



STRATEGIC PLAN 2017-2018



INFORMATION TECHNOLOGY AGENCY

Introduction

"Today, Information Technology is changing the world, making it more idea intensive, better connected, and ultimately more urban."

--Edward Glaeser, Triumph of the City

Under the leadership of Mayor Eric Garcetti, the Information Technology Agency (ITA) works with agencies and departments across the City of Los Angeles to develop world-class IT infrastructure and applications that provide our citizens, businesses, and visitors with the digital services they expect from a leading global city. In an era of transformative technology, the opportunities have never been greater to improve the lives of L.A. residents, businesses, and tourists through digital means. In fact, Angelenos demand that we provide them information and services digitally. The ITA recognizes this demand and our unique role as technology leaders in L.A. government. Our efforts to keep Los Angeles at the forefront of government accessibility, reliability, and innovation have been acknowledged. L.A. has been globally recognized among industry leaders in the use of digital technologies to deliver services and publish data for transparency and utility. During 2016 alone, the City of Los Angeles earned 13 national technology awards (*see Appendix A - Key Accomplishments for details*). But for all of our accomplishments, our City still remains far from the ultimate vision of becoming a *fully digital and connected city*. Therein lies the importance of strategic planning.

Through effective strategic planning and execution, the ITA focuses its resources on overcoming key challenges to enable the City of Los Angeles to meet its full potential. As described by famed UCLA professor, Richard Rumelt, "Good strategy works by focusing energy and resources on one, or a very few, pivotal objectives whose accomplishment will lead to a cascade of favorable outcomes." This document seeks to summarize our pivotal objectives for the next two years and the challenges they overcome. Unlike some strategic plans, this is not intended to be a comprehensive listing of what we do, our accomplishments, or upcoming projects. Simply put, this document strives to succinctly summarize our environment, our focus, and our strategic priorities for 2017-18, using what we call "*Responsive, Responsible, and Excellent Tech.*"

Ted Ross
General Manager and CIO
City of Los Angeles, Information Technology Agency



ITA Strategic Plan... At A Glance

- The City of Los Angeles is a world-class city that endeavors to be fully digital and connected to improve the lives of 4 million residents, 45 million tourists and 97,000 businesses.
- The Information Technology Agency (ITA) comprises 442 IT professionals in 18 divisions delivering 366 different technology services.
- The ITA believes the single most important success factor is an in-depth understanding of our customers.
- Depending on the ITA service, our customers are: internal within L.A. government, residents/businesses, transitory, or a targeted population.
- The ITA has 10 areas of focus that Empower L.A.'s Workforce, Serve L.A.'s Residents, Businesses, and Visitors & Transform L.A.'s operations.
- ITA's vision is to become a best-in-class technology department that demonstrates Responsive, Responsible, and Excellent Technology.
- ITA's vision is delivered through:
 - IT Services ("what we do")
 - IT Projects ("what we build")
 - IT Metrics ("how well we do it")
- These key challenges significantly hinder the City's technology vision and require strategic coordination to resolve:
 - Challenge #1 - Inconsistent Quality in City Technology Services
 - Challenge #2 - Excessive Focus on Internal IT Service Delivery
 - Challenge #3 - Aging Technology Infrastructure
 - Challenge #4 - Rapidly Retiring IT Workforce
- To overcome these challenges, the ITA has developed objectives and projects, known as 'Our Strategic Priorities for 2017-18':
 - Priority #1 - Transform Use of Tech By Every City Department
 - Priority #2 - Apply Technology to Directly Improve Public Welfare
 - Priority #3 - Build Next Generation IT Infrastructure and Capabilities
 - Priority #4 - Recruit and Develop Top-Tier IT Human Resources

Our Environment

"People don't want to buy a ¼ inch drill. They simply want a ¼ inch hole. "
--Clayton Christensen, The Innovator's Solution

Our Services

The Information Technology Agency (ITA) is comprised of 442 IT professionals organized into 18 divisions with an annual operating budget of \$90 million. Unlike the "traditional" government IT department, the ITA is responsible for a broad spectrum of services. Our 18 divisions deliver 366 different technology services to both internal and external customers. These range from classic IT services, such as computer support, enterprise applications, data networks, and a 24/7 data center to progressive digital services, such as a TV station (LA Cityview), 3-1-1 Call Center, public safety radio/microwave communications, helicopter avionics, enterprise social media, and more. The breadth of our services necessitates close management to ensure integration and efficiency between our divisions, while maintaining a clear focus on specific customer groups and their unique needs.

Our Customers

The ITA believes the single most important success factor in IT service delivery, is an in-depth understanding of our customers.

