

2012

Eaton County
Michigan

Robert J. Sobie, Ph.D.

[STRATEGIC TECHNOLOGY PLAN]

Information technology is a critical component in the production and delivery of county-based public services that enables new ways of increased interaction with citizens, businesses, and visitors. This plan reviews new goals and objectives that take advantage of emerging technologies that strengthen our ability to meet the changing demands of internal and external stakeholders.

The use of “departments” throughout the report refers to all county operations including the governing board, courts, general government, and so on. This was done, not to subordinate constitutionally separate branches of government to any other branch but to simplify writing the plan.

Executive Summary

Information technology (IT) is no longer just a way to support common office functions like typing and filing documents. Rather, IT is a critical component of county business processes that enable new ways of interaction (delivery of public services) with citizens, businesses, and visitors alike. It is believed that new county-wide IT strategic goals are needed to strengthen existing interactions and develop new ones when and where they are needed. This belief became a directive issued by the Information Technology and Communications Committee during their June 2012 meeting.

The directive acknowledges IT's support of business processes and a necessity that we continue to evolve our technology in ways to meet the changing needs of all those who seek public services. Through these changes, we further enable and empower the use of technology in departments to further improve operations that promote a cost effective and efficient county government.

Current economic reality tells us that demands placed on government will continue to grow. Doing more with less is an often used phrase linked to a newer phrase, "a new normal." Either phrase speaks to the ongoing need to transform business processes to meet the challenges associated with this new normal. IT is known to be an enabler of transformation that can leverage the use of fewer overall resources into better overall service production and delivery.

Therefore, department representatives were invited to participate in a series of plan development activities that occurred during the summer of 2012. Representation was essential to ensure broad thinking about what we are doing well, areas that we can improve, and opportunities for the introduction and use of new technology strategies.

From dialogue that occurred during plan activities, four broad goals were established with multiple objectives for each goal. Briefly, the goals are: Efficiency/Effectiveness, Customer Service and Public Access, Organizational Design, and Sustainability. Related objectives are described in greater detail later in the plan.

The plan reviews the goals and objectives with the intent to provide future guidance to decision makers regarding IT investments. Like any planning document, various influences can alter the course of the plan. The extent to which these influences occur and impact plan execution is unknown.

Participants in plan development activities seem to agree that adequate flexibility exists for the stated goals and objectives given that specific technologies are not referenced in the plan. This is important because as new technologies emerge and are integrated into

county operations, the adoption of these technologies help to define what our IT requirements are (or should be) as they relate to long-term operational support and sustainability of the technologies.

County Vision/Mission

In a county historically well adapted to the use of technology and innovation, this planning effort was not able to link development of new IT goals to formalized vision and mission statements developed and adopted by the Board of Commissioners (Board)¹. Typically, organizations develop such statements to provide guidance during policy deliberations, development, implementation, and oversight. However, the absence of such statements is not in itself problematic.

For instance, “statements” and the guiding principles embedded in them can often be found in actions taken by the Board and documented in meeting minutes, resolutions, reports, and so on. Supporting public safety and assuring forms of judicial processing, through an annual appropriation of funding, are good examples of two legacy goals that are easily identifiable from past Board action.

For future strategic technology plan initiatives, the author recommends the Board consider developing and adopting vision and mission statements to establish goal alignment between Board priorities and the various levels and/or branches of county government.

Examples:

“Vision: An open, participatory government working to assure a safe, secure, healthy community...”

~ Ingham County

“Mission: ...is committed to serving its communities through empowered and progressive leadership that is entrusted to embrace innovation in every aspect of government service.”

~ Oakland County

“Vision: ...provides leadership to create[a] world-class community.”

~ Washtenaw County

Planning Process

Strategic technology planning is a process for clarifying what IT is doing for the county, defining its various stakeholders, and to determine what IT should be doing to meet or exceed stakeholder expectations. In other words, it needs to identify our goals. Of course, goal achievement, would then be accomplished within the constraint of public resource availability.

This plan does not address the vast ocean of technology planning literature or methods available to organizations to develop plans. What this section of the plan does is simply present the framework used to develop the plan in collaboration with department representatives who participated in the initiative.

