INNOVATION, TECHNOLOGY AND GENERAL SERVICES COMMITTEE REPORT relative to the comprehensive plan for the City's technology needs through the roadmap and findings provided by Avasant.

Recommendations for Council action:

1. INSTRUCT the Information Technology Agency (ITA) with guidance and support of the Information Technology Oversight Committee, to develop a roadmap around a Digital Enterprise with focus on the following:

   a. Improving current service delivery chain.
   b. Taking advantage of economies of scale.
   c. Addressing human capital needs through succession planning.
   d. Consider services that are most cost effective to be managed externally, such as remote hosting of mainframe.

2. AUTHORIZE the ITA to negotiate a contract with IBM for mainframe hosting through IBM SmartCloud.

3. AUTHORIZE the Information Technology Oversight Committee to continue to provide leadership and to guide the development of an information technology roadmap that identifies the cost and high-quality low-risk outcomes that the City can expect and which must include immediate, short-term, and long-term sustainable solutions.

4. INSTRUCT the Information Technology Oversight Committee to present the information technology roadmap to the City Council and Mayor in 120 days.

5. INSTRUCT the ITA to report back with findings and recommendations on a Digital Enterprise Roadmap.

Fiscal Impact Statement: The City Administrative Officer reports that approval of the recommendations in this report will have no direct impact to the General Fund at this time. A complete fiscal impact will be determined upon further consideration of the IT roadmap, formulated within the context of the Proposed 2015-16 Budget and in subsequent budget cycles.

Community Impact Statement: None submitted.

Summary:

At a meeting held on January 27, 2014, the Innovation, Technology and General Services Committee considered a December 4, 2014 City Administrative Officer (CAO) report relative to the Strategic Advisor for Technology Services.
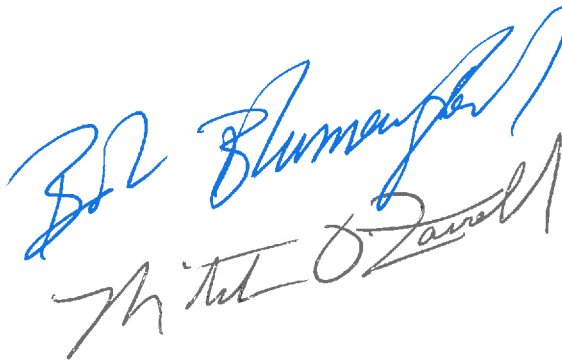
A representative from the office of the CAO addressed the Committee and gave a brief background of the matter and responded to questions from the Committee members. After a

brief discussion and after providing an opportunity for public comment, the Committee moved to approve the recommendations contained in the CAO report as detailed above. This matter is now forwarded to the Council for its consideration.

Respectfully Submitted,

INNOVATION TECHNOLOGY AND GENERAL SERVICES COMMITTEE

MEMBER	**VOTE**
BLUMENFIELD:	YES
BONIN:	YES
O'FARRELL:	YES

-NOT OFFICIAL UNTIL COUNCIL ACTS-

OFFICE OF THE CITY ADMINISTRATIVE OFFICER

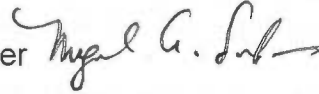|		
Date:	December 04, 2014	CAO File No. 0220-04682-001 Council File No. Council District:
To:	Honorable Members of the City Council	
From:	Miguel A. Santana, City Administrative Officer	
Subject:	**STRATEGIC ADVISOR FOR TECHNOLOGY SERVICES**	

SUMMARY

In 2011, at the request of the Information Technology Oversight Committee (ITOC), comprised of the City Administrative Officer, the Chief Legislative Analyst and the Office of the Mayor, the Information Technology Agency (ITA) released a Request for Proposals (RFP) seeking the services of a Strategic Advisor for Technology Services (SATS). The SATS RFP sought proposals to review the City's information technology (IT) services. ITA subsequently executed Contract C-122306 with Avasant, LLC (Avasant) for the SATS work. Avasant presented its findings to the ITOC, included herein as Attachment 1. Avasant identified and recommends that the City address critical IT risks by creating a clear IT service roadmap that will provide strategic direction on implementing new technologies that support the City's technology vision and service delivery through a Digital Enterprise model. A Digital Enterprise is an organization that uses technology as a competitive advantage in its internal and external operations.

