

CityNet (Administration)
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Executive Summary

Governance structure existed to facilitate necessary oversight and communication

No significant schedule delays

Initial cost savings recognized by sharing implementation costs

On-going cost savings with unlimited license contract clause

Vision to increase cost savings from additional governmental entities joining shared services center not realized

Opportunities for Improvement

- *More reasonable cost allocation model*
- *Increased communication regarding Lawson functionality and improvement opportunities*

As part of the Fiscal Year 2007 Annual Audit Plan, the City Auditor's Office conducted an audit of the administration of the CityNet shared services agreement. The audit was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. The objectives of the audit were to determine whether:

- the procurement complied with applicable purchasing laws and regulations;
- the methodology for allocating costs was reasonable; and,
- the City achieved benefits that were expected.

The Lawson software purchase was a continuance of the City's strategic direction to migrate off the mainframe and appeared to comply with applicable purchasing laws and regulations. The project encountered cost overruns, but did not encounter significant project delays.

The City of Arlington realized a cost savings through the initial software purchase and installation. This cost savings resulted from the sharing of hardware, software and implementation costs with the other two participating cities. Additional cost savings were anticipated from the recruitment of a fourth city. However, that cost savings was not realized.

Management determined that the document imaging and budget software purchased via the shared services agreement was not functional for the City. As a result, the City incurred additional costs to purchase replacement software. The City also incurred additional costs when the hosting of Lawson transferred from the North Central Texas Council of Governments (NCTCOG) to Velocity. Per management, the transfer to Velocity was made to increase the reliability of product support and for better disaster recovery.

The City Auditor's Office concluded that the shared services cost allocation methodology does not take into account technological advances and appears unreasonable. The City Auditor's Office also concluded that there is a need for improved communication regarding Lawson functionality and its impact on departmental operations.

These findings and recommendations are discussed in the Detailed Audit Findings section of this report.

Audit Scope and Methodology

The audit was conducted in accordance with generally accepted government auditing standards. The following methodology was used in completing the audit.

- Interviewed employees within the Information Technology, Financial and Management Resources and Workforce Services Departments.
- Interviewed representatives at the North Central Texas Council of Governments (NCTCOG).
- Reviewed inter-local agreement and other related contracts.
- Reviewed Shared Services Board minutes.
- Identified payments made for the Lawson and Kronos purchase.
- Reviewed the Statement on Auditing Standards No. 70 report (SAS 70), “*Report on Controls Placed in Operation and Tests of Operating Effectiveness for the Application Hosting Services of Verizon Data Services Inc.*”

This audit did not include a review of Kronos or any of the Lawson modules. The City Auditor’s Office conducted separate audits of CityNet (Kronos), CityNet (e-Recruiting), and CityNet (Procurement). Those audit results are summarized in reports that have been issued by the City Auditor’s Office.

Background

In December 2003, the Arlington City Council authorized the execution of an inter-local agreement with the NCTCOG. Under the inter-local agreement, the NCTCOG was to facilitate a shared services solution for a financial management and human resources information systems project at the cities of Arlington, Carrollton and Grand Prairie. On October 20, 2004, City management requested \$3 million to replace the existing mainframe payroll and time and attendance system, as well as an integrated enterprise human resources management and financial system. The total estimated project cost was \$3,125,000. The project was to be funded with certificates of obligation specified for the financial/human resources system replacement and those redirected from the Fish Creek Trail capital project.

At the time of the City Council’s authorization, the cities of Arlington, Carrollton and Grand Prairie utilized American Management Systems (AMS) financial software. The cities of Carrollton and Grand Prairie also utilized AMS Human Resources while the City of Arlington used a mainframe system. Since AMS was discontinuing its support of the current mainframe version, the AMS software was no longer feasible for the three cities. A cooperative purchasing arrangement was pursued with the anticipation of capturing significant economies of scale through the initial purchase and installation, and additional savings, on an on-going basis, in the operation of the new software, hardware and training. Since the NCTCOG had experience and expertise in creating cooperative arrangements, the NCTCOG was considered as having the potential to serve as a neutral hosting entity for the three cities.

While the participating cities were responsible for selecting the software vendor, the NCTCOG was responsible for:

- identifying issues that must be resolved for the three cities to develop a hosting cooperative;
- developing a request for proposal (RFP) for a financial and human resources software system;
- reviewing the responses to the RFP and selecting finalists;
- scheduling and scripting system demonstrations;
- conducting reference checks;
- scheduling and attending site visits; and,
- selecting a preferred system.

