



**A Report to the
City Commission**

Mayor

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Mayor-Commissioner Pro Tem

Harvey Ward

Commission Members

David Arreola

Adrian Hayes-Santos

Gail Johnson

Gigi Simmons

Helen K. Warren

**Audit of the General Government Enterprise
Resource Planning System Implementation**

Interim Report III of III

May 20, 2020

**City Auditor's Office
City of Gainesville**

City Auditor

Ginger Bigbie, CPA, CFE

EXECUTIVE SUMMARY

May 20, 2020



Why We Performed This Advisory Engagement

The Test Stage is the fourth of five phases in the Enterprise Resource Planning System Implementation. Test environments have higher inherent privacy risks due to the use of live data, elevated access privileges, and less user authentication controls than in the production environment.

What We Recommend

Key actions City Management should take:

1. Obtain approval and sign-off from GRU regarding the payroll and timekeeping integration process testing between the ERP and SAP systems.
2. Ensure all moderate and high-risk scenarios impacting Human Resources, Finance, Risk Management, Workday security, and vendor processes be completed, reviewed and verified.
3. Ensure that all users accessing other user accounts sign a NDA; periodically review user access activities; and ensure Collaborative Solutions adequately erases employee data when no longer needed.

Audit of the General Government Enterprise Resource Planning System Implementation

INTRODUCTION

The City Auditor's Office has completed the third and final interim report of the General Government Enterprise Resource Planning System Implementation. The purpose of reviewing this final system pre-implementation stage, the Test Stage, is to ensure that the configured Workday system sufficiently meets the needs of the City of Gainesville Enterprise Resource Planning (ERP) business requirements. Identified risks not yet mitigated when the ERP system goes live (see Appendix A) will be assessed in ongoing enterprise risk assessments and future audits by the City Auditor's Office.

OBJECTIVE

The objective of this audit was to determine the effectiveness of the ERP Test Stage in relation to the best practices delineated in COBIT¹ 2019 Build, Acquire, and Implement No. 7 *Managed IT Change Acceptance and Transitioning*. To accomplish our audit objectives, we reviewed the following specific areas:

- ERP implementation plan covers system and data conversion, acceptance testing criteria, communication, training, release preparation, and a fallback/back-up plan.
- Business process migration is included in the development process.
- Plan and performance of acceptance tests are based on enterprise wide standards in which defines roles, responsibilities, and is approved by relevant parties.
- Test environment provides a secure data environment, representative of the planned business process and IT operations security, operations, data quality, and privacy requirements.

WHAT WE FOUND

1. The Gainesville Regional Utilities (GRU) Integration Testing has not been completed because testing did not begin until four months after the project's scheduled testing start date.
2. As of April 30, 2020, 172 of 2,806 test scenarios have not been tested. Untested scenarios may adversely affect the ERP operations. There are 172 testing scenarios that have not been completed.
3. Data security controls need strengthening, which included that 85 users accessed other user accounts through the use of the proxy feature but only 54 signed Non-Disclosure Agreements. Additionally, user activity logs were not reviewed and there were multiple copies of employee data residing in different preproduction tenants.

¹ Control Objectives for Information and Related Technologies is a framework for the governance and management of enterprise information and technology.

SCOPE AND METHODOLOGY

The scope of this audit focused on the change acceptance and transitioning controls of the systems integration and payroll modules. The audit methodology was based on guidance provided by COBIT 2019 Build, Acquire, and Implement No.10 *Managed IT Change Acceptance and Transitioning* and National Institute of Standards and Technology (NIST) Privacy Framework v1.0 function *Protect-P* control objectives.

During the engagement, we attended meetings, interviewed key personnel, observed and mapped processes, performed a risk assessment questionnaire, and examined documents provided by General Government and the Gainesville Regional Utility IT Departments. An audit of project expenses was not in scope for this engagement; however, as of March 31, 2020, management’s projected expenses total \$4,569,314 of the \$7,057,000 total ERP project budget (See Appendix B for total project costs).