The creation of the comprehensive plan to address the City's technology needs through this roadmap is of paramount importance. Moreover, once a plan is developed, implementing the plan requires a significant level of investment in the City's aging infrastructure. As such, the plan must address the most efficient and effective use of available funding sources, the identification of new funding sources including financing options, and the prioritization of needs and anticipated outcomes. Concurrent with the finalization of Avasant's recommendations, ITA began updating its own strategic plan document for 2014-17, which incorporates many of the findings from Avasant's review. ITA's 2014-17 Strategic Plan (C.F. 14-1646) was recently released and should be closely reviewed and discussed inasmuch as the document may provide a strong foundation for the comprehensive plan/roadmap recommended herein.

Therefore, this Office recommends that ITA, working under the guidance of the Information Technology Oversight Committee, be directed to develop a comprehensive plan or roadmap towards a Digital Enterprise that aligns elements from its current strategic plan and the Avasant study for the purpose of specifically answering the following questions:

1. What are the best opportunities for the City to improve current service delivery chains that take advantage of economies of scale?

2. What are the best practices, new standards, and quality control procedures that the City should adopt to minimize the City's risks (security risks, cost overruns, system failures, and disaster-recovery)?
3. How can the City best position itself to maintain and/or make available the human capital and the skill-sets required in a Digital Enterprise organization?
4. What best practices and new innovations exist that can improve the cost effectiveness of the City's management of technology driven projects and operations?

Once these questions are answered, the City can then begin to focus on the resource issues, including exploring new funding options and the prioritization of projects. This step undoubtedly requires a long-term view of the City's fiscal sustainability. Nevertheless, a clear opportunity for immediate action currently exists which this Office also supports. ITA is requesting authority to negotiate a contract with IBM to migrate the remaining applications from the mainframe in City Hall East P-4 to a vendor-hosted solution. The SmartCloud service will host the City mainframe applications using IBM's infrastructure and provides CJIS security requirements necessary to host the City's public safety applications. The move to a cloud solution has the potential for substantial savings as resources are repurposed from the maintenance of a mainframe located on the P-4 level to more innovative infrastructure solutions.

We recommend that ITA be authorized to negotiate a contract with IBM to transition to the SmartCloud using funding available in the Unappropriated Balance designated for technology projects.

SATS Approach and Summary of Issues

Avasant assessed City business and IT drivers, business alignment, service delivery models, scenario analysis, and risk analysis. The review consisted of extensive data collection, data analysis, interviews with key technology City stakeholders and potential solutions. The process included identification of the current cost baseline and calculation of alternative cost scenarios. Such alternative scenario costs are based on Avasant's database of services, staffing, and technology costs collected and developed through research. The scope of the study covered four key technology service areas:

1. Infrastructure, which includes the City's data center, radio systems, and data and voice networks. This infrastructure is managed centrally by ITA. In addition, many City departments manage separate data centers.
2. Enterprise applications, which are also managed by ITA, are generally larger and more complex applications which cross multiple city departments (financial management, payroll, and procurement systems, for example).
3. Business applications, which are typically developed and controlled by individual departments to support core business functions, and
4. Support services, which includes Help Desk, Desktop Support, and Technology Training and related technology.

Through extensive data collection and analysis, Avasant identified four IT business drivers (Innovation and Strategic Focus, Human Capital, Technology and Infrastructure, and Cost and

Quality of Service) where the City faces significant risks from its historical approach. While the City was aware of many of these deficiencies, Avasant provided comprehensive cost information that had not been readily available before and helped to frame the discussion on how best to meet the City's IT services strategy objectives and future requirements. Based on this overall assessment, Avasant identified areas that represent the most critical risk to the City and require an expedited path to mitigation: the data center, data network and the potential wide scale loss of employees to retirement with limited succession planning.