The ten-step process used includes:

1. Identify and agree upon a strategic planning process. *(refer to June 5, 2012 – “Tech” committee minutes)*
2. Identify organizational [/departmental] mandates. *(refer to annual budget documents & IT investments)*
3. Clarify mission and values. *(refer to official board actions, past and present)*
4. Assess internal and external environments to identify strengths, weaknesses, opportunities, and threats (SWOT). *(refer to plan development meetings on June 26 and August 14, 2012, including general requests for feedback)*
5. Identify the strategic issues facing the organization [/department]. *(refer to draft/final tech plan document, early Fall 2012)*
6. Formulate strategies to manage these issues. *(refer to draft/final tech plan document, early Fall 2012)*
7. Review and adopt the strategic [technology] plan or plans. *(pending committee/board review and action)*
8. Establish an effective organizational [/departmental] vision. *(refer to official board actions, past and present)*
9. Develop an effective implementation process. *(pending adoption of the plan)*
10. Reassess strategies and the strategic planning process. *(ongoing, following adoption of the plan)*

Source: John Bryson (2006), Strategic Planning for Public and Nonprofit Organizations.

For further review, these 10 steps are visually represented in a diagram found in the Appendices.

Past Technology Plans

Earlier plan development occurred in 1999, 2005 and then again in 2007 when a few minor updates to the 2005 plan were applied. Plans were developed in a collaborative manner, much like the 2012 version. A key difference today, however, is the current plan's use of a well-known strategic planning methodology (SWOT analysis) to gather information from departments that could then be used to identify meaningful goals for the future. Previous plans relied primarily on short questionnaires that had been targeted to align with assumptions about what the goals should be. In other words, a narrow focus was used in the past rather than today's opportunity to think broadly about any relevant factors to help shape goal definition and achievement.

Development of This Strategic Technology Plan

Departments were invited to attend plan development activities to offer their unique subject-specific expertise about the application of technology to their business functions. In addition to meetings, departments were encouraged to provide feedback regarding dialogue, ideas, and so forth using email correspondence. County IT provided meeting announcements and email summaries to departments to foster an environment of collaboration, partnership, and understanding that led to development of the plan.

In one particular email, departments were tasked with identifying and describing three business goals that they want to complete in the next three years in which they believed technology would be essential to achievement. A summary of goals submitted are included in the Appendices.

Factors Influencing This Plan

As you know, technology is a means to an end, not the end in itself. Therefore, technology can be influenced and directed by a number of factors found inside and outside of the county's organizational structure. A few examples include:

Internal	External
<ul style="list-style-type: none">• Governance (politics, policies, procedures, oversight)• Project planning• Funding (IT investment)• Department representation²	<ul style="list-style-type: none">• Changes/evolution of technology products and services• Shrinking pools of public resources• Increased computer literacy• Online services

Where these factors are controllable, efforts should be taken to better understand the impacts they may have on current or future goal achievement and then make necessary adjustments to the factors or the plan to fully benefit from the opportunities presented. This means embraces positive impacts and eliminating negative ones.

Strategic Technology Plan

The plan provides some guidance for how the county should apply resources to information technology over time. While keeping existing IT services operating at the level expected by internal stakeholders should remain a top priority, ongoing investments are essential to accomplish future goals. The expectation remains that benefits received from future IT investments will far exceed the actual investments made.

Adjustments to this plan can be made at any time to reflect new ideologies, technologies, mandates, and so on. Changes should be communicated through periodic updates to departments using a suitable venue for receiving and evaluating their feedback. An existing venue is the regularly scheduled meetings of the Information Technology and Communications Committee.

Of primary importance and urgency to the county's business operations is the need to transform its common business processes to improve operational efficiency and effectiveness that leads to further maximizing the use of our technologies. This particular objective, under the goal of efficiency and effectiveness, can have both immediate and long-term positive impacts on the timeliness and operational quality of the county's public services.

The following sections further discuss each of the goals and their supporting objectives. The goals/objectives were identified for immediate attention because they are interrelated. After reading the plan, you may find an interesting fact emerges, namely, that all of the objectives for each goal could all be rolled into a single goal: efficiency and effectiveness. This fact is also supported when some objectives are listed under multiple goals because of their cross-boundary relevance to various goals.

