



**GOVERNMENT FINANCE OFFICERS ASSOCIATION  
(GFOA)  
RESEARCH AND CONSULTING CENTER**

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**Champaign County  
IL  
Business Case Report**

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**April 2016**



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## **Section A: Executive Summary**

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The shelf life of most financial systems for local governments averages 15 years. Champaign County has relied on their current configuration for twice that amount of the time. While successful to date, the continued use of the County's AS/400 financial system is at a crossroads. The lack of continued upgrades and expanded functionality has created a system that falls short of the County's business needs. Recent external audits have also highlighted the vulnerabilities of the current system and the need for replacement in the near future. However, the most concerning system related issue is the anticipated amount of turnover within Information Technology due to retirement over the next few years. The risk of losing the institutional knowledge from current employees of the existing configuration of the system increases the longer the County maintains its current setup and processes. As is the case with other governments, shadow systems have been created over time to fill the gaps not met by the main system. This often leads to inefficiencies. By replacing these shadow systems with one new financial system, the County can take advantage of new technologies and new features, but more importantly it can use the project as an opportunity to revise business processes, improve integration between existing systems (those that are not replaced), and between business processes, and ultimately re-think the way it operates – such as re-thinking the division of responsibilities between the central offices and the user departments. As part of GFOA's business case assessment for the County, GFOA reviewed how the County currently uses its AS/400 system. It is clear that the County's full system (including technologies, policies, and processes) could benefit from an improvement effort and update. This report will highlight the business case for moving forward with system replacement as well as point out recommendations and considerations for how to best utilize this opportunity and proceed in a thoughtful and strategic way.

GFOA has assisted hundreds of other governments with planning for a financial system replacement project. Recommendations in this report are based on GFOA's collective consulting experience, ongoing market research, and direct research conducted for this project.

### **1. Overall Systems Assessment**

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The County's primary financial system is the IBM Application Series/400 (AS/400). AS/400 was at one time very popular system in local governments across the United States. The platform was and still is very reliable. However, it is no longer a preferred option as software as predominately migrated to SQL server and more recently to cloud or hosted applications. Remaining on the AS400 will present numerous challenges for the County going forward including but not limited to difficult in supporting the systems running on it, difficulty maintain the hardware itself, limited functionality for the software, and outdated business processes that are constrained by lack of system opportunities. Simply put, AS/400 is not a long-term solution for the County and the County has a strong case for replacing it and the systems running on it. As stated earlier, there is no denying that AS/400 was a quality platform and the financial system has served the County well, however it lacks many features that have become common in modern systems. It also lacks a modern user interface that is intuitive and common with modern systems making training new (and experienced) employees more difficult and time consuming. With the transition to a new financial system, the County can expect to take advantage of new features that will only serve to improve efficiency, control, and transparency, provide a more "user friendly" interface, and provide better capabilities for County staff to utilize the information



to help manage the County. However the big benefit that a new financial system implementation would bring would be the opportunity to improve business processes throughout the County.

## 2. Business Process Assessment

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GFOA has identified numerous examples where the County could benefit from a process improvement effort. The County's processes are very common of an organization utilizing a legacy financial system. Due to system limitations, the County has created work arounds and manual processes to accomplish necessary tasks (such as financial reporting or administration of purchasing policies). These processes can be inefficient, inconsistent, and require significantly more manual effort than other organizations employing modern software. In addition, GFOA noted that there were many examples of processes that were largely created many years ago (likely when the system was implemented) and have not been completely updated as standards or technologies changed or as the County become more complex. In other areas, the County has built significant complexity into the system or process (example: chart of accounts) as a way of addressing current issues with outdated technology. This complexity is built in to address system limitations. These functional gaps can be addressed by improved processes and a modern system. For an example of potential business process improvements, GFOA noted the following:

- **Reduced department redundancy.** Almost all departments reporting keeping redundant systems that duplicate data that is stored in the County's financial system.
- **Grant and project account.** The County's is not consistent in the way that it accounts for projects and grants within the system or within departments.
- **Purchasing and accounts payable process.** The County's purchasing process requires significant manual process.
- **Treasury functions.** The County does not utilize pooled cash. Holding many separate bank accounts creates the need for many otherwise unnecessary transactions and effort.
- **Position budgeting.** The County has multiple redundant data sources and processes for tracking, budgeting, and reporting on authorized positions in the County.
- **Improved integration of departments.** Many of the departments have the need to maintain and report on financial information and having better access to the financial system would remove the need for redundant systems and redundant manual data entry tasks.
- **Asset management.** The County has limited tracking and inventory capabilities or capital assets. With minimal system capabilities, the County lacks the internal controls to manage assets properly.
- **Financial reporting process.** The County relies on Excel for financial reporting (including production of the CAFR). While staff is organized and appears to completes all necessary reports, the need for a separate tool for manipulating, summarizing, and reporting is inefficient



### 3. GFOA Recommendation

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Based on GFOA's analysis and understanding of the current market for software, GFOA recommends that the County move forward with a project to replace the financial system on the AS/400 and as many of the various shadow in use by the County to cover core financial functions with a modern financial system or "ERP system." The scope of the project should cover all core financial functions including:

- Accounting
- Project and grant accounting
- Purchasing
- Accounts payable
- Accounts receivable
- Capital assets
- Financial reporting
- Budgeting
- Human resources
- Payroll management
- Time entry

Depending on the specific system chosen, there may be additional opportunities to expand the scope in the future to take advantage of other integrated applications and better include departmental needs in the main system. However, to mitigate initial risk with the project, GFOA strongly recommends that the County focus solely on the core applications listed above. Specifically, GFOA recommends that the County not pursue replacement of a property assessment system at this time. While GFOA understands that this will separate these two systems and will likely create a scenario where, at least temporarily, the County will maintain the property assessment system on the AS400 while the financial system moves to new hardware (or potentially to a hosted or cloud platform), the implementation of an ERP system and property assessment system represent significant changes for the County and GFOA feels that it is best to mitigate risks by sequencing the implementations.

### 4. Next Steps

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Proper planning for a project of this size is the number one key to project success. Section D and Section F of this report provide additional details on project readiness. At a minimum, GFOA recommends that the County complete the following readiness activities (categorized by key milestone).