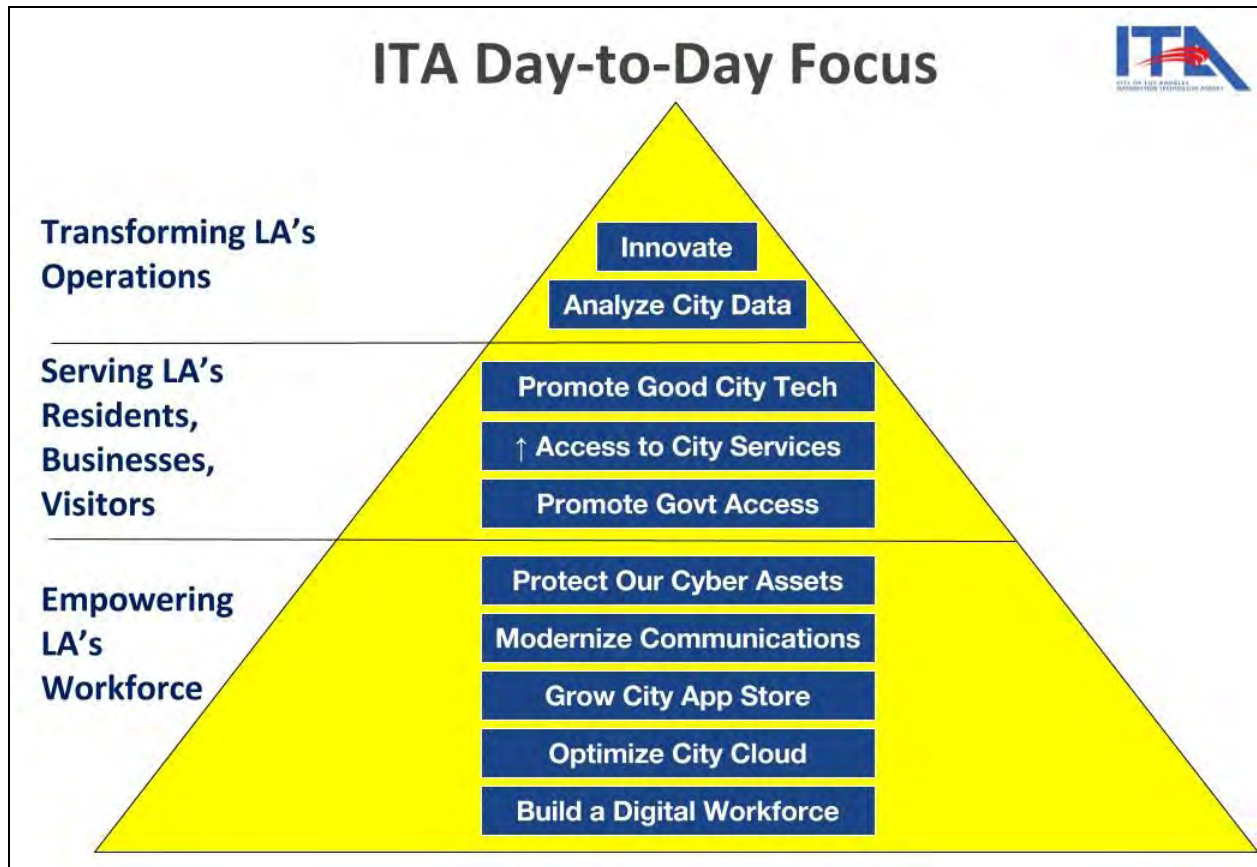
Depending on the specific ITA service, our customers are:

- Internal within City government
 - 18 elected officials
 - 48,000 City employees
 - 41 City departments
- External to City government
 - 4 million L.A. residents across 469 square miles
 - 97,000 L.A. businesses
- Transitory to the City of Los Angeles
 - 45 million tourists
- Targeted Populations
 - Veterans, homeless or nearly homeless, domestic violence victims, L.A. youth seeking employment, older Angelenos, universities, etc.

Since our department serves a very broad constituency, we organize the ITA into divisions allowing us to better align specific IT services with customers and stakeholders. For example, our Public Safety Communication Services Division works very closely with police, fire, and emergency management personnel to align our services with their unique needs for field and dispatch communications. In contrast, our 3-1-1 Call Center engages closely with community groups, Neighborhood Councils, and the public-at-large, to understand the needs of residents and businesses seeking City of Los Angeles information or services. As such, a critical success factor for the Information Technology Agency is our ability to fully identify our customers, understand both needs and wants, and deliver IT services that maximize the outcomes they desire. This in turn, influences our strategic priorities, investments, and service offerings.

Our Focus

The following pyramid summarizes what we do and who we serve on a day-to-day basis:



Our Philosophy

"Don't obsess about the failures. Instead, investigate and clone the successes."

--Chip and Dan Heath, Switch

Our Vision

ITA's vision is to make Los Angeles a fully digital and connected city.

Our Mission

To best serve the City of Los Angeles, the Information Technology Agency (ITA) works to be a best-in-class technology department that demonstrates *Responsive, Responsible, and Excellent Information Technology*:

- **Responsive Tech** - Delivers business outcomes for every City department by leveraging agile, flexible services that digitally engage citizens and employees



- **Responsible Tech** - Advocates technologies that promote sustainable choices and offers opportunities for a highly skilled, diverse, and representative workforce



- **Excellent Tech** - Achieves excellence in core IT infrastructure, innovation, and cybersecurity to protect the City's digital assets



How We Accomplish Our Mission?

