THE COUNTY OF ORANGE
AUDITOR - CONTROLLER

BUSINESS TECHNOLOGY ANALYSIS REPORT

Intueor   KPMG

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Section 1.   Executive Summary

As the County embarks on its journey to modernize its technology platform, an understanding of core business requirements, business processes, and gaps in the current state operating model is a critical foundation. Task 1 set the County's foundation for the project and Task 3 will build upon it. Task 2 analysis will help determine next steps. To help the County on its transformation journey, the Intueor team conducted two primary exercises as part of Task 2:

1   Requirements Gathering and Validation
2   Gap Analysis and Recommendations

Throughout our fieldwork, the team collected requirements across all core financial, procurement, human resources, and payroll functional areas. These requirements are meant to set the foundation for a future business vision and the potential technical requirements to support that vision.

Following the development of the Requirements Traceability Matrix (RTM), the Intueor team conducted a Gap Analysis that compared the County's Countywide Accounting & Personnel System (CAPS+) environment against critical business processes and operating requirements. Gaps were subsequently classified as having a High, Medium, or Low impact on the County's ability to operate a leading practice organization and support efficient business process execution.

Notably, high impact gaps were identified related to general ledger, cash collection/management and bank reconciliation. These process areas are critical to the County's ability to continue to meet mandated business requirements, maintain financial transparency, and help ensure operations function effectively. The County should review the Gap Analysis in detail for critical business functions that may benefit most from an enhanced technology platform.

The requirements validation in conjunction with the gap analysis allowed the Intueor team to develop the Options Analysis as part of Task 3. As the County reviews both Task 2 and future Task 3 deliverables in concert with one another, the Intueor team believes reviewing these gaps in parallel to the Options Analysis in Task 3 will help provide the County with the best path to modernize business process and operations moving forward.

Section 2.   Document Overview

Orange County Auditor-Controller engaged the Intueor team to provide Enterprise Resource Planning (ERP) consulting services by completing an analysis of the County's current operations and service delivery and identifying recommendations and requirements for future-state options. To complete this task, the Intueor team performed initial discovery and developed several work products to form Orange County's assessment of CAPS+ (ERP):

1   Business Requirements that include a set of RTM templates

2   Technology Fit Gap Analysis

The detailed information included in these work products is provided below in the report sections and report appendixes.

Leveraging our industry leading process models and working with Orange County stakeholders, a set of RTM templates were developed and reviewed to verify they represent the business requirements. These business requirements will be used in developing a roadmap and business case justification for how the County can best proceed with modernizing its ERP system functionality.

While developing business requirements, the team identified technology fit gaps. While some of these fit gaps could be addressed through business process reengineering most of them would be more effectively addressed through more comprehensive functionality available in a more current commercial off-the-shelf (COTS) ERP application system. The Gaps were organized by high, medium, or low impact, to illustrate the quantity and severity of gaps within the current CAPS+ system.

The High Impact Gaps focus upon process areas that have the most impact on the overall operation and productivity of the County's business processes such as automatic journal entries, drill-down view of journal entries, 3-way match, Period 13 (an extra accounting period to allow for adjustments before year-end close) and Annual Comprehensive Financial Reports (ACFR) adjustments, fund transfers between departments, robust reporting (i.e., Aging reports, financial reports, etc.), proper separation of duties, workflow control and transparency, and integrations with other systems.

The Medium Impact Gaps focus on process areas that have a moderate impact on the overall operation and productivity of the County processes that cause inefficiencies such as necessary fields of entry, supporting document attachment, basic reporting, and readily accessible dashboards.

The Low Impact Gaps focus upon process areas that have a low impact on the overall operation and productivity of the County processes that cause inefficiencies which includes expediting of requisitions, milestone reports, KPI reports, and performance metric.

In summary, to address identified gaps, the County will need a solution that will allow it to operate using defined best practices. This includes optimized control over business processes and automation which in turn improves accuracy of information, streamlined day-to-day tasks and improved productivity. As discussed further, the final solution may be an expansion of the current CAPS+ platform, an upgrade and expansion of that platform, or replacement of that platform with a future COTS ERP system.

