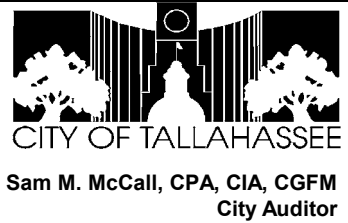


Project Progress Report #2

As of October 31, 2001



“Customer Information System Project”

Report #0209

January 10, 2002

Summary

The City is currently in the process of replacing the Utility Services Customer Information System (CIS). As of October 31, 2001:

- the project is approximately 65% complete;
- expenditures are within the amended budget (it was increased by \$1,374,789 in October 2001); and
- the original “go live” date (September 2001), revised in the prior report to November 2001, has now been revised to March 2002.

This date will most likely be affected by the challenge facing the project team to test the application thoroughly and provide extensive training to application users in the City.

This report is the second of a series on the CIS project. The purpose of our review is to provide assurance as to CIS compliance with City policies and procedures and contract requirements.

Based on our review, we can provide assurances that:

- √ project staff has substantially complied with City policies and procedures and contract requirements;
- √ contract deliverables were received and accepted before payments to SPL Worldgroup, Inc., (the consultant) were processed; and
- √ except as noted below, risks and project controls are being addressed.

In Table 1, we have summarized the implementation components that have been completed satisfactorily, are still in progress, or are outstanding and have not been completed, and have identified areas that can be improved.

These areas include:

- ◆ evaluating the steering committee’s membership, role, and authority;
- ◆ coordinating COT project-related tasks taking place outside the project team, such as marketing efforts, web transaction capability, and reporting environment;
- ◆ completing the development, testing, implementation, and documentation of all

modifications to the application;

- ◆ developing and implementing a security plan prior to testing and training; and
- ◆ increasing communications regarding project status to key stakeholders in the City.

In addition to assurances provided above, Table 2 of this report summarizes the status of the significant issues identified by the project team as of October 31, 2001; and Table 3 summarizes the status of additional significant issues that have been identified and need to be resolved as the CIS project progresses. Prior issues that remain unresolved include:

- ◆ ensuring that the project team is 100% dedicated to the project;
- ◆ ensuring that ISS staff has the needed technical skills to support the new client/server applications being implemented by the City;
- ◆ providing an automated change management solution to manage changes to client/server applications;
- ◆ identifying solutions to reduce the customer service representative telephone time;
- ◆ identifying solutions to prevent current duplicate data entry; and
- ◆ developing a reporting environment to support the new CIS when it goes live.

Additional outstanding significant issues that have been identified since the prior progress report (as of December 31, 2000) include:

- ◆ deciding whether to accept the billing/payment cycle provided in the system or to modify the system to meet the City’s current billing/payment cycle;
- ◆ deciding the printed bill format;
- ◆ obtaining additional technical resources (with PeopleSoft expertise) to support the project team;
- ◆ ensuring that there is an adequate transfer of knowledge related to the new CIS system from the current project manager to City staff;
- ◆ implementing security and other controls to protect the application’s configuration during development;
- ◆ obtaining the necessary security expertise to be able to implement the desired level of

security;

- ◆ designing and implementing application security prior to testing or training; and
- ◆ designing and implementing application auditing features to their fullest potential taking into consideration application response and performance.

We have also provided management's planned actions to address or resolve each issue. The extent to which these or such other alternative resolution approaches are utilized by management will be addressed in our next report on the CIS implementation and/or post-implementation activities. These issues are listed at this time for information and for management's further analysis and resolution.

Scope, Objectives, and Methodology

The Office of the City Auditor is providing assurance and consulting services to assist management throughout the implementation of the CIS Project. As part of these services, we will be issuing a series of reports.

Our objectives for this report are to:

- determine compliance with City policies and procedures and contract requirements;
- provide an independent assessment of risk management and project controls;
- report on the project status and accomplishments as of October 31, 2001; and
- communicate the significant issues identified as of October 31, 2001.

This report focuses on the implementation phase of the project. Providing a progress report during the middle of the implementation phase allows management to address the identified issues in a timely and less costly manner.

To achieve our objectives, we participated in an "Independent Verification & Validation" review conducted by a consultant Project Director during the week of October 22-26, 2001. This project director has no direct responsibilities in the CIS project.

In addition, we participated in an advisory capacity on the project team and executive steering committee; reviewed key documentation, including project management plan, monthly status reports, test plan and documentation, data conversion plan, training plan, modifications requirements; and conducted interviews with project team, consultants, executive steering committee

members, and other key stakeholders in the City. These audit procedures were conducted in accordance with Generally Accepted Government Auditing Standards and Standards for the Professional Practice of Internal Auditing as appropriate.

