

Project Progress Report #3

As of March 31, 2004



“Public Safety Systems Integration Implementation Phase”

Report #0411

April 29, 2004

Summary

The City is currently in the process of replacing and enhancing key information technology applications and related technologies utilized by the Police and Fire departments, including the Computer Aided Dispatch (CAD) system, the Law Records Management System (Law RMS), Fire Records Management System (Fire RMS) and Premier Mobile Data Computers (MDC) system. These projects are combined into one major information technology (IT) project called the Public Safety Systems Integration (PSSI) project to reflect the wide range of applications and technology that it includes.

This report is the third in a series on the PSSI project. The purpose of this report is to:

- Communicate project status and accomplishments as of March 31, 2004;
- Provide assurance as to PSSI project compliance with City policies and procedures and contract requirements;
- Provide an independent assessment of risk management and project controls; and
- Communicate the status of significant issues identified as of March 31, 2004.

Status and Accomplishments of the PSSI Project

As of March 31, 2004:

- The total project is approximately 60% completed.
- The project has expended \$4,697,498 (53%) of the total budget of \$8,945,484.
- CAD system has been implemented.
- Premier MDC system has been implemented in Police. Overall, the implementation was successful, however there was a problem with the Premier MDC/CAD interface that the vendor applied immediate steps to correct and is working toward a permanent solution.

- Fire RMS implementation went live on April 1, 2004. It had been delayed to add Advance Life Support (ALS) features to the application configuration.
- Premier MDC implementation in Fire is in progress.
- Law RMS implementation has been changed to phase in system modules incrementally, resulting in a revised overall completion date of summer 2005.
- The estimated project completion date has been revised from fall 2004 to summer 2005.

Compliance with City Policies and Procedures and Assessment of Risk Management and Project Controls

Based on our review, we can provide assurances that risks and project controls are being addressed and that project staff has substantially complied with City policies and procedures and contract requirements. Areas for improvement include:

- Communication by increasing the reporting frequency of project status to team members.
- Procurement policies and procedures to provide consistency when obtaining goods and services.
- Project management by updating the vendor project plan and a City project plan that includes an appropriate level of detail to effectively manage City tasks and resources.
- Formal acceptance testing by completing all testing prior to the systems being moved into production.
- Storage of system documentation by identification of a consistent method to ensure that it is available and up-to-date.
- Agreement of each department's responsibilities to maintain and support the implemented systems.

- Application change management in the functional business units by developing formal change management processes along with appropriate access and monitoring controls to ensure that unauthorized changes are not made to the operating systems.

Previously Identified Issues that Remain Unresolved

Table 2 in this report provides the status of previously identified issues. While the project team was able to resolve many issues throughout the life of the project, two issues continue to remain outstanding that can impact the continued implementation and/or functioning of the PSSI applications. These include:

- The new CAD/RMS and peripheral systems may require additional support staff.
- Backup and recovery processes had not been adequately defined for the newly implemented PSSI systems.

New Significant Issues Identified as of March 31, 2004

Table 3 summarizes the status of additional significant issues that have been identified since the prior report (#0302, October 2002) and need to be resolved as the PSSI project progresses. These issues include:

- The project has been delayed due to a change in vendor project managers and the lack of vendor software expertise during the configuration of the Law RMS application.
- Project staff need to determine how the City's Electronic Document Management System will be integrated with the Law RMS to store and retrieve electronic documents and images.
- The new Police MDC application will not be accepted until the permanent resolution for the problem of officers being intermittently disconnected while in the field is verified.
- The implementation of the Fire MDCs had been delayed due to the problem encountered with the Police MDCs.
- The new Premier MDC software will not work on the currently owned Police and Fire MW520 mobile computers as expected.
- The new Law RMS application may not include the property and evidence features as represented by the vendor and expected by the Police department. If not, the vendor will be responsible for obtaining and implementing an alternative application to provide the needed functionality.

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 planning, acquisition, and implementation phases of the PSSI Project. Two prior reports were provided during the implementation phase (Report #0103, November 2000, and Report #0302, October 2002).

Our objectives for this report are to:

- Report on the project status and accomplishments as of March 31, 2004;
- Determine compliance with City policies and procedures and contract requirements since the last audit report;
- Provide an independent assessment of risk management and project controls; and
- Communicate the significant issues impacting the project that need to be resolved.

This report focuses on the implementation phase of the project and appropriate initial post-implementation phase activities for those systems that have been implemented. Providing a progress report during the middle of the implementation process allows management to address the identified issues in a timely and less costly manner.

To achieve our objectives, we participated in an advisory capacity on the project team and executive steering committee; reviewed key documentation, including project charter, project management plan, monthly status reports, technical and user guides, vendor contracts and test documentation; and conducted interviews with project team, consultants, key business staff, and executive steering committee members. 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.

The project team completed the planning and acquisition phases and is in the implementation phase of most applications and the initial post-implementation phase for the Computer Aided Dispatch system.

Current Public Safety Systems

Public safety consists of operations conducted in the Police department for the citizens of the City of Tallahassee, as well as the Fire department operations for the citizens of the City of Tallahassee and Leon County. These operations utilize multiple information systems and manual processes to track and retrieve data and manage their daily activities, including, but not limited to:

- recording calls for service;
- dispatching officers, firefighters, and other resources;
- conducting investigations;
- managing property and evidence; and
- managing police and fire incident and case records.

Public Safety Systems Replacement Project

The PSSI project was initiated in September 1998 with a requested budget of \$2.8 million. Management anticipated that this amount would need to be increased in future years for the total project to be implemented. Y2K (Year 2000) related issues delayed the project until November 1999 when the project resumed. The goal of the

PSSI project is to improve the business processes relating to dispatching and records management for both the Police and Fire departments through the replacement and enhancement of existing software and hardware and integration of key systems.