Goals and Objectives

If there is one thing most people know about strategic technology planning it is that the process can be time consuming but more importantly, the process generates a large number of goals that can overwhelm even well-prepared organizations and their resources. This was noted in a group presentation held on August 14, 2012 under the description, "early definitions" of goals. To address this aspect of strategic planning, goal definitions were reshaped and their related objectives were reviewed with plan development

participants. Four distinct goals emerged from this process. But, as recently noted, all of them could be conveniently categorized under the most important goal: Efficiency and Effectiveness.

Goal #1 – Efficiency and Effectiveness

Using SWOT-based input from plan development participants, eight (8) IT-driven strategic objectives were identified to address efficiency and effectiveness in support of the county’s delivery of public services.

Objective	Description
1.0	Business process improvement. This strategy acknowledges the need for business processes to change in most areas of the county in order to have a more focused and efficient delivery of public services. When a single business function, like processing accounts payable records, is performed throughout the county, efficiency will be enhanced when we perform those functions in a consistently effective way.
1.1	<ul style="list-style-type: none">• Support and enable business process improvement initiatives county-wide.
1.2	<ul style="list-style-type: none">• Mandate the use of automated tools to increase efficiency.
1.3	<ul style="list-style-type: none">• Improve document sharing using various electronic forms to increase operational efficiency.
1.4	<ul style="list-style-type: none">• Increase learning opportunities for employees to develop enhanced skills fostering maximum use of technologies.
1.5	<ul style="list-style-type: none">• Managed growth/use of mobile devices can increase operational efficiency by removing barriers related to location. This objective must include reliable remote access and standardized use of electronic documents.
1.6	<ul style="list-style-type: none">• Identify and implement policies that improve the overall standardization of IT assets and where appropriate engage in shared IT services with operationally compatible agencies.
1.7	<ul style="list-style-type: none">• Improve IT resource planning and execution.
1.8	<ul style="list-style-type: none">• Support and enable collaborative arrangements to fully benefit from the collection of data (data that is captured only once and used where needed). We continue to collect more and more information through increased electronic business processes. Unfortunately, we also continue to create duplicate data and therefore have not always been able to take advantage of the data collected.

Goal #2 – Customer Service & Public Access

Using SWOT-based input from plan development participants, two (2) IT-driven strategic objectives were identified to address the improvement of customer service and public access to county records and services.

Objective	Description
2.0	Past technology plans have focused more on specific technologies that could/should be used rather than focusing on specific customer service outcomes. How services are delivered is not only important but the new focus of this particular goal to provide enhanced value to our “customers.”
2.1	<ul style="list-style-type: none">• Improve online access to county records and increased service offerings through an enhanced Web site.
2.2	<ul style="list-style-type: none">• Identify meaningful and effective utilization of social media.

Goal #3 – Organizational Design

Using SWOT-based input from plan development participants, nine (9) IT-driven strategic objectives were identified to address concepts of organization design that can positively and directly impact the other goals described in this section.

Objective	Description
3.0	User expectations regarding technologies may have surpassed the ability of these same technologies to meet expectations. For instance, “unlimited user expectations” is a phrase that describes user requirements whereby no system down time is desirable. This ideology is further emphasized when technologies are scheduled for periodic maintenance or even fail. Incidents like these cause many county operations to halt until systems are restored. Additionally, some changes in IT governance practices are applicable to ensure certain guiding principles about funding strategies; introduction and removal of technologies, and general system availability are adhered to and remain as guiding principles.
3.1	<ul style="list-style-type: none">• Support and enable business process improvement initiatives county-wide.
3.2	<ul style="list-style-type: none">• Continue earlier county-wide efforts to develop continuity of operations plans for all departments and their most important business processes. Plans can present alternative solutions until primary systems are restored.
3.3	<ul style="list-style-type: none">• Improve our ability to recover from a disaster.
3.4	<ul style="list-style-type: none">• Strengthening security, inventory, and management of IT assets avoids “lost” assets and many occurrences of underutilized assets. This objective aligns with business process improvement strategies but it specifically seeks to address our peripheral computing devices.