BACKGROUND

The City has been using the CGI Advantage product for an estimate of between ten and twenty years, with much of the modern functionality either under-utilized or not implemented. This has resulted in a lack of knowledge of ERP industry best practices, including available functionality and current trends. There were a number of weaknesses with the Advantage system and control environment; therefore, management selected the Workday ERP system as an appropriate replacement.

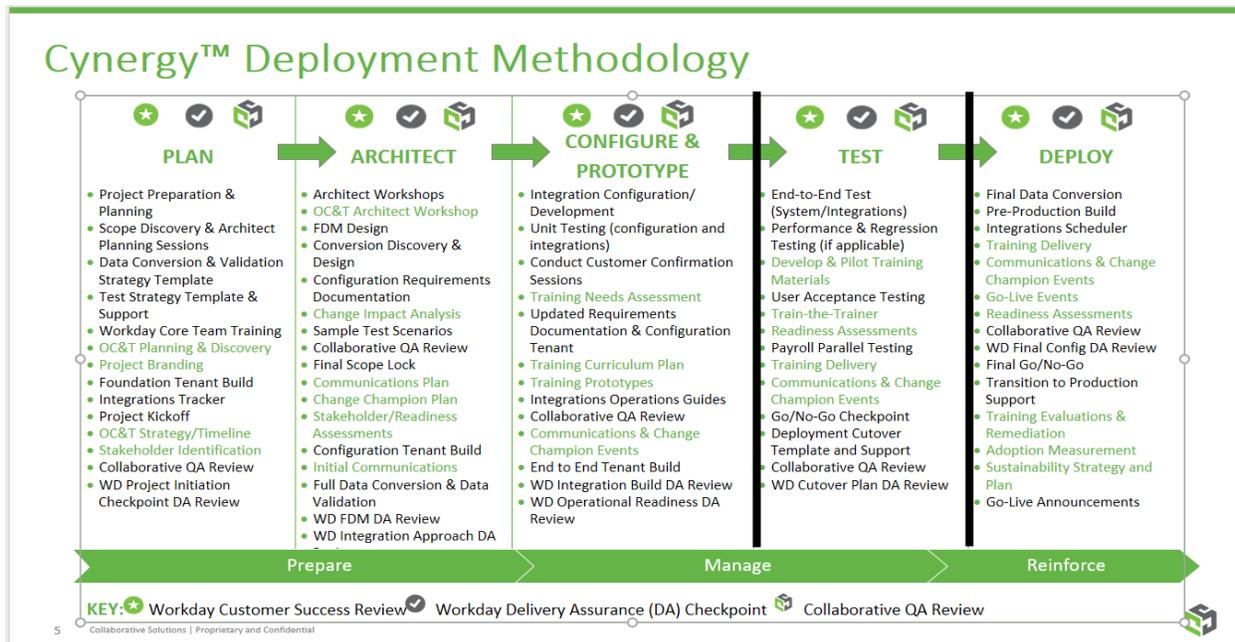


Figure 1 – Implementation Methodology

The purpose of the Test Stage in the Workday deployment is to ensure that the configured Workday system sufficiently meets the needs of the City of Gainesville before the system is implemented. The ERP implementation project team Test Stage consists of three separate test efforts- end to end, user acceptance, and parallel testing (see Figure 1).

A brief summary of the ERP implementation project team testing objectives are as follows:

- End to end testing is designed to enable review of the flow between multiple product functions and integrations in which to identify defects between Workday and other systems it integrates with.

- User acceptance testing allowed a select group of end users to test the preproduction Workday system to ensure that the Workday operates in an acceptable manner.
- Parallel testing ensures that the processes configured in Workday have the same results as found in the legacy systems it replaces.

The Test Stage was initially planned for September 23, 2019 through February 21, 2020 and included testing, training, communications, deployment cutover plan, and a go or no-go checkpoints. The ERP system was scheduled to go-live on March 23, 2020. During the go or no-go checkpoint, the date was rescheduled for April 20, 2020 to allow additional time to integrate the ERP with the GRU SAP. Subsequently, the go-live date is currently rescheduled for January 2021.

