The County of El Paso

Information Technology Strategic Plan (Summary)

November 1, 2018

SDI PRESENCE LLC

formerly NEXLEVEL

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Section 1: Introduction

> **"The secret of success is not predicting the future; it is creating an organization that will thrive in a future that cannot be predicted**." – Michael Hammer, author and noted authority on Business Process Re-Engineering

1.1 – Scope and Objectives

This document, entitled, Information Technology Strategic Plan, was developed for the County of El Paso, Texas (County) by SDI Presence, LLC (SDI), to provide:

- An independent and objective review of the County's current information technology environment including the governance, management, and delivery of information technology services to the County's user community and to its regional partners; core business applications, and the user community's concerns and future objectives.
- Findings and realistic, actionable, recommendations regarding the County's current information IT environment that will provide the foundation for continuous improvement in the County's ability to provide IT services to the internal user community, the County's regional partners, and the public.
- A roadmap that was collaboratively developed with the County's decision-makers and key stakeholders that identifies the projects that should be completed within the first two years of the IT Strategic Plan or in the balance of the five-year duration of the plan including key information about each of the projects such as cost, risk, level of effort, and business impact.

1.2 – Organization and Contents

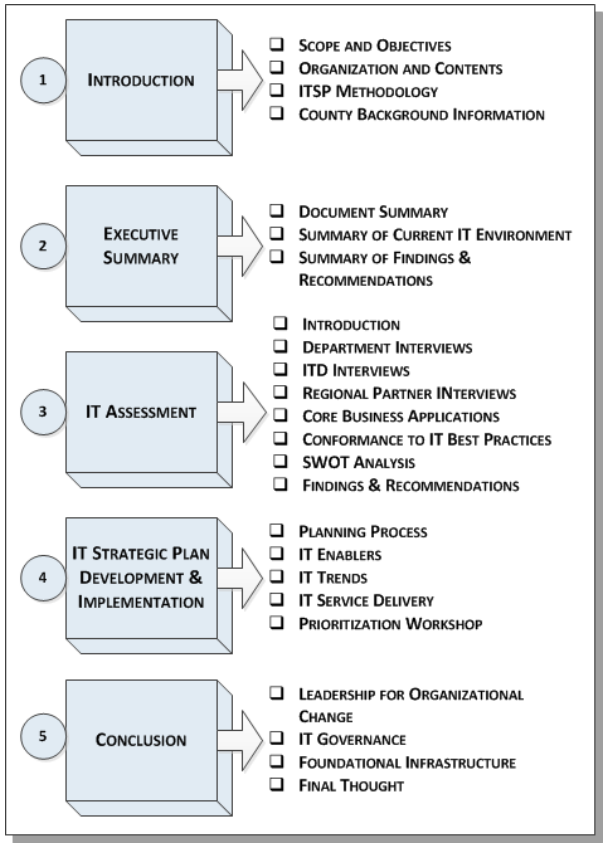

Figure 1.2 – Document Organization (Source: SDI)

Figure 1.2, Document Organization, depicts the organization of the IT Assessment. The report contains the following sections:

- *Section 1 – Introduction* (this section): Provides information on the scope and objectives of the report, the organization of the report and the information presented, background information regarding El Paso County and its priorities, a discussion regarding trends in information technology, and an executive summary.
- *Section 2 – Executive Summary:* Provides a concise summary of the information developed in the course of this project including a summary of the document, the key findings and recommendations, and the project schedule.
- *Section 3 – IT Assessment Report:* Provides information developed in the course of the IT Assessment regarding the issues, challenges, and opportunities that were identified through the "Voice of the User Survey," interviews with key user stakeholders, and ITD's management and staff. This section also provides a summary of the evaluation of the County's core (enterprise) information systems and information regarding the assessment of the County's governance, delivery, and administration of information technology services.
- *Section 4 – IT Strategic Plan Development and Implementation:* Provides information regarding the project prioritization workshop that was conducted for the County, the resulting project schedule, and detailed information for each of the projects in the plan.
- *Section 5 – Conclusion:* Provides observations for the County on the difficulties that organizations experience in the development and execution of IT Strategic Plans and the steps that the County should consider to mitigate them.

This document also has an appendix that contains additional information including the IT Best Practices Checklist that was completed by ITD and then reviewed by SDI.

Terminology

Please note that the County's Information Technology Department will be referred to as "ITD", while references to information technology in general will either be spelled out or referred to as "IT."