3.5	<ul style="list-style-type: none"> • Evaluate the impacts and implications related to a decentralized IT operation.
3.6	<ul style="list-style-type: none"> • Implement a forum for dialogue and information sharing in support of business process improvement and idea seeking.
3.7	<ul style="list-style-type: none"> • Support and enable collaborative arrangements to fully benefit from the collection of data (data that is captured only once and used where needed). We continue collecting information through increased electronic business processes. Unfortunately, we also continue to create duplicate data and therefore have not always been able to take advantage of the data collected.
3.8	<ul style="list-style-type: none"> • Support central review and coordination of IT investments, based on a sound business case, to develop meaningful returns on investments, reduce duplicative costs, and ensure compatibility between systems.
3.9	<ul style="list-style-type: none"> • Support the use of IT standards³.

Goal #4 – Sustainability

Using SWOT-based input from plan development participants, five (5) IT-driven strategic objectives were identified to address sustainability of technology resources that support internal business operations and delivery of public services.

Objective	Description
4.0	Continuing the county’s history for supporting technologies reduces the risk that systems will not be available when needed. Monitoring the risk of failure related to aging equipment will be essential to IT sustainability in the next several years. For example, over 80% of our IT assets are 4.94 years old or older and do not effectively execute newer software programs. This became painfully clear to employees when new anti-virus software was deployed in early 2012.
4.1	<ul style="list-style-type: none"> • Increase IT investments where meaningful returns-on-investment can be found. • Upgrade/replace aging equipment.
4.2	<ul style="list-style-type: none"> • Further modernize the communications infrastructure to reduce future costs.
4.3	<ul style="list-style-type: none"> • Identify opportunities to avoid IT costs through contracting, outsourcing, shared services, and so on.
4.4	<ul style="list-style-type: none"> • Continue earlier county-wide efforts to develop continuity of operations plans for all important departments and their business processes. Plans can provide alternatives to customer relationships and transactions until systems are restored.
4.5	<ul style="list-style-type: none"> • Improve our ability to recover from a disaster.

Conclusion

While many factors influence what should be included within a strategic technology plan, none is as important as the operational obligations in the county that the plan must support. Earlier, the plan used the phrase “legacy goals” as a way to connect plan requirements with perceived interests of the governing board and other stakeholders. These interests, based on historical funding appropriations include public safety, courts, and many general government service areas. While not losing site of these legacy goals, this plan mostly focuses on new project ideas⁴ to further transform departmental and county-wide business processes to operate even better than they do today.

To that end, the plan’s broadest goal, efficiency and effectiveness, necessarily links to both funding appropriations and user expectations. This implies that resources will be available and used in a manner consistent with each department’s operational goals. This is certainly not a new concept or concern, but it is important for understanding the necessity to sustain existing technologies and to acquire new ones as operational requirements change.

Once this plan is adopted, the next step is to reference it frequently and update it periodically. The first point of reference or use of the plan can be found in Appendix D, whereby a series of project ideas are listed and linked to one or more of the four goals described in the plan. The list is derived from input received from departments that participated in plan development. The projects may then become some of the first action items generated from the plan that could be included in future fiscal years. Of course, each fiscal year generates many requests for IT investments, but where any projects can be directly linked to goals discussed in this plan, they should receive greater attention to funding because participants described a business case for the project.

Finally, all plans can be subjected to certain impediments that prevent or delay plan execution. Common examples include a lack of resources, lack of consensus about when to begin, uncertainty about how to include the plan within existing decision making structures, and so on. Regardless of the presence or absence of any impediments, the plan remains a document that should be referenced when IT investments are planned in current and future fiscal years.

Endnotes:

¹ Electronic correspondence received from John Fuentes on 6/27/12.

² Regarding department representation, input has been minimal from general government operations and moderately representative of criminal justice and public safety stakeholders.

³ The premise for adopting standards is to establish a process to enable the orderly innovation and adoption of technology within the county. Standards support the technology vision and principles described in the technology plan and the needs of our end-users. Most importantly, standards promote solutions with reduced complexity, expense, and support. The establishment and governance of standards requires a constant balancing between too much control and not enough control. Standards can be both beneficial and detrimental, depending on the perspective of the user. Standards can provide a sufficient amount of flexibility so that the county's business is not constrained, while simultaneously encouraging management of scarce resources.

Technology in many areas, such as network security and desktop computers, is evolving rapidly and the standards in these areas will need to be updated frequently as the technology changes. Today, many standards are informally documented. But, a more formalized standards review process would be beneficial for reviewing and updating IT standards. This process would allow a department to present a business case when there is a need to consider adding a new product or review an exception to the standards. Review would generally be done by the technology director and/or Information Technology and Communications Committee.