Section 3.   Background and Scope

The Auditor-Controller engaged the Intueor team to provide ERP consulting services by completing an analysis of the County's current operations and service delivery model, identifying the stakeholders responsible for each area, and the key processes within each area. This information was then used to develop a baseline for understanding the current state environment and for recommending a potential future state direction The Intueor team met with Orange County stakeholders to validate our understanding and fill in necessary gaps, solicit feedback on perceived areas for improvement and critical areas that are of concern. The following business areas were included in the ERP process analysis:

Finance Functions	Procurement Functions
• Accounts Payable • Accounts Receivable • General Ledger • Cash Management and Bank Reconciliation • Fixed Assets • Planning and Budgeting • Grants	• Purchase Orders • Receiving • Inventory Management • Reporting and Analysis

- Travel and Expense - Asset Management - Payments and Reconciliation - Project Management and Accounting	
Human Resources/Payroll Functions	**Technical Functions**
- Payroll - Work Force Administration - Time Management - Total Rewards - Learning and Talent Management - Employee Benefits - Employee Records	- Access and Security - Mobility/Employee Self-Serve - Reporting / Business Intelligence - Infrastructure - Integration - Workflow / Business Process Support - Delivery / support model

The team did not review external, third party, or supplemental systems outside of CAPS+ that may be in use by the County or other third party vendors providing technology services or support to the County. The team assessed how these systems may interface or interact with CAPS+, but did not assess those systems functionality independent of CAPS+. Examples of these systems include Eureka, OCERS, ARA, etc.

This business analysis helped determine the requirements of a new system or upgrade of the current system, and the development of the scope to implement an ERP replacement application system or upgrade of the current CAPS+ system.

Section 4. Approach to Requirements Development and Gap Identification

Several technical workshops were also conducted with Orange County stakeholders to determine how each individual/group achieves their business objectives in the current enterprise application environment and any improvements they believe would be beneficial. These workshops included the following sessions:

- Integrations with third party applications

- Interfaces with custom County software

- IT Systems

These workshops were also used to review leading practices in each area to identify any unique requirements and to build a set of requirements to support the County's future state roadmap. During these workshops the Intueor team:

— Identified/finalized scope of the study - met with County PM Team, reviewed documentation, and mapped County functional areas to typical ERP functions in a leading practice context.

— Conducted workshops with stakeholders in each functional area to walk through leading practices/processes, understand County practices, and how that understanding translated into requirements.

— Performed Analysis

— Developed Requirements

— Validated Requirements with Stakeholders

— Identified Gaps and Process Inefficiencies

— Compiled this report

The business requirements gathered during the functional and technical workshops were compiled into a RTM for review and validation by Orange County stakeholders (Appendix A). The RTM lists the unique business needs that an ERP system solution will need to meet, the priority of the requirements, and provides various tracking measures to support subsequent requirements validation and mapping of identified requirements.

As these business requirements were being compiled, there were several process inefficiencies due to a legacy system that lacked the capabilities of modernized ERP systems that have critical Business Intelligence (BI) capabilities, fully integrated set of applications, and automated business processes that improve the accuracy of information and accelerate data flow between departments, agencies, vendors, and customers. Validation sessions were held to review these inefficiencies with County stakeholders and receive acknowledgement of these inefficiencies/gaps in the processes. RTM and GAP Analysis were constructed, a description of the gap was recorded, the potential impact(s), and any other considerations for stakeholder review were documented. Analysis included, for example:

• Whether the solicitation should include either a new ERP application (e.g., cloud ERP, hosted solution, or on-premises ERP), upgrade/reconfiguration of current system, and System Integrator (SI) implementation services

• Whether currently owned or licensed modules of the CAPS+ system are under or not utilized and should be

• Which interfaces will be needed (e.g., banking entities, P-Card vendor, ESS, VSS)

• Whether current integrations will remain separate or be utilized in a new or upgraded ERP system

Section 5. Business Requirements

The Intueor team, in consultation with Orange County stakeholders, created a list of applicable business requirements using a comprehensive list of leading practices for the functional areas identified in the section above. Additionally, unique business requirements to meet Orange County needs were identified through interviews and workshops with Orange County stakeholders. The Intueor team leveraged KPMG's Powered Enterprise framework to help drive the requirements gathering process. Leading practice process flows and taxonomies were leveraged during workshops to help align the County's future state requirements with leading practices for public sector organizations and help drive transformation of existing manual processes.

The business requirements are defined and summarized in a RTM by functional area and priority. These business requirements are written in clear, concise and unambiguous language, and are specified at a consistent level of detail. The business requirements are not design or implementation solutions and do not conflict with other requirements and are designed to focus on functional needs, not specifically associated with any individual ERP vendor or solution. The requirements stored in the RTM include the following attributes:

- Requirement identification number

- Functional process levels (Finance, Human Resource, etc.)

