



City of Santa Fe IT Strategy Workshop

March 23-26, 2015

Santa Fe NM

Workshop Facilitator: Sumit Chowdhury

IT Strategy is about doing what the business needs

What Is an IT Strategy?

- An IT strategy provides a holistic view of the current IT environment, the future direction, and the initiatives required to achieve the desired future environment.
- It should enable nimble, reliable, and efficient response to strategic objectives.
- The output of this process should be an IT Strategic Roadmap, stemming from an analysis between current and desired states.
- Strategy definition does NOT begin with technology – always tie IT strategy back to business objectives.

How IT Strategy Impacts IT

- Defining an IT strategy means organizing IT's financial, technical, and human resources around business value, and providing oversight to manage risks.
- IT decisions are made that provide value over several years.
- IT initiatives are prioritized and ordered to recognize dependencies and synergies.

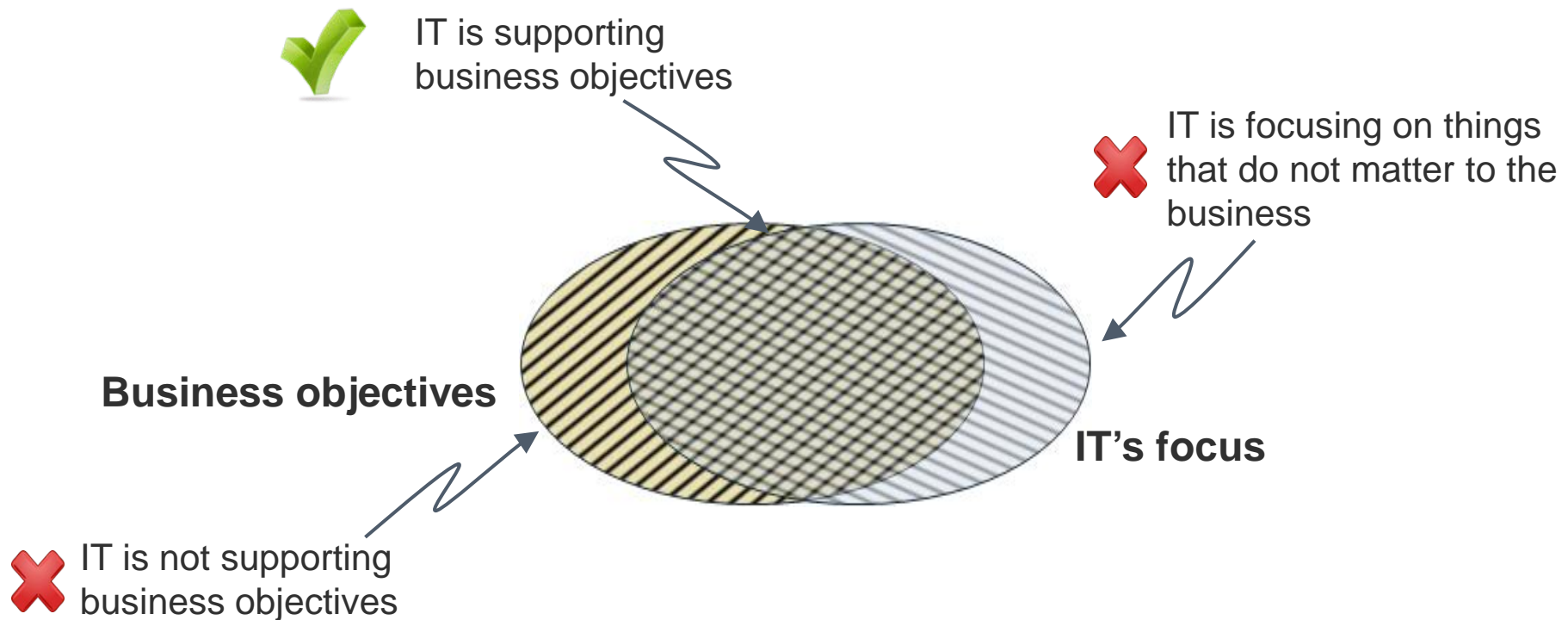
How IT Strategy Impacts the Business

- An IT strategy ensures the wise investment of business dollars in IT initiatives that help achieve business goals and objectives.
- The IT strategy drives lower costs, increased output, and competitive advantage through the alignment of IT activities with drivers of business success.

An effective IT roadmap prioritizes IT initiatives and investments based on their value to the business. It is critical that IT and the business agree on these priorities.

IT-Business Alignment is Key

A successful IT strategy ensures that there is Business – IT alignment, IT is working on initiatives that matter to the business, and IT avoids wasting budget on things that do not matter to the business.