Background

Project Life Cycle

Every information technology (IT) project follows similar life cycle phases, such as:

Planning Phase – defining business problems, potential solutions, project scope, system interfaces, systems and software requirements, and resource needs. Other activities include identifying risks, costs and benefits associated with each solution, developing a project plan, and obtaining funding.

Acquisition Phase – developing a request for proposal and evaluation criteria, evaluating proposals, selecting a vendor, and negotiating the contract.

Implementation Phase – managing the vendor contract and project staff, installing software, defining business rules and processes, converting data, planning and performing testing, preparing technical and user documentation, and putting the system into production.

Post-Implementation Evaluation Phase – evaluating to determine if the system meets the users' needs and requirements.

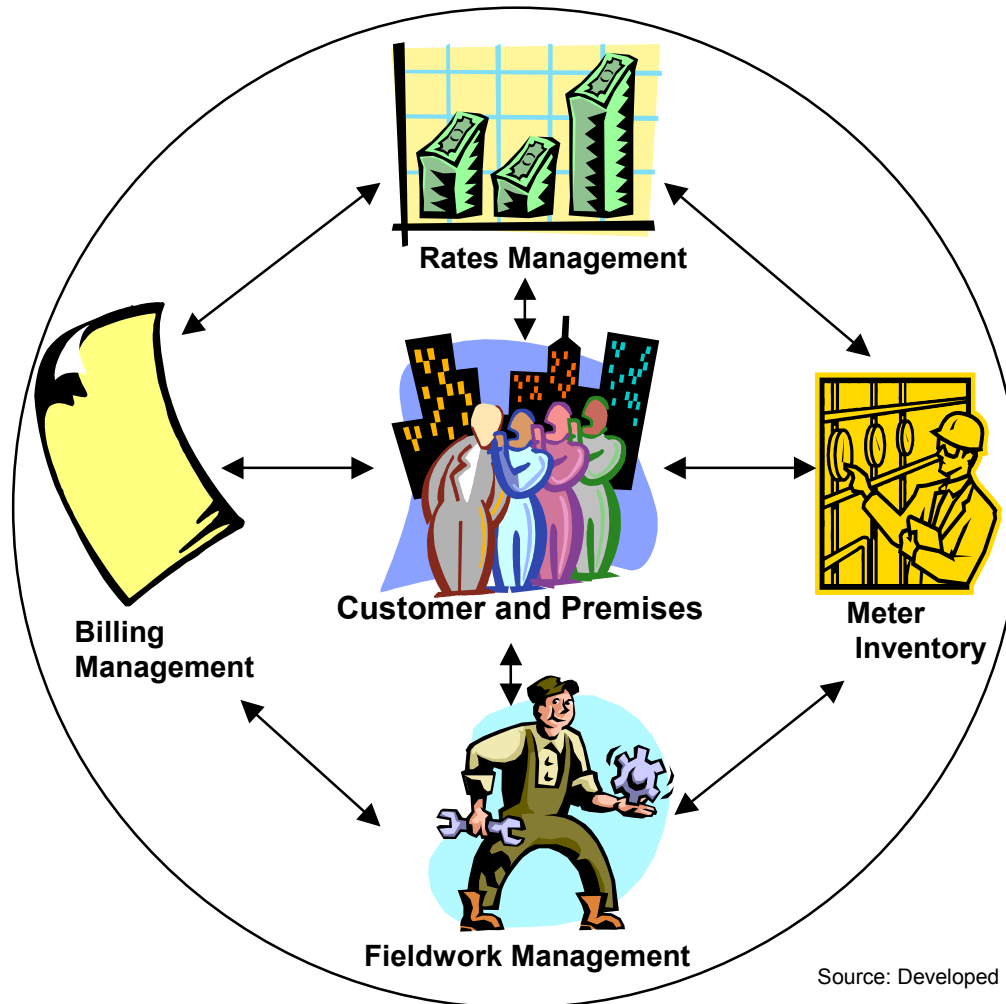
This project is in the implementation phase. As described above, the implementation phase consists of numerous activities, many of which occur simultaneously culminating when the application is moved into production and is successfully working.

Utility Services Managed in CIS

The City provides utility services for approximately 95,000 customers: 78,000 residential and 17,000 non-residential. The CIS is a comprehensive software application that handles the City's electric, water, sewer, gas, solid waste, stormwater billing and customer service functions, such as: site, account and service set-up; turn-ons; turn-offs; transfers; customer maintenance; and other related functions. In addition, the CIS tracks energy efficiency loans provided to customers.