Simply stated, adopting and following IT standards include common benefits like interchangeable parts and supplies when brand/model differences are minimized, timely technical support (using a common base of knowledge), increased reliability of equipment (business-class technologies), lower costs related to use, and so on.

⁴ Plan development participants did not talk about any projects related to tracking and monitoring performance results for department-level outputs and outcomes. With Gov. Snyder's current directives calling on local governments to collaborate and present performance-driven "dashboards" for public reference, and tying these initiatives to revenue sharing programs, some project ideas should be identified as a supplemental effort to this plan.

Appendix A: Plan Development Sessions/Milestones

June 26, 2012 (1 st Plan Development Session)	July 27, 2012 (Business Goals Due from Departments)	August 14, 2012 (2 nd Plan Development Session)
<ul style="list-style-type: none"> Information Systems (<i>Facilitator</i>) 	<ul style="list-style-type: none"> Sheriff – Delta, Corrections^a 	<ul style="list-style-type: none"> Information Systems (<i>Facilitator</i>)
<ul style="list-style-type: none"> Community Development 	<ul style="list-style-type: none"> Controller’s Office^b 	<ul style="list-style-type: none"> Community Development
<ul style="list-style-type: none"> Sheriff – Corrections Division 	<ul style="list-style-type: none"> Circuit/Probate/Juvenile Courts^c 	<ul style="list-style-type: none"> Sheriff – Admin, Delta, Corrections
<ul style="list-style-type: none"> Central Dispatch 	<ul style="list-style-type: none"> Drain Office^d 	<ul style="list-style-type: none"> Central Dispatch
<ul style="list-style-type: none"> Controller’s Office 		<ul style="list-style-type: none"> Controller’s Office
<ul style="list-style-type: none"> MSU Extension 		<ul style="list-style-type: none"> MSU Extension
<ul style="list-style-type: none"> District Court 		<ul style="list-style-type: none"> Prosecuting Attorney

^a Enhanced online services like police-to-citizen portals (links to Goal #1 and Goal #2); streamline collection, storage, and use of data including the elimination of duplication of collected/stored documents (links to Goal #1 and Goal #3); electronic citations (links to Goal #1 and Goal #3) – *Lt. Jeff Campbell, 07/17/12*. Enhanced inmate services system (links to Goal #1, Goal #2, and Goal #3); integrated data between disparate systems – RMS – JMS – JIS – ACT (links to Goal #1 and Goal #3); elimination of report printing (links to Goal #1) – *Capt. Teresa Catey, 08/20/12*.

^b Streamline collection, storage, and use of data between departments (links to Goal #1 and Goal #3); preference towards integrated software solutions (links to Goal #1 and Goal #3); enhanced mobile access (links to Goal #1 and Goal #3) – *John Fuentes, 07/18/12*. Enhanced online services, both internal and external (links to Goal #1, Goal #2, and Goal #3); business process improvements (aka workflow) (links to Goal #1, Goal #2, and Goal #3) – *Connie Sobie, 8/14/2012*.

^c Uniform scheduling system (links to Goal #1, Goal #2, and Goal #3); schedules accessible to the public (links to Goal #1 and Goal #2); e-warrants (links to Goal #1) – *Hon. Thomas Byerley, 08/01/12*.

^d Make available a database of scans of drains for engineers and other public agencies (links to Goal #1 and Goal #2); mobile capture/access of data (links to Goal #1 and Goal #3); electronic records retention and management (links to Goal #1, Goal #2, and Goal #3) – *Dick Brown, 08/08/12*.

Appendix B: Participant Responses from SWOT Analysis

(List was derived from the June 26, 2012 plan development session with department representatives)

What are some things that our technology does well (strengths)?

- Empowers employees to learn and use technology to do their jobs (today, many job descriptions require some form of computer proficiency).
- Provides for a stable computer network.
- Allows efficient and timely communication with many internal and external stakeholders.
- Provides many forms of interoperability.
- Fosters collection and use of large volumes of digital data.
- Provides operational efficiencies for departments, divisions, and programs.
- Phone system (voice communications) is significantly improved when compared to previous systems.
- Innovative and forward thinking department heads and employees scattered broadly throughout the county.