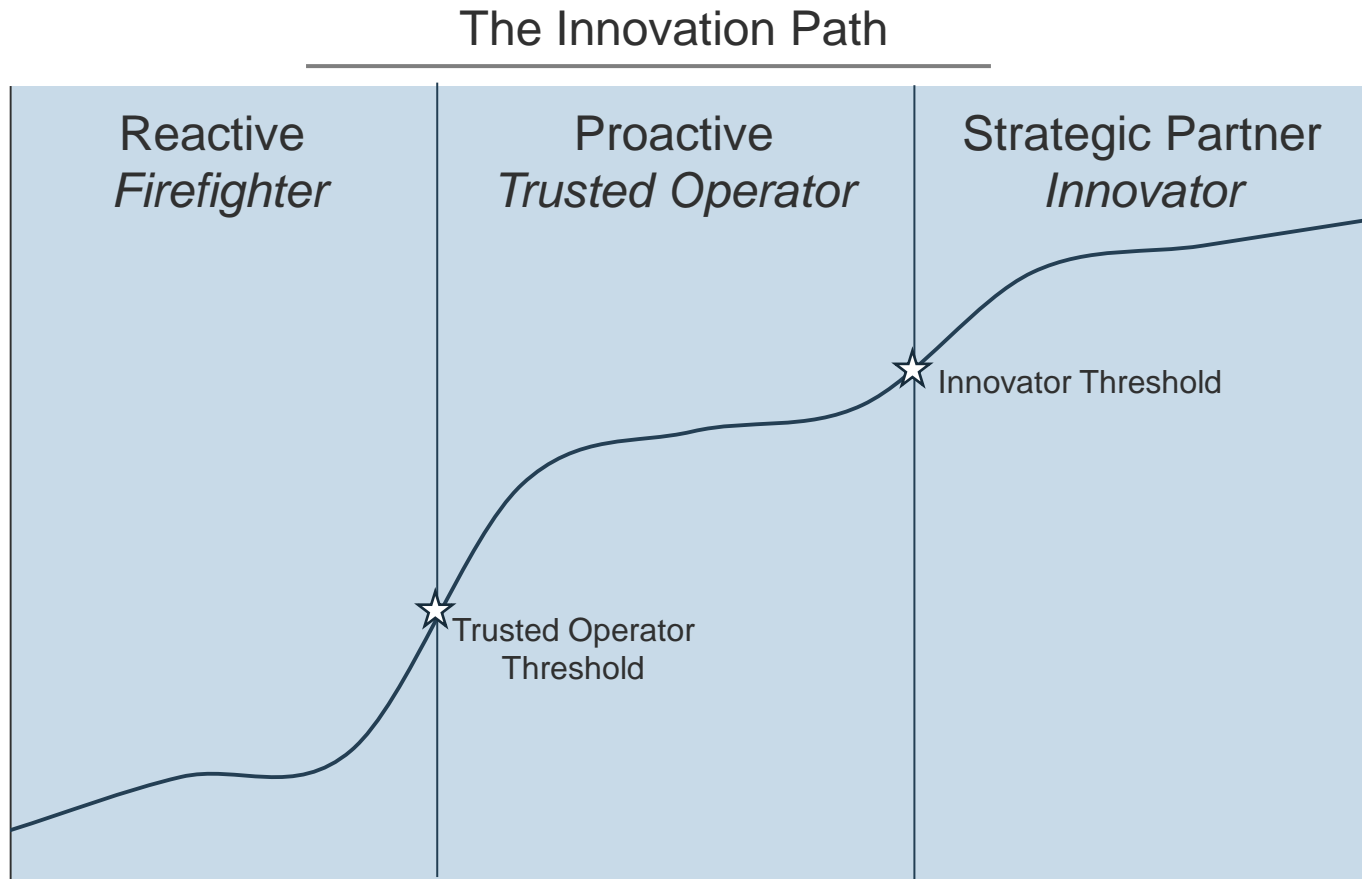


IT Organization Maturity Levels (general)

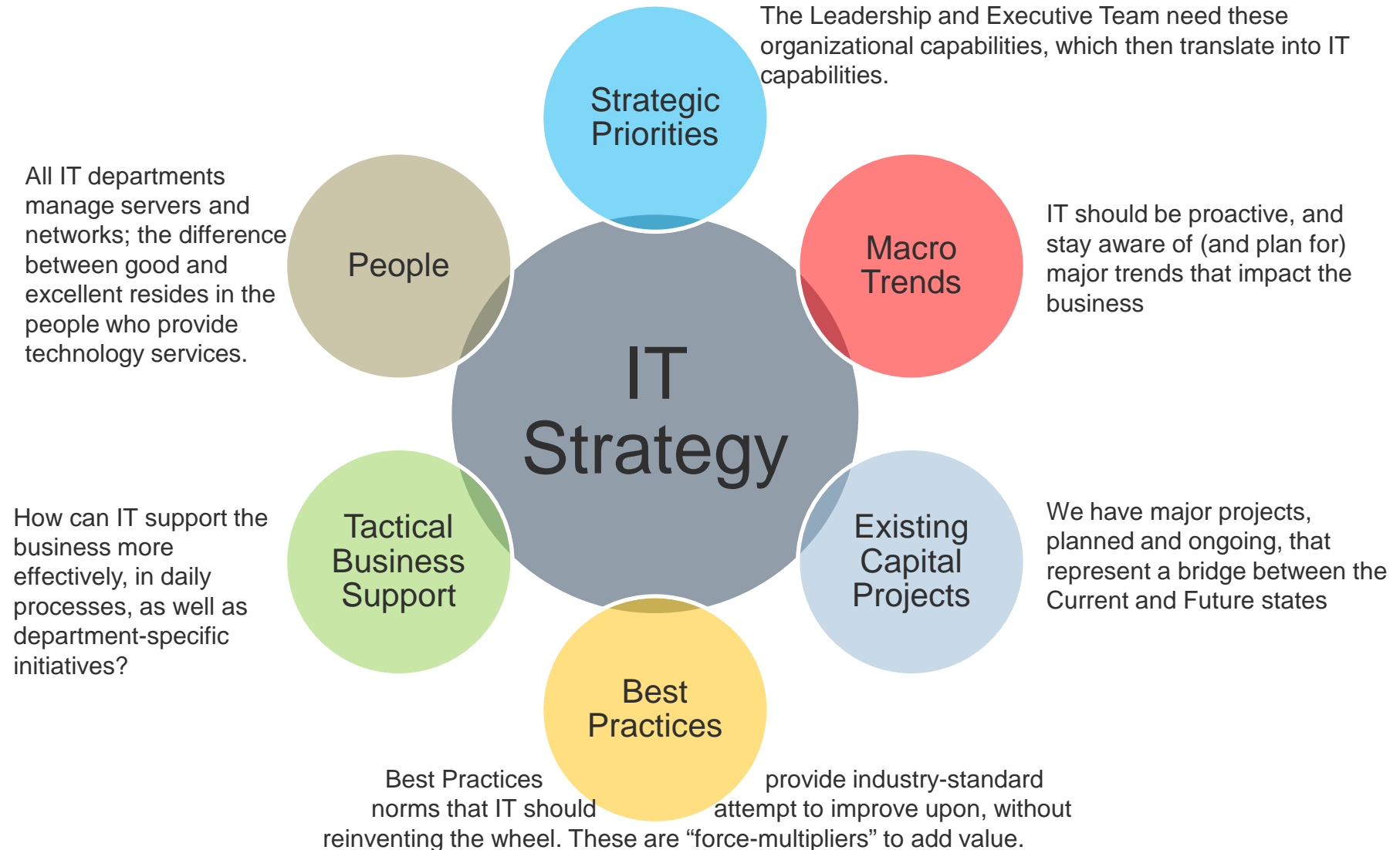
IT Maturity Level	Processes	Technology Programs	Spend
Reactive <i>Fire Fighter</i>	<ul style="list-style-type: none"> Processes are ad hoc Documentation is sparse Governance, strategy, and services have limited alignment 	<ul style="list-style-type: none"> 70% of projects fail to deliver business satisfaction Projects are worked on a “per request” basis Limited business cases Benefits are not measured 	<ul style="list-style-type: none"> 80% on operations & legacy maintenance 20% strategic spend Budget not formalized Large variances in spend YoY
Proactive <i>Trusted Operator</i>	<ul style="list-style-type: none"> Core operational processes are defined and documented Processes are repeatable Governance is implemented and repeatable 	<ul style="list-style-type: none"> Projects are worked based on prioritization Intake is formalized Business cases are well defined Benefits are measured 	<ul style="list-style-type: none"> 60-70% on operations & legacy maintenance 30-40% strategic spend Budget formalized Budget changes are tracked and communicated
Strategic <i>Partner Innovator</i>	<ul style="list-style-type: none"> Processes are defined, documented, and updated Strategy is constantly evolving and not static 	<ul style="list-style-type: none"> Maintenance projects are predictable Emphasis on strategic projects Focus on top line 	<ul style="list-style-type: none"> 40% on operations & legacy maintenance 60% strategic spend Budget reflects strategic funding for changes

IT Organization Maturity Levels (general)