OBJECTIVES AND CONCLUSIONS

1. Establish an implementation plan

Implementation plans reflect the broad implementation strategy, sequence of implementation steps, inter-dependencies, and the overall criteria for management’s acceptance of the implementation. The COBIT 2019 Build, Acquire and Implementation (BAI) 07.01, *Establish an implementation plan* covers system and data conversion, acceptance testing criteria, communication, training, release preparation, and a fallback/back-up plan. The ERP Test Stage (see Background section, Figure 1 – Implementation Methodology) aligns with COBIT 2019 BAI 07.01 in that it includes integration, user acceptance testing, communications and change champion events, train-the trainer, deployment cutover, and a go/no-go checkpoint. However, guidance on data privacy was not included in the Cynergy Deployment Model (see Figure 1).

On January 16, 2020, the National Institute of Standards and Technology (NIST) published their *Privacy Framework: A Tool for Improving Privacy through Enterprise Risk Management*. The Privacy Framework provides guidance, specifically the Protect-P Function, which covers data protection to prevent cybersecurity-related events. To align with the *Protect-P Data Protection Policies, Processes and Procedures P1*, management utilized non-disclosure agreements (NDA). To protect user data accessed during testing process, the ERP Team required users to sign prior to the allowing them access. The NDA defined the types of confidential information that may be accessed by employees, during the implementation, and the City’s expectations to ensure that the data is not disseminated in an inappropriate manner.

2. Business process migration

A guiding principle of the COBIT 2019 BAI07.02, Management Practice, is to prepare business processes and infrastructure migration as part of the development process. According to Collaborative Solution’s project timeline, five months (September 23, 2019 through February 21, 2020) was reserved for testing. After four months into testing the first meeting to discuss testing the payroll integration between the ERP and SAP systems took place on January 23, 2020. A contributing factor to the delay in GRU testing dates back to an ERP Options Analysis conducted in April 2017 by a

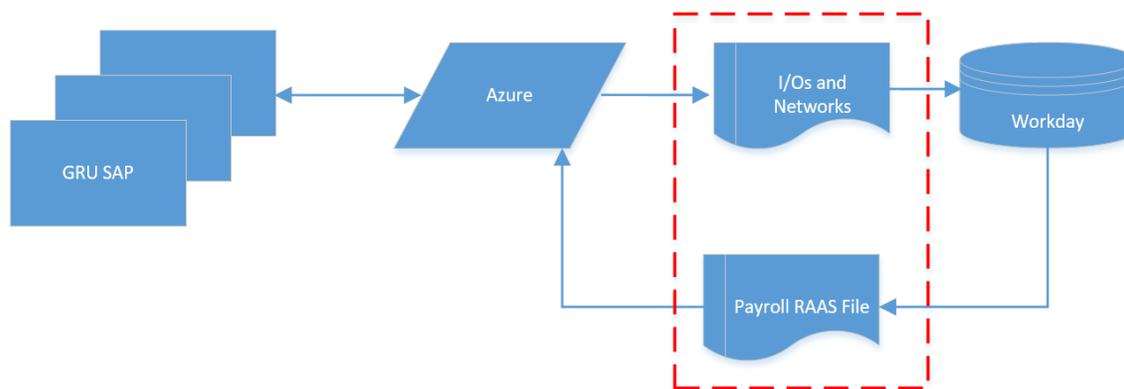


Figure 2- Gainesville Regional Utilities IO Networks Integration Process

third-party vendor assisting the City in determining whether to upgrade the CGI Advantage system or move to a new ERP system. The GRU ERP environment was not included in the scope of the analysis nor any resulting implementation project. By not including the GRU SAP system, the analysis did not

account for the complexity in integrating GRU payroll-related and Internal Orders (IOs) and Networks processes (see Figure 2) which caused the project sponsors to delay the go-live date. To make up for the late start, IT members from General Government, Gainesville Regional Utilities, and Collaborative Solutions met daily to discuss items necessary to configure and test the integration between the two systems. During these meetings, overtime allocation issues were identified. Initially, the go-live date was delayed 28 days to develop the necessary process to meet the needs of the GRU. However, due to the continued testing surrounding the GRU overtime allocation process and the recent pandemic, the go-live date was pushed back to January 2021. Without an approved solution, there is an increased risk to the overall success of the ERP's integration with GRU's SAP (see Observation 1).