#### **Before release of RFP for system replacement**

- Develop detailed functional requirements to identify desired system functions (GFOA will provide based on notes from business case meetings)
- Develop project charter outlining key values, principles, and goals
- Determine project governance structure
- Ensure that the project has support among key stakeholders and executives
- Secure budget for the project
- Complete system inventory identifying all systems in place at the County
- Establish schedule and begin communicating expectations with the organization



**Before evaluating responses to the County's RFP**

- Determine evaluation criteria for evaluating proposals – determine what is most important to the County
- Identify project team (including project manager)

**Before signing a contract with the County's selected ERP vendor**

- Develop a tentative revised chart of accounts
- Identify business process improvement goals
- Document and determine specific interfaces for scope
- Determine the data to be converted and the system that contains the data
- Develop detailed statement of work with the County's chosen vendor. The statement of work should include detailed descriptions of scope, schedules, roles and responsibilities, and milestones.
- Establish clear goals for the project and criteria for success
- Prepare tentative roadmap for future implementation projects

**Before going live with a new ERP system**

- Develop business process documentation and training materials for system users
- Test and validate the configured system against the County's functional requirements
- Plan how the County will deliver ongoing training to employees and how new employees will be trained on the new system
- Determine how the system will be supported after go-live (including staffing plan)
- Identify long-term ownership model including a system plan for upgrades and enhanced functionality



## Section B: Approach & Methodology

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### 5. On-site Assessment

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GFOA met with County staff in the Auditor's Office, Treasurer's office, and Administrative Services along with representatives from other departments to better understand the County's current situation, how well the current technology supports its needs, its goals over the next few years, and any challenges or risks. Focus group style meetings by functional area were conducted in November and December 2015 to discuss current business process, existing challenges, and potential future business process improvements. Similar department meetings were conducted to identify potential "connections" to the central finance system across the County. Overall, GFOA consultants attempted to get an understanding of the current conditions to provide accurate and detailed recommendations on moving forward based on GFOA experiences with other similar governments and continued research in the field of public sector best practices and use of technology for administrative functions.

### 6. Report Preparation & Recommendations

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Following on-site work with the County, GFOA reviewed all documentation from meetings and performed a gap analysis to compare the County's current processes and capabilities to industry recognized best practices and common features available in modern finance systems. In addition, GFOA conducted market research with leading finance system vendors and professional service firms that focus on providing products and services to the public sector (including other County governments from across the United States).

Recommendations throughout this report have been listed in two categories:

- **Project Readiness.** Recommendations categorized as "Project Readiness" are steps and activities that can be completed now (or prior to the beginning of the County's financial system implementation project).
- **Implementation Project.** Recommendations categorized as "Implementation Project" are steps and activities that should be completed as part of the County's financial system project, but will likely require beginning the actual implementation with software vendor first.

*This report assumes that the County will be going forward with some type of financial system project. The terms financial system and ERP system are used interchangeably throughout this report to indicate any type of systems project involving core finance functionality and the many related systems and needs the County would have in support of its various departments and programs.*

### 7. Next Steps

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Regardless of how the County elects to proceed, GFOA recommends that the County continue to focus on what should be a business process improvement project rather than simple



technology improvement project. This will require a significant amount of leadership from the County. Software vendors that are brought in to assist with the software version of the project will not have the appropriate focus to make this project successful without County direction. This report will identify a number of options for the County to consider and ultimately make a recommendation (Section D) that GFOA believes is in the best interest of the County.





## Section C: Analysis & Recommendations

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### 8. Introduction

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GFOA reviewed the County's business processes and major administrative systems to identify opportunities or improvement and determine the overall business case for action. Based on the information presented in this section (and the more detailed information contained in Section G), GFOA believes there is a business case for moving forward. Further, GFOA believes that the County does not stand to gain from delaying action on replacement of its financial system. Current processes are inefficient and the County's current financial system will only get more outdated with time. While the system will likely receive most of the attention, the true value in pursuing a project such as this is the business process improvements that come along with a system.

***GFOA recommends that the County move forward with replacement of its financial system and all other closely related administrative systems with a modern financial system. GFOA recommends that the County release an RFP for software and implementation services as described in section D.***

Modern financial systems would provide a significant return on investment over the next ten years. The primary benefit would come from additional software features to automate what are now manual tasks, improved integration, and enhanced reporting (workflow, integrated contract management, ad-hoc reporting, and use of dashboards being a few examples). Additionally, and probably most significant to the County, the project will provide an opportunity to simplify, streamline, and standardize business processes. While the County would not likely see any budgetary savings directly from a new system, the improved capabilities and outcomes such as better accountability and process control, improved decision support, and improved transparency have significant value for many public sector organizations. Additionally, time savings from lack of redundant activity will be able to go to staffing future initiatives for the County.

In considering options for moving forward, the County must take into account that the status quo choice is also not without costs. Continued maintenance of the software and continued or increased inefficiency from use of redundant systems will continue to have impacts on the County.

This section identifies some of the major improvement areas identified by GFOA.

### 9. Overall Analysis

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As stated earlier in this report, the County's current systems and processes are outdated and inefficient, but continue to function as designed. While GFOA did not find any alarming issues that need to be corrected immediately, inaction to address the issues discussed in this report will have consequences in the future on the operations of the County and its ability to meet the needs of its customers. With the implementation of a new system, considering the many small improvements as well as significant improvements that will come with increased system functionality, the County has the potential to benefit from some real change. For example, many of the County's business processes now seem rather informal. By defining and



documenting processes, it will help commutate standards and set expectations across the organization. Additionally, through an organized business process improvement effort, the County should see significant improvements in simplifying processes. Additionally, having one financial system that users from across the County can utilize, it will help alleviate some of the organizational silos that currently exist. In GFOA's assessment, standardization and simplification provide the greatest opportunities for improvement and will drive much of the return on investment for the project. All of this should result in streamlined processes, reduction in redundant systems, and improved transparency (understanding) of operations.