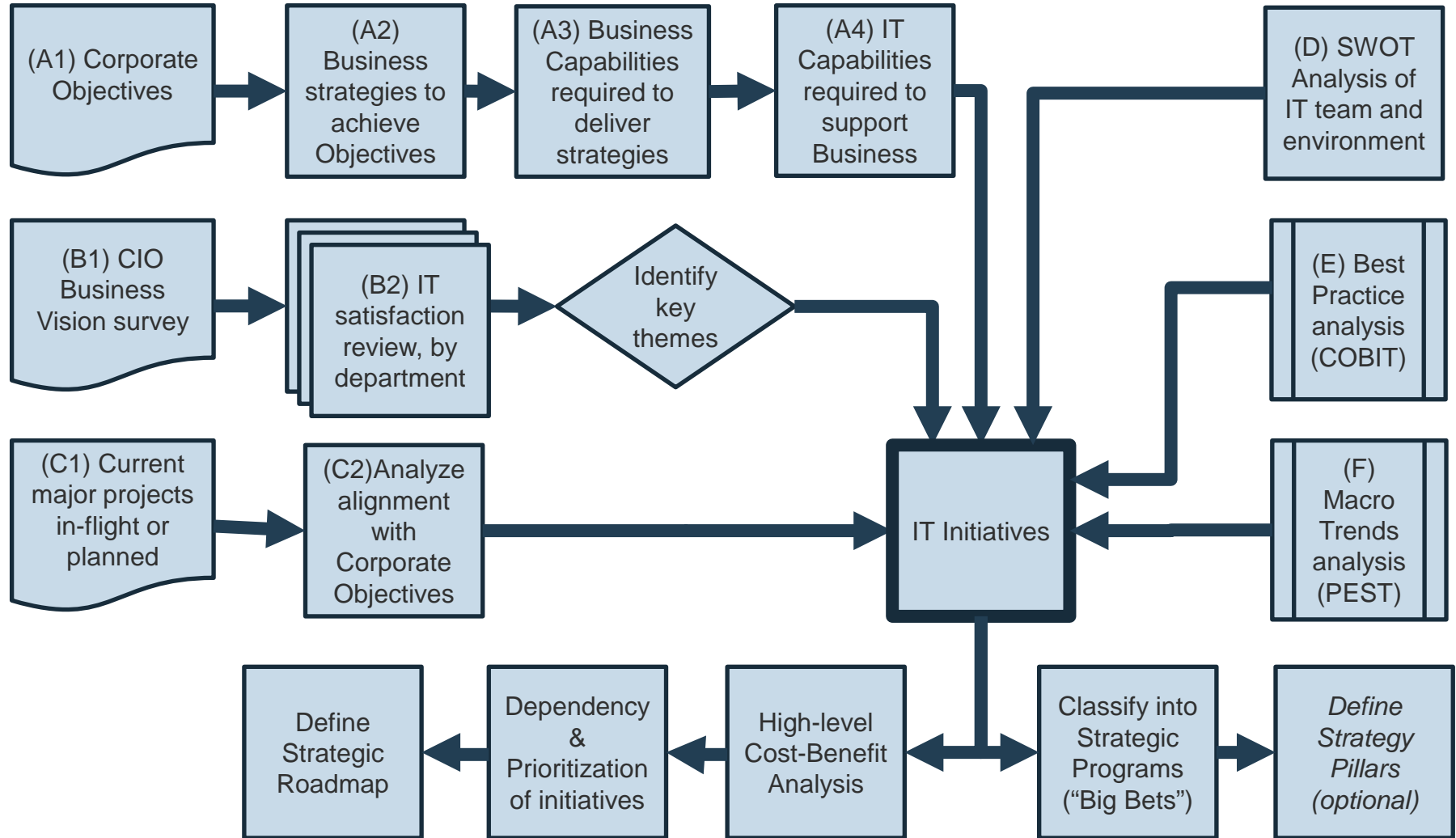
Process, projects, and spend are the key drivers of innovation.



Key Inputs to the IT Strategy



IT Strategy definition process



Key leaders who provided inputs to the IT Strategy

Brian Snyder	City Manager
Kelley Brennan	City Attorney
Eric Garcia	Chief of Police
Yolanda Vigil	City Clerk
Ann Yalman	Judge
Jon Bulthuis	Division Director Transit
Rob Carter	Parks & Rec. Division
Randy Randall	Director Tourism
Lisa Martinez	Land Use Department Director
Renee Martinez	ITT Department Director
Kate Noble	Economic Development Director
Lynette Trujillo	Human Resources Director
Ike Pino	Public Works & Community Services Director
Oscar Rodriguez	Finance Director
Nick Schiavo	Public Utilities Division Director

Key IT leaders who provided inputs to the IT Strategy

Renee Martinez	ITT Department Director
Bill Smith	Network Operations
Perry Knockel	End User Services
Yodel Catanach	Telecom Services, Administrative Services
Caryn Fiorina	Business Application Services
Rene Roque	Police & Fire IT Services
Eduardo Catanach	Radio & Vehicle Technology Services
David Barsanti	GIS Services
Faustino Contreras	Project Management Services

Strategic Priorities



Source: Executive Team

Strategic Themes of the City Departments

(additional details included in Appendices)

Recruit & retain high-quality workforce

Streamline manual processes

- Permits
- e-filing campaign financial statements
- E-filing court docs
- Tourism / CVB operations

Mapping & location-aware services

- Trails & Parks
- Address system
- Liquor licenses (proximity to schools/churches)
- Property database

Customer online access to information

- Court information
- Utilities metering
- City-related docs (minutes, ordinances, contracts, legal)
- Voting locations / wait times
- Parking, bus pass, airport fees

Strategic Planning Process

- IT
- PWD
- Community Services

Performance Management (Staff & Projects)

- Legal
- PWD
- All departments

New Finance & Human Resource system

- Current system is not efficient and not designed for city operations

Strategic Themes of the City Departments (2)

(additional details included in Appendices)

Mobile-enabled workforce

- Parks
- Utilities
- Police (already have many tools)
- Transit

Video storage and retrieval

- Police
- Parks
- Transit
- Remote water tanks

Records Management (paper, digital)

- Land use
- City Clerk
- Tourism
- Attorney/legal
- Police

Staff access to information

- Courts
- Attorney/legal
- Tourism
- Housing & Community Development

Data Center Modernization+ Disaster Recovery Plan

- Power, fire suppression, generator, chiller, UPS
- Required for continued federal funding

City website & Open Data

- Tourism, businesses, constituent services, “how to” guides

City Intranet

- eForms
- Policies and Procedures
- Project spaces
- Plans

Macro Trends



Source: Executive Team

Macro Trends impacting upon the IT Strategy

Political

- Doing more with less – **efficiency measures might be positively received. Also consider cloud strategies, and shared services with county.**
- Funding of “visible” projects vs mission critical unseen projects – **need to position and message appropriately**
- Pet projects – the “legacy”
- Funding is based on short-term planning horizon – **consider cloud options (Opex)**
- Less Federal / State funding – Oil & Gas, sales tax, divided legislature: **Data Center Modernization, Disaster Recovery Plan (DRP), Chargeback (e.g. State of NM)**
- **Fed funding at risk due to gaps in DC and Disaster Recovery plans**
- Difficulty in prioritization of projects/programs – **Project Portfolio Management (PPM), need to approve only if ongoing costs are baked in.**
- Look for alternative funding sources – sponsorships, grants,
- Resistance to increasing fees