A project team and executive steering committee had been established to manage and to oversee the project respectively. The project team, led by an Information Systems Services (ISS) Project Manager, is comprised of members from the Police department, Fire department, and ISS. The executive steering committee is comprised of the Police and Fire Chiefs, the Chief Information Systems Officer, the Director of Management & Administration, and the Assistant City Manager for Safety & Neighborhood Services.

The main information systems involved in this project include:

Computer Aided Dispatch (CAD). This system provides the capability for communications officers to monitor all activities associated with a call for service and to dispatch and monitor police and fire resources.

Automatic Vehicle Location (AVL). An AVL is a global positioning system attached to each vehicle that continuously reports information to the CAD, such as vehicle location, speed, how long vehicle is stationary, etc. This will assist in determining the closest available unit for calls of service and provide a log file of this vehicle location and movement information.

Advanced Tactical Mapping (ATM). This mapping application supplements the CAD system by providing dispatchers the ability to calculate the shortest path between an emergency response vehicle and an incident. It can be updated to consider road closures, construction, or special conditions that can affect travel time. In addition, Fire plans to utilize ATM software to display building schematics to assist emergency personnel at an incident scene.

Records Management Systems (RMS). There are two separate RMSs, Police (Law RMS) and Fire (Fire RMS). An RMS serves as a repository for all information about their respective public safety operations, including persons, locations, vehicles, incidents, and cases. Key modules utilized for Police include: incident and crime reporting and arrest; investigative case management; property and evidence; pawn shop; and gang-related activities. Key modules utilized for Fire include: incident reporting, advance life saving activities, and arson investigation.

Electronic Report Writing System (Police only) – This application was implemented during 2002 but continues to be enhanced as more reports are developed and the transmission of reports improves. This system enables officers to electronically enter and submit selected reports for review and approval. After final approval, the reports must still be printed and then manually input (i.e., typed) into the RMS. When the Law RMS implementation is completed, the goal is for these reports to be electronically uploaded into the Law RMS so that the information is immediately accessible by officers. This eliminates the 6-8 week delay that occurs while the reports are manually entered into the Law RMS.

Premier Mobile Data Computers (MDCs). An MDC is the tool in the vehicles that allows police officers and firefighters to communicate and transmit data to/from:

- CAD;
- Leon County's Justice Information System (JIS);
- Law RMS and Fire RMS (in the near future);
- Florida Crime Information Center (FCIC) and National Crime Information Center (NCIC) via the Florida Department of Law Enforcement (FDLE); and
- Department of Highway Safety and Motor Vehicles (DHSMV).

Wireless Data Transmission. The current primary data distribution method for public safety information is the 800 MHz Data System. This provides 100% coverage of the city for day-to-day operations 24 hours a day, 7 days a week, 365 days a year. A secondary data distribution method, Wireless Local Area Network (WLAN), will be made available at various locations throughout the city for public safety. This will provide an alternative distribution method for transmitting large volumes of data, including: software upgrades, pictures, maps, reports, daily check on and roll call information. Just as security has been implemented in the 800 MHz Data System components, security will also be implemented to adequately protect public safety data transmissions over wireless networks from unauthorized access.

Imaging. The Police department is moving toward storing and retrieving documentation electronically.

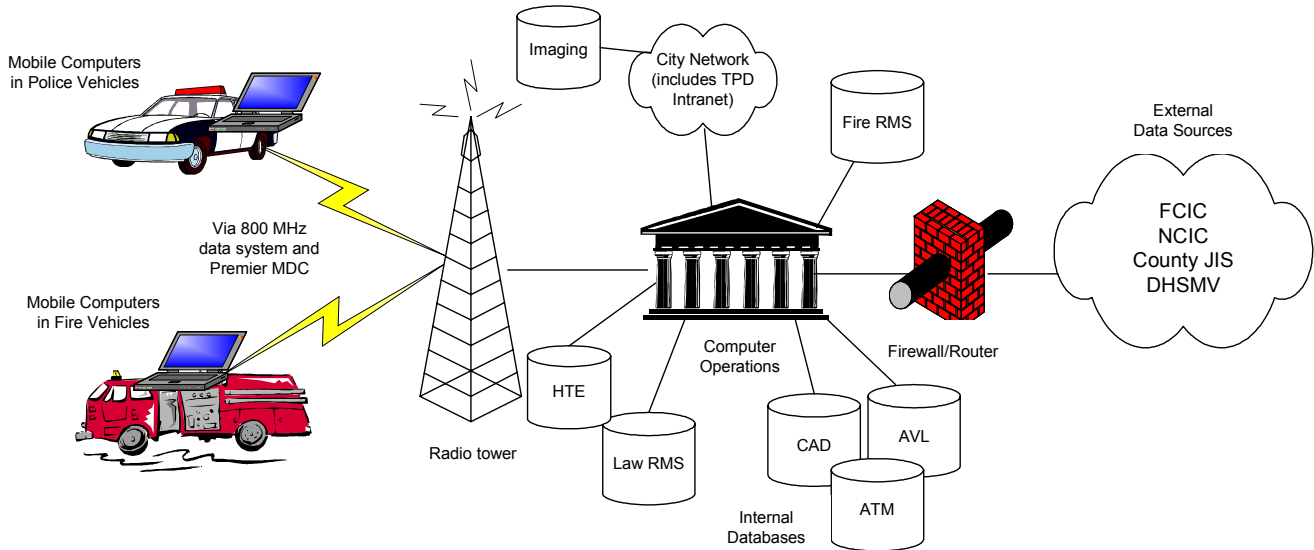
The City Treasurer-Clerk's Office maintains an Electronic Document Management System that the Police department is planning to utilize to store their documentation (including supplemental reports, photos, and other scanned documents). This will eliminate most of the physical document file storage and will integrate with the Law RMS, tying cases and incidents to related stored documents.