Figure 1, on the following page, identifies the data management components within a CIS.

**Figure 1
Customer Information Systems Components**



Source: Developed by Audit Staff

The customer and/or premises are the focal points in the system. Each system component performs specific business functions that are related either to a customer or premises receiving services.

Explaining the process of starting electric service for a new customer can show how the CIS is utilized. The prospective customer visits Customer Service and provides them personal information to establish an account. The customer is assigned a rate type (residential or non-residential) and information is collected regarding the premises, including where it is located (city or non-city). Next, a fieldwork service order is created to install an electric meter at the premises and an initial meter reading is recorded. At the end of the billing period, another meter reading is recorded, consumption is determined, payment due is calculated, a bill is sent to the customer, and payment received from the customer is recorded. The same scenario is followed for providing any other metered utility service, i.e., water and gas. Billing for solid waste

is based on number and type of services provided. Service charges are aggregated to create one monthly bill for each service provided.

CIS Project Description

The City's current mainframe CIS was purchased in FY 1988 and implemented during 1989. The City has recognized the need to replace its CIS for some time. A request for proposal (RFP) was originally released in 1996 in a joint project to replace both the CIS and Financial Management System. The City determined not to select a vendor at that time. Subsequently, these two projects were divided into separate projects, and the CIS project was funded at \$4.2 million. A second RFP for the CIS was released in July 1999, and the RFPs were evaluated during the fall 1999.

To acquire and install the software for CIS and bill printing, the City executed the following three vendor agreements, totaling \$2.3 million, plus travel expenses:

1. PeopleSoft, Inc. – Software, license and support agreement for CIS software.
2. Group1 - Software and license agreement for the report generator and bill design/printing software.
3. SPL Worldgroup, Inc. – Consultant agreement to be the prime contractor for the installation and acceptance of the PeopleSoft CIS installed product.

On March 22, 2000, the City Commission authorized the City Manager to execute the three agreements. SPL Worldgroup was contracted to perform implementation and post-evaluation services. Figure 2 below shows how the activities defined in their contract compare to the project life cycle phases described above.

Figure 2

IT Project Phases	SPL Worldgroup Phases
Planning	(not applicable)
Acquisition	(not applicable)
Implementation	I. Discovery II. Functional Gap Analysis & Modification Definition III. Process Analysis IV. Implementation V. Acceptance
Post-Implementation Evaluation	VI. Follow-up

The CIS project team, currently in the City's implementation phase, has completed the consultant's Phases I, II and III, and is working on activities in Phases IV, (Implementation), and V (Acceptance). Since our last report, dated February 2001, the following changes have occurred in the project.

- ◆ In April 2001, project management was re-

assigned from ISS to Utility Business and Customer Services, and the functional business lead became the project manager.

- ◆ In October 2001, the City Commission approved additional funding of \$1,374,789 (transferred from the Technology Integration Project).
- ◆ In October 2001, the Utility Services Manager was assigned to be the Project Sponsor and directed to work closely with the project team and communicate the project status regularly to the City Manager.
- ◆ In October 2001, the City Commission supported the revised "go live" date of March 2002.
- ◆ In October 2001, the project team expanded from 10 members to 14 members, and now includes representatives from Growth Management and Treasurer-Clerk.
- ◆ In October 2001, the project team was relocated to a large conference room in City Hall, and the majority of the team is now dedicated 100% to the project.

As of October 31, 2001, \$3,961,342 (71%) of the total project budget of \$5,579,289 has been expended and/or encumbered.

Project Progress and Accomplishments to Date

As described in the project life cycle section above, there are common activities conducted during the implementation phase of an IT project. Some of these activities are required by City administrative policies and procedures or by the consultant contract, while others are considered to be "good business practices." Table 1 provides a listing of the implementation components that were identified for this project, the status as of October 31, 2001, and auditor comments (if applicable). The components are separated as to the source of the requirement.

Table 1

Implementation Components	Status/Comments
Administrative Policies & Procedures (APP) #801, "IT Acquisition Policy"	
Management oversight: ⇒ An executive steering committee is utilized to provide project oversight. ⇒ The project manager reports regularly to the executive steering committee regarding the project status and advises the committee regarding critical business decisions that need to be made.	Improvements have been made, in that: ✓ Meeting minutes have been documented and distributed so that decisions are recorded and communicated. ✓ A project sponsor has been designated to work directly with the project team, actively monitor the project's progress, and regularly communicate with the City Manager.