### Project Readiness Recommendations

- **System inventory.** Complete a comprehensive system inventory of all systems used centrally or in departments.
- **Consider long term roadmap for existing systems.** For each system in use, identify a long term roadmap for the system. Identified on the roadmap should be milestones such as upgrades, replacement decisions, and key investments (such as training). This will help schedule potential future replacement of systems so that all applications can be dealt with strategically.
- **Develop overall governance structure.** Because systems are very integrated with business process and the overall functioning of many departments, the County should establish a cross departmental governance structure to help make strategic decisions with IT system investments.
- **Identify project charter and project values.** One of the first activities of the governance structure would be to develop a formal charter and/or set of values. This statement would clearly communicate how the County would approach using its enterprise systems.
- **Establish communication plan.** One important element to enterprise projects is to establish a communication plan and make it a priority to ensure that the organization stays informed. This is especially true of decentralized organizations like the County that operate with many individually elected officials.

### Implementation Project Recommendations

- **Create system that accommodates departmental needs.** The success of the County's new financial system will depend on the ability for departments to use it along with the central offices. To do this, the project must take into account department needs as key stakeholders in the process. This will be more difficult than working on a system that solely benefits the central offices, but is necessary if the County is to achieve any long term return on the investment.

## 10. System Analysis

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The technology world has made incredible advances in the past 30 years. It is hard to think of a scenario where a leading organization could complete or be successful working off of outdated technology. Despite the County's best efforts, at some point the legacy technology will become a limitation that is too difficult to overcome. However even before that point of failure, the lack of common features now available in the market means that current processes and tasks are more time consuming and thus more expensive than other public sector organizations running newer systems and tools. Additionally, external audit findings of the ineffectiveness of the system and the anticipated turnover of IT staff knowledgeable of the system are significant reasons to consider moving away from it. In general, GFOA believes that current functionality available in



modern financial systems and the following would provide significant improvements for the County.

- **Workflow.** Modern workflow utilizes roles and assigns individuals to roles. This then allows for business processes to be automated and the system handles all routing of workflow. In addition, conditional approvers can be assigned depending on characteristics of the transaction.
- **Reporting.** Ad hoc and end user reporting in systems provides powerful query capabilities that enable end users to get information out of the system without IT assistance.
- **Dashboards.** Executive and role based dashboards pull information from the system and display it graphically or prioritized lists on a user's screen.
- **Web based design.** Systems are designed to function like websites that reduce time and effort necessary to train new users.
- **Training guides.** Some systems have products available to help with training employees. These training tools allow for self-paced on demand training, on screen help, testing modes, etc. to help employees.
- **Mobile capabilities.** Vendors recognize that mobile technologies have changed the way that organizations work. To accommodate this, it has become common for systems to have mobile modules enabling work from smart phones or other field devices.

### Project Readiness Recommendations

- **Prepare functional requirements.** GFOA recommends that the County begin to develop functional requirements for usage in the RFP release and system selection processes. Once identified, these requirements will help the County align business process needs with system capabilities. GFOA will assist the County with this process.
- **Develop system inventory.** GFOA recommends that the County inventory all systems in use currently to conduct County business. The County should anticipate future discussions and decisions on the existence of these systems moving forward. Also, if the County intends to continue their usage, interface requirements will need to be developed for the RFP.

### Implementation Project Recommendations

- **Consolidate systems.** ERP systems provide integration value. By having major functions in one system, the County can enjoy economies of scale for system administration.
- **Ensure seamless integration of processes.** Utilizing a limited number of systems allows for greater integration of processes. Even if the County does not utilize the same system for everything, care can be taken to ensure that system handoffs are made efficiently and with little disruption on the business process.

## 11. Finance

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At the core of the finance system is the chart of accounts used to classify financial information and transactions. The structure used by the County (identified below) is very common in local government. However as new systems evolved, the ideal chart of accounts moved away from



the structure currently in place. The following table presents the County's current chart structure and GFOA's assessment of likely changes if the County were to implement a new financial system.

**Current Chart of Account Structure**

Characters	Description	Change to Modern Structure
3	Funds	Fund
3	Department	Department (Org Unit)
3	Line Item	Program/Activity
2/3	Line Item (Sub account)	Object Code
		Project

**GFOA Recommended Chart of Accounts**

GFOA would recommend using a chart of account structure that accommodates the following major segments / purposes. As part of this, GFOA recommends that the County consider adding a dedicated segment for project.

Component	Description	Possible Segments
Fund	Fund is the self-balancing accounting unit required for governmental accounting	<ul style="list-style-type: none"> <li>• <b>Fund</b></li> <li>• Sub Fund</li> </ul>
Organizational Unit	Organizational unit represents the organizational hierarchy represented by an org chart, listing of business units, or locations that the County wants to track data for.	<ul style="list-style-type: none"> <li>• <b>Department</b></li> <li>• Division</li> <li>• Business Unit</li> <li>• Location</li> </ul>
Program / Activity	Programs (also commonly called activity) are the services performed by organizational units. Each program should have a service outcome (result produced). Typically programs are ongoing and not limited to a specific organizational unit	<ul style="list-style-type: none"> <li>• Function</li> <li>• <b>Program</b></li> <li>• Activity</li> <li>• Sub-Activity</li> </ul>
Object / Account	The object or account is the classification of the balance sheet item, revenue, or expense. For expense and revenue, this defines what was spent or earned (example: supplies).	<ul style="list-style-type: none"> <li>• <b>Object / Account</b></li> </ul>
Project	Projects are often used to track programs with defined start and end dates or other events that would require additional detail beyond the chart of accounts. Project costs would be summarized in this segment but broken out in more detail in the project ledger. This allows for detailed tracking department by department.	<ul style="list-style-type: none"> <li>• <b>Project Roll Up</b></li> <li>• <i>(Additional segments defined as part of project/grant accounting)</i></li> </ul>

The chart above identifies possible segments. GFOA encourages the County to adopt as simplified a structure as possible to meet its budgeting, accounting, financial reporting, and management needs. GFOA has highlighted in **bold** those recommended segments. The others could be used to provide additional detail and differentiation if needed by the County.