The new applications and infrastructure are planned to enhance public safety operations in many areas including:

- Adding data communication and transmission between the dispatcher and police and fire officers.
- Increasing the capability to track and utilize fire activity, equipment, and employee data, such as fire inspections, fire investigations, inventory, and staffing.
- Adding Law RMS modules to assist in managing property and evidence, pawnshop activities, and crime analysis. This will replace many smaller individual information systems or manual processes.
- Adding geographic mapping functionality (GIS) for dispatch purposes, determining travel routes, trend analysis and crime analysis reporting.
- Improving the capability to easily extract and analyze police and fire information to assist in investigations and analyses.
- Increasing the data available to police officers and firefighters in their vehicles, including building schematics at fire incident scenes.
- Enhancing electronic reporting capabilities, including number of reports, transmission of reports, and electronically uploading the prepared reports into the Law RMS and eliminating many current manual processes.
- Integration of the information systems to streamline the data sources and increase data integrity.

Figure 1 provides an illustration of how the tools mentioned above will work together to assist police officers and firefighters.

Figure 1
Public Safety personnel in their vehicles will be able to request and receive information via mobile computers



Project Status

The PSSI project team completed the planning and acquisition phases and is currently in the implementation phase. Exhibit 1 shows the percentage of completion for each of the major subsystems in the PSSI Project. Overall, the project is approximately 60% completed. The projected completion date has been revised from fall 2004 to summer 2005.

Exhibit 1

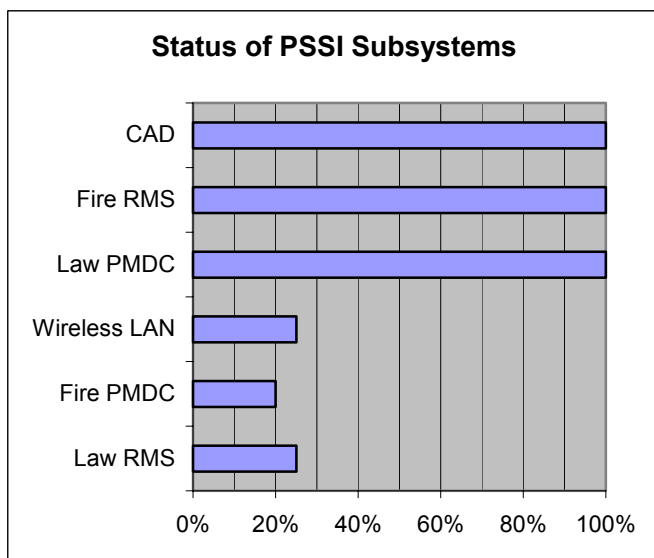


Exhibit 2 provides the major milestones in the project by date.

Exhibit 2

Month/Year	Significant Project Milestone
Sept. 1998	Project initiated.
Jan. – Nov. 1999	Work was suspended to ensure that all City systems were Year 2000 compliant.
Feb. 2000	Gartner Group (formerly the Warner Group) was selected to help the City plan and prepare for acquiring a new CAD/RMS system.
Mar. 2001	RFP was published.
Jul. 2001	ISS project manager was reassigned and replaced by an interim project manager.
Oct. 2001	Project Team completed evaluation of proposals.
Nov. 2001	A new ISS project manager was hired for the PSSI project.
Dec. 2001	City Commission authorized negotiation and execution of contract with Motorola.
Mar. 2002	Contract negotiations completed with Motorola. Project Team and vendor established a 45-day window to refine the Statement of Work or nullify the contract.

Jun. 2002	Extended acceptance of Statement of Work and contract commenced. Project Kickoff occurred. Started CAD configuration design.
Sept. 2002	City Commission approved a \$5.58 million increase in the project budget to be allocated over fiscal years 2003 and 2004. Expect to have Statement of Work finalized.
Mar. 2003	Motorola CAD went into production. Started Fire RMS configuration.
Jun. 2003	Police Premier MDC went into production.
Oct. 2003	Vendor project manager resigned and a new vendor project manager was assigned.
Apr. 2004	Fire RMS went live on April 1. Estimated two Law RMS modules (Incidents and Uniform Crime Report) to go live.
TBA	Fire Premier MDC to go live.
Jun. 2005	Estimated Law RMS to complete go live of all system modules.

In addition, approximately \$565,000 was added to the budget from a smaller related project that was combined into the PSSI project and proceeds from a surety settlement involving the prior CAD/RMS system.

The City has contracted with Printrak, Inc., (acquired by Motorola, Inc., in 2000) to implement the majority of the project software and hardware (including CAD, Fire RMS, Law RMS, mobile data computing software) for the PSSI project for a total cost of \$4,646,547, 52% of the total project budget of \$8,945,484.

Outside the Motorola/Printrak contract, the PSSI project budget includes: pre-acquisition planning costs; Year 2000 (Y2K) upgrade costs; computer infrastructure improvement costs (800 MHz data system, wireless LAN, fire station connectivity, mobile data computers and computer operations

room); imaging interface with Law RMS; training related expenses; Fire staff scheduling application (Telestaff); employee overtime, and project and training room costs.

Each application and related computer infrastructure improvement is being implemented independently (i.e., first, CAD; second, Police MDCs; third, Fire MDCs; fourth, Fire RMS, fifth, Law RMS). The estimated project completion date has been revised to summer 2005.

