Measurement and target were set by the CIO to meet expectations		
Data Contact: Al Newman		
Target Setting Responsibility: Al Newman	Accountability for Meeting Target: Al Newman	Tracking/Reporting Responsibility: Al Newman
Notes/Assumptions:		

Innovation & Technology Maintain the high standards of availability for the City's core infrastructure		
Corporate Objective: Deliver competitive Services		
Dept Initiative: Build I&T as the City's primary provider and broker of strategically essential technology services		
Measure and Target: Measure – Maintain the high standards of availability for the City's core infrastructure Target – 99.7% availability		
Units of Measure: Percent available	Frequency of Update: Quarterly	
Measurement Intent: Achieve high availability of service		
Measurement Formula: Percent of uptime		
Data Elements and Sources: Objective assessment from system metrics		
Source For and Approach to Setting Targets: Measurement and target were set to meet expectations set by the CIO		
Data Contact: Bert Davis		
Target Setting Responsibility: Bert Davis	Accountability for Meeting Target: Bert Davis	Tracking/Reporting Responsibility: Bert Davis
Notes/Assumptions:		

Innovation & Technology Manage the server infrastructure		
Corporate Objective: Invest in infrastructure		
Dept Initiative: Build I&T as the City's primary provider and broker of strategically essential technology services		
Measure and Target: Measure – Remove all Windows 2003 servers by June 30, 2016 Target – 100% Complete by June 30, 2016		
Units of Measure: Percent complete	Frequency of Update: Quarterly	
Measurement Intent: Manage technology investments		
Measurement Formula: Estimated completion percentage completion.		
Data Elements and Sources: Objective assessment to determine percent completion		
Source For and Approach to Setting Targets: Measurement and target were set by the CIO.		
Data Contact: Bert Davis		
Target Setting Responsibility: Bert Davis	Accountability for Meeting Target: Bert Davis	Tracking/Reporting Responsibility: Bert Davis
Notes/Assumptions:		

Innovation & Technology Optimize data services		
Corporate Objective: Invest in infrastructure		
Dept Initiative: Build I&T as the City's primary provider and broker of strategically essential technology services		
Measure and Target: Measure – Complete the datacenter co-locations RFP document Target – 100% complete by June 30, 2016		
Units of Measure: Percent available	Frequency of Update: Quarterly	
Measurement Intent: Achieve datacenter efficiencies		
Measurement Formula: Percent completion of the RFP		
Data Elements and Sources: Objective assessment from system metrics		
Source For and Approach to Setting Targets: Measurement and target were set to meet expectations set by the CIO		
Data Contact: Bert Davis		
Target Setting Responsibility: Bert Davis	Accountability for Meeting Target: Bert Davis	Tracking/Reporting Responsibility: Bert Davis
Notes/Assumptions:		

Innovation & Technology Optimize citizen communication channels		
Corporate Objective: Invest in infrastructure		
Dept Initiative: Build I&T as the City's primary provider and broker of strategically essential technology services		
Measure and Target: Measure – Deploy 1/3rd of end-user devices to Cisco VOIP by June 30, 2016 Target – 100% Complete by June 30, 2016		
Units of Measure: Percent complete	Frequency of Update: Quarterly	
Measurement Intent: Reduce Centrex end users and cost impacts to City		
Measurement Formula: Percent of overall delivery of end devices		
Data Elements and Sources: Objective assessment from system metrics		
Source For and Approach to Setting Targets: Measurement and target were set by the CIO.		
Data Contact: Bellverie Ross		
Target Setting Responsibility: Bellverie Ross	Accountability for Meeting Target: Bellverie Ross	Tracking/Reporting Responsibility: Bellverie Ross
Notes/Assumptions:		

Innovation & Technology Strengthen the I&T team culture		
Corporate Objective: Achieve Positive Employee Climate		
Dept Initiative: Build I&T as the City's primary provider and broker of strategically essential technology services		
Measure and Target: Measure – Achieve three (3) all-hands team building events Target – 100% complete by June 30, 2016		
Units of Measure: Percent complete	Frequency of Update: Quarterly	
Measurement Intent: Build the I&T team		
Measurement Formula: Percent completion of the number of team building events		
Data Elements and Sources: Objective assessment from metrics		
Source For and Approach to Setting Targets: Measurement and target were set to meet expectations set by the CIO		
Data Contact: Twyla McDermott		
Target Setting Responsibility: Twyla McDermott	Accountability for Meeting Target: Twyla McDermott	Tracking/Reporting Responsibility: Twyla McDermott
Notes/Assumptions:		

Innovation & Technology Promote holistic employee wellness		
Corporate Objective: Achieve Positive Employee Climate		
Dept Initiative: Build I&T as the City's primary provider and broker of strategically essential technology services		
Measure and Target: Measure – Include a Spotlight on Wellness at 100% of all all-hands meetings Target – 100% Complete by June 30, 2016		
Units of Measure: Percent complete	Frequency of Update: Quarterly	
Measurement Intent: Improve the health and well being of I&T employees		
Measurement Formula: Number of Spotlights divided by the total number of all-hands meetings		
Data Elements and Sources: Objective assessment from system metrics		
Source For and Approach to Setting Targets: Measurement and target were set by the CIO.		
Data Contact: Bellverie Ross		
Target Setting Responsibility: Jeffrey Stovall	Accountability for Meeting Target: Jeffrey Stovall	Tracking/Reporting Responsibility: Jeffrey Stovall
Notes/Assumptions:		