ITA's mission is achieved through:

- **IT Services** → Daily operations... “what we do”
- **IT Projects** → Initiatives greater than 80 hours... “what we build”
- **IT Metrics** → Key performance indicators... “how well we do it”

Through the use of modern tools and practices, the ITA manages its operations, projects, and metrics. The following summarizes the frameworks used by ITA in these areas:

We Manage IT Services

On a daily basis, ITA staff implement new IT services, repair existing ones, or develop enhancements. In fact, the ITA supports and maintains a staggering amount of software applications, network and server infrastructure, phone communications, computer support, public safety radio and microwave systems, 3-1-1 requests, LA Cityview TV programming, etc. Towards the fulfillment of our vision, the ITA utilizes leading practices in our daily support operations (ITIL), software development (Agile), and customer focus (Voice of the Customer).

- **Information Technology Infrastructure Library (ITIL)** - ITIL is a global standard in IT Service Management. These leading practice principles and processes are used by ITA to help align our IT services with the needs of our stakeholders. These principles are formalized into our internal operations, such as the ServiceNow IT service management system. Service requests are entered daily by ITA teams and resolved in a timely basis. Details about ITIL can be found here: <https://www.axelos.com/best-practice-solutions/itil/what-is-itil>
- **Agile Software Development** - Agile software development is a progressive approach to the creation and enhancement of applications. These processes are used by ITA to develop software that is engaging, effective, minimalist, and responsive to our customer needs. Our software developers emphasize:
 - Individuals and interactions *over* internal processes/tools
 - Working software *over* mockups
 - Customer collaboration *over* rigid requirements
 - Responding to changes *over* strictly following a plan

Details about Agile can be found here: <http://agilemanifesto.org/>

- **Voice of the Customer (aka House of Quality)** - Voice of the Customer (VoC) are techniques to capture customer expectations and requirements. The ITA deploys some of these techniques to improve alignment of our IT services with customer needs and wants. Details about VoC can be found here: https://en.wikipedia.org/wiki/Voice_of_the_customer

We Manage IT Projects

The ITA defines projects as a temporary effort to create a new or substantially changed product or service. Generally, our IT projects are greater than 80 hours in staff investment, has identified customer benefits, and a defined start/stop. Towards the fulfillment of our vision, the ITA manages these efforts as projects and uses leading practice principles (PMBOK and Lean Six Sigma) to both maximize City resources and project benefits to the customers.

- **Project Management Institute (PMI)** - The Project Management Institute (PMI) is a global leader in providing tools and processes to successfully initiate, manage, and close IT projects. ITA uses principles from their Project Management Book of Knowledge (PMBOK) during the management of large projects (>80 hours), with “At Risk Projects” reviewed in a weekly ITA Project Review meeting. Details about the PMI and PMBOK can be found here: <http://www.pmi.org/>
- **Lean Six Sigma** - Lean Management and Six Sigma provide proven principles to optimize business processes. The ITA uses Lean Six Sigma principles before the introduction of new projects or software. ITA staff and customer partners are periodically sent to complete the PerformLA training facilitated by the Mayor’s Office of Budget and Innovation. Details can be found here: <http://asq.org/learn-about-quality/six-sigma/overview/overview.html>