	<p><u>Comment:</u> The steering committee's effectiveness should be evaluated to determine if the membership is appropriate, i.e., does it consist of key stakeholders that have the authority to make decisions in a timely manner.</p> <p>In November, the steering committee membership was modified: one utility manager was replaced by the Treasurer-Clerk and a manager from Growth Management.</p>
<p>Project Management Plan (PMP):</p> <p>⇒ A project management plan (PMP) is utilized to manage the project.</p> <p>⇒ The PMP is continually updated as necessary.</p>	<p>◆ No change from prior report. The PMP is co-managed by the COT and consultant project managers and is limited to the project team's scope of work.</p> <p><u>Comment:</u> This area can be improved. Specifically, there is no coordination of COT project-related tasks taking place outside the project team, such as marketing efforts, web transaction capability, and reporting environment.</p>
<p>Quarterly reports are submitted to the ISS Steering Committee.</p>	<p>○ Change from prior report. The composition of the ISS Steering Committee has been changed and the role of this committee is currently being re-defined.</p>
<p>Project documentation adequately addresses:</p> <ul style="list-style-type: none"> ⇒ System modifications (what is to be modified, detailed design and cost approved by executive owner) ⇒ Data conversion (conversion plan, methodology, and controls) ⇒ Testing (testing plan, methodology, problem resolution process, acceptance criteria, and review/approval) ⇒ Installation of the software to all appropriate locations (i.e., server, users' computers, etc.) ⇒ User procedures (instructions for how users are to perform business functions using the software) ⇒ System documentation (technical manual of how the system is set up, including, but not limited to, tables, records, fields, data definitions, forms, queries, reports) ⇒ Training (training strategy, plan with goals and objectives, content, schedule, etc.) ⇒ "Go Live" - move software into production (plan, methodology, controls, contingency plan) ⇒ Security (security plan, including defined security roles, classes, and groups) 	<p>◆ In progress. Modification documentation is provided by the consultant, and user procedures are being developed by City staff.</p> <p><u>Comment:</u> This is behind schedule. There are still 8 of 24 modifications needed for "go live" that have not been accepted by the City. The development and testing of the modifications have been major causes for the project's delay.</p> <p>√ Conversion plan is completed and progressing as scheduled.</p> <p>◆ Unit testing is in progress and is being documented.</p> <p>◆ System test plan is currently being developed.</p> <p>◆ The production hardware has been installed, but the application software is not scheduled to be loaded until December 2001.</p> <p>◆ Draft user procedures have been developed and will be further refined during testing and development of training materials.</p> <p>◆ No change from prior report. Documents were delivered with system; initial system setup is completed and loaded. System documentation will still need to be revised based on modifications to be made.</p> <p>√ Initial training for Project Team has been completed.</p> <p>◆ Draft training plan has been developed and is scheduled to be further refined. Training facilities and schedules need to be finalized.</p> <p>○ "Go Live" plan has not been developed yet.</p> <p>◆ A project member has been assigned this responsibility and will attend training in November.</p> <p><u>Comment:</u> This area can be improved. It is important that security be implemented prior to testing and training.</p>
<p>APP #630, "Internal Control Guidelines"</p>	
<p>Transactions and events relating to processing deliverables and contract payments are properly executed.</p>	<p>◆ On-going. Project Manager is ensuring that deliverables are received and approved before payment.</p>
<p>There is direct activity management – including clear communication regarding team members' roles and responsibilities, staff accountability, approving work at critical points.</p>	<p>◆ Communication has improved among team members and with the project manager, and can be attributed to multiple factors, including: COT has designated a</p>