1.3 - ITSP Methodology

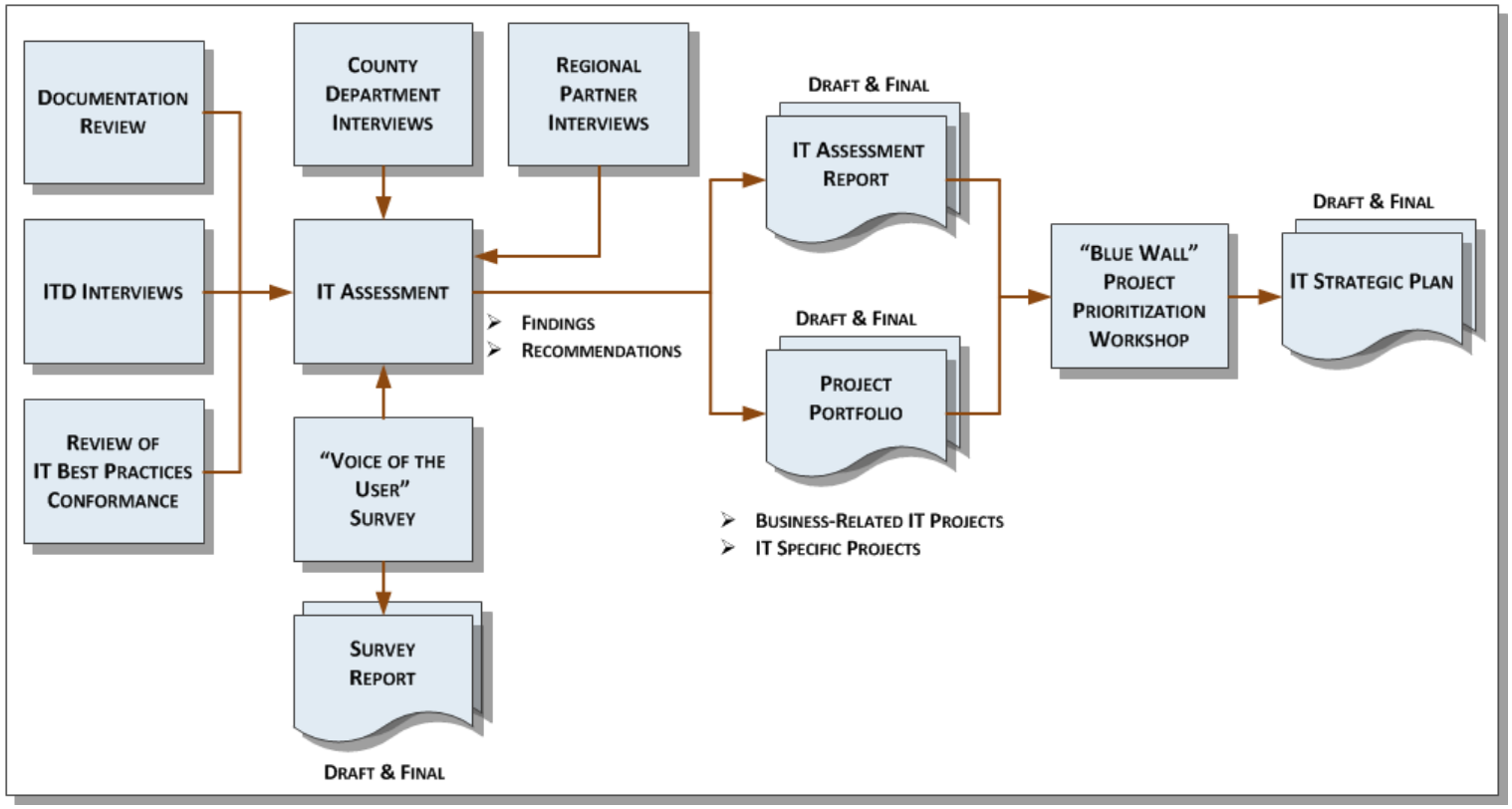

Figure 1.3 – ITSP Methodology (Source: SDI)

Figure 1.3, ITSP Methodology, depicts SDI's methodology for developing an IT Strategic Plan as adapted to the requirements of El Paso County. As illustrated, the development of the IT Assessment Report involved a detailed review of the County's existing information technology environment that included touch points with the County's user community and regional partners as well as numerous interviews with ITD's management team and staff. The interviews provided the basis for the development of the findings and recommendations as well as for the identification of the proposed IT strategic projects which provided the basis for the

Project Prioritization Workshop and the development of the County's IT Strategic Plan.

1.4 – County Background Information

"El Paso County Government Mission is to Serve the Public by providing:
Exceptional Services Exceeding Expectations That Improves The Community – a Progressive County Government Model." – County of El Paso

El Paso County is one of the 254 Counties in the state of Texas and is the westernmost county in the state. The county was created in 1850 and later organized in 1871. As of the 2015 U.S. Census Bureau estimated the County population at 835,593. The County seat is located in the City of El Paso, one of the most populous cities in the state and in the nation. Other communities within the County include the municipalities of Horizon City, San Elizario, and Socorro; the towns of Anthony, and Clint, and the village of Vinton.[1]

The County's Annual Operating Budget Book for FY 2017 identified the principal issues facing the County which include:

- Employment.
- Per-capita personal income.
- Retail sales tax revenues.
- Average value of homes.
- Legislative changes focused on the State's tax system (particularly ad-valorem property taxes) that could change how tax revenues are allocated between the State and the Counties.
- The County's financial position (fund balance).
- Maintaining adequate levels of operating capital.