- Functional process sublevel 1 (i.e., Accounts Payable) and sublevel 2 (i.e., Invoice Processing and Payment)

- Requirement details (Full text description)

- Orange County Yes/No (Applicable to OC)

The requirements in the RTM were reviewed and validated by Orange County stakeholders that participated in the requirements elicitation to validate the accuracy and completeness of these requirements. The RTM has integrated the leading practice business requirements with the unique Orange County business requirements identified in this process. This RTM will be included within the County's RFP, so that vendors can identify how they can meet these business requirements, upgrade the current CAPS+ system with the current vendor, or completely new integrations with the current system. The complete RTM is provided in Appendix A (Excel File), a truncated requirement from the RTM is shown below for illustrative purposes.

Req. ID	Count	Process Level 0 Name	Process Level 1 Name	Process Level 2 Name	Requirement Details	OC Yes/NO
FIN_019	1	Finance	Accounts Payable	Invoice Processing & Payment	The system has the ability to manage invoice exceptions including the ability to flag a fund or vendor so that no payments can be disbursed and to manage accruals as receipts/invoices are entered but not paid.	Yes

Section 6. Technology Fit Gap Analysis

The Intueor Team utilized the knowledge and documentation from interviews and workshops with Orange County stakeholders to evaluate the current delivery model and the existing applications that support the current delivery model and processes. The information obtained from Orange County was analyzed to determine potential functional process or performance needs from the new ERP system solution.

During this analysis, process and performance gaps were documented along with other key attributes, including the cause of functional process gaps, if determinable, the impact (if any) on the current system environment, and how these gaps may impact efficiency and effectiveness at both the business and system level. The technology gap analysis contains the following attributes:

1. Functional Area (e.g., Accounts Payable)

2. Technology Gap (including full description)

3. Impact of the Gap

4. Options for addressing the Gap

5.   The specific options for addressing gaps identified by this analysis include future state recommendations to enhance current operating practices, upgrade/reconfiguration of the current CGI system, new ERP application (e.g., cloud ERP, hosted ERP, or on-premises ERP), and System Integrator (SI) implementation services

Many of the gaps identified during this analysis follow common themes described below:

Manual processes that may be automated with a new ERP system solution, including, but not limited to:	Integrations that may be created with a new ERP system solution:	Data tracking and reporting capability that may be created with a new ERP system solution:
- Creation of an invoice log - Data entry/data field validation requirements - Three-way matching - Creation of various templates (i.e., invoices, contracts) - Posting and tracking of cash receipts and collections - Automatic calculation of late payment penalties - Budget creation with historical and current financial data - Budget projections and adjustments - Budget stops and audit trail - Capital budget formation and adjustment. - Contract workflows, closeout checklist, templates etc. - Depreciation adjustments to previous periods - Partial retirement of assets - Transfers - Bank reconciliation - Request of journal entries from outside departments - Posting recurring journal entries - Tracking unposted journal entries - Performing allocations - Generation of 13-month financial statements - Grant and project management (e.g., billing, reimbursements, expenditures) - Tracking budget or contract modifications and adjustments	- Self-service vendor portal to allow vendors to update information, facilitate inquiry support, and reduce staff time and attention to data entry - New hire portal precluding manual data entry - Employee self-service for employees to update personal information - AR, and inventory data to update invoices and update inventory items - Travel/P-card administration - Ability to upload documents and supporting documentation (e.g., Microsoft Excel spreadsheets, contracts) so the ERP system serves as a master a document repository	- Automatic calculation and presentation of various performance metrics, dashboards, infolets, tiles, custom reporting, etc. - Custom report configuration - Search capabilities

Manual processes that may be automated with a new ERP system solution, including, but not limited to:	Integrations that may be created with a new ERP system solution:	Data tracking and reporting capability that may be created with a new ERP system solution:
• Travel authorization/requisition • P-card reimbursement processing • Other manual data entry		

The new or upgraded ERP system solution should have the ability to perform many of the manual processes currently performed in Microsoft Excel spreadsheets and Microsoft SharePoint within the ERP system. Additionally, the new or upgraded ERP system solution should have the ability to integrate with the systems external to CAPS+ operated by Orange County (I.e. OC Time, Employee Reimbursement, PTS, etc.) or eliminate the need for many of the current integrations. The complete Technology Fit Gap Analysis is provided in Appendix B (Excel File), a truncated fit-gap from this analysis is shown below for illustrative purposes.

Functional Area	Technology Gap	Impact if the Gap is not addressed	Options for addressing the Gap in the current system
Accounts Receivable	Late payment penalties are calculated manually and not within the system.	There is a potential for human error and data entry error when late payment penalties are calculated manually.	Replacement financial system functionality could calculate late payment penalties based on business rules and store these penalties within the system for further processing.