3. Plan and perform acceptance tests

The Workday application included 23 modules used internally by the City, and is also integrated with 21 external vendor-related processes. The management practice of COBIT BAI07.03 states to *establish a test plan based on enterprise wide standards in which defines roles, responsibilities and is approved by relevant parties*. The City's Finance and Budget's Internal Control Manager was responsible for developing the City's test plans. The Internal Control Manager visited Port Orange to observe their testing of Workday implementation, attended customer configuration sessions to gain an understanding of business processes, researched on other entities testing processes, met with business owners, provided test scenario links to review, and received feedback.

We sent a questionnaire to 24 testers to gather feedback on the testing process; six of the seven responses were from GRU. When asked about the adequacy of area coverage, one stated "no" (between 0 and 24%), two stated "somewhat" (between 25% and 50%), three stated "mostly" (between 51% and 79%), and one stated "yes" (between 80% and 100%). When asked about their overall satisfaction, comments included that the information was given well by the instructors, and that there was thorough introduction to Workday. Conversely, they also commented that improvements could have been made by focusing on timesheets, increasing training for time entry, improving data accuracy, and allowing the ability to provide formative feedback on how the scenarios compared to the current process.

The management practice of COBIT BAI07.05 *Perform acceptance test* states to test changes independently, in accordance with the defined test plan, prior to migration to the live production environment. User acceptance testing allowed a select group of end users to test the Workday system in the test environment. Based on our examination of test tracking spreadsheets, 2,491 of 2,653, or 94% of project sponsors' scenarios were successfully tested. The amount of scenarios tested showed that user acceptance testing of sponsor led initiatives were well covered.

Access roles and responsibilities were performed as part of the General Government's ERP Implementation Team's security testing. Documentation on the SharePoint site showed that 111 of 117, or 95% of security scenarios successfully passed testing. We noted that the security of the overall test environment was not included in the security tests and is discussed in Section 4 Test Environment.

Collaborative Solutions' presentation materials described end-to-end integration testing as the process flow between Workday and non-Workday products to identify processing defects in which to ensure that business requirements are met. Documentation showed that 32 of 36, or 89% of integration scenarios were successfully tested. The overall rate of total scenarios successfully tested was 94%. However, an inherent risk exists that going live with untested scenarios may adversely affect

the operations of the Human Resources, Finance, Risk Management, and GRU functions (See Observation 2).

4. Test environment

COBIT BAI07.04 Management Practices states to establish a secure test environment representative of the planned business process and IT operations security, operations, data quality, and privacy requirements. According to the General Government's security administrator, Workday data is protected by Transport Security Layer (TLS) encryption for data in-transit and has implemented network intrusion prevention systems.

We noted that the City's single sign-on was not activated in the test environment. The implementation of active directory that is necessary to authenticate City employees was still in development during the testing phase. Instead, General Government's business systems analyst created test user accounts and assigned user roles in Workday separate from their City authentication credentials. The user IDs and passwords were replicated in a manner that, without the City's authentication mechanisms activated, increased the risk that the accounts could be access in an unauthorized manner. Additionally, testers were given their manager's authentication credentials when requested.

The test tenant also used a proxy feature that allowed testers to automatically sign in as any user. The proxy feature presented a significant risk as the test environment contained approximately 4,400 active and retired employees' data and was accessible outside of the City's internal IT controls. Assigned users could access the test tenant from any location. Upon the recommendation of the implementer, testers were required to sign NDAs prior to logging directly in as their supervisor. We were provided with 54 NDAs signed by City employees. However, we identified 85 users that authenticated into other user accounts through their use of the proxy feature.

The Workday system logged the date and time that users sign on and their activities, which included when they activated the proxy feature. However, the logs were not reviewed by the ERP Implementation Team's Senior Business Analyst who is responsible for data security. In our log file examination, we identified high risk behavior in which user accounts were accessed without business justification, outside of the City's internal network, and on weekends. The lack of a log monitoring program increases the risk sensitive data could be leaked and go undetected.

We also identified some personnel files were not exempt from view as required by Florida Statute 119.071 *General exemptions from inspection or copying of public records*. Upon our notification, the City immediately removed personnel sensitive information from view, disabled the proxy feature and required testers to authenticate under stringent parameters. Human Resources also updated the HR database to mark identified records as exempt.