The County has adopted a strategic plan which provides:

- A vision for the County through 2032.
- The County's mission
- A policy agenda for 2017-2018 that includes top priority and high priority projects.
- Strategic goals through 2022 including:
  - Financially sound County government.
  - Professional, effective County organization.
  - Strong growing economy.
  - Vibrant community.
- A management agenda for 2017-2018 that also identifies top and high priorities.

[1] Information for this section was compiled from various sources including the National Association of Counties (NACo), the United States Census, and the County of El Paso.

County's Information Technology Department

"The Information Technology Department's mission is to provide reliable and sustainable technology services in a professional, courteous and efficient manner. We are committed to supporting the strategic goals of the County of El Paso and meeting the daily needs of each department with quality technology services. We seek continuous improvement of our systems and services in the provision of technology solutions Countywide." – ITD

The organization of the County's Information Technology Department is depicted in Figure 2, ITD Organization. ITD is the County's central provider of information technology services and supports County departments that are headed by elected officials (such as the District Attorney, Judges, and the Sheriff), County departments that report to the County's Chief Administrator (as does ITD), and external agencies. ITD also provides services for County Departments that have internal IT resources.

The activities of ITD are directed by the County's Chief Technology Officer (CTO) and it is organized into five divisions (Administration, Infrastructure, Project Management, Software, and Support) each of which has sections providing specialized services. ITD's 64 staff members support approximately 3,000 FTEs (full-time equivalents) with some 4,300 personal computers (desktops, notebooks, etc.), the County's information technology infrastructure, and a complex applications environment that includes "commercial, off-the-shelf (COTS)" enterprise business applications including Odyssey (for the County's criminal and civil justice community), and Munis (financial and HR functions), as well as departmental COTS and custom developed applications.

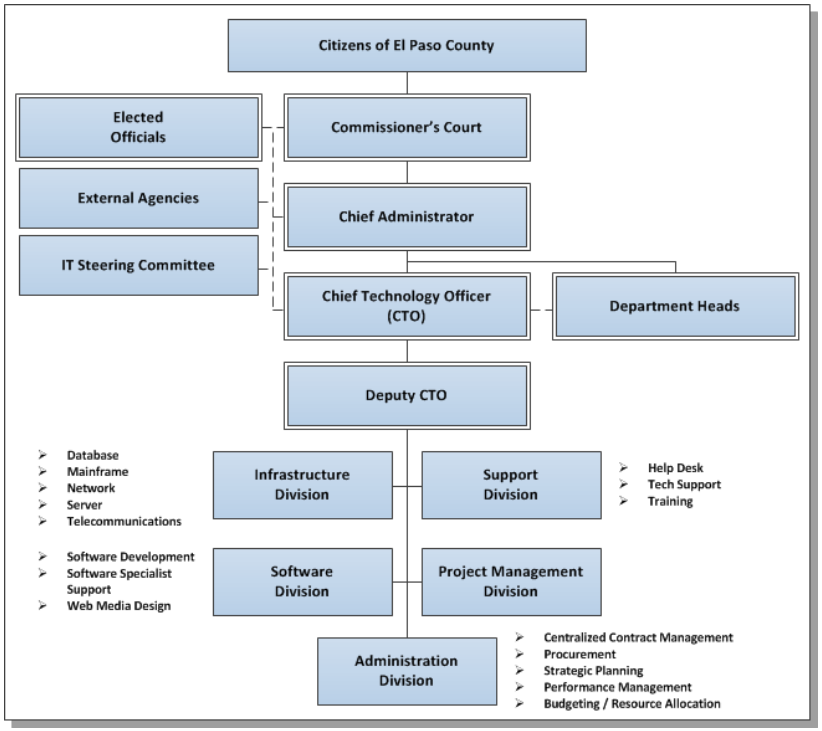

Figure 2 – ITD Organization (Source: SDI)

Most of ITD's staff members are located in a shared City / County facility on Overland Street (the MDR building); however, some staff members are located in the Sheriff's Office. The County has an IT Steering Committee that grew out of the Odyssey implementation and which provides a degree of project coordination and prioritization across the departments.

Section 2: Executive Summary

"Innovation is less about generating brand-new ideas and more about knocking down barriers to making those ideas a reality."- Eight Steps to Accelerate Change in 2015, John Kotter

2.1 – Project Scope and Objectives

This Information Technology (IT) Strategic Plan was developed for the County of El Paso by SDI, Presence, LLC (SDI) as the culmination of an extensive process of information gathering, analysis, collaboration and review that included interviews and workshops with key members of the County's leadership team to identify, review, and prioritize proposed strategic and departmental information technology projects. Key components of this process included an anonymous survey of the user community regarding their satisfaction with the County's information technology infrastructure, business applications, and services as well as an assessment that considered the County's ability to govern, manage, and deliver information technology services.