As of March 31, 2004, \$4,697,498 (53%) had been expended of the total project budget. The project budget and expenditures as of March 31, 2004, are shown below in Exhibit 3.

**Exhibit 3
PSSI Project Budget and Expenditures**

Category	Expenditures as of 3/31/04
Personnel Costs (temp, overtime, etc.) **	\$47,557
Training & Travel	\$2,557
Software	\$1,522,313
Computer Equipment	\$52,548
Professional/Contractual Services	\$54,811
Project/Training Rooms	\$325,545
Office Supplies/Equipment	\$2,483,269
Reproduction	\$154,326
Other (unclassified supplies, food, direct overhead)	\$54,572
Total Expenditures	\$4,697,498
Total Budget	\$8,945,484
% of Budget Expended	53%

**Note: Personnel costs do not include regular salaries of City employees.

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 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 March 31, 2004, and auditor comments (if applicable). The components are separated as to the source of the requirement.

Table 1

Planning and Acquisition Components	Status/Comments
Administrative Policies & Procedures (APP) #630, "Internal Control Guidelines"	
<p>There is direct activity management – including clear communication regarding team members' roles and responsibilities, staff accountability, approving work at critical points.</p>	<p>◆ This area can be improved. Project manager has communicated to project team their roles and responsibilities, project procurement processes, and is facilitating approvals of deliverables and purchases with functional leads. The project team had not been meeting on a regular basis.</p> <p><u>Audit Comment:</u> Communication can be improved by increasing the reporting frequency of project status to team members.</p>
<p>Management compares actual performance (i.e., expenditures, funding) to budgets and forecasts, and tracks major initiatives to measure the extent to which targets are being reached.</p>	<p>√ Project manager has exhibited a strong attention to detail regarding budgets, expenditures, and monitoring target progress.</p>
<p>Transactions and events relating to processing deliverables and contract payments are properly executed, classified, and recorded in a timely manner.</p>	<p>◆ Improvements can be made in this area. We tested 21 (9%) of the financial transactions between September 1, 2002, and October 31, 2003, and found that while most transactions complied with City policies and procedures, we noted the following three exceptions:</p> <ul style="list-style-type: none"> ⇒ Police and ISS departments did not comply with the state contract or document as a sole source purchase when procuring information system hardware, in that they did not obtain the required three quotes for the computer supplies they purchased. ⇒ Police department and Procurement Services utilized an expired contract for engineering services instead of obtaining the required three quotes for services greater than \$1,000. ⇒ A travel expense form for a Fire employee did not include all travel expenses and was approved by another department instead of Fire management. <p><u>Audit Comment:</u> While most transactions complied with City policies and procedures, there is room for improvement.</p>
<p>On-going monitoring should be performed to ensure that employees, in carrying out their regular activities, obtain evidence as to whether the system of internal control is continuing to function.</p>	<p>◆ It is an on-going process for the project manager to ensure that City policies and procedures and contract requirements are being followed.</p>
APP #802, "IT Acquisition Policy"	
<p>Management oversight:</p> <ul style="list-style-type: none"> ⇒ 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. 	<ul style="list-style-type: none"> √ There is an executive steering committee comprised of the Assistant City Manager for Safety & Neighborhood Services, Director of Management & Administration, Chief Information Systems Officer, Police Chief, and Fire Chief. √ Periodic meetings are held with the executive steering committee, and members expressed their satisfaction with the amount and quality of information provided to them regarding project status.

<p>Project Management Plan (PMP):</p> <ul style="list-style-type: none"> ⇒ A project management plan (PMP) is utilized to manage the project. ⇒ The PMP is continually updated as necessary. 	<ul style="list-style-type: none"> ◆ This area can be improved. In place of a PMP, there is a detailed project schedule that is managed by the vendor project manager; however, it is out of date and needs to be updated. <p>In addition, while the detailed schedule identifies tasks that are to be completed by the City, the schedule is not at the detail level that would allow the City project manager to manage City resources effectively and efficiently.</p> <p><u>Audit Comment:</u> Project management can be improved by updating the project schedule and including an appropriate level of detail to effectively manage City tasks and resources.</p>
<p>Quarterly reports are submitted to the ISS steering committee (also enables the ISS steering committee to “review progress of projects”) for responsibilities stated in APP #402.</p>	<ul style="list-style-type: none"> √ The ISS steering committee receives updates on major IT projects during their quarterly meetings. In addition, reports have been provided to the PSSI executive steering committee, which is the monitoring committee for this project.
<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) ⇒ Training (training strategy, plan with goals and objectives, content, schedule, etc.) ⇒ System documentation (technical manual of how the system is set up, including, but not limited to, tables, records, fields, data definitions, forms, queries, reports) ⇒ “Go Live” - move software into production (plan, methodology, controls, contingency plan) ⇒ Security (security plan, including defined security roles, classes, and groups) 	<ul style="list-style-type: none"> √ To date, there have been no modifications to the application systems. The only system changes made were related to Premier MDC and Law RMS hardware components, and there were proper change orders processed to document the changes. ◆ The data conversion process is in progress. To date, there is a plan, the methodology is being developed, and preliminary work is being conducted. ◆ This area has been improved. Formal Acceptance Testing for the CAD system was not completed prior to go live activities. For the systems implemented after CAD, there is evidence to support that the formal acceptance testing was properly conducted prior to go live for Fire RMS but not for the Premier MDC. <p><u>Audit Comment:</u> We recommend that formal acceptance testing for all remaining systems in this project be completed prior to the system being moved into production.</p> <ul style="list-style-type: none"> √ For the modules implemented, there appear to be adequate processes to ensure that the software is installed at all appropriate locations. √ For the modules implemented, there appears to be adequate user documentation. √ For the modules implemented, there appears to have been adequate user training. √ For the modules implemented, there appears to be adequate system documentation. √ For CAD and Premier MDC applications, there were cutover plans that included the methodology, persons involved and their tasks, and a contingency plan. √ Security set up completed for Premier MDC, and audit testing indicated that only active employees had logins to the system.