	<p>new project manager, and the team is now located together and is spending 100% of their time on the project.</p> <p>It is important that this open communication continue.</p>
<p>Top level reviews of actual performance vs. budgets and forecasts, and tracking major initiatives to measure the extent to which targets are being reached.</p>	<ul style="list-style-type: none"> ◆ On-going. Monthly status reports developed by consultant project manager and the COT project manager have provided status reports to the executive steering committee members. <p><u>Comment:</u> This area can be improved. Specifically, key stakeholders that are not on the executive steering committee (City Manager and affected department directors) should be regularly advised of the project's status.</p>
<p>Contract with SPL Worldgroup, Inc.</p>	
<p>Project Management – SPL is providing professional project management services to coordinate activities and responsibilities under the contract, which includes attending planning and reporting meetings and coordinating and overseeing the City's responsibilities.</p>	<ul style="list-style-type: none"> ◆ On-going
<p>Phase I – Discovery (Project Scope) – reviewing the City business practices and procedures to provide a basis for SPL to analyze system functionality.</p>	<ul style="list-style-type: none"> √ Completed
<p>Phase II – Functional Gap Analysis and Modification Definition – identify the gaps between what the City has requested in a system and what is available in the PeopleSoft CIS software.</p>	<ul style="list-style-type: none"> √ Completed
<p>Phase III – Process Analysis – technical environment is established and software is installed, and project team begins examining functional capabilities based on specific business processes.</p>	<ul style="list-style-type: none"> √ Completed
<p>Phase IV – Implementation (including system modifications to the CIS package) – system is prepared for testing and acceptance in order to bring the products into live operation, based on strategies agreed upon during the process analysis phase.</p> <ul style="list-style-type: none"> ⇒ Document interface and report designs ⇒ Develop conversion design document ⇒ Develop acceptance test plans and quality assurance process ⇒ Finalize the software set up ⇒ Provide implementation support ⇒ Update and refine cutover and contingency plans 	<ul style="list-style-type: none"> ◆ In progress √ Completed <p><u>Comment:</u> Of the 25 modification designs approved in December 2000, one has been delayed until after “go live,” two have not been developed satisfactorily, and six are being tested. The development and testing of the modifications have been major causes for the project's delay.</p> <ul style="list-style-type: none"> ○ Yet to be developed <ul style="list-style-type: none"> ◆ In progress. Cannot be completed until the application software and all modifications are loaded on the production hardware. The production hardware is installed, but the application software is not scheduled to be loaded until December. Also, the modifications have not been completed. ◆ On-going ○ Yet to be developed
<p>Phase V – Acceptance – application and system testing is conducted in a controlled, orderly manner to verify that the new system will operate as required and software application is moved into the production environment.</p> <ul style="list-style-type: none"> ⇒ Develop software “cutover” (move into production) plan ⇒ Provide cutover support ⇒ Conduct interface testing ⇒ Provide training materials ⇒ Provide “Train the Trainer” training sessions 	<ul style="list-style-type: none"> ○ Yet to be developed ○ To be provided during cutover ◆ In progress, but some interfaces have not been completed ○ To be developed ○ Planned for December 2001

<p>Phase VI – Follow-up – assessing the overall operation of the new applications and identifying opportunities for improvement.</p> <ul style="list-style-type: none"> ⇒ Facilitate focus group review sessions with application user groups ⇒ Assist in writing follow-up report ⇒ Conduct follow-up training refresher workshops 	<p>TO BE SCHEDULED</p>
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Table Legend: ⇒ Sub component ◆ In Progress
 √ Completed Satisfactorily ○ Not Due Yet

In summary, we can provide assurances that: CIS has complied with City policies and procedures and contract requirements; and contract deliverables have been received and accepted before payment to the consultants is processed.

For management’s review and consideration, we have identified areas where further improvements can be made. These include: evaluating the steering committee’s role, membership, and authority; coordinating COT project-related tasks taking place outside the project team, such as marketing efforts, web transaction capability, and reporting environment; increasing communications regarding project status to key stakeholders in the City; developing and implementing a security plan prior to testing and training; and completing the development, testing, implementation, and documentation of all modifications to the application. As noted in the table, the development and testing of the modifications have been major causes for the project’s delay.

As of October 31, 2001, the project is approximately 65% complete; expenditures are within the amended budget (it was increased by \$1,374,789 in October 2001); and the original “go live” date (September 2001) that was revised in the prior report to November 2001, has now been revised to March 2002.

Communication of Significant Issues Identified as of October 31, 2001

Identifying and resolving significant issues is a normal activity for every project team. If the project team is unable to resolve an issue, then they are to educate the executive steering committee regarding the issue, recommend alternative solutions, and seek their guidance.

There were many issues identified by the project team that will impact the project’s success. They were able to resolve many of these issues, but there are some significant issues that still need to be resolved to ensure the successful implementation of the project.

The extent to which these or such other alternative resolution approaches are utilized by management will be addressed in our next report on the CIS implementation. These issues are listed at this time for information and for management’s further analysis and resolution.

In the following two tables, we are providing a listing of those significant issues that were identified in the first progress report (Table 2), as well as additionally identified issues since then (Table 3). The left column describes the significant issues and the right column provides management’s actions, the status as of October 31, 2001, and auditor comments (if applicable).