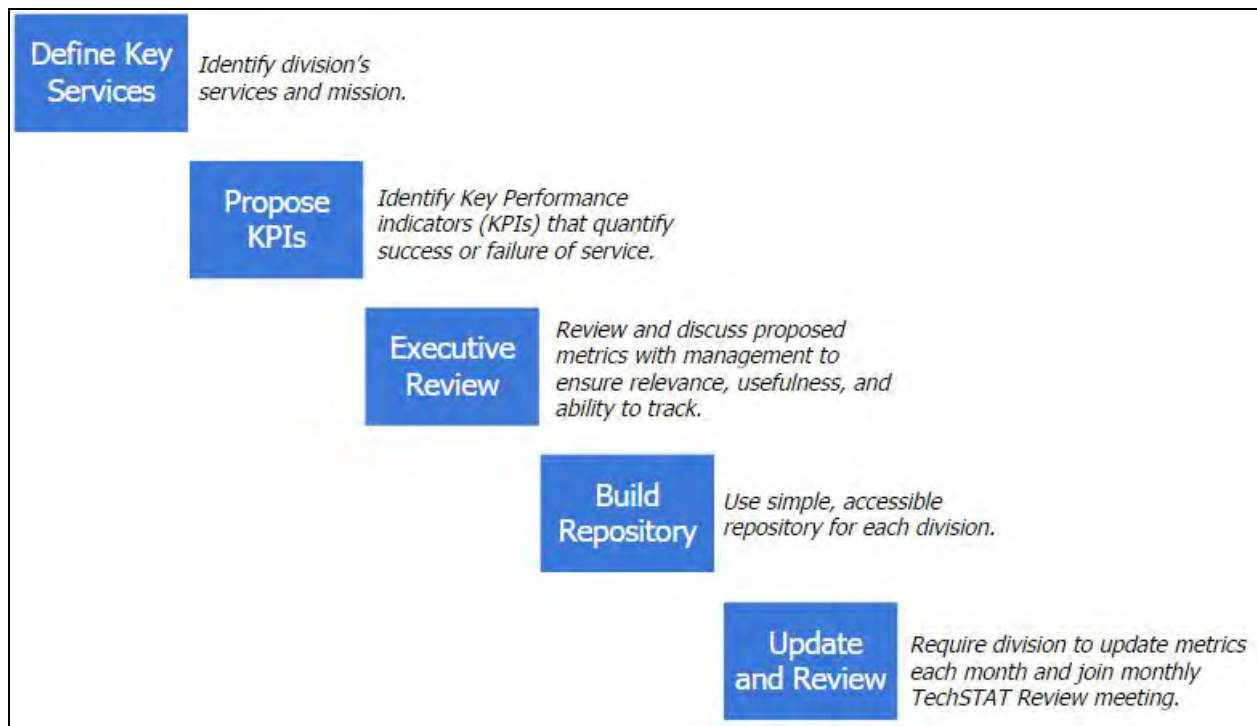
We Define Success Through Metrics

If services are what we do and projects are what we build... then metrics are how well we do it. The Information Technology Agency (ITA) is passionate about the measurement and active management of key services through performance management. In 2013, Mayor Eric Garcetti required all City of Los Angeles departments to establish their own performance management program modeled

after the highly successful LA Police Department COMPSTAT program. Since that time, the ITA has experimented and refined a monthly, collaborative program, known as TechSTAT. By shortlisting key goals and targets, identifying Key Performance Indicators, reviewing accurate and timely data, and active management of results, the ITA has made considerable improvements to its operations.

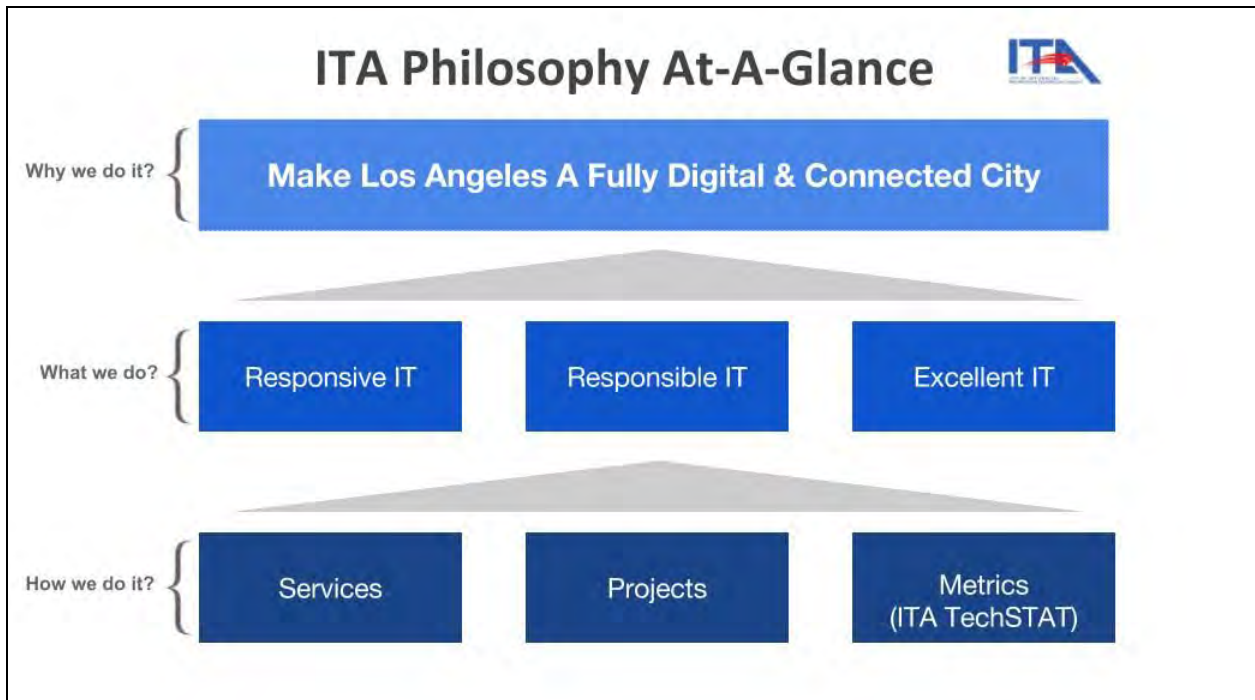
Each year, the ITA re-assesses its metrics for strategic priorities and daily operations. This includes the following:

1. Define key services and strategic priorities
2. Identify KPIs that measure success or “health” of those priorities
3. Review the proposed KPIs across the management team
4. Gather data into a central ITA repository for easy access and sharing
5. Update and review KPIs each month in TechSTAT meeting



At our monthly TechSTAT meeting, every division manager is accountable to know their metrics, have a theory of change for positive or negative results, a plan of action for improvement, and can request assistance from other divisions or executive team. In short, by each priority and each service, we define success.