	<ul style="list-style-type: none"> ◆ Security set up for CAD complete, but audit testing indicated that the process for deleting terminated employees needs improvement. ◆ Security set up for Law and Fire RMS is in process.
<p>Information Systems Services Policy (ISS) #200.010, “Project Management”</p>	
<p>ISS Project Management involves applying methodology and procedures by which work and resources are organized, prioritized, assigned, scheduled, and tracked. Specific activities include:</p>	
<ul style="list-style-type: none"> ⇒ Measuring project work to evaluate the success of a project and to refine work procedures. ⇒ Develop a joint agreement with the functional leads as to what criteria must be met to signal the completion of each phase of the project. ⇒ Maintaining system design documentation of sufficient detail such that the process by which the project deliverables are generated can be duplicated. ⇒ Maintain adequate project history information. ⇒ Measuring, evaluating, reporting, and communicating on task activities, including regular project status meetings with functional leads. ⇒ Service Level Agreement (Roles and Responsibilities Document). This is a written and approved understanding between the business units and ISS defining the workloads and production objectives establishing the commitment of each entity. 	<ul style="list-style-type: none"> √ Project manager is utilizing the project plan and budget to continually evaluate the project status and level of success. √ Project manager and functional leads have developed a process for accepting and approving deliverables. ◆ This is in progress and is being accumulated by the functional systems administrators (i.e., not ISS). <u>Audit Comment:</u> Since this is typically performed by ISS staff, there is a risk that the functional systems administrators will not keep this documentation complete and up-to-date. √ Project manager maintains electronic documentation in a dedicated network folder and all related documentation in project notebooks. ◆ These activities are in progress as the project continues, but this is also an area that can be improved during the remainder of this project. <u>Audit Comment:</u> The project manager has not been holding regularly scheduled project meetings to update project team on status, issues, successes, etc. We recommend that more regular meetings be held to improve communications with project team members. ○ This has not been done. There is a project charter that was approved at the beginning of the project, but it does not outline each entity’s responsibilities for the implemented systems. <u>Audit Comment:</u> We recommend that a written understanding regarding responsibilities and expectations be developed and approved by ISS and affected functional business owners.
<p>ISS Policy #250.010, “Change Management”</p>	
<p>The purpose of this policy is to:</p> <ol style="list-style-type: none"> 1) Provide for a consistent applied change management process to plan, coordinate, implement, and measure changes to hardware and software environments. 2) Ensure that changes are made with minimal disruption, and support the efficient and prompt handling of all authorized changes. 3) Ensure that all changes are consistent with business and technical plans and strategies. 	<ul style="list-style-type: none"> ◆ This area can be improved. System responsibilities are split between ISS and the functional business owners. ISS has a change management policy in place, and it is the responsibility of the project manager to ensure it is working effectively. However, the functional business owners have not traditionally followed ISS policies and procedure, and they do not have a formal change management process documented and monitored. <u>Audit Comment:</u> We recommend that each functional business owner develop formal change management processes and implement appropriate access and monitoring controls to ensure that only authorized and approved changes are made to the implemented systems and applications.

Motorola Contract Milestones	
Contract Signing	√ Completed and accepted.
Completion of Scope of Work definitions	√ Completed and accepted.
CAD Subsystem	
⇒ CAD Server delivery and installation	√ Completed and accepted.
⇒ AVL Server installation	√ Completed and accepted.
⇒ OpenQuery Server installation	√ Completed and accepted.
⇒ DSS/UDT, and Business Intelligent (BI) Broker Server installation	√ DSS/UDT for CAD is completed and accepted.
⇒ Draft Geofile Load	√ Completed and accepted.
⇒ Completion of CAD Train the Trainer training	√ Completed and accepted.
⇒ CAD Subsystem Go Live	√ Completed and accepted. Subsystem went "live" on March 26, 2003.
⇒ CAD Subsystem Acceptance	√ Completed and accepted.
Law RMS Subsystem	
⇒ Law RMS Base Server installation	√ Completed and accepted.
⇒ Completion of Law RMS Train the Trainer training	◆ In progress.
⇒ Law RMS DSS Server installation	√ Completed and accepted.
⇒ Law RMS Subsystem Go Live	○ Estimated to start phased-in implementation of system modules in April 2004 and complete in summer 2005.
⇒ Law RMS Subsystem Acceptance	○ Estimated to occur after a successful Go Live.
Mobile Computing Subsystem	
⇒ Message Switch Server installation	√ Completed and accepted.
⇒ Mobile Laptop Delivery	√ Completed and accepted.
⇒ Police MDC Subsystem Go Live	√ Completed and accepted.
⇒ Police System Acceptance	◆ Partially completed. One problem with the interface between the CAD and Premier MDC applications was holding up final acceptance of the system. The vendor provided a solution, and Police is verifying that it is working appropriately. Acceptance is anticipated to take place in April 2004.
⇒ Fire MDC Subsystem Go Live	◆ The Fire Premier MDC implementation resumed in April 2004. It had been delayed due to the above problem encountered by Police.
⇒ Fire MDC Subsystem Acceptance	○ Estimated to occur after a successful Go Live.
Fire RMS Subsystem	
⇒ Fire RMS Server installation	√ Completed and accepted.
⇒ Fire RMS Training Completion (includes system administrator and user training)	√ Completed and accepted.
⇒ Fire RMS Subsystem Go Live	√ Fire RMS went live on April 1, 2004.
⇒ Fire RMS Subsystem Acceptance	◆ In progress. This is scheduled to occur after a successful 60-day acceptance period.
Final Complete System Acceptance	○ Pending successful completion of all subsystems.