As outlined by Avasant, the drivers required to meet the City's IT services strategy objectives and future requirements are as follows:

- **Innovation and Strategic Focus** – The City must have access to innovation and the ability to focus on strategic initiatives. Among the key observations are the need for:
    - o A strategic approach to IT services to meet the City's future vision and provide focus beyond the day-to-day operations associated with "keeping the lights on;"
    - o Investment in improvements that provide a "quantum leap" in IT service delivery and technologies, required to achieve the City's desired future state of IT;
    - o Innovative priorities aligned with the City's IT strategic plan and roadmap; and,
    - o IT transformation to achieve the City's future vision through a strong IT services delivery backbone.

- **Human Capital** – The City must minimize risks from attrition. Avasant highlighted the risks associated with the large segment of the workforce that is eligible for retirement and the loss of institutional knowledge of the City's legacy systems.

    The City needs a workforce with cross-trained personnel to minimize the short-term impact of attrition on daily operations. IT systems are largely based on legacy technology and require skills sets that are difficult to replace. There is the potential for wide-scale loss of employees to retirement as 38 percent of ITA personnel, and 27 percent of Citywide IT employees, are eligible to retire in 2014. Those percentages are expected to grow in 2015.

- **Technology and Infrastructure** – The City must establish a strong IT infrastructure backbone that is scalable and provides cost effective services to meet the City's strategic objectives. The City is reliant on old technologies and systems that are unable to support current operations or future initiatives. The slow network has an adverse impact on City operations and hinders innovation as the current network cannot readily handle the additional volume that would be created with newer technologies. Further, the data center located in City Hall East P-4 level was identified as a high risk to the City because of limited disaster recovery and issues with the power and cooling systems.

- **Cost and Quality of Service Delivery** – The City must have the ability to provide higher quality IT services at lower costs. Currently, Departments operate autonomously and without economies of scale.

FINDINGS

This assessment makes clear that the status quo is unacceptable, and the City can no longer accept as a Citywide information technology management priority the limitations associated with "keeping the lights on." The question that must be addressed now is: what does better look like? Avasant has identified those areas that cannot wait to be addressed. The Mayor and City Council have acknowledged the need to improve the City's IT services by seeking solutions and taking steps to address critical items. In recent years, the City has allocated funding to address some of the most critical issues identified by ITA and subsequently validated by the Avasant study, such as establishing an offsite Disaster Recovery site for the City's most critical financial systems and has begun addressing cooling and power issues in the main data center located in City Hall East. Other steps that are being taken to address the strategic objectives and future requirements identified by Avasant include:

Innovation and Strategic Focus – ITA has developed a Strategic Plan based on a Digital Enterprise model consisting of a Cloud First strategy, a focus on mobility, open data and analytics, and architecture resilience. As part of the City Hall East P-4 project, ITA will create a private cloud to host those systems that cannot move to a public cloud.

Human Capital – ITA is currently working with this Office and the Personnel Department to develop a succession plan to actively address the risks from attrition and the potential for large-scale retirements.

Technology and Infrastructure – Currently, there are 26 data centers and the City must work to reduce the number of data centers and modernize its data center operations through public and private cloud options. This includes a large number of legacy applications, including public safety applications that run on the City's IBM mainframe. As new applications are developed on a modern distributed systems platform and the number of mainframe legacy applications decrease, the mainframe platform has become extremely costly to operate and supporting the mainframe is no longer cost-effective. ITA has identified a low risk solution to address the continued need for a mainframe platform. As ITA works to transition applications off of the City's mainframe to a distributed systems platform, ITA is requesting authority to negotiate a contract with IBM to migrate the remaining applications from the mainframe in City Hall East P-4 to a vendor-hosted solution. The SmartCloud service will host the City mainframe applications using IBM's infrastructure and promises the CJIS security requirements necessary to host public safety applications. The move to a cloud solution has the potential for substantial savings as resources are repurposed from the maintenance of a mainframe located on the P-4 level to more innovative infrastructure solutions. In addition, as the number of mainframe applications hosted in the SmartCloud is reduced, the cost of the SmartCloud service will decrease. Funding is currently available in the Unappropriated Balance to implement recommendations made by Avasant for future projects. We recommend that ITA be authorized to negotiate a contract with IBM to transition to the SmartCloud. As part of the move to the IBM SmartCloud, training would be requested to repurpose and redirect legacy mainframe skillsets to distributed open systems environments and provide a smoother transition to the distributed systems technical support.