The information technology assessment included a series of interviews with key user stakeholders and members of the County's IT Department (ITD) managers and staff to identify the technologies being used, concerns with the technologies and/or the support for them, and future plans as well as an analysis of the degree to which the County's practices and procedures conform to a set of IT best practices. More detailed information regarding the results of the IT Assessment is provided in Section 3, IT Assessment Report.

The IT Strategic plan was developed in a similarly collaborative manner. However valuable and insightful an IT Strategic Plan may be; it is nonetheless only a foundation. In order to realize the benefits and objectives of the plan, organizations must be able to: a) manage and maintain the plan; and (b) deliver on the plan. Additional details on the development of the plan may be found in Section 4, IT Strategic Plan and Implementation.

2.2 – Summary of IT Assessment

Within the overall framework of the IT Strategic Plan, the IT Assessment provides a baseline that documents "where the County is today" regarding its use of information technology as well as the unmet needs, challenges, and emerging expectations that will help shape where the County "needs to go."

SDI conducted a detailed assessment of the County's conformance to a set of IT best practices to determine its relative level of organizational maturity. The model maps best practice conformance to four levels of organizational maturity including Frontier (less than 21% conformance), Reactive (21 to 50% conformance), Proactive (51 to 80% conformance), and Service / Value (more than 80% conformance). In general, most organizations from whom SDI has performed IT Assessments fall somewhere between the Reactive and Proactive levels of the maturity model.

The key difference between organizations that are generally reactive in their approach to the use of information technology compared to organizations that are more proactive, is that reactive organizations are primarily concerned with managing their total

cost of ownership for information technology while proactive organizations are more focused on obtaining a higher level of return for their investments in information technology. Proactive organizations see information technology as a strategic enabler that makes it possible for them to more effectively deliver services.

The County's conformance to the IT best practices (48%) is relatively close to the average (45%) for similar engagements conducted by SDI and also relatively close to the threshold for proactive organizations (50%).

In the course of developing the IT Assessment for the County SDI identified a series of findings regarding areas in which the County could improve it processes for the governance, management, and delivery of IT services. As depicted in Table 2.1, Summary of IT Assessment Findings, SDI's observations cover a wide range of areas including:

- IT Best Practice Conformance
- IT Governance
- Project Management
- Service Delivery
- Business Applications
- Infrastructure
- Security / Information Protection
- IT Administration.

Table 2.1, Summary of IT Assessment Findings by Category, maps the findings to their potential impact to County operations including Agility, Business Resilience, User Productivity, Total Cost of Ownership for IT, Return on Investment, and Public Access.

Table 2.1 – Summary of IT Assessment Findings by Category

Category of Findings	Number of Findings	Impact on County Operations					
		Agility	Business Resilience	User Product-ivity	Total Cost of Ownership	Return on Investment	Public Access
General	10	☑	☑	☑	☑	☑	
IT Best Practice Conformance							
IT Governance	11	☑	☑		☑	☑	☑
IT Governance, Project Management Office (PMO)	3				☑	☑	
Service Delivery	9	☑	☑	☑		☑	
Business Applications							
Business Applications, General Findings	14	☑	☑	☑	☑	☑	☑
Business Applications, Munis	20	☑		☑	☑	☑	
Business Applications, Odyssey	8	☑		☑	☑	☑	☑
Infrastructure	10	☑	☑	☑	☑	☑	☑
Security / Information Protection	6		☑	☑	☑	☑	☑
IT Administration	10	☑			☑	☑	

As a result of the identification and review of the findings SDI developed a series of recommendations for the County. These recommendations are intended to enable the County to:

- Sustainably and effectively deliver IT services to the internal user community, the County's regional partners, and the public.
- Remediate operational issues that are related to the use of IT and improve business processes.
- Better respond to new and/or changed business requirements and public expectations.
- Better leverage the use of existing enterprise applications.
- Obtain higher returns for its investments in information technology.

Table 2.2, Summary of Recommendations, lists the recommendations that were developed for the County of El Paso.

Please note that some of the recommendations address multiple findings so that the number of recommendations is less than the number of findings. For each recommendation, SDI has provided an assessment of its business impacts and the level of difficulty to implement the recommendation. The recommendations are intended to enable the County to sustain existing service levels while improving best practice conformance to a level that is reflective of a proactive organization.