Table 2

Significant Issues Previously Identified (as of December 31, 2000)	Management Actions/Status (as of October 31, 2001)
Staffing Resources	
<p>There is a risk that this project will be delayed due to the lack of project management and functional business resources. The ISS project manager has been assigned other responsibilities that may cause an estimated 4-6 week delay in the CIS project. The City does not have excess available staff to fill in for Utility Services staff for them to be dedicated on the CIS project. While it is difficult to determine what the actual delay will be, the project will most likely face delays during the work intensive project tasks that lie ahead without these resources. Examples of the upcoming</p>	<p>Improvements have been made, in that:</p> <ul style="list-style-type: none"> √ COT Project Manager was replaced in April 2001. ◆ As of 10/15/01, 1) additional key staff was added to the project team; 2) the project manager and project team were committed to the project 100%, with only two exceptions; and 3) the operational positions left vacant by the project team were back-filled by other City employees.

<p>project tasks include: data cleansing and conversion, development of user and training materials, and training. Without adequate project management resources, the project could be delayed further.</p>	<p><u>Comment:</u> We continue to consider the staffing issue a high risk among all the system projects. The prior lack of dedicated project team members has been one of the major reasons for the project delay.</p>
<p>ISS does not currently have the needed PeopleSoft skill sets to be able to support the new applications being implemented in the City. In the past, the majority of employees' programming skills in the ISS were suitable to support mainframe applications. ISS applications staff must attain a high skill set in client/server and web applications to be able to support the PeopleSoft applications being implemented. Currently, the lack of staff skilled in this area is causing project delays in other system implementation projects. It can also affect performance and system availability after the applications are moved into production.</p>	<p>Δ There has been no significant change from the prior report. While ISS has provided training to the database administrators, and developed a training plan for each employee to define the areas in which employees must improve their skills, there still remains a shortage of ISS staff that has the needed skills to support the PeopleSoft applications.</p> <p>In November, two Business Systems Analyst positions became available and ISS will try to hire staff with the needed PeopleSoft skills.</p> <p><u>Comment:</u> We continue to consider the lack of technical skills a high risk among all the City system projects.</p>
<p>Plans have not been made to meet Customer Service staffing needs so that the customer service representatives (CSR) are able to receive the much-needed training on the new CIS. The CIS consultants highly recommend that the heavy CIS users will need at least 120 hours of training to be able to navigate through the new CIS to be able to perform their jobs. Customer service representatives are responsible to respond directly to customer inquiry and requests and must be able to perform their jobs efficiently when the new system becomes activated.</p>	<p>√ Utility management has a plan and funding in place that provides for backfilling with temporary staff so that all CSRs will be able to attend training on the new system, and it also provides for some additional staffing resources to help us serve customers during the period immediately following system cutover.</p>
<p>Software Management</p>	
<p>The City does not have an automated process to manage the changes made to the application software during the implementation or afterward. The manual process currently performed increases the risk that a change can be made without being documented. It is very difficult to manage changes when multiple programmers have access to and make changes to software. Undocumented changes can cause future problems when software versions and updates mistakenly over-write the wrong version of software. This issue is relevant to all client/server applications, including the PeopleSoft CIS, Human Resources, and Financials applications.</p>	<p>o No change from prior report. ISS continues to be aware of this concern and understands this is a client/server issue that must be addressed. The immaturity of the client/server change management software has limited ISS from selecting and implementing a solution to address this need. ISS has funding and will be researching a solution to manage the future versions and release changes of the software packages being obtained.</p> <p><u>Comment:</u> We continue to consider the lack of automated change management software a high risk among all the system projects.</p>
<p>System Functionality</p>	
<p>There may be duplication in system functionality and implementation efforts among concurrent system implementation projects, including CIS, Financials, and Technology Integration (outage, mobile workforce management, and call center applications). There are several cases where the system being considered contains functionality that currently exists in another City system. For example, the new CIS contains some call center, outage, and mobile workorder functionality. It also contains some functions available in the new Financials system, including billing, project management, and workorder functionality. While the existing systems' functionality may not meet the business process needs, it should be fully evaluated for its potential value before additional funds are expended.</p>	<p>◆ There has been some improvement in this area. ISS project managers have exhibited awareness of potential functionality duplication within City applications and have coordinated efforts with business areas to avoid duplication.</p> <p><u>Comment:</u> We continue to consider the potential for duplication of functionality among City applications a high risk among all the system projects.</p>