Cost and Quality of Service Delivery – The ITOC has enabled City leaders to provide a more consistent and strategic approach to the use of technology throughout the City. Through the Information Technology Policy Committee (ITPC), ITA has engaged system managers throughout City departments to develop standards, create opportunities to collaborate, and identify economies of scale in IT operations. The ITOC and the ITPC have provided necessary structure and the ability to collaboratively identify and address current needs and future citywide IT objectives.

There is no one approach that can meet all of the City's IT needs and several significant issues still must be addressed. ITA is working to continue to identify solutions to address the most critical needs through the budget process, guided by the Strategic Plan. One of the most critical issues is the data network – until the slow network is addressed, the City will be hampered in implementing more current and innovative technology.

The ITOC has endorsed the next steps outlined by Avasant and acknowledges the need to create a more reliable and strategic approach to technology in the City. Accordingly, it is recommended that the City now move forward with the development of the detailed road map identifying specific priorities, cost, high-quality low-risk outcomes that the City can expect, and the timing associated with achieving those outcomes. ITA's Strategic Plan would establish the basis for that roadmap and enable the City to identify highest priority funding needs. It is further recommended that the Council authorize ITOC to continue its leadership in this effort and guide the development of the roadmap with ITA.

RECOMMENDATIONS

That the City Council:

1. Instruct the Information Technology Agency, with the guidance and support of the Information Technology Oversight Committee, to develop a roadmap around a Digital Enterprise with a focus on:
    A. Improving current service delivery chains;
    B. Taking advantage of economies of scale;
    C. Addressing human capital needs through succession planning; and,
    D. Consider services that are most cost effective to be managed externally, such as remote hosting of the mainframe.

2. Authorize the Information Technology Agency to negotiate a contract with IBM for mainframe hosting through IBM SmartCloud.

3. Authorize the Information Technology Oversight Committee to:
    A. Continue to provide leadership and to guide the development of an information technology roadmap that identifies the cost and high-quality low-risk outcomes that the City can expect and which must include immediate, short-term, and long-term sustainable solutions; and,
    B. Present the information technology roadmap to the City Council and Mayor in 120 days.

FISCAL IMPACT STATEMENT

Approval of the recommendations in this report will have no direct impact to the General Fund at this time. A complete fiscal impact will be determined upon further consideration of the IT roadmap, formulated within the context of the Proposed 2015-16 Budget and in subsequent budget cycles.

Attachments: Avasant, City of Los Angeles Strategic Advisor for Technology Services (SATS) Work Stream 1 – Scenario Analysis
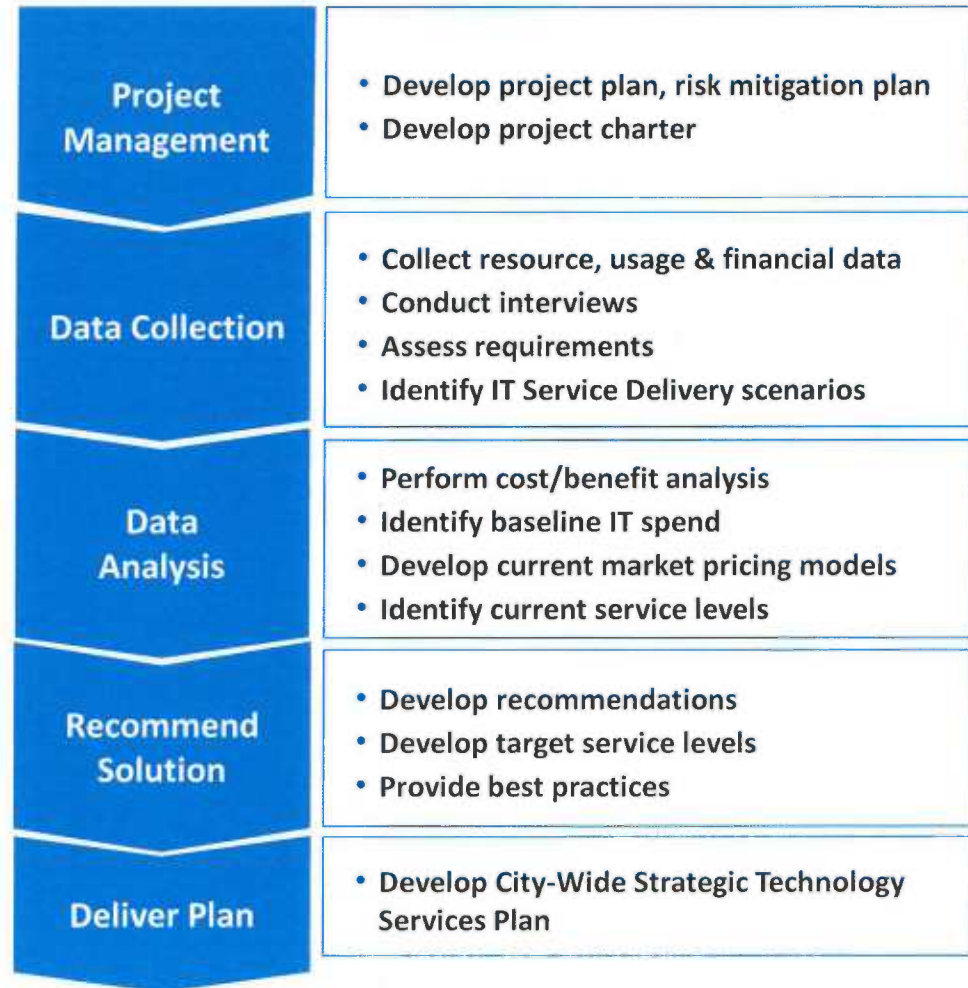
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Agenda