In November 2004, the NCTCOG entered into an agreement with Lawson for a financial management and human resources information system. The agreement was executed on behalf of and as recommended by the three cities. The governance structure used to facilitate oversight and communication throughout the project was as follows.

- Executive – A Lawson representative was given the executive responsibility for the project.
- Project Manager, Assistant Project Manager, Change Management Team – Lawson appointed a Project Manager and an Assistant Project Manager and provided a Change Management Team.
- Shared Services Board – The Shared Services Board was responsible for governing the affairs of the shared services project. The Shared Services Board was comprised of a representative from each City.
- Project Teams – Project Teams consisted of representatives from each City for each area that was being implemented (e.g., finance, procurement, human resources/payroll). Lawson also appointed Team Leads from within their company.

During the implementation process, management concluded that the timekeeping software offered as a part of the Lawson package did not adequately support Arlington firefighter payroll. The NCTCOG, therefore, entered into an agreement with Kronos (July 2005) to provide timekeeping software for the City of Arlington only. Management indicated that the City of Carrollton was already using Kronos and the City of Grand Prairie was using some other software for its employee time and attendance. Lawson issued the City of Arlington a credit in the amount of the Lawson-recommended timekeeping software and added costs for the Kronos software.

Under the initial contract, the NCTCOG was responsible for hosting/providing services to the three cities while the City of Arlington provided the data fail-over center. There was one application server with Lawson and three databases (one for each city). Under this arrangement, system modifications that applied to one city applied to them all. The NCTCOG was to provide technical support, while each city was to provide functional support for their city.

In October 2006, the NCTCOG assigned its hosting and support of Lawson to Velocity. Velocity then contracted with Verizon to provide data center services. As a result of the Velocity transition, software loads were created for each city. Under this arrangement, each city is no longer dependent on the other. For example, one or two cities may choose to upgrade or install patches while the remaining city may choose not to upgrade or install patches. Each city currently pays the NCTCOG

their share of quarterly operations and maintenance fees which totaled approximately \$1.3M in Fiscal Year 2009. The City's portion of maintenance fees was approximately \$692,000 or 55%. The City of Arlington's maintenance fees are for Lawson and Kronos.

Audit Results

Efficiencies Gained

The City's implementation of Lawson and Kronos software provided more system capabilities than the City's previous systems and resulted in improved efficiency in transaction processing. Efficiencies gained by implementing the new software include, but are not limited to, built-in workflow functionality within the financial and human resources/payroll modules; employee self-service which allows supervisors to process personnel actions within the system; automated timekeeping; and the ability to process employee payroll via direct deposit.

On-Going Cost Savings

Efficiencies in transaction processing results in reduced operational costs. An October 24, 2004 staff report indicated that retirement of the mainframe would result in annual savings of \$200,000 being paid for mainframe system software licenses and hardware maintenance. IT staff indicated that costs associated with keeping the mainframe system software would have included additional maintenance and possible replacement due to the age of the mainframe, salaries and benefits for mainframe support and a contract with AMS for stand-alone support.

Time and Cost Overruns

As mentioned in the Executive Summary of this report, there were no significant project delays. The Finance module went live on its January 3, 2006 target implementation date. Implementation of the Human Resources/Payroll module was delayed, but by less than two months. Employees began using the Kronos timekeeping system on February 13, 2006 and the Human Resources/Payroll module went live on February 27, 2006. The target implementation date was January 3, 2006. Per IT management, the Human Resources/Payroll go-live date was purposely delayed to ensure that Kronos coincided with the beginning of a four-week Fair Labor Standards Act pay cycle.

The total cost to implement Lawson and Kronos (CityNet) was approximately \$482,000 more than the initial project cost approved by the City Council. A February 28, 2006 staff report indicated that additional resources were required because the complexities of implementing three entities were greater than anticipated and for extending the go-live date.

Shared Services Board minutes indicated that City resources were spread too thin, the project team was not able to complete cross functions because they were immersed in their own areas and that there was "an incredible amount of stress on the various project teams and it is growing." Staff assigned to the Lawson software implementation maintained their normal job duties throughout the Lawson implementation. The City Auditor's Office observed correspondence which indicated that the City was implementing Police (Tiburon and AutoCite), Municipal Court (JEMS) and Community Development and Planning (AMANDA) software around the same time that CityNet was being implemented. IT staff was actively involved in all of these system implementations. The Financial Services Department would have been actively involved in the Kronos and Lawson finance applications, and any non-finance applications that required interfaces to Lawson. For future reference, requiring that staff assume their normal job duties, combined with the responsibility of implementing multiple software systems simultaneously may result in the inability to complete system functionalities, inadequate testing, employee burnout, low employee morale and/or unnecessary tension between departments.