The control objective of COBIT BAI07.04.02 is to protect sensitive test data against disclosure, including access, retention, storage, and destruction. Once the test stage is completed, the City should adequately erase all preproduction copies of employee data to prevent unauthorized access. (See Observation 3).

AUDIT OBSERVATIONS

Strong Internal controls help the City achieve important objectives and sustain and improve performance. The three audit observations listed below are offered to help management ensure the successful implementation of the Enterprise Resource Planning application.

Observation 1: The GRU Integration Testing Has Not Been Completed

Condition:

GRU integration testing and end to end testing with the GRU SAP system has not been completed.

- Testing did not begin until four months after the scheduled start date.
- Payroll timekeeping testing identified that the ERP's overtime calculations did not align with GRU charges to cost elements and days.

Cause:

- The City needed to complete testing payroll scenarios before they could run the settlement report necessary for GRU testing.
- The original ERP implementation scope did not include GRU's ERP environment.
- Timekeepers have received system error messages in overtime, pay codes, and scheduling processes, which may require additional configuration.
- The GRU Internal Orders (IOs) and Networks processes flow was modified from inbound to outbound and resulted in Collaborative Solutions performing additional configuration that has not been completed.

Criteria:

- COBIT 2019 BAI 07.02.01 *Define a business process and infrastructure migration plan.*
- COBIT 2019 BAI07.02.02 *In the business process conversion plan, consider all necessary adjustments to procedures.*

Effect:

- The go-live date set for June 15, 2020 may be further delayed.
- GRU management may not approve or sign-off on overtime testing that does not meet their specifications.

Risk:

- A lack of system integration with GRU payroll processing needs increases the risk GRU operations and maintenance expenses, capital expenditures, and allocation of overtime to correct projects and days, may be inaccurately recorded and may negatively impact GRU cash management.
- There is an increased risk that GRU capital project allocations may not reconcile to the ERP's overtime calculations.
- Continued delays may increase the overall implementation and training costs while legacy systems remain active.

- There may be a delay on future projects, such as document management and time clock integrations until phase one is implemented.

Recommendation:

Obtain approval and sign-off from GRU regarding the payroll and timekeeping integration process testing between the ERP and SAP systems.

Management Response

GG and GRU concur about the need for a sign off document. Currently, there is a document outlining the requirements being worked on by both GG and GRU.

The Workday go-live date has been pushed back from June 15, 2020, to early 2021. The delay is caused by resource constraints due to the Covid-19 epidemic. In an effort to keep the priority of safety for the employees of the city of Gainesville most city departments have limited staff working physically in city buildings and others are working remotely. Bringing an Enterprise Resource System that involves interaction from most of the employees in the city would be a huge risk under these circumstances. Realizing this risk, it was decided to not go live in this environment.

The delay in the project has allowed reviewing the GRU integration even further. The city has made a recommendation to the GRU executive team to have a minimum of one additional sponsor from GRU added to the project team.

The City and GRU will be engaging with a solution provider from Collaborative Solutions to define a Scope of Work to encompass all of the GRU requirements and testing to get to a successful implementation of GRU integrations.

Responsible Parties:

David Duda, Interim Director of Technology

Daniel Hoffman, Assistant City Manager

Lee Feldman, City Manager

GRU Management Response

Due to the potential impact to GRU operations, we reached out to the Chief Financial Officer, General Manager, and Chief Information Officer for their response to Observations 1 and 2. On page 15, their management responses are listed in Appendix C.

Responsible Parties:

Claudia Rasnick, GRU Chief Financial Officer

Walter Banks, Chief Information Officer

Ed Bielarski, General Manager for Utilities

Observation 2: As of April 30, 2020, 172 of 2,806 scenarios have not been tested

Condition:

Untested scenarios may adversely affect ERP operations. Listed below are the number of scenarios successfully tested:

- 2,491 of 2,653 (94%) Human Resource, Finance, and Risk scenarios.
- 111 of 117 (95%) security scenarios.
- 32 of 36 (89%) integration scenarios.