SATS

1. **Engagement Objectives and Methodology**

2. **Industry Best Practices Overview**

3. **Financial Baseline**

4. **Key Findings and Assessments**

5. **Next Steps**

Engagement Overview
Objectives and Methodology

SATS

Engagement Objectives

- Assess Business and IT Drivers
- Assess IT Business Alignment
- Conduct IT Service Delivery Model Analysis
- Conduct Scenario Analysis
- Conduct Risk Analysis
- Make Recommendations

Engagement Methodology

Project Management
- Develop project plan, risk mitigation plan
- Develop project charter

Data Collection
- Collect resource, usage & financial data
- Conduct interviews
- Assess requirements
- Identify IT Service Delivery scenarios

Data Analysis
- Perform cost/benefit analysis
- Identify baseline IT spend
- Develop current market pricing models
- Identify current service levels

Recommend Solution
- Develop recommendations
- Develop target service levels
- Provide best practices

Deliver Plan
- Develop City-Wide Strategic Technology Services Plan

Industry Best Practices

Every municipality has a different set of IT drivers that result in different priorities and standards

1. Innovation and Strategic Focus	2. Human Capital	3. Technology and Infrastructure	4. Cost and Quality of Service Delivery
• Established IT Vision and Mission communicated across the enterprise • Focused Strategic IT leadership on identifying / implementing new technologies that support the City's technology vision and service delivery • IT operational leadership focused on identifying / implementing new technologies that improve infrastructure efficiency. • Established Project Management Office with dedicated PM resources • Dedicated budget to fund technology innovation	• Functional services based organization structure • Scalable and quickly procurable skill sets • Minimized dependency on specialized legacy based expertise • Industry standard job classifications and compensation structures • Documented succession plan for leadership and "tribal" knowledge positions • Periodic and ongoing training on systems and technology best practices • Defined career path for employees	• Established enterprise technology policies, standards and change management processes • Reducing dependence on legacy applications and transitioning to COTS/ flexible cloud based offerings • Hardened data center with redundant environmental and network connections • Tested DR plans • Support a scalable infrastructure that meets dept. demand changes • Consistently meet infrastructure service levels in "steady state" • Commodity infrastructure services shared enterprise-wide • Fully documented IT infrastructure and applications	• Service Levels backed by accountability measures such as service credits or compensation structures • Variable cost structures aligned with resource consumption • Realize economies of scale • Market competitive costs pricing benchmarked every 3-5 years • Established enterprise wide governance processes • Have departmental liaisons that reside in central IT
Benchmark Spend 5-10%	**Benchmark Spend 40-55%**	**Benchmark Spend 40-50%**	

Benchmark Spend % = Actual Area Spend over Overall IT Spend

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The following represents the financial baseline for FY 2013-14: the current total IT spend of Non-Proprietary Departments is over $197 million on an annual basis. Proprietary Departments (POLA, LAWA and LADWP) have been excluded from the financial baseline.