Table 3

Additional Significant Issues Identified as of October 31, 2001	Management Actions/Status
Outstanding Decisions	
<p>The standard billing/payment cycle in the new CIS system is different than the City's current billing/payment cycle. The decision has not been made to accept the billing/payment cycle provided in the system nor to modify the system. When the application was purchased, staff acknowledged that the billing cycle may need to be changed, and this issue had been discussed at various steering committee meetings since July 2000. This is a crucial decision for the City to make because of the impact on the customers and customer service offices. This decision impacts the: table configuration; billing and collection, and field services business processes and procedures; training materials; testing procedures; and meeting customer service staffing needs. The impact is that the implementation will be delayed one day for each day this decision remains undecided.</p>	<p>♦ The outstanding decision regarding the payment cycle has been resolved. The City Commission considered a proposed 35-day cycle at their December 12 meeting; a public hearing is set for January 23, 2002, prior to officially revising the utility ordinances to reflect this change.</p>
<p>The format for the utility bill needs to be finalized so that it meets the business needs of the affected areas. In February 2001, the executive steering committee approved a basic bill format. Since then, two issues have arisen and the final bill format has not been approved or designed in the new CIS. The bill format needs to be finalized so that it can be designed and tested.</p>	<p>♦ In November, utility managers received approval from the City Manager for the design of the utility bill graphics and the payment coupon. Work is continuing on the "look and feel" of the bill content, and the overall utility bill design task should be completed by mid-December. It is unclear at this time whether that delay will have a material impact on system testing.</p>
Staffing Resources	
<p>A single on-site consultant has limited the capability to provide the adequate technical resources to support the implementation efforts of 14 on the Project Team. At this point in the implementation process, the consultant relinquishes the lead role and now provides technical support to the COT project manager and project team. The consultant project manager is also the only technical resource provided. The project team needs additional technical assistance on-site to identify and correct application problems in a timely manner.</p>	<p>♦ This was identified as a critical issue during the consultant's quality assurance review in October 2001. Specifically, technical assistance was identified as needed to: 1) correct the outstanding modifications (eight modifications needed for "go live" are still outstanding); 2) provide general technical support to project team; 3) provide specific technical support for query and report development, and worklist and letter development.</p> <p>Since October 31, ISS management has been attempting to obtain contractual assistance, but have not been able to locate the appropriate person with the needed skill set at a reasonable cost.</p>
<p>There is a human capital risk, in that there is currently not a COT backup project management resource learning the CIS during the implementation to manage the CIS application, and the current project manager is approaching retirement. The current business project manager is planning to retire from the City in approximately two years. At this time, there is no plan for who will continue as project manager over the new CIS.</p>	<p>♦ The staffing resource concern related to knowledge base on the new CIS is changing. Management has recently replaced the project manager with an ISS project manager to assist the project sponsor in the final phase of implementation, so the retirement issue raised in the report has been minimized. Overall, some risk still exists relative to the knowledge base, and we are working to implement some strategies that will encourage development of CIS technical expertise in several staff sections.</p>
Security and Audit Trails	
<p>There are not adequate controls in place to protect the application configuration within the "production" environment during development. Before the City can implement the new CIS software application, tables must be configured with City-specific information that is based on City business processes, including (but not limited to): utility service</p>	<p>♦ The project team will be developing a test database in November. This version of the application will become the "production" environment, and security will be implemented so that access to the configuration tables will be limited to authorized ISS staff that will then enforce the change management</p>