Economic

- Shrinking budgets in government (and greater uncertainty) – **hiring and retention challenges**
- 2nd home market is increasing
- Growing immigrant population
- Income/wealth dichotomy
- Changes in Art market – changes to tourism
- Film industry – is this a fad?
- Online shopping
- Healthcare market growth
- Limitations on growth – water and land
- Lack of skilled workforce / decline in grad rates
- Lack of cooperation between state, local and fed

Macro Trends impacting upon the IT Strategy (2)

Social

- Aging population
- Union environment – aptitude based hiring
- High minimum wage – attracts undocumented labor
- 2nd home residents (from out of town) increasing
- Increase in homeless population (tripled in last 3 years) – increasing pressure on services.
- Mayor's focus on youth – need to create career pathways
- Younger residents are more demanding in technology expectations, broadening gap with aging residents (therefore need for multiple channels open) – **Mobile apps for youth, IT summer internships**
- Graduation levels are low – **Skills gap for hiring local capable IT staff**

Technological

- Expectation that everything can be done online (**Employee and Constituent Self-Serve options**)
- Belief that the Cloud makes everything cheap and accessible (**Consider cloud options for all new initiatives, e.g. 311, Parking, ERP**)
- Social Media has become a standard dimension of government and services (**Risk/Security concerns**)
- Mobile Devices and Apps for everything
- Privacy and cybersecurity is a growing concern. - **Hire Information Security Officer (ISO)**
- “Big Data can figure that out” – privacy concerns

Best Practices



Source: COBIT Analysis
conducted by IT
Leadership team

IT Best Practices – what is COBIT?

- COBIT (Control Objectives for Business and IT) is an authoritative, international framework of IT best practices and standards developed over the last 18 years, and the fundamental premise is the linking of business goals with IT goals. It is intended for regular use by business professionals managing IT, as well as by IT managers working on improvement in process maturity.
- The COBIT framework is positioned at the strategic level and is also aligned with other (often more detailed) IT standards and best practices models (ISO 27000, CMMI, ITIL, etc). COBIT is an integration of these other frameworks, and provides one umbrella to link IT best practices and standards with business governance requirements.
- The framework can be used as deeply as required, and provides actionable intelligence towards identifying opportunity areas.
- Continuous Improvement methodologies (such as Lean Six Sigma) can then be used to plan action items to close the gap areas.

Info-Tech Research Group recommends COBIT as the primary framework for assessment of IT process maturity. The detailed framework has been shared with the IT department.

COBIT Process Assessment

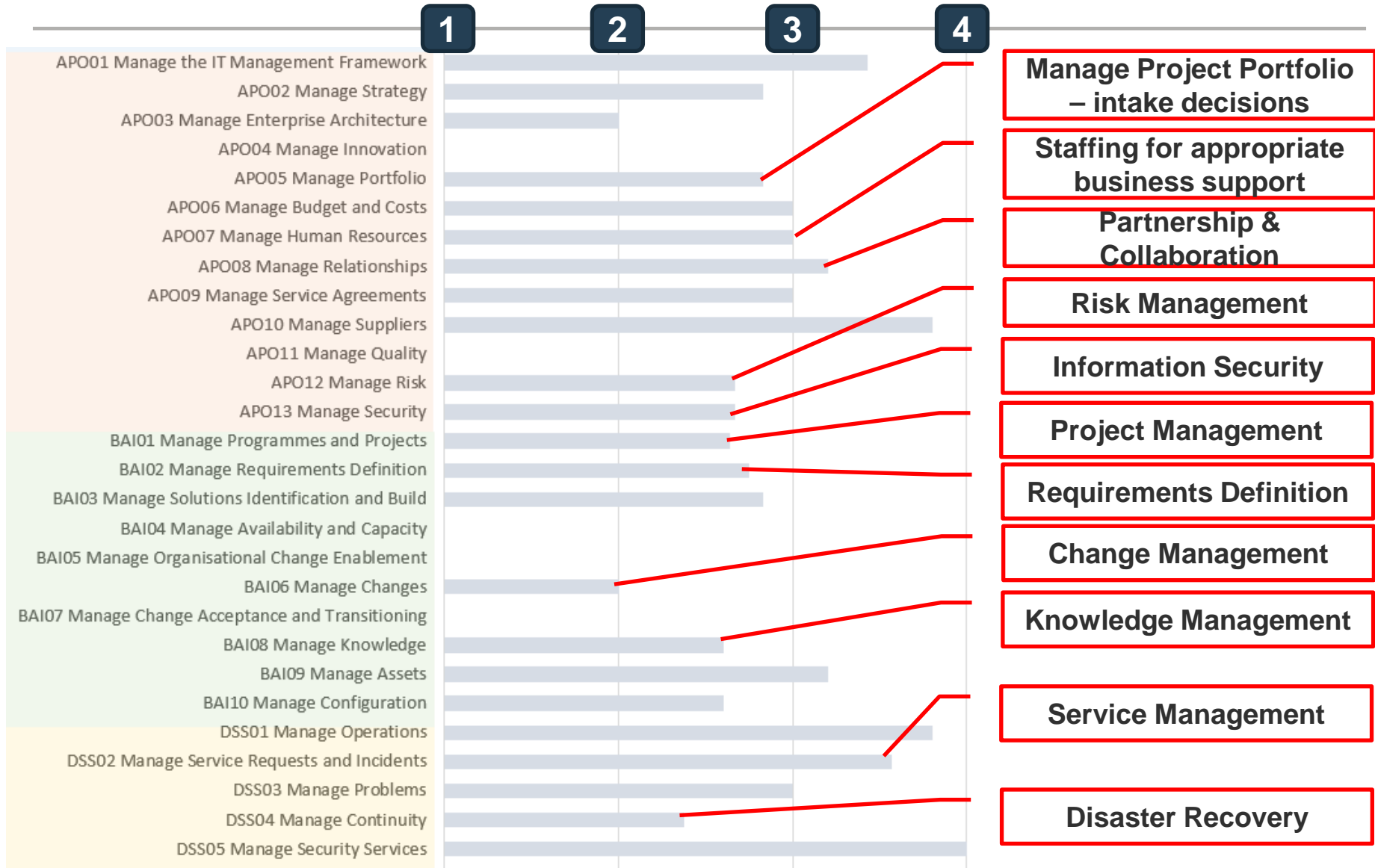
- The IT leadership team performed a facilitated self-assessment of 29 of the 37 competency areas of COBIT. Results are indicated in the next page

EDM01 Ensure Governance Framework Setting and Maintenance
EDM02 Ensure Benefits Delivery
EDM03 Ensure Risk Optimisation
EDM04 Ensure Resource Optimisation
EDM05 Ensure Stakeholder Transparency
APO01 Manage the IT Management Framework
APO02 Manage Strategy
APO03 Manage Enterprise Architecture
APO04 Manage Innovation
APO05 Manage Portfolio
APO06 Manage Budget and Costs
APO07 Manage Human Resources
APO08 Manage Relationships
APO09 Manage Service Agreements
APO10 Manage Suppliers
APO11 Manage Quality
APO12 Manage Risk
APO13 Manage Security