As a financial system, AS/400 performs most of the basic functions expected of a financial system. County staff seems very comfortable using AS/400 and seem to be very experienced and knowledgeable in the County's configuration. However, fully managing the finance function requires reliance on systems outside of AS/400. For example, job costing, tracking of grants, tracking of capital projects, reporting, financial reporting (CAFR), is all done outside of the system on Excel or other custom developed system. Having so much outside of the primary financial system creates inefficiencies and limits the overall usefulness of the primary system.

Many departments reporting having shadow systems to record detailed expenditure information. This ideally could be handled in the primary system. To accommodate this however, the County would likely need to standardize (or create rules) for how grants and projects are set up. County staff reported that there is variation in how different departments account for projects and grants.

Except for the chart of account revisions (that almost all organizations do along with a new system implementation), GFOA identified financial reporting as the primary area for improvement. Currently, financial reporting is a labor intensive process that requires use of Excel (including using Excel to produce the CAFR). With a new system, financial reporting should be produced by the system.

### **Project Readiness Recommendations**

- **Revise the County's chart of accounts.** Just about all ERP projects involved some type of chart of account revision. GFOA strongly recommends that the County start over and redesign a chart of accounts from scratch. Additionally, the County can utilize the time during the readiness and selection phase of the project to make key decisions on the chart of accounts. From GFOA's experience, waiting until after the start of the software project greatly increases the chance that the County will recreate what already exists and be stuck with an under functioning chart of accounts. For example, GFOA recommends that a chart of accounts consider financial reporting, organizational design, costing/expense tracking, and budgeting.

### **Implementation Project Recommendations**

- **Standardization of business process.** GFOA recommends that the County standardize business process and utilize system rules and the system to enforce the County's business rules. For example, the County's purchasing process could utilize requisitions (entered by department users) at the beginning of the process to pre-encumber funds and facilitate approvals. The system could be used to route the approvals according to the appropriate business process flow (by dollar amount) and held at certain points pending outcome of bids or RFP processes. By using the financial system to manage these processes, the system becomes a useful tool to track process, enforce the County's procurement policies, allow for accurate and timely reporting, and provide greater transparency for key stakeholders.
- **Minimize redundant data entry processes.** Most departments were critical of redundant data entry and processes for finance and purchasing functions. Requisitions, purchase orders, journal entries, etc., are often submitted both in paper and electronically for workflow approval. It needs to be determined whether the need for the redundant data entry is due to internal policies or limitations of AS/400. If it is a latter, the County may benefit from a more modern financial system.



- **Improve reporting.** Almost every department mentioned significant concerns with reporting capabilities AS/400. Financial data is often tough to obtain in the proper format so most departments export from AS/400 and manipulate the data to fit their reporting needs. This creates redundant work for County employees and increases the risk for errors. It is critical that the County implement a system that addresses this issue.

## 12. Budget

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The process used by the County to prepare its annual budget is similar to many other local governments. However, the County does most of this work without the assistance from an integrated budget system. The County's budget capabilities in AS/400 are primarily related to entering information. It lacks common features for data analysis, forecasting, what if analysis, and any functionality related to personnel and position budgeting. Budgeting is an important process for the County and having an integrated system with data that can be relied on is important.

### ERP Readiness Recommendations

- **Identify any future budget initiatives.** The County should consider any future budget initiatives that may change the way that it budgets. One reason that budget systems fail to live up to expectations in many organizations is that the approach to budgeting changes frequently (program budgeting, line item budgeting, department budgeting, zero base budgeting, budgeting for outcomes, multi-year budgeting, etc.) and the system can't keep up. If the County is going to consider program budgeting or "performance" budgeting, that should be taken into account prior to system implementation.
- **Consider analytics.** Budget systems can be used year round to perform analytic functions for the County. The County would need to determine the level of analytics desired as this often has an impact on the type of budget system. In this way, budget systems are about more than just budget development.
- **Shift responsibilities.** Departments should have more ownership in the process. Training and practice will be required to help department representatives adjust to the increased workload, but the flexibility of a new financial/budget system will help.

## 13. Purchasing

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With a new financial system, the County will have the tools currently lacking in AS/400 to manage the entire procurement function. GFOA considers the following to be an essential component of the procurement function:

- Purchase requisitions process
- Purchase order tracking
- Change orders
- Contract management
- Vendor management
- Bid management
- Use of purchasing cards

Currently, while the system manages purchase requisitions, purchase orders, and vendors, much of the process is manual and contains variation. Ideally, all of these components would be integrated and utilize system business rules and workflow to control (budget control, purchasing policy compliance, approval process, etc.). Additionally, a new purchasing system



would allow the County to standardize processes and then let business rules manage the correct “route.” For example, under an ideal process all requests for purchase would be entered directly into the system to perform necessary budget authorization checks and pre-encumber funds. From there, detailed information could be added and tracked on commodity code, contract, vendor, etc. Similarly, a new system would provide many tools that the County currently lacks such as integrated purchase card (p-card) functionality and integrated contract management.

### **Project Readiness Recommendations**

- **Standardize process.** GFOA recommends that all purchases follow the same process and utilize the system to assist with applying the proper controls. For example, when departments need to purchase goods or services, GFOA recommends that a purchase requisition be created in the system to manage the initial request and reserve (pre-encumber) funds. From there, the system can manage workflow, purchasing policies, documentation, etc. based on business rules.

### **Implementation Project Recommendations**

- **Consider extended functions of software for future phase.** ERP vendors have built many “extended” functions into their software to assist with supply chain / purchasing functions. This are often not part of a first phase (or core features), but can provide value later on. Features include:
  - Bid/quote management
  - Punch out / catalog purchasing
  - Vendor self service

## **14. Human Resource / Payroll**

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The HR/Payroll business processes have the potential for significant changes with the implementation of a new system. The County currently relies on a combination of AppliTrack, Kronos, and AS/400, along with external spreadsheets, to conduct business. There is a willingness to migrate most of the third-party system functionality in to a core HR/Payroll module, if it meets the business needs of the County. At a minimum, Kronos will require a configuration to interface with a new system due to its limited existing capabilities from an ineffective implementation. The County hopes to realize greater integration with enhanced functionality, such as employee self-service, to manage processes from employee onboarding to payroll processing.