Scenario 0 Zero Investment Baseline: The City continues as is without any additional investment or IT transformation.

Service Area	Year 0						Year 0	
	Depts		ITA		Total		Employee FTEs	Contractor FTEs
Data Center	$	20,566,326	$	17,305,085	$	37,871,411	175	7
Data Network	$	9,548,755	$	3,207,422	$	12,756,176	35	1
Voice Services	$	1,831,449	$	22,210,853	$	24,042,302	65	9
Desktop Management	$	17,740,353	$	5,526,199	$	23,266,553	82	12
IT Helpdesk	$	6,994,404	$	1,254,601	$	8,249,004	61	2
Application Development & Maintenance	$	39,429,138	$	24,152,006	$	63,581,143	279	25
Totals	**$**	**96,110,424**	**$**	**73,656,165**	**$**	**169,766,589**		
Communications	$	-	$	21,649,329	$	21,649,329	122	4
311	$	-	$	4,156,595	$	4,156,595	36	1
Channel 35	$	-	$	1,428,038	$	1,428,038	12	0
GRAND TOTALS	**$**	**96,110,424**	**$**	**100,890,127**	**$**	**197,000,551**	**868**	**62**

FTE Analysis	Depts.	ITA	Contractors -Depts.	Contractors-ITA	Total
Citywide	587	436	20	42	1085
Less: Vacancies/Depts. Removed	53	5	NA	NA	58
Less: Non-IT Roles	97	0	NA	NA	97
In Scope Baseline FTEs	**437**	**431**	**20**	**42**	**930**

Approximately 65% of the City's overall IT spend of $197 million is on staffing (labor) costs

Current State Assessment
Key ITA / Department Interview Summary Findings

SATS

Avasant assessed the following four key areas of IT service delivery across the City

1. Innovation and Strategic Focus	2. Human Capital	3. Technology and Infrastructure	4. Cost and Quality of Service Delivery
Focused on "keeping the lights on" versus strategic initiatives	Potential wide scale loss of employees to retirement; limited succession planning	Old/obsolete technologies and systems unable to support current ops/future initiatives	Individual departments operate autonomously and without economies of scale
ITA's historic lack of innovation and IT leadership	Current IT staff often has a "do what it takes" attitude, but not defined processes for delivery	P4 data center - high risk to the City (limited DR, power, cooling, etc)	Level of responsiveness by ITA is insufficient to meet objectives
Lack of budget/funding for hiring and new technology implementation	IT systems are largely legacy technology requiring difficult to find skill sets	Slow/unavailable network, adverse impact on City ops	Departments perceive ITA as lacking an understanding of their business requirements
Lack of strategic direction provided in a "top-down" approach	Limited or no access to adequately skilled IT resources	Lack of documented policies and procedures	No actual service levels - ITA provides "best efforts" services
No investment in research/innovation	Lack of required training and documentation to support consistent service delivery	Inability to implement new technologies and systems	Historical strained relationship between ITA and departments
Lack of succession planning	Poor hiring/rehiring policies and processes – Vacancies not filled	Limited scalability and flexibility in IT service delivery	Historical lack of confidence in ITA's ability to deliver services
City IT departments are collaborating to develop citywide IT standards	Drain of talent pool to higher paying LAWA/ DWP and private sector jobs	Highly decentralized environment, resulting in duplication of activities	General morale of City IT staff has been low; CSAT is low

Critical issues

Current State Assessment
Most Critical Issues

The following findings represent the most critical risks to the City and warrant an expedited path to mitigation. These recommendations do not impact the City's ability to pursue any of the delivery scenarios currently being reviewed.