BAI01 Manage Programmes and Projects
BAI02 Manage Requirements Definition
BAI03 Manage Solutions Identification and Build
BAI04 Manage Availability and Capacity
BAI05 Manage Organisational Change Enablement
BAI06 Manage Changes
BAI07 Manage Change Acceptance and Transitioning
BAI08 Manage Knowledge
BAI09 Manage Assets
BAI10 Manage Configuration
DSS01 Manage Operations
DSS02 Manage Service Requests and Incidents
DSS03 Manage Problems
DSS04 Manage Continuity
DSS05 Manage Security Services
DSS06 Manage Business Process Controls
MEA01 Monitor, Evaluate and Assess Performance and Conformance
MEA02 Monitor, Evaluate and Assess the System of Internal Control
MEA03 Monitor, Evaluate and Assess Compliance with External Requirements

COBIT Assessment: Priority Areas for Action

(1 = not achieved, 4 = fully achieved)



Tactical Business Support



Source: Departmental Managers

CIO Business Vision Survey — All Departments (74 managers and administrators), Dec '14

Key Focus Areas (emerging from this survey):

- Streamline End-User Services (staff and constituents)
- Modernize Business Applications

- Improve Core Infrastructure

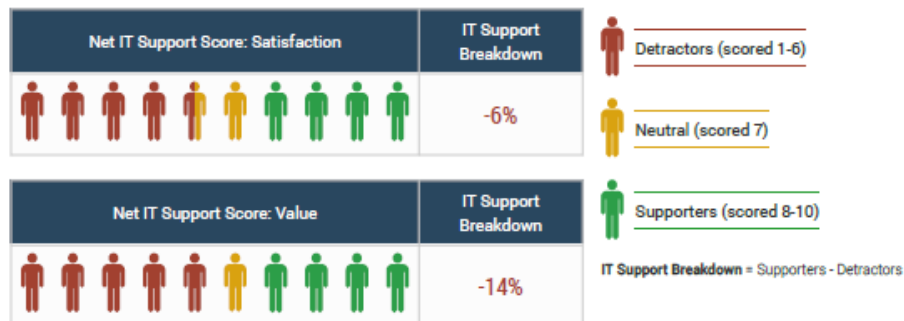
Overall Metrics

Overall Satisfaction and Value are key indicators of the overall impression of the IT department. These metrics let the IT leader determine at a glance if they are meeting the needs of the business.

Satisfaction		Value	
This Year	Last Year	This Year	Last Year
65%	--	65%	--

IT Support Breakdown

The IT Support Breakdown charts are indicators of the percent of stakeholders that fall into three important categories. Promoters are loyal enthusiasts of IT. Neutral stakeholders are satisfied but unenthusiastic about IT. Detractors are unhappy stakeholders who can damage your reputation.



IT Relationship Satisfaction

Relationships are a key driver in stakeholder management. It is important that the business feels IT understands their needs and is getting enough communication.

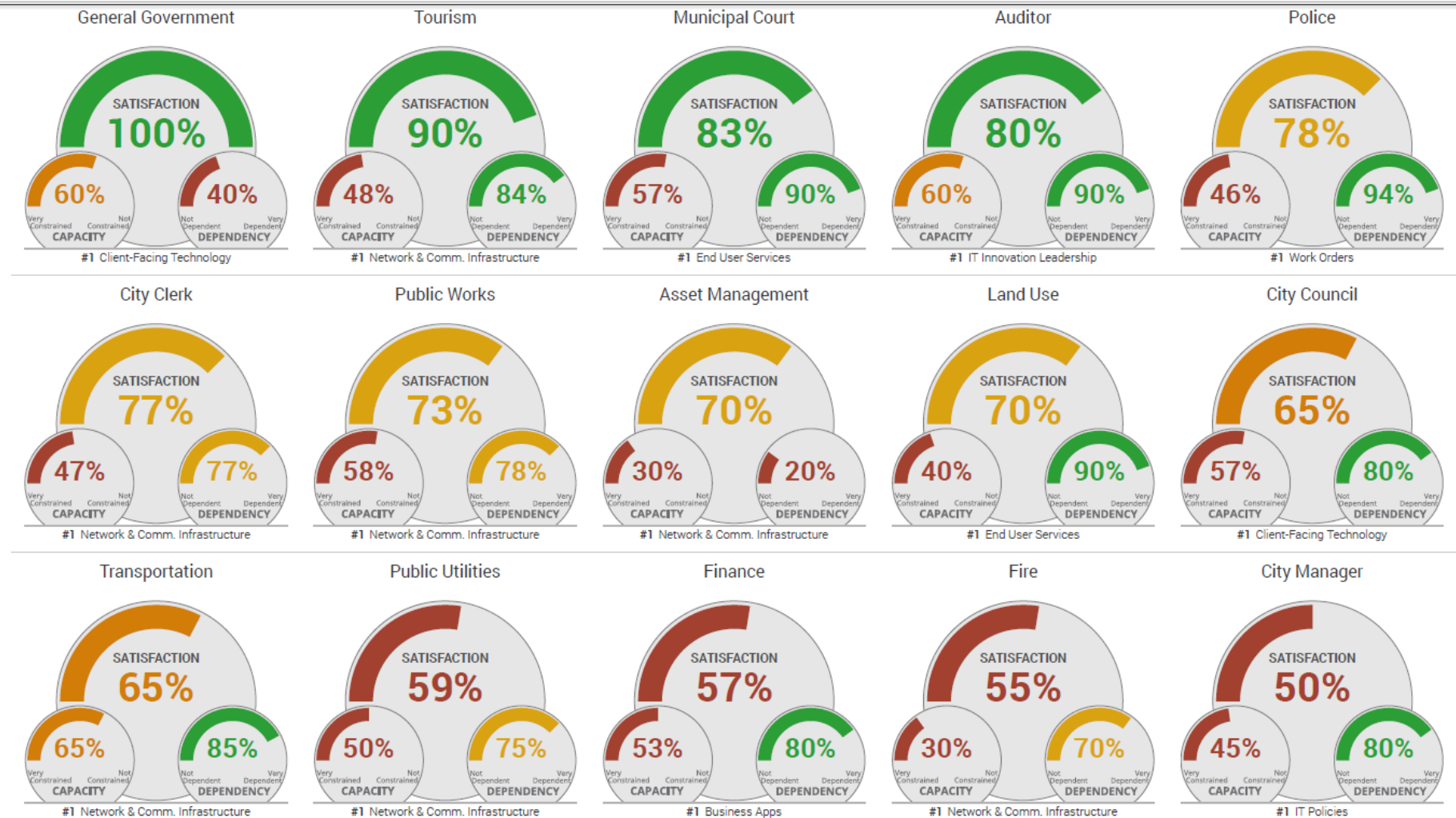
Relationship	Satisfaction	Last Year
Needs Satisfaction with IT's understanding of your needs.	62%	--
Execution Satisfaction with the way IT executes your requests and meets your needs.	65%	--
Communication Satisfaction with IT communication.	61%	--

Business Satisfaction and Importance for Core Services

The core services of IT are important when determining what IT should focus on. The most important services with the lowest satisfaction offer the largest area of improvement for IT to drive business value.