### **Project Readiness Recommendations**

- **Identify position control needs.** The County should identify how position control will be managed going forward. Currently it was reporting that it is a joint effort between HR and budget.

### **Implementation Project Recommendations**

- **Emphasize Importance of Interfaces.** Interfaces play a key role in achieving an ERP system where data is available across the organization (especially where data is transferred between end-user departments and the central offices). The County should ensure that this remains a key focus of the implementation project if AppliTrack and Kronos remain in use.



- **Employee self-service.** Central administration should shift responsibilities away from their workload when possible. For relatively simple changes to the employee record or during benefit enrollment periods, employees and departments should have the capability to enter information directly in the system. Administrative Services will still review and approve all substantive changes.
- **Consider analytics.** With enhance forecasting and reporting capabilities, the County can perform more analysis within the system with timely data instead of exporting and manipulating data in Excel spreadsheets.

## 15. AR / Billing

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Based on discussions with County staff, it appears that the County's current accounts receivable and billing functions are decentralized and not tracked consistently from department to department. While this is likely caused by lack of a centralized system, the County may not want to continue this practice after implementation of a new system. GFOA recommends that the County consider tracking all AR centrally so that it can be actively managed. Business process change throughout ERP implementations often require that end-user departments take on a greater share of process responsibilities. This is one area where the reverse is true.

### Project Readiness Recommendations

- **Determine how to manage AR.** The County should determine if it would like to continue to manage accounts receivable and billing in a decentralized manner or if there is an advantage in having it managed centrally.
- **Internal service charges.** The billing process between departments is managed differently across the County. Administrative Services should consider policy development and a centralized process for managing the assessment of charges for interdepartmental business.

## 16. Capital Assets

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The County's current process of identifying, tracking, and managing assets is reactive and occurs after the transaction has been made. Rather than recording all assets at the end of the year, the asset acquisition process should occur throughout the year as assets are purchased. Modern ERP systems can be configured with business rules to identify (flag) assets as they are purchased for additional data entry. This reduces the manual effort during year end. Currently goes through a process periodically to review board resolutions and identify capital assets. Once identified, finance staff finds a copy of the purchase order or contract.

### Project Readiness Recommendations

- **Determine location of capital asset records.** The County should identify where capital asset records are stored in the various departments (along with the central offices). This information will be important to convert to the new system to create/maintain an accurate asset file.

### Implementation Project Recommendations

- **Responsibility for Assets.** GFOA recommends that departments purchasing the fixed asset be trained and ultimately responsible for entering full and complete information as





part of the purchasing process. Finance can then serve as a check on the process to ultimately review information.

- **Physical inventory process.** GFOA recommends that the County define a physical inventory process and have the auditor's office ensure that all capital assets are accounted for annually.

## 17. Property Assessment

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After reviewing the County's property assessment business processes, GFOA recommends finding a solution to centralize how property records and assessments are managed. Given the investment of staff time required for the ERP system implementation, it is not recommended that the County pursue the implementation of the property assessment system at this time.

Additionally, it is unlikely that the County will find competitive proposals from vendors that offer both ERP and property assessment solutions. As a result, the implementation of each major system will need to be treated as a separate project anyway.

### Implementation Project Recommendations

- **Simplify systems and process.** The County uses multiple systems for tracking property records and assessing taxes. A central system with the ability to manage different property categories (i.e. residential, commercial, special districts, etc.) offers significant benefits.
- **Electronic records management.** The property record for each account is managed both electronically and in a manual card system. The County should considering digitizing all records, as allowed by local and state regulations.
- **Enhanced access.** Due to the keeping of paper records and the duplication of data across systems, both County employees and the public have difficulty accessing records. Query capabilities for both internal and external customers need to be enhanced with a future system.



## Section D: GFOA Recommended Action Plan

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Based on the information presented in Section C, GFOA believes there is a strong business case for moving forward with replacement of the County's AS/400 financial system. Further, GFOA believes that the County does not stand to gain from delaying action. Current processes are inefficient and will only get more outdated with time. For the County to truly succeed with any future plans related to information transparency or budget process improvements or to continue to easily adapt and react to requirements from GASB, the federal governments, the state, or local policies and ordinances a modern system is necessary. Replacing AS/400 will provide the foundation for further enhancements and improvements in the future. That initial implementation will take time, so implementing the core ERP system is a prerequisite step to future enhancements in service.

***GFOA recommends that the County move forward with replacement of the AS/400 financial system and all other closely related administrative systems with a modern financial and human resource management.***

GFOA believes that this strategy provides the best opportunity for a return on investment and the most positive project outcomes. Assuming a successful project and proper support post project, GFOA would expect the County would realize the following:

- Greater use of the system by the County's departments
- Simplified and standardized processes that are more efficient
- Reduced time to train new employees
- Greater transparency and accountability for processes
- Enforcement and compliance with County policies from all departments
- Development of a "foundation" to support future initiatives and growth (citizen access, automation, detailed costing, etc.)
- Long term system stability

### 18. Analysis of Options

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As stated above, GFOA recommends that the County move forward with a new financial and HR/payroll that provides functionality for finance, treasury, procurement, budget, human resources, and payroll management. GFOA also recommends procuring a property assessment system, but the purchase of this system should occur separate from the ERP system purchase. In arriving at that recommendation, GFOA considered multiple options. Primary options are listed and explained below.

**Option #1 – Implement New “Full Scope” ERP System** – This option would include implementing finance, procurement, budget, human resource, and payroll functionality. The “full” core system would provide all administrative functions commonly found within an ERP system. This option would effectively replace AS/400 and many other administrative systems currently in use. GFOA recommends the County pursue this option with the intention of selecting a software vendor by the end of 2016.



**Option #2 – Implement New “Full Scope” ERP System with Optional Property**

**Assessment System** – This option is similar to Option #1, but the RFP would be written to include an optional scope that software vendors could respond to with their ERP bid or it allows property assessment-only vendors to respond. This option would replace AS/400 and the collection of property assessment systems that the County currently uses. GFOA does not recommend this option due to the investment of time and staff resources that will be required for the implementation of the core ERP system.