Table 2.2 – Summary of IT Assessment Recommendations

Recommendations	Business Impact	Level of Difficulty
The County should establish a formal process for the Countywide governance of information technology including the formation of the committee and the development of a formal charter.	High	Low
The County should conduct an annual review to ensure that IT resources (including ITD and departmental resources) are being allocated consistently with the County's overall objectives and priorities.	High	Low
The County should establish a formal process for fostering process and information sharing in the criminal justice community.	High	Medium
The County should develop and adopt a strategy for digital government and community engagement including the use of social media channels and develop guidelines and standards for the appropriate use of social media.	High	Low
ITD should develop an enterprise business applications architecture and supporting standards and review them with the Countywide IT Governance Committee.	High	Medium
ITD should develop a formal business applications portfolio.	High	Low
The Countywide IT Governance Committee should ensure that all business applications have well-defined charters and sponsors and ensure that the governance of enterprise business applications is not entrusted to a single department.	High	Low
ITD should be charged with the preparation of formal plans for business resilience including cyber-security, business continuity, and disaster recovery.	High	Medium
The County should conduct a post-implementation review of Odyssey and evaluate whether to continue with Odyssey or to replace it. As part of this review, the County should establish a new Countywide steering committee for Odyssey.	High	Medium

Recommendations	Business Impact	Level of Difficulty
The County should conduct a post-implementation review of Munis. As part of this review, the County should establish a Countywide steering committee for Munis reporting the Countywide IT Governance Committee.	High	Medium
ITD should review its organization and processes for user support and revise them to better serve the user community including empowering ITD staff deployed at remote locations (such as the Sheriff's Office) to directly resolve issues.	High	Medium
ITD should conduct a detailed review of its current implementation of HEAT in conjunction with the development of a service catalog (including service levels), a user self-help knowledge base, the recording of hours worked on user requests / issues and providing greater user access to information regarding their tickets.	High	Medium
ITD should develop a comprehensive plan for the improvement of network wireless connectivity to all County facilities and for the improvement of wireless connectivity within the facilities.	High	Medium
ITD should develop and implement a formal change management process that provides for the timely communication of planned application and infrastructure changes to the user community.	High	Medium
ITD should augment the staffing and role of the Project Management Division to include assisting users with IT planning, project quality management, and post-implementation reviews.	High	Medium
The County and ITD should explore the feasibility of relocating the Project Management Division from MNC to the County Courthouse to make them more accessible to the user community and organizationally from ITD to the County Administrator's Office.	High	Low
ITD should adopt formal procedures for software vendor and contract management with the objective of ensuring that software vendors meet contractual obligations.	High	Low
ITD should develop and maintain a formal resource management plan to ensure that staff resources are being used effectively and in a manner that is consistent with the County's objectives and priorities.	High	Medium
ITD should create dedicated, cross-functional teams for the support of enterprise applications including Odyssey, Munis, and I/LEADS.	High	Medium
ITD should prepare a plan for the improvement of its conformance to IT best practices and report annually to the Countywide IT Governance Committee on its progress.	High	Medium
ITD should develop and implement a program for continuing user training in the use of business applications including Munis, Odyssey, etc.	High	Medium
The County should establish an enterprise program for GIS.	High	Medium

Recommendations	Business Impact	Level of Difficulty
The County should develop and adopt a roadmap and standards for the implementation of electronic document / content management systems.	High	Medium
ITD should review its implementation of Key Performance Indicators (KPIs).	High	Medium
ITD should prepare a detailed plan for the migration of the County's users from Windows 7 to Windows 10.	High	Medium
The County should provide work-flow productivity tools (potentially through the use of functionality within Odyssey or Munis or by a COTS application integrated with Odyssey and Munis) to replace the use of HEAT by the District Attorney and the Public Defender's office.	High	High
The County should plan for the procurement and implementation of an enterprise Asset Management System.	High	High
The County should conduct a review of all departmental deployments of IT infrastructure (servers, routers, switches, etc.) to ensure that they are secure and conformant to County standards and best practices.	High	High
ITD should develop a Countywide roadmap for the deployment and utilization of mobile applications so that staff working away from central locations can access data, maps, and other information remotely.	High	Medium
ITD should develop enterprise standards for the use of Software-as-a-Service (SaaS).	High	Medium
ITD should develop and adopt standards and supporting procedures for the creation and consistent use of test environments for the County's business applications.	High	Medium
ITD should be charged by the Countywide IT Governance Committee with the creation and maintenance of a detailed inventory on the County's IT Assets.	High	High

2.3 – Summary of IT Plan

The County's IT Strategic Plan was developed as an outcome of a Planning and Prioritization Workshop held on October 10, 2018. The workshop was conducted in an open and collaborative manner with over forty members of the County's management team including the County Administrator, department heads, and key stakeholders. Placards were printed for each of the proposed projects and pre-staged on the "Blue Wall" (a sheet of adhesive blue fabric that was divided into four categories) including:

- ***In Progress:*** Projects that the participants believed to be currently in progress over the remaining months of FY 2018/19 divided by quarter. One of the difficulties in the subsequent review and refinement of the "Blue Wall" was that there was some inconsistency as to the definition of a project being "In Progress" (i.e., from SDI's viewpoint a project is in progress if it is budgeted, has a formal charter, project schedule, and resources (user and ITD) assigned to

it) and this resulted in a larger number of projects being reported as being in progress than in fact.