Core Service	Satisfaction	Importance Ranking	Last Year
Devices Satisfaction with desktops, laptops, mobile devices etc.	75%	5 th	--
End User Services Satisfaction with responsiveness and effectiveness of ITT related to your work orders and service request	73%	2 nd	--
Work Orders Satisfaction with small requests and bug fixes	71%	6 th	--
Data Quality Satisfaction with providing reliable and accurate data	66%	4 th	--
Network & Comm. Infrastructure Satisfaction with reliability of comm. Systems and networks	66%	1 st	--
Client-Facing Technology Satisfaction with user experience and effectiveness	61%	8 th	--
IT Policies Satisfaction with policy design and enforcement around security, governance, etc...	61%	9 th	--
Projects Satisfaction with large department or corporate projects	61%	11 th	--
Business Apps Satisfaction with applications and functionality	60%	3 rd	--
Requirements Gathering Satisfaction with BA's ability to understand and support the business	60%	12 th	--
Analytical Capability and Reports Satisfaction with effective standard reports, custom reports capability, and the ability to generate business insights	57%	7 th	--
IT Innovation Leadership Satisfaction with providing opportunities for innovation and innovation leadership to improve the business	57%	10 th	--

CIO Business Vision survey – Department-specific inputs (1)



CIO Business Vision survey – Department-specific inputs (2)



- The CIO Business Vision survey allows the IT department to focus on specific services that individual departments value most highly
- It is recommended that this survey be taken on an annual basis, using the same or similar set of survey recipients – the expected outcome of any IT Strategy is that most (or all) “Departmental Dials” will show an improvement

CIO Business Vision survey – City Councilor Comments

CARMICHAEL DOMINGUEZ - I have managed to work with what is given to me. ITT provides me with as much as they can. More staff would be helpful.

SIGNE LINDELL - Update software. City web site is poor. Land use - permit process should all be electronic and on line.

PETER IVES - Present a compelling case during the budget hearings so that the Council will support needed funding for upgrading programs and equipment. Demonstrate where the savings and efficiencies will come from convincingly. A 311 system with on line tracking would be brilliant. We need to develop on line web based interfaces for clients, customers and citizens that allow them to accomplish simple annual tasks easily and efficiently on-line. Business license renewals, simple permitting, etc. This will make us more efficient and the city as a whole more efficient.

CHRISTOPHER RIVERA - Make themselves available. Better customer service.

Tactical Business Support

13 senior department managers from across most City departments provided specific input to how IT can better serve their teams – the **combined experience of 190 years** managing critical services in the City of Santa Fe!

Name	Department	Service Years
Ken Smithson	Transit	2.5
Vincent Montoya	Finance	12
Paul Babcock	Fire	28
Yolanda Cortez	Land Use	21
Bae Smith	Library	9
Jan Snyder	Fire	17
Shannon Jones	Public Utilities	16

Name	Department	Service Years
Arlene Sisneros	Court	9
Andrew Padilla	Police	14
Mario Salbidrez	Police	11
Sevastian Gurule	City Manager	23.5
John Romero	Public Works	13
Debra Garcia	Arts Commission	14

Tactical Business Support – Themes

(additional details included in Appendices)

- IT staff shortages are widely recognized as a risk to service delivery. There is often only one person (or less) providing support for a critical application.
- Knowledge Continuity in general is a challenge – Documentation, e.g. standard operating procedures, is a gap area particularly where there is inadequate staffing levels.
- Work Order Management needs more consistency, and an IT Service Desk could be one approach toward rapid resolution of tickets
- New Applications and Systems required (Finance, CRM, Land Use, Upgrade to Radio System, also the wireless network)
- Greater Partnership and Collaboration between IT and the business
- Need to rethink the current service delivery model. Options to consider:
 - 1) City of Albuquerque model, where business applications are supported by technical staff in the end-user departments, and IT continues to manage the infrastructure and provide guidance around architecture, security and other core processes
 - 2) Business Relationship Manager model, wherein IT staff are assigned to client departments, and work almost exclusively on initiatives in the client departments.

People



Source: Human Resources
IT Leadership team

SWOT Analysis - **STRENGTHS**

- Flexibility – responsive to the needs to the business
- Work Order Completion – turnaround time and quality is good; 70-80% of the work is documented in the form of tickets
- Excellent work ethic – e.g. Email rollout/upgrade project, most people really care
- Network Reliability is better than before
- Strong support for Radio Shop, Fire, GIS, mobile city workforce
- Systems & Programs/Business Applications – doing more with less
- Most of the staff is self-taught, and most learning comes from on-the-job learning (also a weakness)
- Staff longevity / knowledge

SWOT Analysis - **WEAKNESSES**

- Staffing levels are inadequate – benchmark data confirms this. Request has been made for 18 additional staff. Low IT Staff morale
- Lack of training – not keeping current with technology/process
- Lack of formal policies (e.g. Security, Change, PM, Release, Data Governance)
- Inadequate budget for current installed base
- Aging infrastructure
- Competing department priorities – project portfolio intake. Also departments are not “process aware”, and do not articulate needs well. Customers often want something new w/o understanding what they already have.
- Lack of formal IT planning process. The city does not have a strategic plan as well, so challenging to align IT with business strategy
- Lack of user training to support new technology – this leads to business-IT relationship/expectations mismatch – need BA staff roles
- Customers don’t view IT as a trusted partner-consultant. IT is seen as an obstacle to getting what they want
- Changes in governing body (City Council) results in changes to priorities; hard to stick with a plan

SWOT Analysis - OPPORTUNITIES

- Move to cloud Software as a Service (SaaS) solutions to mitigate staffing issues (skills, levels) – e.g. parking system, ERP, business permits and licenses
- Modernize systems. Improve ERP system – improve functionality, process, connectivity
- Communicate and Educate business partners. Example: I Series is viewed as antiquated technology though it is capable and robust enterprise system.
- Improve Customer Service. Implement Service Desk.
- Improve user-IT training. Generate documentation for standard work processes.
- Formulate transition plan for retiring IT staff (10 staff members in next 5 years)
- A consolidated technology plan, integrated with all business processes
- Expand eGovernment solutions: parking tickets, permits, licenses
- CVB systems, scheduling of rooms – major revenue generator for the city
- Benchmark against other comparable IT departments

Attracting Talent

Factors helping IT - actions	Challenges
<ul style="list-style-type: none">• Exempt IT employees from union wherever possible – dependent on meeting certain job criteria• Potentially pay higher salaries if staff are not unionized• Revise Job Descriptions• Increase minimum qualifications level• Job Stability• Excellent Benefits• Improve recruiting methods to attract candidates who are excited about the city mission	<ul style="list-style-type: none">• Old infrastructure• Perceived lack of support for certification• Aging workforce in local area, also decline in college graduation rates• Budget and compensation constraints• Union constraints on hiring compensation

Retaining Talent

Factors helping IT - actions	Challenges
<ul style="list-style-type: none">• Enhance training & certification budget. Consider alternative training channels such as KnowledgeNet.• Career path definition – needs to occur as part of the reorganization• Early double fill for some upcoming retirements – for continuity of knowledge and Risk Management• Wide variety of engaging work – “life is never dull”• Job satisfaction from completing projects, as wide-ranging responsibility is provided to staff at all levels	<ul style="list-style-type: none">• Lack of morale (understaffing issue)• Competitive salary• Competing with all organizations across multiple industry verticals• High cost of living in Santa Fe area is a challenge for attracting and retaining talent.