**Option #3 – Maintain Existing System** – One option is always to stay with what the County is currently using. The County completes all necessary tasks now and has for many years. As stated earlier, this cannot be considered a viable long-term solution because of the lack of development in the product. GFOA is not aware of any governments that plan on being on an AS/400 system long-term. Additionally, the County runs the risk of being unable to replace tenured IT staff members that are knowledgeable about the management of AS/400.

**19. Project Scope**

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GFOA recommends that the County’s scope for its ERP project include the functionality listed below. The scope of the project will deliver a “core” system that can provide capability to handle essential functions for finance, procurement, HR/payroll and other related areas. Limiting the project to the “core” will also reduce risks and allow the County to demonstrate “wins” and momentum earlier in the project. Core modules are determined to be the set of functions so tightly integrated that removal of the module would have adverse impacts on the other “core” modules. Features not included in core, would then be treated as separate projects and planned and implemented after the initial sequence of phases.

Scope for ERP Implementation	
Core ERP	
<b>Financials (1)</b> <ul style="list-style-type: none"> <li>• General Ledger / Treasury</li> <li>• Purchasing / Contracts</li> <li>• Accounts Payable</li> <li>• Accounts Receivable/Misc. Billing</li> <li>• Project Accounting</li> <li>• Capital Assets</li> <li>• Budget</li> </ul>	<b>HR/Payroll (2)</b> <ul style="list-style-type: none"> <li>• Human Resources</li> <li>• Benefit Administration</li> <li>• Leave Management</li> <li>• Payroll</li> <li>• Time Entry</li> <li>• Budget (Position and Salary)</li> </ul>

**20. Implementation Scope**

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As part of any project, both the County and its chosen vendor will be collaborating on providing services necessary to successfully implement the project. With every project the exact split of work effort between vendor and the government organization would be different. In addition, GFOA has identified the scope of the vendor’s implementation services to be the largest differentiator among different vendors in the market and a key determinant in project success. Some vendors approach the project as each party having shared responsibility and truly working together at every step to complete tasks. Other vendors approach the project as a “training” project where vendor staff has a responsibility only to train County staff on features of the software, not for outcomes of the project. Section E provides additional information on vendor implementation methods. GFOA recommends that certain aspects of the



implementation be “required scope” for the project. Ultimately, while this is project that involves software, it should not be treated as a software project. These components help shift the focus on business process, project management, and organizational transformation. GFOA is aware that the County is currently struggling with other software projects. Similarly many other local governments struggle with ERP and financial system projects because they underestimate the importance of implementation. These essential project components for the County would include:

- **Project management.** Active on-site project management, management of a detailed project plan, issue/risk tracking, deliverable acceptance, and regular status and steering committee meetings.
- **System design / business process documentation.** Preparation of a complete system design document that includes both system configuration documentation and County process documentation.
- **Technical implementation.** Implementation team staff from the vendor that is responsible for technical details related to implementation (not utilizing support staff or remote department that handles all work).
- **Functional configuration responsibility.** Vendor staff should have primary responsibility for configuration of the system and delivering a system that meets the functional requirements. County staff can assist, but the vendor should be responsible for the delivered system.
- **Accountability for requirements.** The vendor should be responsible for tracking completion of project requirements. This maintains an “outcome” focus on the results of the project so it does not get lost in the software details.
- **Interface development.** Detailed requirements for a pre-determined list of interfaces. The vendor should have responsibility for leading the interface effort.
- **Data conversion.** The vendor should play an active role in data conversion. GFOA would caution against “over-converting” data, but some data conversion is critical.
- **Reporting.** Listing of required reporting from the system. This list should include any financial reports.
- **Training.** Vendor led training sessions for County staff at the start of the project and assistance in preparing end-user training materials based on the County’s configured system.
- **Deliverables (work products).** The project should define expectations for critical deliverables including – project plan, system design document, testing scripts, interface specifications, and training materials.



## 21. Implementation Phases

To mitigate the risk of a large change that the County will face during the implementation, and to reduce the impact of limited resources on the project, GFOA recommends phasing the implementation project with two sequential phases (plus a defined readiness phase). Phases would overlap slightly, but would be staggered to create two go-live events. Approximate timelines are identified below assuming a project start (for readiness activities) of early 2017.

Implementation Schedule		2016				2017				2018			
Phase													
A	Readiness / RFP												
1	Finance												
2	HR/Payroll												

### ERP Readiness Recommendations

- **Governance.** As part of readiness activities (Phase A), the County would identify a governance structure, identify a project team, map existing processes, identify opportunities for improvement, and develop project goals.
- **RFP.** The readiness activities (Phase A) would include development of an RFP, identification of requirements, proposal analysis, demos, and development of a statement of work/contract negotiations.

### ERP Project Recommendations

- **Financials.** Financials (Phase 1) would go live at the beginning of a month in early 2017.
- **HR/Payroll.** HR/Payroll (Phase 2) would go-live at the beginning of a month at the end of 2018.

## 22. Staffing By Phase

Implementation projects will require significant County staff participation. The implementation project can only proceed if the County provides adequate staff with necessary knowledge and decision-making capability along with completion of labor intensive implementation tasks. For many organizations, GFOA (along with most vendors) would recommend that the County identify a project team that can make the system implementation its number one priority. Those resources would be essentially “removed” from their current role and that work backfilled. For the County, GFOA realizes that this approach is not feasible and has adjusted the schedule and staffing estimates based on GFOA’s understanding of the County’s staffing. However, the County should clearly communicate system responsibilities and these must be given a high priority.

The County should realize that many if not all of the vendors that focus on smaller governments (Tier II vendors) utilize a “homework” style approach to implementation where the County is responsible for the vast majority of system configuration work and largely responsible for determining appropriate staffing levels (further placing burden on stress on the government).



The vendor role in the project is to train County staff, but usually vendors take little responsibility for assisting in actual implementation tasks. Therefore, vendors may be unaware of the actual time it would take to implement a successful project. In addition, other tasks such as business process improvement, documentation, and training material development, all of which are essential to a quality project, would also be the responsibility of the County. If the County is reaching out to other cities that have completed projects, it is important to identify what activities were completed by County staff. In the past, many governments have attempted to get by with less staffing by “taking shortcuts” and not completing many of the implementation items widely considered necessary for mitigating risks with projects.