In total, there are 172 test scenarios, representing Human Resources, Finance, Risk Management departments, Workday security and vendors that have not been completed.

Cause:

Based on observation and inquiry, due to limited resources the majority of ERP implementation project team testing had focused on critical scenarios. Management's ability to complete all - remaining testing was further reduced as assigned testers also performed their other job duties.

Criteria:

- COBIT 2019 BAI07.05 Management Practice: *Test changes independently, in accordance with the defined test plan, prior to migration to the live operational environment.*
- COBIT 2019 BAI07.05.01 *Review the categorized log of errors found in the testing process and verify that all errors have been remediated or formally accepted.*

Effect:

Additional costs may be incurred due to production issues not identified timely during testing.

Risk:

There is an inherent risk that going live with untested scenarios may adversely affect the operations of impacted Human Resources, Finance, Risk Management, and vendor functions.

Recommendation:

The City should ensure all moderate and high risk scenarios impacting Human Resources, Finance, Risk Management, Workday security, and vendor processes, be completed, reviewed and verified.

City Management Response

Management concurs with the recommendation. The project team will plan on completing 100% of the scenarios.

Responsible Parties:

David Duda, Interim Director of Technology

Daniel Hoffman, Assistant City Manager

Lee Feldman, City Manager

GRU Management Response

Due to the potential impact to GRU operations, we reached out to the Chief Financial Officer, General Manager, and Chief Information Officer for their response to Observations 1 and 2. On page 15, their management responses are listed in Appendix C.

Responsible Parties:

Claudia Rasnick, GRU Chief Financial Officer

Walter Banks, Chief Information Officer

Ed Bielarski, General Manager for Utilities

Observation 3: Data Security Controls Need Strengthening

Condition:

Data security controls need strengthening. Specifically:

- The City provided 54 Non-Disclosure Agreements (NDAs), however, we identified 85 users that activated the proxy feature indicating 31 users handling personal private information did not sign NDAs.
- A user sign-on and activity log review process was not established during the test stage.
- There are multiple copies of employee data that reside in the ERP implementation's preproduction tenants.

Cause:

- Users that used the proxy feature were not required to sign a NDA.
- A user activity review process was not established in the preproduction environment.
- Employees' active data was accessed while testers performed scenario testing within the test stage tenant.

Criteria:

- COBIT 2019 BAI07.04.02 *Protect sensitive test data and results against disclosure, including access, retention, storage and destruction.*
- Florida Statute 119.071, General exemptions from inspection or copying of public records.

Effect:

- Confidential employee data may be accessed or disseminated in an unauthorized manner resulting in harm to the employee and/or the City.

Risk:

- The use of the proxy feature increases the risk that users could access personnel sensitive data in an unauthorized manner.
- The lack of monitoring user activities increases the risk of misuse of data or inappropriate dissemination of sensitive employee data going undetected.

Recommendation:

City Management Should:

- a. Ensure that all users accessing other user accounts sign a NDA.
- b. Periodically review user access activities to ensure that sensitive data is not misused or inappropriately accessed or disseminated.
- c. Work with Collaborative Solutions to ensure that employee data is adequately erased from different tenants and back-up copies, when no longer needed for testing.

Management Response

General Government has tightened the security on the Workday. The proxy feature has been turned off to all the City/GRU employees. If there is any need to use another user account, the GG project team has worked out a process for users to request access and track these situations in the form Non-Disclosure Agreement (NDA)

Proxy is still available for use by the implementing consultant Collaborate Solutions only. Their use of this function is being monitored by security audits.

This is the feature that Workday and Collaborative Solutions uses for their test stage for any implementation. This feature is not available in live system.

When any Workday tenant is no longer needed for testing purposes the city will make a request to Workday for deletion of the tenant. At the completion of the request for deletion, Workday documents the deletion of the data (which includes the employee data) which GG will keep a record of.

Responsible Parties:

David Duda, Interim Director of Technology

Daniel Hoffman, Assistant City Manager

Lee Feldman, City Manager

GOVERNMENT AUDITING STANDARDS COMPLIANCE

We conducted this advisory engagement in accordance with generally accepted government auditing standards and ISACA² IS Audit and Assurance Standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our observations and conclusions based on our audit objectives.