Synthesizing the IT Strategy from all inputs



Strategic Pillars – City of Santa Fe

e-Government (EG): Improving services to constituents and increasing transparency of City operations, through easier access to information and services. This will position the City of Santa Fe as a leader in e-Government, and make it an attractive destination to visit and do business.

Workforce Productivity (WP): Provisioning of technology solutions that increases city staff productivity and streamlines work processes, thereby reducing costs, increasing revenue, improving effectiveness, and supporting decision-making.

Infrastructure Modernization (IM): Implementation of reliable, capable, secure and accessible critical infrastructure to support City operations and constituent services, through replacement of aging equipment and facilities by a combination of in-house and Cloud-hosted solutions.

Business Application Modernization (BA): Improvement in the functionality and value of core business applications used by City departments, thereby supporting revenue growth and cost control. Cloud solutions will continue to be a central theme of future modernization initiatives.

IT Operational Excellence (OE): The IT department will be the trusted technology advisor to the City. We will achieve this by implementing Best Practices in operational processes and management, becoming a more capable, collaborative, and agile department, which consistently provides excellent technical services to support the City Mission and Vision.

(1) E-Government initiatives

Initiative	Cost	Benefit
Court Data - analog to digital conversion	Medium	Medium
City related documents	Low	High
Mobile app for voters	Low	Low
Parking/Business permits/inspection licenses	Medium	High
Utility meter interface	Low	High
Utility billing online payments	Low	Low
Park permits / Special events permit online application	Low	Medium
Collection and management of Business data	Low	Medium
GIS data / location-aware services	Low	High
Transit information and transactions (bus pass, next bus, airport fee)	Low	High
E-filing campaign financials and visibility	Low	Low

BENEFITS

- Image of transparency
- Improved Voter turnout
- Constituent and business friendly image
- Promote business in the city
- Location-aware capabilities

COSTS

- Mostly OpEx costs, as the application and infrastructure costs are included in other Strategic Pillars

(2) Workforce Productivity initiatives

Initiative	Cost	Benefit
Workflow/work order system for multiple departments	High	High
EDW/BI tools	High	High
Mobile apps / end user devices / MDM solutions	Medium	High
Web apps for teleworkers	Low	Low
Payroll automation	Low	High
Service Cost accounting, for planning purposes	Medium	High
Implement location-aware functionality in application	Medium	High
ECM / Records Management	High	High
Intranet (e.g. Sharepoint)	Medium	Medium
IT training for staff	Medium	High
Video storage	Medium	High

BENEFITS

- Faster, streamlined services
- Cost efficiencies – ability to redeploy staff performing manual operations
- Collaboration between departments
- Enhanced Public Safety (video storage)

COSTS

- Electronic Data Warehouse / Business Intelligence, as well as Work Order system across the city departments will require CapEx and OpEx.
- Assumes ERP is upgraded

(3) Infrastructure Modernization initiatives

Initiative	Cost	Benefit
Data Center upgrade	Medium	High
Storage upgrade (Enterprise grade SAN)	High	High
Radio System upgrade	High	High
I Series - mission critical hardware upgrade	High	Medium
Server Virtualization	High	High
Increase Cloud connectivity / core switching upgrade	Medium	High

BENEFITS

- Federal funding of City programs is conditional upon a Data Center upgrade
- Storage systems are running out of space, Enterprise-grade Storage is necessary to match future growth
- Radio – current system is no longer supported by manufacturer
- Virtualization optimizes investment in new servers and also reduces cost for new projects
- Future “Cloud-first” posture will be enabled by the core switching upgrade

COSTS

- Capital-intensive initiatives
- Foundational “heavy-lifting” activities for building out services to constituents as well as city staff
- Assumes that specialist IT staff will be available to work on this list of initiatives

(4) Business Application Upgrade initiatives

Initiative	Cost	Benefit
ERP replacement	High	High
CRM-311 work order system	Medium	High
Land Use replacement / upgrade	High	High
Website replacement	Medium	Medium
CVB Information System	Medium	Medium
Water Metering and Billing	Low	Medium
City Works upgrade for Windows 7. Consider expansion of the syste	Medium	Medium
Parking Access/Revenue Control	Medium	High

BENEFITS

- ERP replacement will provide additional capabilities, including Cloud options
- Streamlined interaction with constituents (311, Website, Water Metering)
- More functionality for Land Use dept
- Increased revenue from CVB, and parking ticket management

COSTS

- Capital intensive initiatives; with significant OpEx due to need to manage vendor staff
- City Works is a feature-rich system that can be expanded to other functions, at minimal cost.

(5) IT Operational Excellence initiatives

Initiative	Cost	Benefit
IT Knowledge Base	Medium	High
Service Desk	Medium	Medium
Merit-based incentives	Medium	High
Project Portfolio Management	Low	High
Project Management	Low	High
Disaster Recovery Planning and execution	High	High
IT Risk Management	Low	Medium
IT Security	Medium	Medium
Data Governance - classification, retention	Medium	Medium
IT Policies and Procedures	Low	Medium
Change Management	Low	Medium

BENEFITS (see next page)

- Reduced Enterprise Risk
- Faster completion of projects, work orders
- Consistent customer service to city
- Collaborative and partnering approach
- Continued federal funding

COSTS

- Mostly OpEx costs
- Will require staffing changes by addition of 18 FTE (already requested)
- Will require reorganization into Business Liaison model

IT Operational Excellence initiatives – Business Benefits

- **IT Knowledge Base:** lesser reliance on individual IT staff for the majority of commonly asked questions and issues
- **Service Desk:** a single point of contact for all service requests and incident reporting, with consistent service level agreements and methodologies
- **Merit-based incentives:** IT staff morale
- **Project Portfolio Management:** a standardized and strategic approach toward assessment of project funding requests. Ensuring that City funds are going toward the most impactful projects.
- **Project Management:** best practice implementation to bring exciting new capabilities to the city and constituents, on-time and on-budget
- **IT Policies and Procedures:** Improves consistency, reduces risk and uncertainty and time spent in clarifying from staff
- **Disaster Recovery Planning and execution:** minimizing business disruption, time and resources spent in recovering from a disaster (e.g. natural causes or man-made)
- **IT Risk Management:** Mitigating the vulnerabilities of the city to IT risk events (people, process, or technology)
- **IT Security:** related to Risk Management (above), specifically toward malicious action on the city infrastructure, system availability, and/or data integrity
- **Data Governance:** a prerequisite for any classification and storage effort
- **Change Management:** Reduces risk of unforeseen downtime from poorly executed changes, by bringing in a rigorous review and planning discipline into all technical changes