The following table represents projected staffing requirements for each phase. For example, the County would be responsible for providing the following resources to the project at the levels indicated for the duration of that phase. However, the County should keep in mind that resource commitments will vary by implementation activity.

Staffing Needs		
Gross Phase	Resource*	Effort (% of FTE)
	Project Manager	.75 - 1.00
	Technical Lead	.25 -.75
	Technical Support	.25 -.75
1 - Finance	GL / Accounting Lead	.50 - .75
	GL / Accounting Support	.25 - .50
	Procurement Lead	.50 - .75
	Projects Support	.25 - .50
	AR Support	.25 - .50
	Capital Assets Support	.10 - .25
	Trainer	TBD
2 – HR/Payroll	HR/Payroll Lead	.50-.75
	HR/Payroll Support	.50-.75
	Trainer	TBD

*\* Note: GFOA listed “lead” roles separately from “support” roles. For a lead role, the resource would be expected to have decision making authority over the functional area and contribute significantly to project tasks. For the “support role,” the resource would be expected to contribute significantly to project tasks but much of the decision making would be done by other resources (as part of overall integration of the system).*

### Project Readiness Recommendations

- **Project management and change management.** GFOA is recommending that the County’s project manager also lead change management functions. GFOA recommends that the project manager be identified early in the project.
- **Project management skillset.** The County should select a project manager for his/her project management skills, not their financial system skills. Managing a project like this requires knowledge of project management principles, great attention to detail, and availability to handle detailed project management tasks. Often organizations identify their topic functional resource as project manager and this person is quickly overloaded with tasks and both project management and functional roles suffer.



- **Backfill.** GFOA recommends that the County not wait until the ERP vendor has started to begin backfilling staff or re-assigning roles. The procurement phase of the project will consume a considerable amount of time for staff.

### Implementation Project Recommendations

- **Time commitment.** GFOA recommends that the County not underestimate the time commitment required by the project manager. A financial system project will require massive amounts of coordination, meeting scheduling, and communications amongst the County's team and between the County and the vendor team. Many organizations fail to plan for this time and quickly run into problems when the project manager gets overcommitted.
- **Hosted services.** If the County were to select a hosted system (either software as a service or application service provider), the technical resource commitment would be reduced. With this deployment model, the County would effectively be "outsourcing" ongoing technical administration of the system (upgrades, patches, back-ups, database administration, etc.) to the vendor.
- **End-user training.** When the system is rolled out to the end users throughout the County, end-user training will need to be completed. This is a significant effort that requires additional participation. GFOA recommends that separate trainers be brought into the project to instruct users how to use the new system **and** on new County business process. Many organizations attempt to use project team resources (functional leads) as trainers, but these resources often get overcommitted and struggle to handle both project team and training roles.

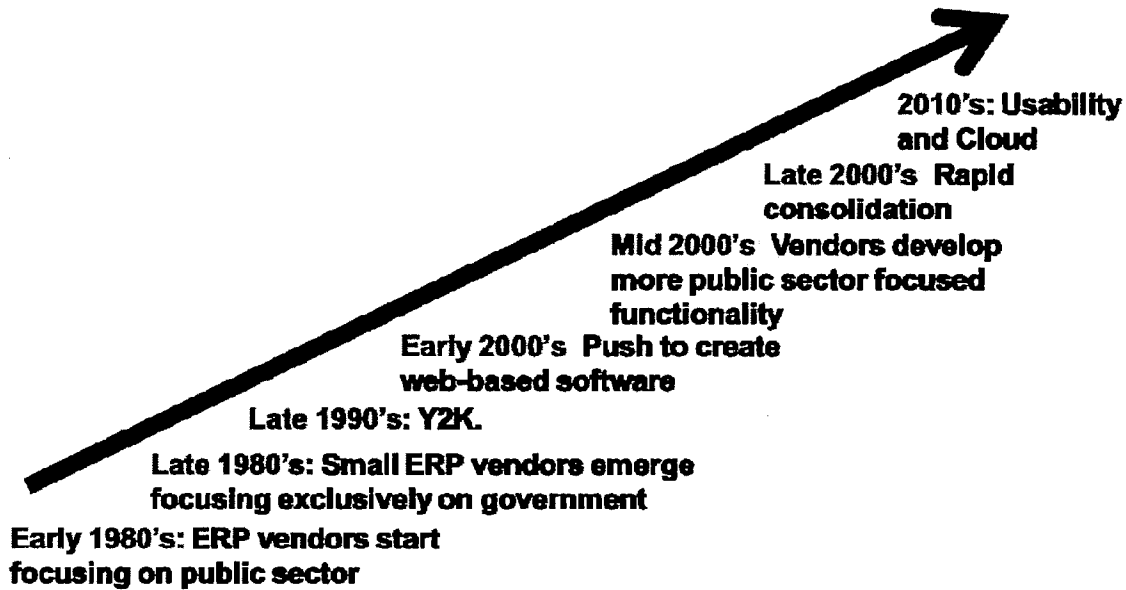


## Section E: ERP Market Assessment

### 23. Overall Market Overview

The ERP market for local government has undergone a significant amount of change over the past fifteen years. Many of the firms common with local governments in year 2000 are either no longer competitive, no longer in business, or operating in a significantly different way (such as those that were acquired by other firms). For example, the firm(s) that have controlled AS/400 have switched many times. As such, the market landscape in year 2016 is one with a limited number of vendors, but still a substantial amount of variety of vendor. GFOA identifies approximately 8-10 ERP systems that routinely complete for local government business, but likely only about 4-5 that would be appropriate for Champaign County. This includes both small privately owned firms and large multi-national companies, firms focused on the public sector and those supporting many industries, firms offering one product and those offering many, and firms that have completely different strategies on use of partners, pricing, and implementation services. In general, GFOA has witnessed the overall market mature along the path shown in the image below. All vendors competing today offer web-based products that offer public sector based functionality. In addition, the vast majority of firms have begun to offer hosting services or software as a service models to reduce the internal support responsibilities for government.