The diagram below summarizes the ITA Philosophy detailed in the above section:



Key Challenges

"Good strategy does more than urge us forward toward a goal or vision. A good strategy honestly acknowledges the challenges being faced and provides an approach to overcoming them."

--Richard Rumelt, Good Strategy, Bad Strategy

Needless to say, there are many challenges faced by large organizations, such as the City of Los Angeles and the Information Technology Agency (ITA). However, the following are key strategic challenges that significantly hinder the City's technology vision and require strategic coordination to resolve.

Challenge #1 - Inconsistent Quality in City Technology Services



The ITA has dramatically improved its enterprise digital services, infrastructure, and platforms. The ITA is now working closely with other City departments to improve their digital services. City of L.A. departments are varied in their technology prowess. Some departments have limited technology expertise or investments. Others have large investments, but prioritize large enterprise systems with limited attention to new services. No longer simply the venue of the “technology department”, technology has become ubiquitous in just about all business processes. As such, it is critical for all City departments to become effective users of technology for the good of L.A.’s residents, businesses, and visitors. Leveraging lessons learned by top-performing departments, the ITA has the opportunity to use Technology Plans to affect and transform technology delivery across the entire City.

Challenge #2 - Excessive Focus on Internal IT Service Delivery



Historically, the ITA has delivered most of its services to other City departments. While many of these services are critical to City operations, this can also result in an unbalanced focus of mission and stakeholders (i.e. ITA only serves “City of Los Angeles” employees and not the city of Los Angeles!). Based on stakeholder feedback, the ITA is increasingly delivering services that directly

engage and benefit L.A.'s residents, businesses, visitors, and targeted populations (e.g. homeless, veterans, startups). The ITA has unique capabilities to engage Angelenos through award-winning applications (e.g. MyLA311 Mobile), websites (<https://LACity.org/>), or open system-to-system interfaces, APIs (<https://data.lacity.org/>). As technology is increasingly pervasive, the ITA has an opportunity to extend its reach and contribute directly to the public in a wider variety of areas.

Challenge #3 - Aging Technology Infrastructure



A best-in-class City workforce and services require advanced technology infrastructure to support them. Due to the Great Recession of 2008, the City of Los Angeles, like most municipal governments, saw a dramatic reduction in IT infrastructure investments with deferred maintenance expenses in both existing infrastructure and replacement projects. Investments under Mayor Eric Garcetti and City Council have made substantial IT infrastructure improvements in the last two years. However, IT infrastructure is still a major factor in the success of many digital services and technology opportunities around the City. Effective IT infrastructure provides an opportunity to transform City services, increase the effectiveness of the City workforce, and improve the quality and reliability of services.

Challenge #4 - Rapidly Retiring IT Workforce



Quality human resources are the most important asset for a modern IT organization. With the upcoming “silver tsunami” of City retirements, the ITA is committed to the modernization of IT services and the long-term recruitment, development, and retention of high quality resources to manage City technology. Over 50 percent of ITA staff are eligible to retire within two years. The mass exodus in the coming years will challenge IT operations and succession planning, but may also provide a unique opportunity to transform how the City delivers technology through an influx of new staff and skillsets.

Our Strategic Priorities for 2017-18

"Without conscious and deliberate effort, inertia always wins."

--Tony Hsieh, Founder of Zappos

Based on the challenges listed above and our assessment of pivotal objectives, the following summarizes our strategic priorities and samples of key projects for 2017-2018:



Priority #1 - Transform Use of Technology By Every City Department (Technology Plans)

<Addresses Challenge #1 - Inconsistent Quality in City Technology Services>

The Objective

World-class government digital services for residents, businesses, and visitors, that are optimized, innovative, coordinated, and delivered by all City departments from Airports to the Zoo. We intend to build on this objective by establishing annual department updates in the budget process and the development of cross-department capabilities (e.g. code libraries, API libraries).

Key Project Samples for 2017-18

- ❑ *Survey and interview management of all 41 City departments*
- ❑ *Assess existing use of technology (Are we doing things right?) and technology opportunities (Are we doing the right things?)*
- ❑ *Connect similar department needs for cross-department planning*
- ❑ *Assist City departments with Technology Plans with FY17-18 budget*
- ❑ *Develop and publish citywide Technology Strategy document*



Priority #3 - Build Next Generation IT Infrastructure and Capabilities (NextGen Infrastructure)

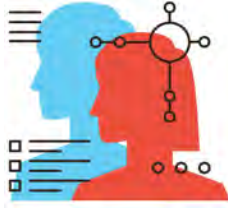
<Addresses Challenge #3 - Aging Technology Infrastructure>

The Objective

Establish low-cost, robust, and agile IT infrastructure that empowers a digital workforce and delivers digital services. We intend to build on this objective by expanding high-speed, pervasive WiFi throughout City facilities, expanding the use of Cloud infrastructure, replacing aging public safety radio communications, reducing end-of-life telephone systems with VoIP or messaging apps, and implementing cybersecurity endpoint protection.