- ***Planned:*** Projects that the participants would like to see completed in FY 2019/20, divided by quarter.
- ***Future (FY 2020/21and Beyond):*** Projects that the participants should be completed subsequent to FY 2019/20 (but not broken out by quarter since these projects will be scheduled at a later date).
- ***TBD Planned Projects:*** Projects that seemed to be less critical to the workshop participants were broken out and placed on a side panel. Some of these were eventually moved to main panel in the course of the workshop and some left on a side panel for future consideration.

The participants then reviewed the proposed strategic projects, changed and added projects as needed, went through a voting exercise to identify the highest priority projects for the County, and revised the preliminary timeline. Although the completed "Blue Wall" represents the users' view of projects that are important to them; this view tends to be siloed and does not reflect the County's overall priorities. IT Governance will have to reconcile of the County's overall priorities and the users' view.

Following the workshop, SDI worked with ITD's Project Management Division to refine and revise the "Blue Wall" and the results of this effort are depicted in Figure 2.1, "Blue Wall" Following SDI and ITD Review, which was developed using MS Visio so that the County can continually maintain and update it.

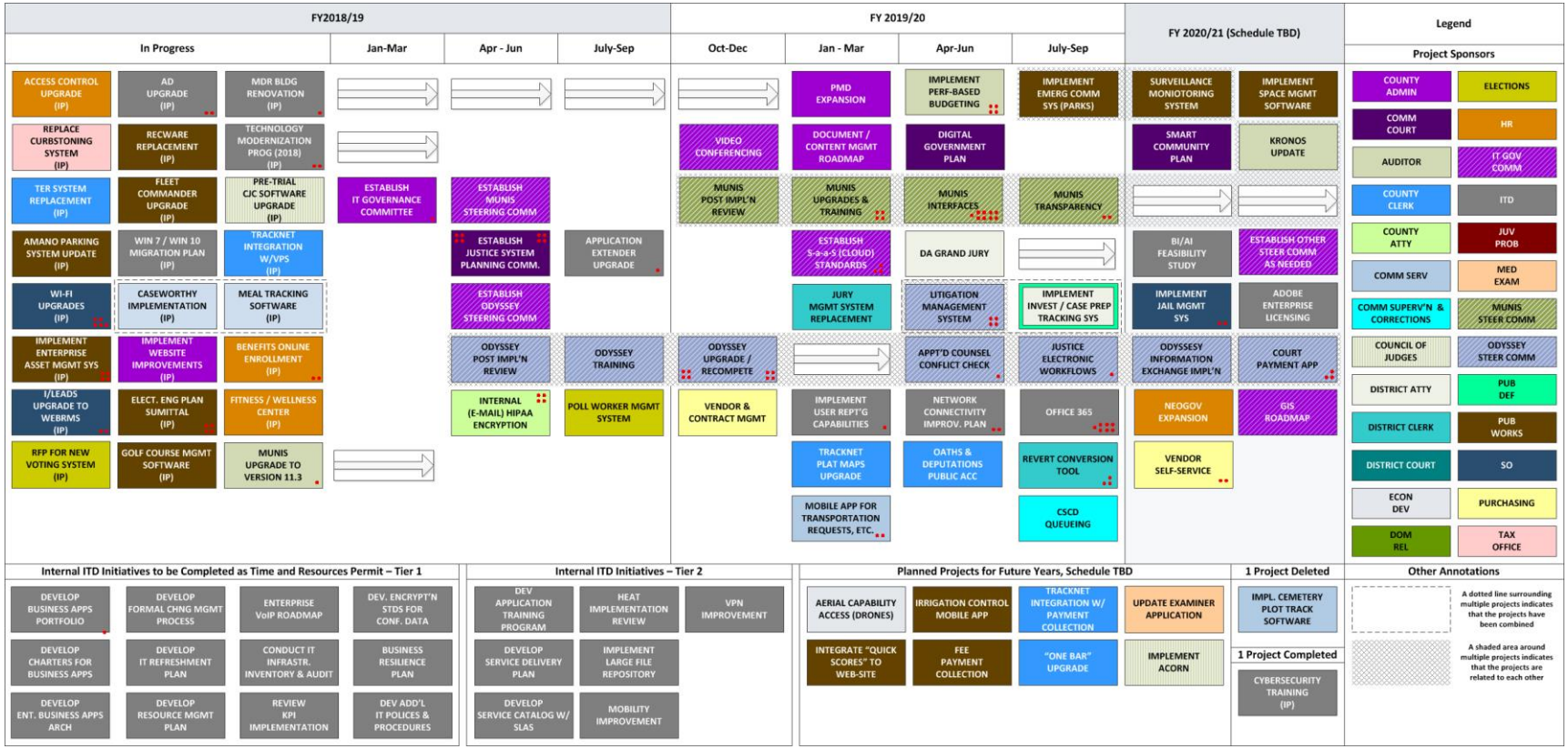

Figure 2.1, "Blue Wall" Following SDI and ITD Review (Source: SDI)

The IT Strategic Plan is a product of a comprehensive, Countywide planning effort that provided the opportunity for management and staff to review, discuss, and integrate their technology needs into a common framework. It also provides an understanding of the County's technology priorities and serves an overall picture of the information technology environment today, what has been accomplished, what needs to be addressed and how to meet those longer-term objectives.