#### Overall Trend of Public Sector ERP Market



### 24. Major Market Differentiators

While there are significant differences between different ERP products in the market, all software provides baseline functionality that is currently being used to support local government





operations in cities and counties across the United States. When projects fail, it is almost always the result of poor or ineffective implementations, not faulty software.

Based on past project experience, GFOA considers implementation services to be the largest market differentiator. Historically, vendors were classified into Tiers (Tier I vs. Tier II) based on software features and vendor characteristics. While this classification was helpful to help narrow down the potential pool of vendors (Tier I vendors were typically more appropriate for large governments and Tier II vendors for smaller governments), this classification had many limitations. Most notably, as vendors continued to invest in their products, the gap in software features and target market between the Tier I vendors and Tier II vendors narrowed. As more and more Tier I vendors approached smaller governments and as more Tier II vendors approached larger governments (and had software to support these organizations), the primary differences became the implementation approach used to implement the software. GFOA classifies vendors' implementation approaches into two categories: the consulting approach and the homework approach.

- **Consulting approach** – This approach was most common among Tier I vendors and includes significant vendor involvement in the project. Vendors using this approach typically have a large project team that is dedicated (or nearly dedicated) to the client. Implementation focuses on business process design, software configuration, testing, and strong project management led by the vendor. Projects using this approach are typically more expensive.
- **Homework approach** – This approach was most common among Tier II vendors as it can be achieved at much lower prices. Using this approach vendors deliver training on how to set up the ERP system and then offer assistance or coaching on configuring the system. Consultants often work on multiple projects at once and multiple consultants may work on the project throughout its duration. There is often no deliverables documenting decisions, processes or configurations. In addition, project management is focused on coordination of resources (vendor scheduling) and less on managing the full project. This approach would require that the County have a strong team to take “ownership” of the project.



## 25. Cost Estimate

Based on GFOA’s understanding of the County’s scope, goals, and implementation preferences, and current market conditions, GFOA has prepared the following cost estimates. Cost ranges are left fairly broad to accommodate the wide range of vendors that are likely to submit proposals and the uncertainty around the specific scope (which will be defined with the County’s RFP and functional requirements). As mentioned above, cost and services have a direct relationship. Some implementations will focus on “getting the system live,” while others will spend time with business process improvement, project management, quality assurance, and other aspects of “complete” projects. In estimating costs for the County, GFOA was also required to make assumptions about the complexity of implementation and about decisions that the County would make during the procurement process and contract negotiations. As the County proceeds through the procurement process, GFOA can update the cost projects if necessary. GFOA can also advise the County on areas that are likely to increase/decrease potential costs.

- **Low Estimate vs. High Estimate** - It is important to realize that GFOA cost estimates attempt to forecast costs across all viable products in the market. Because no two products are the same – and really no two implementation approaches are identical, and because pricing differences can relate to value differences in the products and services, the County should not view pricing as an estimated range on a single product or vendor, but rather the spread of costs from likely proposals that will be received. GFOA believes that products represented by both the low estimate and high estimate could fully meet the County’s current software needs (assuming business process change). Most likely, the costs to the County will be somewhere in the middle of the low and high estimate.

**Note: All cost estimates do not include internal staffing costs or hardware costs.**

GFOA attempted to provide costs for the recommended option of implementing a new “full scope” ERP system. Implementation of an ERP system would vary considerably depending implementation approach and type of software agreement negotiated by the County. For the “low” estimate, GFOA estimated the costs of implementing a “tier II” product using the “homework” approach for vendors such as SunGard and Tyler are listed below. Under this approach, vendors would be providing significantly less services. Often project management, business process redesign, documentation, and end-user training would be the responsibility of the County. As such, the County would incur much larger internal project costs that would not be reflected in the estimates below. Under the “high” estimate, GFOA assumed that the vendor would take a larger role in the project including: have more involved project management, take lead for system configuration, and provide more documentation (along with custom training materials).

Estimated Costs- Hosted		
Category	Low Estimate	High Estimate
Project Costs	\$ 950,000	\$ 1,500,000
Maintenance Costs – Over 5 years	\$ 200,000	\$ 300,000
<b>Total Project Costs</b>	<b>\$ 1,150,000</b>	<b>\$ 1,800,000</b>



Estimated Costs- SaaS		
Category	Low Estimate	High Estimate
Project Costs	\$ 950,000	\$ 1,500,000
Annual Costs – Over 5 years	\$ 550,000	\$ 1,000,000
<b>Total Project Costs</b>	<b>\$ 1,500,000</b>	<b>\$ 2,500,000</b>

- *Note1: None of the estimates include hardware costs.*
- *Note2: GFOA assumed for the cost estimates that vendors will provide implementation services sufficient to meet the recommendations listed in this report. It is very likely that the County will receive proposals from vendors not offering these services (or offering lower levels of service). These proposals are then likely to be much lower than the low estimate.*
- *Note3: GFOA's pricing does not include application hosting services. If the County were to contract for hosting services through the software vendor (or a third party provider) there would be additional annual costs of approximately \$45,000 to \$75,000.*

While GFOA does not recommend procuring and implementing the property assessment system until after the ERP system implementation is complete, the cost projections for the system are provided in the table below.

Estimated Costs- Property Assessment		
Category	Low Estimate	High Estimate
Project Costs	\$ 400,000	\$ 700,000
Annual Costs – Over 5 years	\$ 100,000	\$ 300,000
<b>Total Project Costs</b>	<b>\$ 500,000</b>	<b>\$ 1,000,000</b>

Overall, GFOA strongly believes that long term costs will be much less with a successful implementation and recommends that all governments (including the County) take into account overall risk, process improvement, ability to achieve project goals, and long term stability along with the initial project costs. Typically (but not always) with ERP projects **you get what you pay for.**



## **Section F: Appendix**

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### **26. Appendix 1: Business Process Maps**

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As part of GFOA meetings, staff discussed business processes and GFOA converted meeting notes to a flowchart business process map for key processes. Maps for the following are presented in a separate document.

### **27. Appendix 2: Potential Interface Listing**

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GFOA started documenting major systems in use by the departments and any potential interfaces that would be desired to the new system. Interface listing is provided as a separate document.