Key Project Samples for 2017-18

- ❑ Install high speed, pervasive WiFi in 4 large City facilities*
- ❑ Double the number of Cloud-hosted applications*
- ❑ Replace legacy phone lines with low-cost, feature-rich VoIP*
- ❑ Maintain 99.8% data network availability*
- ❑ Implement citywide Cybersecurity Awareness Program*
- ❑ Protect 8 critical IT assets thru new Critical Asset Protection program*



Priority #4 - Recruit and Develop Top-Tier IT Human Resources (Succession Planning)

<Addresses Challenge #4 - Rapidly Retiring IT Workforce>

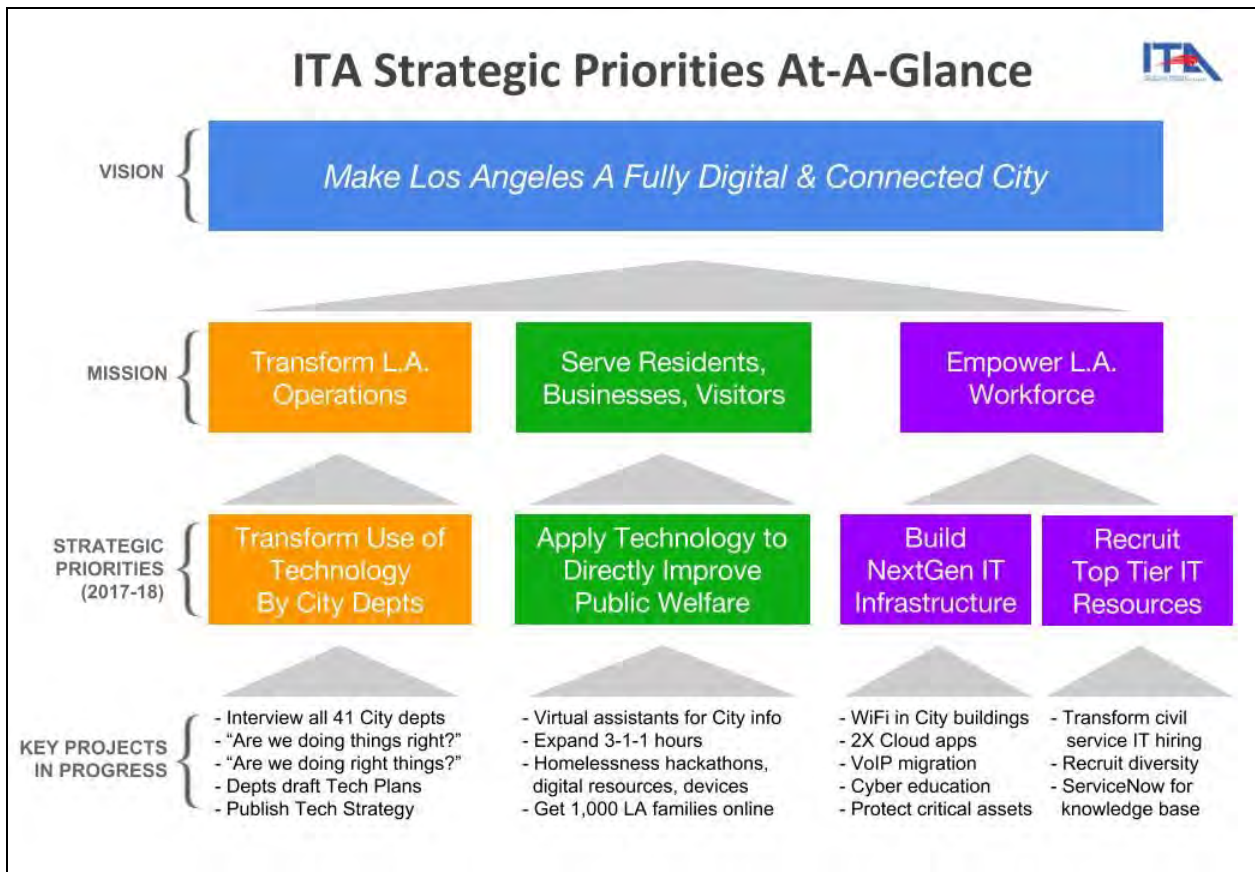
Our Objective

Have capable IT employees and freelance contractors that deliver modern, efficient, and innovative technology outcomes for the City. We intend to build on this objective by expanding computer-based, continuous civil service examinations for IT classifications, active recruitment at universities and Targeted Local Hire programs, expanding the use of interns, establishing freelance contractors when needed for IT projects, and expansion of ServiceNow software as a knowledge warehouse for IT staff.