Table Legend:



Sub component



Completed Satisfactorily

◆ In Progress



Not completed

In summary, we can provide assurances, with the exceptions noted above in Table 1, that the PSSI project has complied with applicable City policies and procedures, contract requirements, and contract deliverables. For management's review and consideration, we have identified areas where further improvements can be made during the remainder of the PSSI project. These include:

- Communication can be improved by increasing the reporting frequency of project status to team members.
- Improvements can be made by consistently complying with City policies and procedures when procuring goods and services.
- Project management can be improved by updating the vendor project plan and including an appropriate level of detail to effectively manage City tasks and resources.
- A consistent method of storing system documentation should be employed to ensure that it is available and up-to-date.
- Formal acceptance testing for all remaining systems in this project should be completed prior to the system being moved into production.
- An agreement should be developed and approved by each department to document the understanding of responsibilities of ISS and functional owners to maintain and support the systems.
- Functional business owners should develop formal change management processes along

with appropriate access and monitoring controls to ensure that unauthorized changes are not made to the operating systems.

Status of Significant Issues Identified During Prior Audits

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

There have been 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 PSSI project. These issues are listed at this time for information and for management's further analysis and resolution.

Table 2 provides the status of those unresolved significant issues that were identified in the prior progress reports. The left column describes the significant issues, and the right column provides management's actions, the status as of March 31, 2004, and auditor comments (if applicable).

Table 2

Significant Unresolved Issues Previously Identified (as of August 31, 2002)	Management Actions/Status (as of March 31, 2004)
Data	
<p>The conversion of data from the current system into a new system needs to be evaluated. [November 2000] There is a large amount of data in the current system that will need to be accessible for many years. In general, when upgrading computer systems, data conversion is problematic and expensive. The consultant has recommended that the current system be maintained and operated until the existing data is outdated.</p>	<p>√ To date, the project team: a) is in the process of identifying which data fields to convert; b) is planning to convert the identified data from 1994 to present; and c) Motorola has subcontracted out the data conversion efforts to Technology Consultants, Inc., who has provided a plan and worksheets to the project team. There are two parts to the data conversion process: converting data from the electronic report system to the Law RMS system and from the old legacy RMS to the new Law RMS.</p>
Infrastructure	
<p>Previously, it was not known whether the data portion of the 800 MHz data system was adequate to meet the needs of the planned CAD/RMS. [November 2000] Other departments (internal and external to the City) and projects were also planning to utilize the 800 MHz data system. Components of the 800 MHz data infrastructure may not have been adequate to accommodate the increased usage generated by the planned CAD/RMS.</p>	<p>√ ISS Management has determined that the upgrades and additions made to the 800 MHz data system will adequately meet the needs of the systems in the PSSI project. To date, the City has acquired a total of seven data channels, five of which will ultimately be used by public safety, and ISS has obtained system analyses by Motorola to assess the adequacy of the 800 MHz data system to meet current public safety needs and potential additional uses.</p>

	<p>Police and Fire departments are the primary users of the 800 MHz data system and are concerned that the current infrastructure may be negatively impacted by additional uses in other departments. They support conducting periodic usage analyses after new applications or equipment are added to the system to ensure that public safety needs are met in the 800 MHz data system.</p> <p><u>Audit Comment:</u> There is not agreement among City departments regarding the adequacy of the 800 MHz data system to meet the planned needs of the PSSI project public safety uses or of other City departments.</p>
<p>There is no overall plan for the management of future usage and maintenance of the 800 MHz data system. [November 2000] There were no plans for increased City usage of the 800 MHz data system, and there was no management oversight committee (MOC) to manage this growth. The existing 800 MHz MOC, which includes the Leon County Sheriff, provided oversight to the voice portion of the 800 MHz system only.</p> <p>While this issue is not directly the responsibility of the PSSI project, it can impact the project directly. For this reason, it was addressed in previous PSSI Project Progress Audit Reports and is addressed in this report.</p>	<p>√ The City has taken the following actions toward managing the City's 800 MHz data system:</p> <ul style="list-style-type: none"> ⇒ A City MOC for the 800 MHz data system was created in June 2003 to manage the system and plan for any anticipated increased usage. The MOC members include of the Fire and Police Chiefs, the Chief Information Systems Officer (CISO), the Assistant City Managers for Safety and Neighborhood Services, Utility Services, and Development and Transportation Services. ⇒ The ISS Steering Committee is now responsible for approving departments' use of wireless technology and its inclusion in IT capital projects. ⇒ Individual project managers are responsible for communicating project needs to the CISO so that they can be communicated to the appropriate committee for planning and/or approval. <p><u>Auditor Comment:</u> We continue to consider the City's plans for utilizing and managing wireless technologies to be important to ensure that the technologies chosen work in conjunction with one another and do not duplicate or clash. We recommend that processes be put in place to ensure that these individual committees adequately communicate so that each committee can consider the activities of the other when making key decisions that impact City operations.</p>
<p>Network security needed improvement. [November 2000] In 2000, the City was in the process of employing new technologies to manage public safety communications and data transmission and to enhance utility dispatching operations. An internal audit of logical security of the City's LAN and subsequent vulnerability assessment of the system architecture identified areas for improvement, including: develop and implement sound security policies and procedures; actively monitor the network for unauthorized usage; assign the responsibility of security; and ensure that there is a proper separation of duties in that there is not a separate person(s) monitoring/overseeing information security.</p>	<p>√ Many improvements have been made to enhance the security of the City's network, including:</p> <ul style="list-style-type: none"> ⇒ Information security policies and procedures have been developed, distributed and implemented. ⇒ An information security group has been assigned the responsibility to develop standard operating procedures for implementing security activities. ⇒ Software and procedures were put in place to periodically identify all modems in the City. ⇒ ISS segmented the City's network to improve security and functionality. ⇒ A WLAN security plan has been developed. <p>In addition, the computing environment designed and implemented within the PSSI project was developed to meet the Florida Department of Law Enforcement information system security standards. The City received written confirmation in March 2004, to verify that we comply with their security requirements.</p>