Slow/unavailable network - adverse impact on City operations	• Network infrastructure requires major overhaul or outages will continue to occur at an increasing pace, further reducing employee productivity and quality of service to City residents and patrons • Cost to overhaul the network infrastructure is approximately $35 million based on a Cisco study dated April, 2013 • Estimated time to implement – 3 years
P4 data center - high risk to the City (limited DR, power, cooling, etc.)	• The City needs to relocate its systems to a hardened, minimum Tier 3 equivalent data center facility, in order to avoid significant potential for short and longer term outages • Cost to transition to a new facility with warm disaster recovery site is approx. $3 million • Estimated time to implement – 6 months
Potential wide scale loss of employees to retirement; limited succession planning	• The City maintains approximately 1,200 applications, most of which are not documented with respect to operational, maintenance, and break/fix activities • 40% of ITA and the department IT personnel are eligible for retirement in 3 years. Without system documentation, the City has a high risk of losing system operating knowledge. Due to the age of technology, reacquiring the skill sets will be extremely difficult • The City needs to identify systems that are most critical and have the highest risk of knowledge flight and document the applications • The cost to document the applications is estimated to be $525,000 and the process will take approximately 8-10 months (assumes 30 highly critical, custom built applications)

Scenario Comparison and Analysis
5 year Summary of Baseline vs. Projected Baseline

SATS

Scenario 0 Zero Investment Baseline: City continues as-is without any additional investment or IT transformation.

Scenario 0: Baseline Pricing	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1 - Year 5
Totals	$ 171,464,255	$ 173,178,897	$ 174,910,686	$ 176,659,793	$ 178,426,391	$ 874,640,023

Scenario 1 Projected Baseline: Minimal investments to critical improvements made to current IT environment

Scenario 1: Projected Base Case	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1 - Year 5
Scenario 1: Data Center	$ 46,699,371	$ 47,166,365	$ 47,638,029	$ 48,114,409	$ 48,595,553	$ 238,213,727
Scenario 1: Data Network	$ 22,578,432	$ 22,804,216	$ 23,032,258	$ 23,262,581	$ 23,495,207	$ 115,172,694
Scenario 1: Voice Services	$ 29,091,186	$ 29,382,097	$ 29,675,918	$ 29,972,678	$ 30,272,404	$ 148,394,283
Scenario 1: Desktop Management	$ 26,989,201	$ 27,259,093	$ 27,531,684	$ 27,807,001	$ 28,085,071	$ 137,672,049
Scenario 1: IT Helpdesk	$ 9,156,395	$ 9,247,959	$ 9,340,438	$ 9,433,843	$ 9,528,181	$ 46,706,815
Scenario 1: Application Development & Maintenance	$ 73,754,126	$ 74,491,667	$ 75,236,584	$ 75,988,950	$ 76,748,840	$ 376,220,167
Totals	$ 208,268,711	$ 210,351,398	$ 212,454,912	$ 214,579,461	$ 216,725,255	$ 1,062,379,736
Increase Over Baseline (%)	21%	21%	21%	21%	21%	21%

Above Financial Baselines on both Scenario 0 and 1 excludes Communications, 3-1-1 and Channel 35 service areas

Retiring Workforce

Staff Retirement Eligibility Analysis			
Employees Eligible for Retirement	2014	2017	2019
ITA employees	38%	50%	60%
Dept. IT employees	20%	32%	37%
Citywide IT employees	27%	40%	47%

Avasant is still validating retirement eligibility status of 12% of the Staff Citywide

Increasing Staff Benefit Costs

Year	Flex Program		LACERS & Medicare			
	Flex	% Increase	LACERS	Medicare	Total	% Increase
2013-14	$11,441	-	25.33%	1.50%	26.83%	-
2014-15	$12,220	6.8%	26.56%	1.50%	28.06%	4.6%
2015-16	$13,210	8.1%	28.57%	1.50%	30.07%	7.2%
2016-17	$14,227	7.7%	29.65%	1.50%	31.15%	3.6%
2017-18	$15,223	7.0%	28.73%	1.50%	30.23%	-3.0%
2018-19	$16,243	6.7%	27.94%	1.50%	29.44%	-2.6%

Source: City Administrative Officer, City of Los Angeles

Future State Strategic Objectives
IT Services Strategy Objectives/Future Solution Reqs.