IT Strategic Roadmap

Strategic Pillar	Initiative	Cost	Benefit	CBA Score	2015				2016				2017				2018			
						Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
IT Infrastructure Modernization	Data Center upgrade	Medium	High	15																
	Storage upgrade (Enterprise grade SAN)	High	High	5																
	Radio System upgrade	High	High	5		Planning			Implementation											
	I Series - mission critical hardware upgrade	High	Medium	3																
	Server Virtualization	High	High	5																
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	Utility billing online payments	Low	Low	5																
	Park permits / Special events permit online application	Low	Medium	15																
	Collection and management of Business data	Low	Medium	15				Legacy System								New Land Use system				
Workforce Productivity	GIS data / location-aware services	Low	High	25		Budget														
	Transit information and transactions (bus pass, next bus, airport fee	Low	High	25																
	E-filing campaign financials and visibility	Low	Low	5																
	Workflow/work order system for multiple departments	High	High	5																
	EDW/BI tools	High	High	5																
	Mobile apps / end user devices / MDM solutions	Medium	High	15																
	Web apps for teleworkers	Low	Low	5																
	Payroll automation	Low	High	25		Legacy									New ERP					
	Service Cost accounting, for planning purposes	Medium	High	15												Work Order & EDW				
	Implement location-aware functionality in application	Medium	High	15					As systems are developed											
	ECM / Records Management	High	High	5											Storage upgrade					
	Intranet (e.g. Sharepoint)	Medium	Medium	9																
	IT training for staff	Medium	High	15																
	Video storage	Medium	High	15			Police									All department using video (Storage				

Assumptions and Risks to the IT Strategic Roadmap

- Funding from the City, State and Federal levels will continue – if this is reduced, the Roadmap initiatives will require scaling back
- 18 additional FTE staff in IT will be approved – specialist skills will be required to drive most of the Roadmap projects to completion (details in IT reorganization plan)
- Emergencies cannot be predicted, and may lead to delays on the Roadmap – effective delivery of IT Operational Excellence initiatives will mitigate risks to some extent
- Council priorities may be misaligned with IT priorities – it is important to present the strategy to the Council in the near future
- Employee acceptance of new systems – training, non-IT staff participation and communications are key considerations during project delivery
- Sponsorship and ownership from the business departments is critical to the success of the projects – recommend that the mid-level managers be tasked as business leads on the relevant initiatives

Next Steps

- Identify Business Sponsors for Year 1 initiatives
- Create placeholder budget for High-Cost Year 1 initiatives
- Detailed business cases for High-Cost Year 1 initiatives
- Approval of the IT Strategic Roadmap (City Manager, City Council)
- Create Project delivery plan and allocate resources
- Execute on project plan
- Track progress and take corrective action as needed (PDCA)



INFO~TECH
research group

**Thank you for the opportunity to contribute
toward an IT Strategy for The City of Santa Fe!**

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Appendices

A	City Executive leadership inputs
B	City departmental manager inputs

APPENDIX A: City Executive Leader Inputs (1)

- Human Resources: Recruit and retain a highly effective workforce
- Courts: Streamline the filing of court documents. Public access to court information, hearings,
- City Clerk: Transparency of city business, location and business rule aware processes; e.g. liquor licenses proximity to schools and churches.

Electronic records and archives.

- Finance: Self---service financial management process, finance staff transformed from control and command role to a planning and consultant role. Long---term financial plan.
- Police: Mobile workforce, anytime and anywhere access to critical incident---specific information. Secure management of police. Remote officer participation in motor vehicle---driver citation hearings. Provide judges and district attorneys with secure access to probable cause, criminal complaints.[Create a security policy to allow access to Tracs, Tracs can support this]
- Land Use: Property focused knowledge base of city data. Streamline operations by providing easy access to city data (address, location). Archive and retention of historical documents, 75 years.
- Tourism: Increase tourism by 10%, improve short---term rental (loss of over \$1m per year, \$350 million city budget) process and system to GRT and pay lodgers taxes. 1,000 properties between AirBnB and VRBO. Improved system for data collection from tourism partners (hotels, restaurants, bars). Better management of Convention Center.
- Public Utilities: Reduce cash payments. Improve safety and security of private wells. Provide water customers with access to real--time and accurate water consumption and billing data. Better communication with pressure reducing valves. [Why is the SCADA system not satisfying this?]
- Public Works: Prioritize capital projects, legislative priorities and bond issues through strategic planning. Performance management system for all divisions (streets)
- Community Services: Strategic plan to prioritize social service programs. Library transformation to community centers.

APPENDIX A: City Executive Leader Inputs (2)

- City Attorney: Preventive lawyering versus reactive lawyering. Real-time access to customizable data. Work activity tracking productivity to better understand resources and resource demands. Provide non-sensitive city data online for public access.
- IT: Become a trusted service provider and a partner with Department so that we plan together, provide effective solutions and be seen as a trusted advisor/partner to the city.
- Housing and Community Development: Affordable housing, city planning for transit, economic development. Develop a community development strategy that ties to community values, e.g. affordable housing, economic development. Building up a robust repository of business and city data for our benefit and the business community.
- Transit, Parking, Airport: Federal funding dependent on compliance with adequate IT infrastructure (data center, security). Radio system is operating on outdated and unsupported technology. Safety and security of facilities. Purchase of tickets online. Consolidated constituent complaint and service system.
- Improved web site and intranet
- Mobile applications to find parking garage and parking spaces.
- Smart routing and traffic lights. Buses with high occupancy can go through lights.
- City Manager: We need IT to streamline operations. Since 2007, 20% reduction of workforce. We are overstaffed in parts of the city and understaffed in other areas. Quality New Mexico --- Customer feedback, results oriented.

APPENDIX B: City Division Manager Inputs (1)

- Succession planning / knowledge continuity is critical for IT
- Finance system has major gaps; need self-serve features, upgraded reliability as well as suitability for the financial processes of a city
- Over-reliance on consultants
- Business requirements elicitation could be improved
- Gaps in Project Management as well as technical expertise
- Need newer Land Use application that can be used by the entire department, with GIS data enablement, online permit application and records retention features
- New employee training on IT systems, and an annual refresher
- Start to solicit end-user feedback after completing a work order
- Perceived slow fulfilment on Work Orders (Tracs)
- IT needs additional headcount – larger departments may be ready to pay for IT staff dedicated to their department
- Improved connectivity
- Greater partnership and collaboration between IT and other city departments
- Library systems need to be managed autonomously
- Browser flexibility – some applications do not run on Internet Explorer

APPENDIX B: City Division Manager Inputs (2)

- Improved WiFi, especially in the Convention Center and Libraries
- Invest more in IT staff training, in order to become the trusted technical advisor to the city departments.
- Fire needs 24/7/365 connectivity (both wired and wireless). There is a perception that fire trucks receive event updates more slowly than desired.
- Expand self-service for basic data (e.g. how many wastewater customers do we have?)
- Consider the City of Albuquerque model, where business applications are managed by the end-user departments, and hosted on centrally managed infrastructure. Alternatively, increase IT collaboration with the business, through expanded Business Liaison activity.
- Knowledge Management and/or backup for critical IT staff members
- Upgrade the Radio system
- Council is perceived to be receptive to technology investments; IT needs to structure a compelling message
- Improved CRM system