<p>The new computing environments being implemented have inherent information security risks, including wireless LANs and mobile computing and will need to be addressed. [October 2002] Technologies that make information available to users across air/radio waves are more vulnerable to being accessed by unauthorized persons.</p>	<p>√ ISS has implemented authentication controls and other security measures to the various computing environments being utilized in this project (e.g., network, 800 MHz data, wireless LAN) to provide reasonable assurances that the data is adequately protected.</p> <p><u>Auditor Comment:</u> Due to the inherent risk associated with advanced information technology, we continue to consider the IT security a high risk in this project and recommend that the City continue to work with the Florida Department of Law Enforcement to meet state security requirements.</p>
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Staffing and Training

<p>The new CAD/RMS and peripheral systems may require additional support staff. [November 2000] Prior to CAD and Premier MDC installations, support staff were working overtime each month to support the existing systems. The management of the new systems, including 15 additional servers, new Police MDCs and Fire MDCs, new software applications and interfaces, has increased the information systems related workloads for the Police and Fire departments.</p>	<p>♦ While staffing has been increased, this remains a potential issue. Progress has been made in that the Police department reclassified three positions to support the new CAD/RMS systems, including: a CAD systems administrator, MDC technician, and applications training instructor; and Fire reclassified two positions to support the Fire RMS, Telestaff, and MDC applications. Police and Fire management still feel that they do not have adequate staffing to maintain and support the new information systems being implemented in a 24 hours/day, 7 days/week, 365 days/year operation.</p> <p><u>Auditor Comment:</u> During an IT implementation project, it is common for staff to work overtime in order to complete project work and their regularly assigned duties. Therefore, it is difficult to determine whether current overtime is attributable to the increased system components or project activities. An assessment should be conducted to determine if there is adequate staff to support and maintain the new PSSI information systems.</p>
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Integration

<p>The integration between the CAD and Tallahassee Memorial Hospital ambulance dispatch software was not possible due to incompatible software. [October 2002] This issue was associated with dispatching resources between the police and hospital ambulance dispatch staff prior to Leon County assuming responsibility for ambulance services.</p>	<p>√ This issue was resolved when the hospital discontinued providing ambulance services in Leon County.</p>
<p>The integration between the CAD and the Fire Department pagers was not possible with the current paging company. [October 2002] The original RFP required the capability to automatically page Fire management personnel when a fire call for service is dispatched.</p>	<p>√ The Fire department identified an alternative solution to resolve this issue.</p>

Backup and Recovery

<p>Backup and recovery processes had not been adequately defined for the newly implemented PSSI systems. [October 2002] Most backup and recovery operations are the responsibility of ISS staff; however, the CAD/RMS servers are currently being backed up and restored by Police Systems Administrators. All servers will be housed in a computer room at the Police station. Previously, it had not been determined who would be responsible for the backup and recovery operations or where the equipment and off-site storage would be housed.</p>	<p>♦ The backup process will not be completed until all software applications have been implemented and off-site storage procedures are implemented. It has been determined that the Police and Fire departments will be responsible for all backup operations of their respective systems, and staff is in the process of putting the procedures in place. Project staff has developed backup procedures, and ISS staff has provided technical support to set up the backup software configuration. In addition, the Police department obtained approval to use the Florida Department of Law Enforcement facility to store their off-site backup tapes but has not done so as yet.</p>
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Table Legend:

√ Resolved

♦ Currently being addressed – in process

○ Not currently being addressed – Outstanding

In summary, of the previously identified unresolved nine issues, seven have been resolved, and there has been progress on the remaining two issues. It is expected that all remaining issues will be addressed during the implementation phase.

right column provides management's actions, the status as of March 31, 2004, and auditor comments (if applicable). The unresolved issues will continue to impact the PSSI project through the implementation phase.

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

Status of Additional Significant Issues Identified as of March 31, 2004

Table 3 lists the additionally identified issues since the prior report (#0302, October 2002). The left column describes the significant issues and the