Key Project Samples for 2017-18

- ❑ *Establish computer-based, rapid civil service exams for IT classes*
 - Compile examination questions through IT certification vendors*
 - Establish examination software or service with Personnel Department*
 - Setup Personnel testing centers for 70 concurrent test-takers*
- ❑ *Perform recruitment events at colleges, academies, hackathons*
- ❑ *Onboard 35 interns/student workers as “feeders” to civil service in 2017*
- ❑ *Implement enhanced annual employee evaluation program*
- ❑ *Implementation of ServiceNow software for ITA Knowledge Warehouse*

The diagram below summarizes ITA’s Strategic Priorities in the context of ITA’s Philosophy:



Acknowledgements

"Great things in business are never done by one person. They're done by a team of people."

--Steve Jobs, Co-Founder of Apple

We would like to acknowledge the truly progressive leadership of Mayor Eric Garcetti to both transform the digital presence of L.A. government and the L.A. tech scene as a global hub for startups, green technologies, and innovation.

We would like to acknowledge the energy and support of our City Council who represent the diverse communities that make up Los Angeles and work tirelessly to improve City government for all Angelenos.

We would like to acknowledge the City's IT Council Committee (IGTCT), specifically Councilmembers Bob Blumenfield (Chair), Mike Bonin (Vice-Chair), Paul Krekorian, and Joe Buscaino who ask the tough questions and expect excellence from the Information Technology Agency.

We would like to acknowledge City Controller Ron Galperin and his staff for always asking "Why?" and "Why not?" for the digital betterment and transparency of City government.

We would like to acknowledge City Attorney Mike Feuer and his staff for their effective advocacy for L.A. residents and businesses, as well as, their efforts to educate the public on cyber crimes and cybersecurity.

We would like to acknowledge the hard work and diligence of ITA staff and City departments to provide Angelenos with the best possible digital experience, all the while navigating the various budgetary and administrative constraints of municipal government.

We would like to acknowledge our vendor partners who work tirelessly along with us in the trenches, while waiting patiently for contracts to be approved, payments to be received, and background checks to be processed.

Appendices

Appendix A - Key Accomplishments for Last Period (2015-16)

Received 18 National Technology Awards, including:

- 1st Place Digital City (Government Technology Magazine - 2016)
- 1st Place Open Data City (Code for America and Sunlight Foundation - 2015-16)
- City in the Cloud Award (Amazon Web Services - 2016)
- Cybersecurity Leadership Award (Intel Security - 2015)
- Cloud Innovator in Web Award (Acquia and Amazon Web Services - 2015)
- Most Valuable Program for Mobile – MyLA 311 (Government Computing News)
- StateScoop 50 Project Winner – Drupal Web Project (StateScoop.com)
- City of LA tech featured in The Economist, Fortune, a16z Summit, Wall Street Journal, Wired, Harvard University, Rutgers University, and multiple government trade publications

Superior Access to 3-1-1 & City Services:

- Reduced 3-1-1 call wait times by 25% (2014 vs. 2015)
- Reduced dropped calls by 70% (2013 vs. 2015)
- Increased web and mobile 3-1-1 requests from 9.7% to 21.3% (2016)
- Most 3-1-1 digital submissions in the US (288,000 in 2016)
- Piloted Google Waze API to crowdsource incidents for 3-1-1
- Marketing to key customer segments (Google Cards, websites, etc.)

Unprecedented Transparency and Tech Engagement:

- Saw 174% increase in DataLA open datasets (2014 vs. 2015)
- Performed Vision Zero data analysis project with USC, LADOT and LAPD
- Active participation at Hack for LA, Code for LA, and Civic Tech Hub

Improved Citizen Web Experience:

- Moved LACity.org onto new Cloud-hosted, open source Drupal platform which made it 60% faster, more reliable (99.993% uptime), ADA compliant, and 100% mobile responsive
- 26% increase in web traffic (unique visitors), including 64% in mobile
- Citywide navigation bar across all City sites to ease navigation, improve analytics, and reinforce City brand

Flexible and Efficient Mobile Workforce:

- Tripled the number of mobile apps for City employees in 2015 (4 to 13)
- LAFD Brush Inspection mobile app = 17,999 inspections in just 2 weeks
- MyPayLA app gives ~45k employees access to their Payroll information

Protecting City's Digital Assets (Cybersecurity):

- Implemented new monitoring and intrusion detection systems
- Completed 3rd party detailed penetration tests
- Deployed new Advanced Persistent Threat (APT) solution
- Developed City's first Information Security policy and standards
- Produced world-class Integrated Security Operations Center (ISOC), consolidating department data for centralized, 24/7 CICC monitoring

Insulating City Data and Systems from Disaster:

- Established City's first always on "hot site" for enterprise applications (Financials, Payroll, Purchasing, LATAX, Banking) alongside DWP
- Moved Alternate Emergency Operations Center (AEOC) to Cloud

Reduced City Energy Consumption and E-Waste:

- Refurbished and distributed 2,500 computers to families in need (2015-16)
- Reduced data center server consumption by 14% (2014 vs 2015)
- Power reductions across 22,700 City computers (96% less power at rest)
- Piloting micro-computers using ~70% less energy than typical desktops

Promoting Equity and Diversity in IT Workforce:

- Attained 53% female representation in ITA management positions
- 3 of 5 ITA Executive positions held by qualified women (300% ↑ in 2016)
- 1st City to join Tracy Chou Listing of % Female Programmers (#21 of 226)

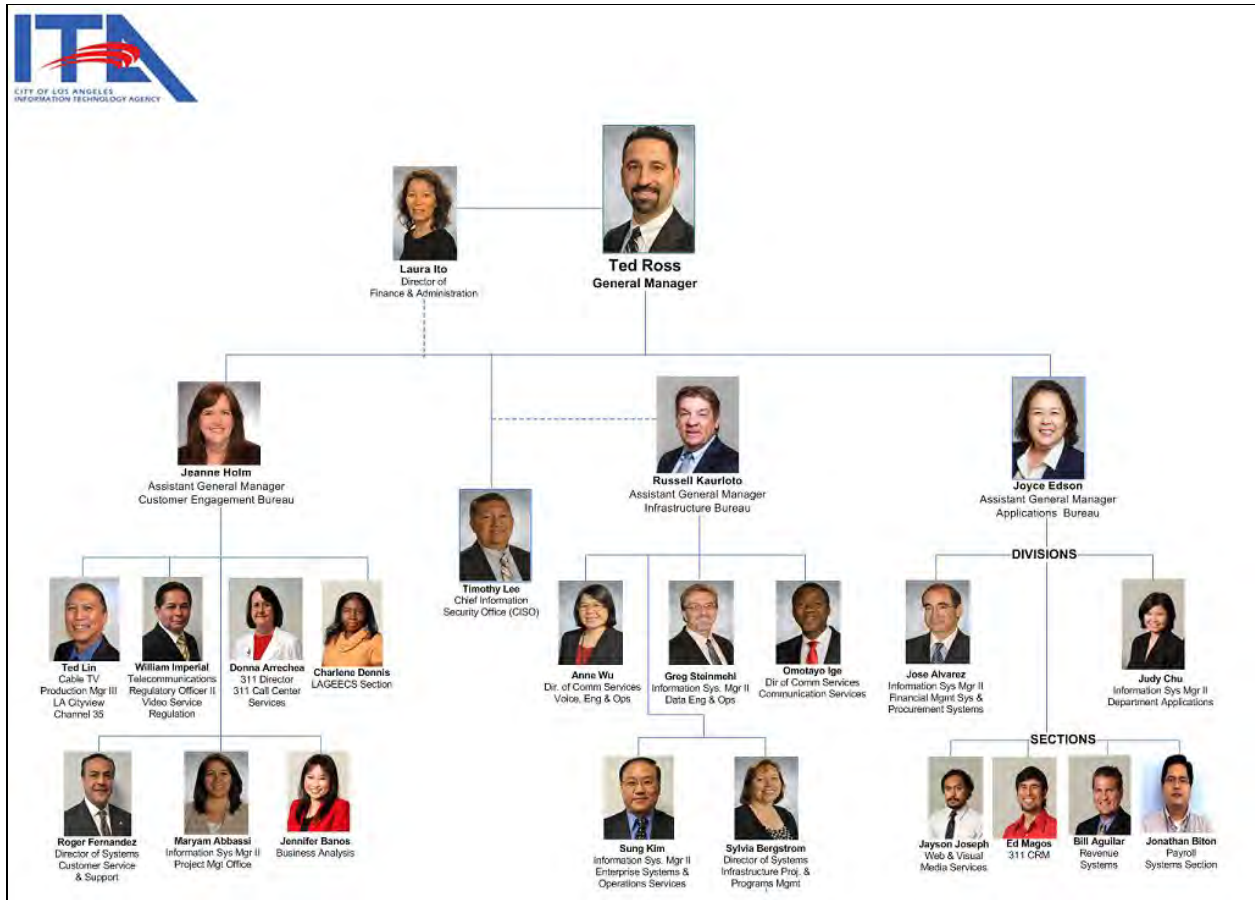
Improving Reliability and Capability of IT Infrastructure:

- Achieved 99.85% network availability
- Achieved 81.7% virtualized or Cloud hosted servers
- 36 new workloads in Cloud (2016)
- Established first-of-its-kind City partnership with CENIC, connecting City to California 100 Gbps research and education network; fastest in country.

Appendix B - ITA Management Team (as of January 2017)

"Getting the right people and the right chemistry is more important than getting the right idea."

--Ed Catmull, Creativity, Inc.



Appendix C - Additional L.A. City Resources

- ITA Internet Site - <http://ita.lacity.org>
- City of L.A. Internet Site - <https://www.lacity.org>
- L.A. Business Portal - <http://business.lacity.org>
- City of L.A. Contracting Opportunities - <http://labavn.org>
- L.A. Open Data Portal - <https://data.lacity.org>
- ControlPanel LA Financial Data - <https://controllerdata.lacity.org>
- L.A. GIS Open Data Portal - <http://geohub.lacity.org>
- City of L.A. Budget - <http://cao.lacity.org/budget>
- Get Involved - <https://www.lamayor.org/get-involved>