While the creation of the IT Strategic Plan represents the culmination of one step in the planning process, it also marks the beginning of another step – one through which County leaders must work together to create an environment that supports the Plan. IT must work closely with County management, leaders, and staff as they begin a journey to create an organizational sense of purpose that goes much deeper than any vision statement, mission statement, or plan can communicate.

Support of the IT Strategic Plan will need to come in terms of priorities, dollars, policies and practices. Successful implementation may mean making compromises, and it will mean exercising patience, taking a Countywide perspective, and maintaining a continued focus on revising the plan as events take place. Finally, it will take cooperation, communication and flexibility to adapt to changing needs, technologies and resources.

Section 3: IT Assessment Report

3.1 – Introduction

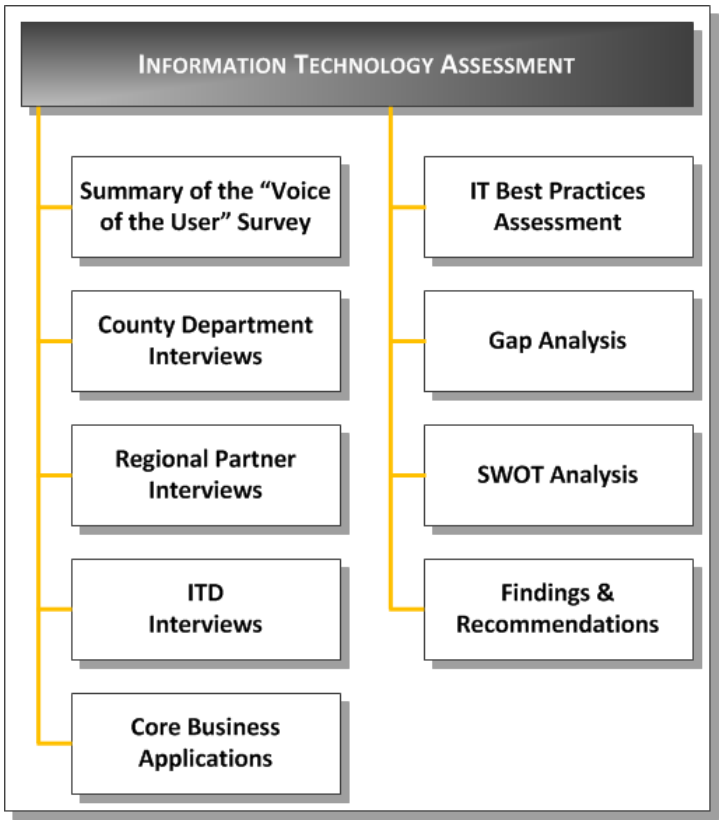

Figure 3.1 – Information Technology Assessment (Source: SDI)

This section of the Information Technology Strategic Plan, Information Technology Assessment, was developed for the County of El Paso to provide an independent and objective assessment of the governance, management, and delivery of information technology services to the County's user community and to its regional partners, as well as the ability of the County to support current and future user requirements.

Within the overall framework of the IT Strategic Plan, the IT Assessment provides a baseline that documents "where the County is today" regarding its use of information technology as well as the unmet needs, challenges, and emerging expectations that will help shape where the County "needs to go."

As depicted in Figure 3.1, Information Technology Assessment, SDI conducted a wide-ranging review of the County's current information technology environment including an online survey of all users; interviews with user departments, offices, and agencies; interviews with the County's regional partners; interviews with the County's CTO and ITD managers and staff; a review of the County's core business applications; and an assessment of the County's conformance to IT best practices.

SDI analyzed the information gathered in this review and documented the results in a gap analysis; a SWOT analysis, and in findings and recommendations.

Each of these is presented below.

3.2 – Summary of the "Voice of the User" Survey

The results of the "Voice of the User" Survey were reported in a separate deliverable provided to the County in April, but in as much as some of the information that was provided in the survey helped

guide the interviews with the County's key stakeholders and members of the user community, a summary of the key themes that were identified is included here.

Overall, ITD received high scores from the user community in several areas of the survey including ITD's overall performance, ITD's Support Division (Help Desk and Technicians), the process to report issues to ITD, ITD's hours of service, ITD's time to resolve problems, ITD's communication with the users, ITD's follow-up on issues reported to the Help Desk, Internet access, control of spam and unwanted e-mail, and management of passwords. Areas of lower levels of user satisfaction included Wi-Fi availability and quality, Speed of the Internet, Ability to connect to remote access, and ITD's general understanding of department's business objectives.