<p>types; service rates and codes; and customer types. As table setups are completed, these should be “locked down,” so that only reviewed and approved changes can be made to the tables. Currently, there is a manual change process that is supposed to be followed, but no security is in place to prevent anyone from making any change to the tables. Therefore, there is an increased risk that the project could be delayed due to disruption caused by unapproved table changes.</p>	<p>process for the CIS project. In November, security was implemented to protect the production environment. Staff must follow a manual change process, and only authorized users are able to move changes into production. <u>Comment:</u> We consider the protection of the “production” environment to be a high risk.</p>
<p>Contrary to the City’s understanding, security cannot be implemented at the field level without advanced programming in the system. Because of the expertise required, there is an increased risk that application security will not be implemented at the desired level. In the current CIS application, transaction security is assigned at the panel, meaning that if a user can change one field on a panel, then he could change any field on the panel. The new CIS was to provide the capability to assign application security at the field level, meaning that a user can change one field on a panel, but would be able to see, and not change, other fields.</p>	<p>◆ Utility management is continuing to pursue this issue with our implementation partner (SPL). Current security plans are still developing, but among the options under consideration are some enhanced panel-level security measures that could offer sufficient protection of the system at “go live,” thereby allowing us to further develop the security protocols after the system has been implemented. Also, some additional PeopleSoft security protocols are under review that may help to resolve this issue. <u>Comment:</u> We consider the implementation of sound security to be a high risk.</p>
<p>Contrary to the City’s understanding, transaction auditing features cannot be fully activated without negatively affecting the application’s performance. In application software, auditing features provide a history of what transactions are conducted, by whom, and when. When the product was demonstrated, the City understood that auditing could be activated to record a history of any transaction, but it was not communicated that performance would be negatively affected. Because of this, there is an increased risk that there will not be an adequate audit trail of the transactions processed in the system. In turn, there is an increased risk that fraudulent transactions could be processed undetected in a timely manner.</p>	<p>◆ Utility management is continuing its discussions with the implementation partner (SPL) on this issue. At this time, we remain committed to our original understanding about the level of auditing that can be activated versus system performance. <u>Comment:</u> We consider the implementation of adequate audit trails to be a high risk.</p>
<p>Web and Telephone Customer Transactions</p>	
<p>It is not in the scope of the CIS project that the web transactions that are currently available via the City’s Utility Datamart will be ready when the new CIS goes live. Currently, ISS is in discussions with a local firm to develop the web interfaces needed to ensure that the current functionality available via the web and the telephone continue to be available when the new CIS goes live. However, as of October 31, 2001, there was not a scope of work defined nor a contract executed for this work to be performed.</p>	<p>◆ ISS management acknowledges the importance of having the web and telephone transactions working with the new CIS upon “go live.” ISS is working with a local technology firm to develop a re-programmed version of the Datamart that will be available to customers when the new CIS is implemented in the spring. At the November 28th City Commission meeting, the City Commission approved for ISS to contract with NCGi/Mainline, a local software and infrastructure company to reprogram the current on-line Datamart in order to continue providing Internet transactions to the City’s customers. <u>Comment:</u> We continue to consider providing the ability to conduct web transactions at “go live” a high risk. This is a non-project activity that should be addressed in the overall COT project management plan since the success of the project will be directly affected.</p>

Table Legend: ◆ Currently being addressed – in process ○ Not currently being addressed - Outstanding

In summary, nine significant issues have been identified since December 31, 2000. These issues are listed at this time for information and for management’s further analysis and resolution.

Resolving these identified issues will directly affect the quality of the implementation and/or the ability to complete the project before the projected March 2002 “go live” date.

Conclusion

This report has communicated the project progress and accomplishments, as well as the significant issues identified as of October 31, 2001. Our office will continue to provide assurance and consulting services throughout the life of this project. The objectives of our future reports will focus on the progress of the project's implementation activities and/or post-evaluation phase.

We would like to thank the CIS executive steering committee, project manager, consultants, project team, and other key stakeholders in the City for their cooperation and assistance during the development of this progress report.

Appointed Official Response

City Manager:

I would like to thank Auditing for their review and follow up of the Customer Information System (CIS) Project. The Customer Information System implementation is the foundation for our future integration technology initiatives. We understand the importance of a successful implementation and staff is working extremely hard to bring this system up.

I concur in general with the comments and recommendations in this progress report. We have made some significant changes in project management and focus recently in an effort to ensure a successful implementation. I believe that the changes to the steering committee will be instrumental in properly preparing the key user

groups to transition from our legacy CIS to the new system. We have acquired additional technical and functional resources to supplement the project team and broaden the capabilities of the combined team to implement this tool. A preliminary business impact analysis is scheduled for January 2002 that should give us valuable information about planning for the transition to the new CIS and the effect that transition will have on our employees and our customers. We have an extensive training and communications planning effort underway intended to minimize any impact on the level of customer service immediately following implementation. All these actions demonstrate the commitment of management and the project team to a quality implementation that provides benefits to our customers and to the users of the system.

Notwithstanding these efforts, the project has many challenges. Some of them have been identified in this progress report, and I am committed to addressing these issues in a way that provides the best solution for our customers while not placing undue burdens on the city departments responsible to serve our utility customers. We acknowledge that there are skill gaps that must be addressed, and that some implementation strategies are yet to be fully defined. However, I am confident that the project can be implemented successfully. I look forward to continued assistance from Auditing during this final phase of implementation as we work together to replace the legacy CIS with a system that provides us the flexibility and functionality to remain the preferred provider of utility services in an increasingly competitive market.

Copies of this progress report may be obtained at the City Auditor's web site (<http://talgov.com/cityth/auditing/index.html>) or via request by telephone (850 / 891-8397), by FAX (850 / 891-0912), by mail or in person (City Auditor, 300 S. Adams Street, Mail Box A-22, Tallahassee, FL 32301-1731), or by e-mail (dooleym@talgov.com).

Customer Information System Project Progress Audit is being conducted by:
Beth Breier, CPA, CISA, Senior IT Auditor
Sam M. McCall, CPA, CIA, CGFM, City Auditor