Internal Audit would like to thank management for their time and cooperation during this engagement.

AUDIT TEAM

Ginger Bigbie, CPA, CFE City Auditor

Eileen Marzak, CPA, CFE, Interim Assistant City Auditor

Vincent Iovino, CISA, CRISC, Information Technology Auditor (Lead Auditor for this engagement)

Brecka Anderson, CIA, CFE, CGAP, AICPA-COSO, Internal Audit Manager

² Previously known as the Information Systems Audit and Control Association, ISACA is an independent, nonprofit, global association that engages in the development, adoption and use of globally accepted industry-leading knowledge and practices for information systems.

APPENDIX A – SUMMARY OF OBSERVATIONS AND STATUS OF ALL THREE ERP IMPLEMENTATION AUDIT REPORTS

Below is a summary of key observations from the three ERP implementation audit reports, and their current status. Recommendations in the course of being completed or carried out are listed as in progress.

Recommendation Summary	Current Status
Interim III Report Date May 20, 2020	
1. GRU sign-off on integration process.	In progress
2. Complete, review, and verify all moderate to high-risk scenarios are tested.	In progress
3. All users with access to other accounts should sign a NDA, periodically review user access, and ensure employee data is erased.	In progress
Interim II Report Date December 5, 2019	
1. Include a data steward to ensure employees' personally identifiable information is adequately protected.	Completed
2. Create a single consolidated view of all configuration changes.	In progress
3. Ensure all data conversion information is accurate.	In progress
4. Include data accuracy status reports to management.	Completed
Interim I Report Date: February 7, 2019	
1. Establish a formal project charter.	Completed
2. Present a business document that includes a cost benefit analysis to the City Commission when requesting funds.	In progress
3. Establish a formal steering committee.	Completed
4. Develop an integrated project management plan.	Completed
5. Project Manager should work with steering committee with defined activities and reporting content.	Completed
6. Charter officers should collaborate to build a citywide integrated information technology strategy.	Completed

APPENDIX B – ERP IMPLEMENTATION PROJECT COST AS OF MARCH 31, 2020

ERP Project Cost Table

Total Budget	\$ 7,057,000	
	Paid as of March 31, 2020	Remaining Expenses
Product	\$ 960,737	\$ -
Implementer	\$ 4,125,832	\$ 212,488
Salaries	\$ 224,716	April, May, June
Expenses	\$ 681,089	April, May, June
Other Expenses	\$ 576,940	April, May, June
Total Expenses as of 3/31:	\$ 6,569,314	
Remaining Budget:	\$ 487,686	

Source: Dan Hoffman, Assistant City Manager

APPENDIX C – MANAGEMENT RESPONSE FROM GRU TO OBSERVATIONS 1 AND 2.



DATE: May 8, 2020

TO: Virginia Bigbie, City Auditor

FROM: Edward J. Bielarski, Jr., General Manager for Utilities 

SUBJECT: Management Response to Audit of the General Government Enterprise Resource Planning System Implementation

GRU staff have reviewed the recommendations of your office and offer the following response from management.

Observation 1: The GRU Integration Testing Has Not Been Completed, and Recommendation 1.

Failure to incorporate GRU and other stakeholder requirements:

GRU's payroll and timekeeping requirements for the ERP system were shared with the General Government team almost 2 years ago, but were not included by General Government as part of the process to select the software vendor and the implementer. As a result, the ERP scope did not include GRU's requirements for any portion of the implementation (HR, Payroll, Timekeeping, Reporting, SAP ERP integration, Business Processes including Internal Controls to name a few).

It wasn't until recently did the ERP team reach out to GRU to consider its requirements during the testing phase, which is phase four of a five phase project, and unfortunately were hard pressed to include them in the now largely-defined ERP package. As an example, GRU's networks and internal orders as cost elements were not captured in the requirements gathering process by GG/Project Team/Sponsors. Fixing this oversight/failure has generated the additional work required by Collaborative Solutions and to date is not complete.

All stakeholders, not only GRU should have been included in the sponsorship of the ERP implementation. Vital decisions were made without input from GRU, most notably its Information Technology and Finance departments. Not only is this not in keeping with best practices, it is not in accordance with Gainesville's one city concept.