Of the 749 responses to the question "How do you contact TS for assistance," SDI noted that 51% of the contacts (391) were via e-mail while just over 81% (617) responded that they use the telephone. This may be an opportunity since SDI found that requests that are e-mailed are far more likely to be entered into the service desk management system (this often happens automatically) while telephone requests may not get into the service desk management system in a timely manner, if at all, and may never get addressed.

Looking at the reasons that these 749 users contacted ITD for assistance:

- 65% reported that they contacted ITD due to software failure.
- 41% reported that they contacted ITD due to hardware failure.
- 37% reported that they contacted ITD for password resets.
- 18% reported that they contacted ITD for security form requests.
- 9% reported that they contacted ITD for training.
- 19% reported that they contacted ITD for other – including access permissions, data retrieval, software installation, printer issues, and web site updates.

When asked "For which software applications do you typically contact ITD for assistance?" of the 614 users responding to the question:

- 62% identified Outlook.
- 50% identified Odyssey.
- 49% identified Kronos.
- 27% identified Microsoft Word.
- 27% indicated Munis.

Interestingly, users reported that they contacted ITD for support far less frequently for the applications developed by ITD (such as eBond, etc.). Perhaps this is because the user interfaces for these applications are more closely aligned with user business processes or because there is a greater degree of user ownership for them.

ITD's Results Compared to Other Clients and Target Scores

Figure 3.2, Comparison of ITD's Scores for User Satisfaction to Other Clients and Target Scores, provides a comparison of the scores received by the County to scores received to thirteen survey questions that were comparable to questions in prior surveys

conducted for municipalities and counties as well as to SDI's target score for overall user satisfaction.

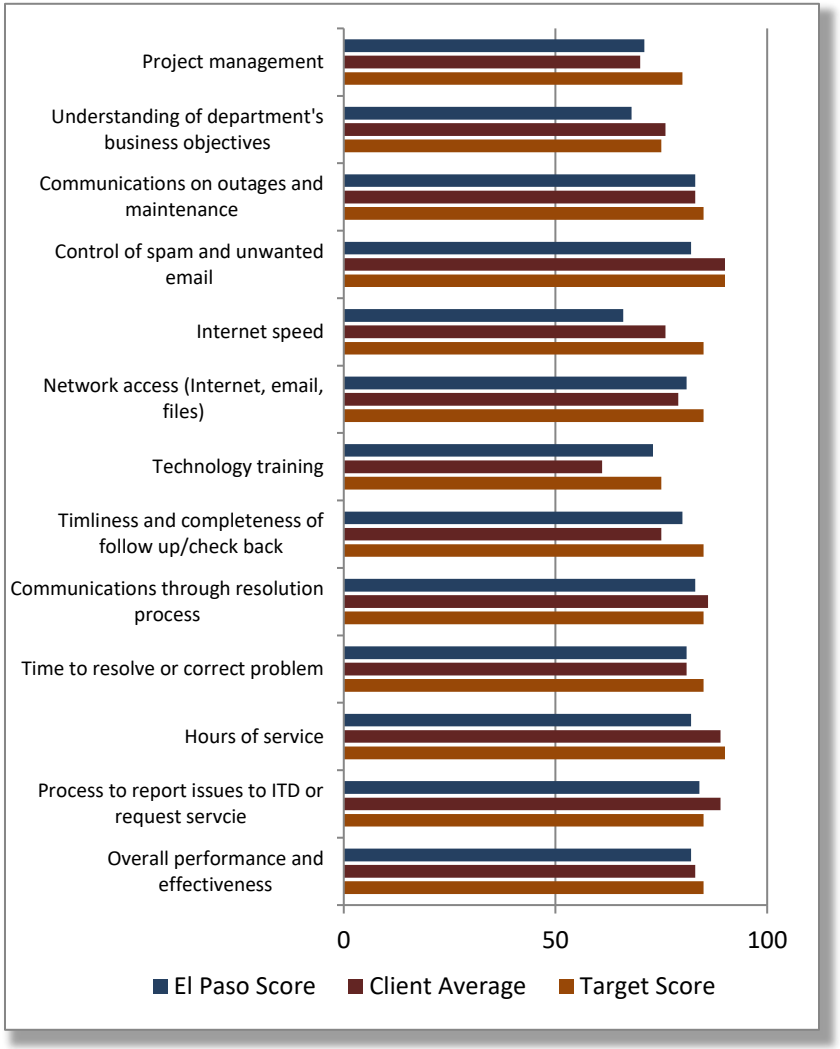

Figure 3.2 – Comparison of ITD's Scores for User Satisfaction to Other Clients and Target Scores (Source: SDI)

As depicted in Figure 3.2, user satisfaction recorded in El Paso:

- Exceeds the average for prior surveys in four of the thirteen questions, is roughly equal to the average in three of the questions, and less than average in six of the questions.
- Does not exceed the target for user satisfaction in any of the questions, is roughly equal to the target in five of the questions, and is less than the target in eight of the questions.

Conclusion of Summary

Please contact the Information Technology Department for a full copy of this report.