What are some things that our technology does not do so well (weaknesses)?

- Needs to provide more interdepartmental collaboration solutions/resources (helps to avoid the “silo” effect).
- Not all digital data collected is used to the extent that it could to avoid duplication of work and to better understand department “results.”
- Restrictions to some Web sites.
- Does not allow department managers the flexibility to manage filtering Web content, preventing access to “parts” of the network. Causes IT to assume the role of a “management proxy” for individual departments.
- Network security.
- Ongoing use of fax machines.
- Management of mobile devices.
- Knowledge of IT solutions and the pace of IT acquisition (inability to meet demand).
- Prioritizing IT initiatives.
- Email storage limitations.
- IT assets are old (80% of assets are 4.5 years old or older).

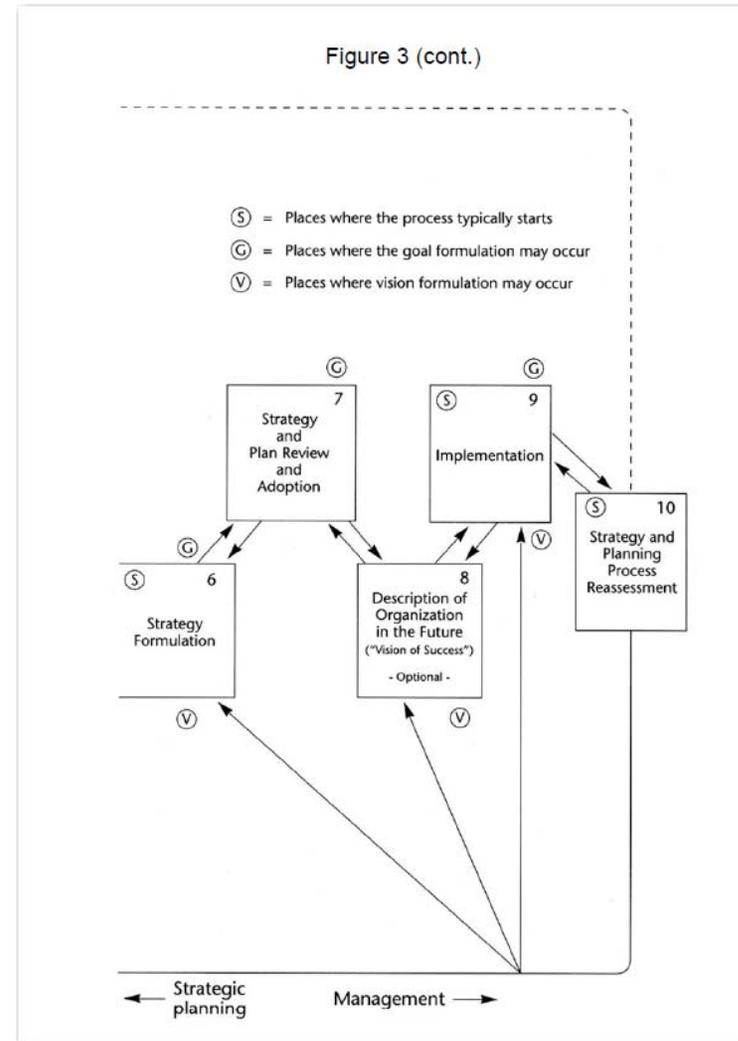
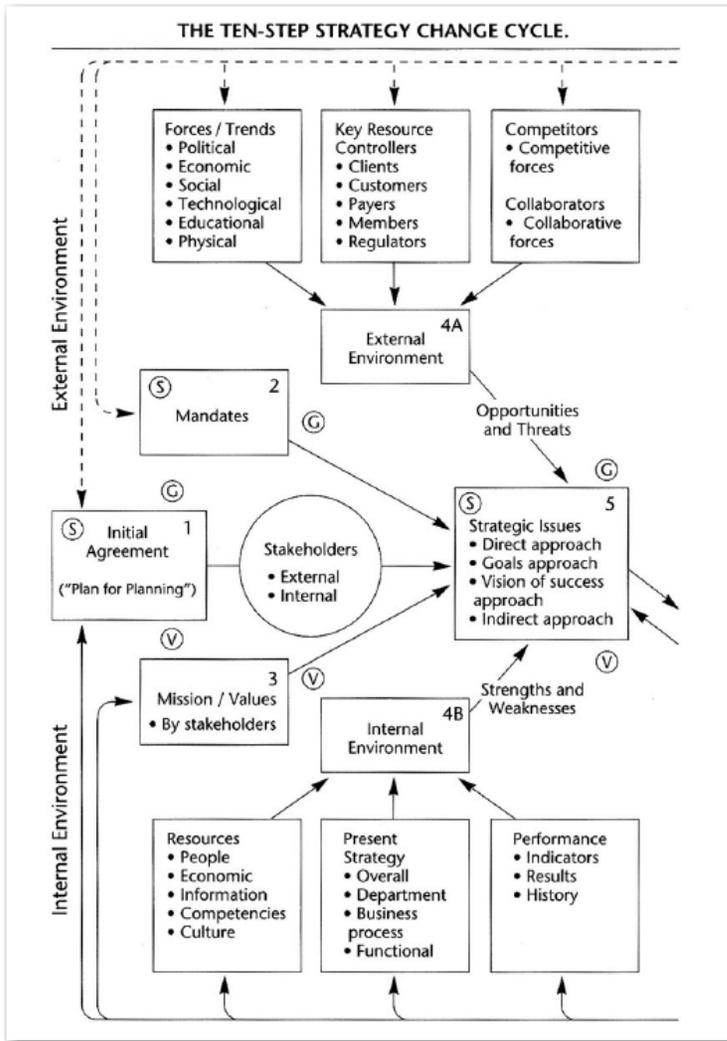
What could technology be doing to help business operations (opportunities)?