Table 3

Additional Significant Issues Identified since October 2002	Management Actions/Status as of March 31, 2004
Vendor Project Management	
<p>The project has been delayed due to a change in vendor project managers and the lack of vendor software expertise during the configuration of the Law RMS application. The overall project has been delayed an estimated six months (from fall 2004 to summer 2005) due to the transitioning of vendor project managers and a lack of Motorola resources qualified to lead the Police department's staff through the configuration activities required for the Law RMS. Due to the transition of vendor project managers, there is not an up-to-date project plan being used to actively monitor on-going and planned project activities.</p>	<ul style="list-style-type: none"> ◆ City project manager and team members have been working with Motorola consistently to ensure that Motorola is aware of these issues and that actions are being taken toward resolution. In January 2004, project team members met with Motorola to thoroughly evaluate the new Law RMS application and develop a revised implementation strategy and timeline. They decided to implement the Law RMS in a phased approach starting with implementing the Incident and Uniform Crime Reporting (UCR) modules in April 2004. The remaining modules and conversion of legacy data will be implemented at a later time. Motorola is to provide the needed on-site expertise as needed to meet the new timeline.
Imaging	
<p>Project staff need to determine how the City's Electronic Document Management System (EDMS) software will be integrated with the Law RMS. An image (e.g., report, witness statement, photograph) can either reside in EDMS or the Law RMS. Staff does not want to duplicate document storage efforts and costs and has decided that documents will reside in the City's EDMS application.</p>	<ul style="list-style-type: none"> ◆ Project staff is working with both vendors to identify the most effective and efficient method of document storage and retrieval. Project staff will be working with the vendor to develop an interface between the two systems.
Mobile Data Computers	
<p>The new Police MDC application will not be accepted until the problem of officers being intermittently disconnected while in the field is resolved. This issue with the CAD/MDC interface must be resolved in order for the data transmissions between dispatchers and officers to be consistent.</p>	<ul style="list-style-type: none"> ◆ On March 23, 2004, Motorola informed the Police department that they had identified the cause of this problem. It involved a wireless configuration conflict between the Premier MDC application in the Tallahassee 800 MHz data system and the Premier MDC application in the Panama City 800 MHz system. Motorola has implemented immediate steps to prevent the problem from reoccurring and is taking steps toward a permanent solution that involves a third party vendor on the Panama City system.
<p>The implementation of the new Fire MDCs has been delayed due to the problems encountered with the Police MDCs. The problems being encountered by the Police department have delayed the Fire department's configuration and implementation of MDCs.</p>	<ul style="list-style-type: none"> ◆ Motorola is planning to bring in resources to complete the fire installation configuration of the Fire MDCs when all Police MDC issues are resolved at the Police department. The City project manager and team members fully support their plan.

<p>The new MDC software will not work on the currently owned Police and Fire mobile computers as expected. The vendor's proposed mobile data software was expected to work on the 202 currently owned MW520 MDCs in the Police (200) and Fire (2) departments. During the implementation, it was determined that they would not support the new software, and new mobile data computers would be needed.</p>	<p>◆ Project staff, working with Motorola, determined that of the 200 existing Police MDCs, 41 were critical to the Police mobile data operations. Motorola decided to provide to the City, at no cost, the 41 new mobile data computers and related equipment to run the new MDC software. In January 2004, the City Commission was informed that Motorola was replacing 41 of the mobile data computers. The City has received partial delivery and expects to receive the remaining equipment in April 2004. Plans are being made for how the existing MDCs will best be utilized.</p> <p><u>Audit Comment:</u> To date, there is not a resolution regarding replacing the two MW520 MDCs in Fire.</p>
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Property and Evidence

<p>The new Law RMS application may not include the property and evidence features as represented by the vendor and expected by the Police department. During the vendor evaluation process, Motorola representatives demonstrated property and evidence features that would be provided in the Law RMS application. In addition, they invited project team members to their home office to identify additional needed features that would be incorporated into the application that the City purchased. Since that time, the development of those property and evidence features have been delayed due to other priorities and are scheduled to be included in future versions of the Law RMS application. Without these features, it greatly diminishes the property and evidence capabilities within the application and hampers the automation of the property and evidence inventory control process.</p>	<p>○ The project manager and team members have been working with Motorola consistently to ensure that Motorola is aware of the lack of property and evidence capabilities in the new Law RMS application. Motorola management has acknowledged the lack of property and evidence features that they promised and indicated that they are working on designing the features into future versions of the Law RMS application.</p> <p>The project team is very concerned about the lack of property and evidence capabilities and is reviewing contractual requirements in order to pursue alternative resolutions if necessary. Motorola has indicated that, if necessary, they will provide and implement an alternative application to provide the needed functionality.</p>
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Table Legend: ◆ **Currently being addressed – in process** ○ **Not currently being addressed – Outstanding**

In summary, six additional significant issues have been identified and remain outstanding as of March 31, 2004. These issues are listed at this time for management's further analysis and resolution. The failure to resolve these identified issues may directly affect the quality of the implementation and/or the ability to complete the project by the projected completion date.

focus on the progress of the project's implementation and/or post-implementation activities.

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

Conclusion

This report has communicated the project progress and accomplishments, provided assurances as to the PSSI project compliance with City policies and procedures, provided an independent assessment of risk management and project controls, as well as communicated the significant issues identified as of March 31, 2004.

Our Office will continue to provide assurance and consulting services throughout the life of this project. The objectives of our future reports will

Appointed Official Response

City Manager:

The PSSI Project is an extremely important integration project because it will provide up to date information for our police officers and fire fighters in the field. I am pleased with the progress of this project and would like to thank Auditing, DMA/ISS, TPD, and TFD for their work in this effort.

APPENDIX A

Glossary of Abbreviations

ALS	Advanced Life Support	JIS	Justice Information System
ATM	Advanced Tactical Mapping	LAN	Local Area Network
AVL	Automatic Vehicle Location	MDC	Mobile Data Computer (Premier MDC is the Motorola mobile data application, MW520 is the MDC model)
BI	Business Intelligent	MHz	Megahertz
CAD	Computer Aided Dispatch	MOC	Management Oversight Committee
CISO	Chief Information Systems Officer	NCIC	National Crime Information Center
DHSMV	Department of Highway Safety and Motor Vehicles	PMP	Project Management Plan
DSS	Decisions Support System	PSSI	Public Safety Systems Integration
EDMS	Electronic Document Management System	RMS	Report Management System
FCIC	Florida Crime Information Center	UCR	Uniform Crime Report
GIS	Geographic Information System	UDT	Universal Data Transfer
ISS	Information Systems Services	WLAN	Wireless Local Area Network
IT	Information Technology	Y2K	Year 2000

Copies of this progress report #0411 (project #0402) may be obtained at the City Auditor's web site (<http://talgov.com/citytlh/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 (auditors@talgov.com).

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