Insufficient integration testing support from General Government:

GRU has been dependent on the ERP team in order to accomplish testing of any kind. Best practices for an ERP implementation of this kind require not only scenario testing, but end-to-end and parallel

testing. To date, GRU has not been given access and an ability to perform end-to-end or parallel testing. Even without considering the need for end-to-end testing, of the limited scenario testing that has occurred, timekeepers have identified a number of issues: overtime, pay codes, scheduling, and processes, which require solutions, prior to any Go-Live date.

Policy decisions made by General Government in regard to GRU’s internal controls:

Outside of the failure to allow end-to-end and parallel testing, there were policy decisions made by General Government, without GRU’s consultation which had a dramatic detrimental impact on GRU’s internal control processes. Specifically, it was decided to have employees enter their own time therein circumventing GRU’s internal control process surrounding its timekeeping.

Resultant inability for GRU to sign-off on Go-Live dates:

These events have created the situation where GRU is unable to sign off or provide final approval of the first April Go-Live date. The needed testing (both parallel and end-to- end) could not have taken place even before the amended go-live date of 6/15/2020.

Summary:

GRU’s requirements on its end of the payroll system are not extraordinary and are keeping in best practices of any modern payroll implementation. End-to-end and parallel testing would be considered essential for any payroll conversion and its timekeeping process. This is not just a GRU’s SAP integration issue.

Moving forward, GRU’s requirements must be satisfied or remedied in a documented manner in order to gain a future signoff.

Fiscal and risk impact:

Internal Risks

There is a significant risk that GRU’s payroll allocations between Operations and Maintenance Expenses and Capital Expenditures may be inaccurately recorded, leading to an improper use of cash. Because no end to end testing or parallel testing has been completed, error could manifest as networks and internal orders not populating as expected, or via the human intervention currently required to manipulate and load the payroll file, just to name two of the possible breakdowns. These inaccuracies in payroll allocation will generate an improper use of cash between O&M and Capital.

There is also a risk that overtime will not be allocated to the appropriate projects on the appropriate days. This also creates a cash issue as an inappropriate use of cash can occur.

A lack of reporting access and review creates the risk that payroll and timekeeping information cannot be reviewed timely, if all. To date, personnel information such as position control data has not been provided for reporting review to GRU, which creates a risk that the quantity of employees, salaries, and other needed personnel information may not be available to the Utility. These two items are only a sample of risks posed by the current lack of reporting access and review.

External Risks

1. GRU will not be able to provide financial information to:
 - a. the organization
 - b. the Utility Advisory Board (UAB)
 - c. the City Commission
 - d. the rating agencies
 - e. bond trustee
 - f. external auditors
2. These issues will most likely be reported as an internal weakness or material deficiency in the 2020 financial statement audit.
3. Failure to file financial information timely will trigger defaults in GRU various debt agreements and compliance filings

Additional clarification:

GRU management offers the following background for clarification of this observation and recommendation. It needs to be noted that the interviews for this report did not include key individuals such as 1) GRU's Chief People Officer who would be a user of the HR portion and reports, 2) the CFO and management in the BFA area who would be a user of the payroll financial information, HR based information, and reporting, and 3) the CIO who already oversees and must manage the integration. Although the General Government Enterprise Resource Planning System Implementation (ERP) was a General Government process one of the main elements of the system was payroll, which impacts not only General Government, but GRU as well. It would be advisable to remember this one-city concept in any future audits.

Observation 2: Untested scenarios may adversely affect the ERP operations and Recommendation 2

As GRU's requirements were not part of the software selection and scope of work, we were offered scenario testing for timekeeping as a compromise solution. Unfortunately, GRU's payroll and timekeeping functions are too complex to allow only scenario testing. Full end to end testing and possibly parallel testing are required as a best practice.

Payroll and timekeeping for GRU is a critical testing function. Scenario testing will not provide assurance that the system is working as designed.

In addition, the maintenance period for the implementer, Collaborative Solutions, is only seven weeks following deployment. GRU needs assurance that there will be software support when required after go-live, which may be needed well beyond this brief period.