- Increase the use of electronic documents (and interdepartmental interactions) and less reliance on paper documents and routing as part of a county-wide business process improvement strategy (i.e., PPO, managing inmates related to store accounts and visitation, personnel change forms, online submission of documents, workflow, FOIA).
- Provide a forum for interdepartmental collaboration.
- Further modernization of our communications infrastructure including use of unified communications (i.e., voicemail sent/stored as email, reduction of desktop telephones when employees have county cell phones).
- Increase the availability and use of online/fillable forms (internal and public use).
- Decentralize IT operations (concerns with unlimited user expectations, resource allocations).
- Expand the use of mobile computing.
- Social media (applications and oversight).
- “Cloud” (i.e., hosted) services as a form of future IT cost avoidance (some concerns with data protection).

What things could cause our technology to fail in helping us meet our goals (threats)?

- Aging technology (sustainability and/or advancing IT).
- Legislative mandates/guidelines that affect IT operations/priorities (i.e., compliance with federal criminal justice data segregation and protection guidelines).
- Expectations of no downtime (unlimited user expectations).
- Knowledge of IT solutions and the pace of IT acquisition (inability to meet demand).
- Management of mobile devices.
- Data storage trends.
- Decentralized IT operations (concerns with unlimited user expectations, resource allocations).

Appendix C: Strategic Planning Model



Source: John Bryson (2006), *Strategic Planning for Public and Nonprofit Organizations*.

Appendix D: Cross-Reference between Goals and Project Ideas

Department / Project Description	Goal 1: Efficiency & Effectiveness	Goal 2: Customer Service & Public Access	Goal 3: Organizational Design	Goal 4: Sustainability
County-Wide (CW)				
• Increase IT investments	*	*	*	*
• Use cost avoidance strategies				*
• Continuity of operations testing/simulations			*	*
Sheriff's Department				
• Police-to-citizen applications	*	*		
• Streamline (integrated) data management (CW)	*		*	
• Electronic citations	*		*	
• Enhanced inmate services system	*	*	*	
• Eliminate report printing (CW)	*			
Courts				
• Uniform scheduling system	*	*	*	
• Schedules accessible to the public	*	*		
• Electronic warrants	*	*	*	
Controller's Office				
• Streamline data management (CW)	*		*	
• Future preference towards integrated software (CW)	*		*	
• Enhanced mobile access (CW)	*		*	
• Enhanced online services (internal / external) (CW)	*	*	*	
• Business process improvements (CW)	*	*	*	
Drain Office				
• Database of drain scans	*	*		
• Mobile access/collection of data (CW)	*		*	
• Electronic records retention & management (CW)	*	*	*	