The gaps identified during the analysis were ranked based on the impact of the gap to the County's current business processes versus future state needs. The graph below summarizes the impact of the gaps affecting the County's current operations and productivity. The Impacts are measured as follows:

- High Impact: Focuses on process areas that have the most impact on the overall operation and productivity of the County processes.
- Medium Impact: Focus on process areas that have a moderate impact on the overall operation and productivity of the County processes.
- Low Impact: Focus on process areas that have a low impact on the overall operation and productivity of the County processes.

In the High Impact area there are major areas of processing and systematic gaps resulting in inefficiencies, lack of modern system integrations with the CAPS+ system, lack of robust reporting, lack of extensive security features and workflow, lack of validation, lack of audit trails, and lack of automation of current business processes.

As discussed in Appendix B, there are several functional areas that contain high impact gaps. Most notably, these include General Ledger, Cash Management and Bank Reconciliation. These gaps include manual processes and reconciliation that may impact the County's ability to effectively manage financial transparency and increases the risk of human error in critical business processes. Further, high impact

gaps related to Accounts Receivable and Cash Management limit the ability of the County's CAPS+ system to integrate with external third-party systems or platforms in use by departments or agencies. This lack of integration and automated workflow increases processing time and decreases the ability of the County to maintain an audit trail of transactions. The table below summarizes the gaps by functional area. More detail is provided in Appendix B and the attachment.

Functional Area	High Gap Impact	Medium Gap Impact	Low Gap Impact
Accounts Payable	1	1	1
Requisition	0	1	1
Procurement	3	4	1
AR/Cash Management	5	6	3
Capital Budgets	1	3	0
Contract Management	2	2	0
Grants	2	5	2
GL, Cash, and Bank Reconciliation	10	0	0
Fixed Assets	1	3	0
HR	0	2	0
HR/Payroll	0	2	0
HR/Benefits	0	2	3
HR/Time Management	2	3	1
HR/Workforce Administration	0	0	3
HR/Class and Comp	0	2	0
Financial Reporting	3	4	0
Vendor Management	0	1	0
Total	**30**	**40**	**15**

If the County moves forward without addressing, at least in part, the high and medium impact gaps, the County may continue to experience prolonged business processing times, increased costs related to personnel spending additional time on manual reconciliation and workflow processes, and a limited ability to produce financial transparency and drive key business decisions. Based on the Gap Analysis in Appendix B and the summary table above, the graphic below rates each functional area in terms of severity based on identified gaps and impact. Red is a high severity area, yellow would represent a medium severity area and green a low severity area.

Functional Area Severity (Based on Gaps)							
Accounts Payable	Requisitions	Procurement	AP/Cash Management	Capital Budgets	Grants	GL, Cash and Bank Reconciliation	Fixed Assets
HR	HR/Payroll	HR/Benefits	HR/Time Management	HR/Work. Admin.	HR/Cash and Comp	Financial Reporting	Vendor Mgmt.

High Level Business Process Recommendations

In addition, throughout the review, the Intueor team identified several recommendations that could help enhance the County's operating model independent of a system upgrade or replacement, these include:

1. Utilizing CAPS+ modules already purchased and licensed, but not fully utilized, specifically Procurement and Accounts Receivable

2. Licensing additional modules on the current CAPS+ platform, specially: Vendor Self Service and Grants Lifecycle Management

3. Leveraging existing Business Intelligence tools (Power BI) to replicate or enhance reporting currently being done via data warehouse structures

4. Work with a third-party vendor to identify Robotic Process Automation (RPA) opportunities to automate existing manual processes, particularly around invoice processing, accounts payable and trust management

Section 7.   Summary

The initial step in the Intueor team's assessment was to perform a detailed independent assessment of the County's current CAPS+ system's ability to meet its growing functional and technical needs while assuring alignment with current industry-leading practices, overall strategic priorities of the County, and capabilities in managing critical Finance and HR business processes. This was required in order to provide a recommendation to include either replacement of current system (to include on-premise infrastructure platforms or cloud-based platforms), upgrade of current CGI system, or change in the County's current business processes.

After several thorough workshops and validation sessions to analyze the County's business areas to understand the current capabilities and potential gaps in the CAPS+ system, the Intueor Team recommends a reviewing these findings in conjunction with the Options analysis.

Section 8. Appendix A: Requirements Matrix and Supporting Gap Analysis

Please find embedded the detailed Requirements Traceability Matrix and Gap Analysis document

Copy of Final
Draft_OC Requiremer

Final _Task 2 Gap
Analysis.xlsx