SATS

Based on the data collection and the key interview findings, the following business and IT drivers were identified to meet the City's IT services strategy objectives and future requirements:

1 Innovation and Strategic Focus

- Access to innovation and ability to focus on strategic initiatives

2 Human Capital

- Minimize risks from attrition, a large retiring workforce, loss of "tribal knowledge" and legacy system skills

3 Technology and Infrastructure

- Establish strong IT infrastructure backbone
- Scalable infrastructure and services to meet the City's strategic objectives
- Cost effective technology upgrades with continuous improvements

4 Cost and Quality of Service Delivery

- Ability to provide higher quality IT services at lower costs

Future State Scenarios/Options
Potential IT Services Solution Scenarios

SATS

Scenario 0: Zero Investment Baseline

The City continues as is without any additional investment or IT transformation.

Scenario 1: Projected Baseline

Minimal investments to critical improvements made to current IT environment.

> Maintain Status Quo

Scenario 2: Shared Services

IT services are centralized and are performed by in house resources. Efficiencies are gained through reduction in duplicative operations and resources.

Scenario 3: Staff Augmentation

Third party service provider brings best available, market-skilled resources to support the City. Efficiencies gained through increased resource productivity.

> For Further Evaluation

Scenario 4: Managed IT Services

IT services are provided by a third party service provider. Efficiencies are gained through economies of scale, upgrades tools and technology, labor arbitrage.

Scenario Comparison and Analysis
Alignment Against Future State Objectives

SATS

The City can use any one or a combination of any of the following scenarios to achieve the desired future state objectives:

Scenario Alignment

Future State Objectives ▼	Scenario 0: Zero Investment Baseline	Scenario 1: Improve Current IT Service Delivery	Scenario 2: Shared Services	Scenario 3: Staff Augmentation	Scenario 4: Managed IT Services
Innovation and Strategic Focus					
Access to innovation and ability to focus on strategic initiatives	○	◔	◔	◑	●
Human Capital					
Minimize People Attrition Risks – Retiring workforce, loss of knowledge	◔	◔	◔	◕	◕
Access to required/new skills and training	○	◔	◑	◕	◕
Technology and Infrastructure					
Establish strong IT services delivery backbone	◔	◑	◑	◑	●
Scalable Service Models	◔	◔	◔	◑	●
Cost effective continuous improvements/ technology upgrades	◔	◔	◑	◔	◕
Cost and Quality of Service Delivery					
Higher quality IT services at lower costs	○	○	◔	◕	◕

Rating Key   Poor Alignment to Key Drivers/ Higher Risk   ○ ◔ ◑ ◕ ●   Well Aligned to Key Drivers/ Lower Risk

Scenario Comparison and Analysis
Comparison of Risk Considerations by Scenario

SATS

From the analysis of the five scenarios, the Managed IT Services scenario presents the most likely path to achieving the City's IT objectives with minimal risk.

Risk Area	Scenario Scores				
	Scenario 0: Zero Investment Baseline	Scenario 1: Improve Current IT Service Delivery	Scenario 2: Shared Services	Scenario 3: Staff Augmentation	Scenario 4: Managed IT Services
Human Capital Risk	5	4	5	3.5	3
Performance/ Operational Risk	5	4.5	5	3.5	2.5
Transition Risk*	n/a	2.5	4	4.5	4.5
Technology Risk	5	4	4	4	2
Security Risk	4	4	3.5	3.5	2
Governance Risk	4.5	4	4	4	3
Financial Variability Risk	5	4.5	4.5	4	2.5
Average Scenario Risk Score	**4.8**	**3.9**	**4.3**	**3.9**	**2.8**

Low Risk ⟶ High Risk

Scale:	1 – 1.9	2.0 – 2.9	3.0 – 3.9	4.0 – 4.9	5

* Transition risk can be mitigated in Scenarios 3 and 4 through appropriate business planning.

SATS

1. Acknowledge that status quo is not acceptable

2. Establish a baseline for the future state scenario – determine target outcomes based on cost, risk, delivery value and timing

3. Determine alternative options/scenarios to achieve the future state - In-house/Outsource/Hybrid/Broadband Initiative

4. Establish a roadmap to achieve the new baseline

5. Evaluate and assess opportunities connected with the Broadband initiative