Additional Costs Due to Hosting Change

The City Auditor's Office identified additional costs that resulted from the Velocity transition.

- The Fiscal Year 2009 Lawson budget allocation required that each City pay the NCTCOG \$13,997 for costs related to the environment split and having to have separate servers for each City. This budgeted cost component has increased 8% each year since the transfer to Velocity. There was no split environment when NCTCOG hosted the software.
- It was unclear as to whether the City would incur any other additional costs as a result of the Velocity transition. For example, if the City of Arlington chooses to purchase a new Lawson module for \$100,000 and the other cities decide to purchase that same module at a later date, it was unclear as to whether the two other cities would each pay \$100,000, \$50,000, or \$33,333. It appears that if there had been no Velocity transition, the \$100,000 would have been allocated to the three cities, based on the allocation methodology. IT management indicated that the cost for a new software version that departs from the current Lawson environment is not included in the quarterly maintenance fees paid to the NCTCOG. For example, the City of Arlington purchased version 9.0 of the Lawson environment software in August 2007 for \$24,000. An upgrade to version 9.0 of the environment was required by May 2009 in order to continue receiving maintenance support from Lawson.

Software Purchased, but Not Used or Used For Only a Limited Time

- The City of Arlington purchased ImageNow as its document imaging software. Financial Services staff indicated that the Image Now software was used, but was abandoned in less than six months because trying to integrate it into the Lawson accounts payable process was causing serious delays with vendor payments. Workforce Services staff indicated that they never implemented ImageNow due to staffing constraints. The implementation of a document imaging system could have resulted in increased efficiencies within the accounts payable and human resources processes. For example, employees would have been able to review scanned vendor invoices instead of having to physically pull accounts payable checks with supporting documents. Image Now was purchased for a total of \$30,940. The City's portion of the total purchase price was \$17,617. The City currently does not pay maintenance fees associated with the ImageNow software because it is not being used.
- Management indicated that staff received training on Lawson's budgeting software and attempts were made to use it. However, the Lawson budgeting software purchased did not meet the City's needs. The City later purchased GovMax from Sarasota County. The annual fee paid to Sarasota County in Fiscal Year 2009 was \$50,625.
- A printing solution, purchased as a part of the Lawson package, was replaced by NEPS at no additional cost to the City. During Fiscal Year 2008, NEPS was replaced with MHC Document for a cost of \$69,080. Management indicated that NEPS was operable. However, MHC Document was purchased as an enhancement. For example, employees can now view and print on-line W2s and direct deposit advices. The purchase price plus the first year maintenance (\$13,400) was funded from the Special Services account within the Treasury Division (\$51,980) and funds credited to the City of Arlington from the sale of surplus hardware remaining after the transfer of Lawson hosting responsibilities from the NCTCOG to Velocity (\$30,500).

The City incurred costs for the software purchases mentioned above. However, no benefits were realized. The following table shows the modules purchased versus those used by the City of Arlington.

Utilization of Lawson Modules Purchased

Financials Applications	
Lawson General Ledger	Use
<i>Lawson Budgeting & Planning (1)</i>	<i>Limited Use</i>
Lawson Accounts Payable	Use
Lawson Grant Management	Use
Lawson Asset Management	Use
Lawson Accounts Receivable	Use
Lawson Project & Activity Accounting	Use
<i>Lawson Reporting Suite (2)</i>	<i>Do Not Use</i>
Purchasing Applications	
Lawson Purchase Order	Use
Lawson Requisitions	Use
Lawson Inventory Control	Use
Lawson Requisition Self Service	Use
Human Resources Applications	
Lawson Human Resources	Use
Lawson Personnel Administration	Use
Lawson Benefits Administration	Use
Lawson Payroll	Use
Lawson Absence Management	Use
<i>Lawson Event Management</i>	<i>Do Not Use</i>
Lawson e-Recruiting	Use
Lawson Employee & Manager Self-Service	Use
Extensions & Environment	
<i>Lawson Business Component Integrator (3)</i>	<i>Do Not Use</i>
Lawson Process Flow Professional	Use
Lawson Add-Ins for Microsoft Office	Use
Lawson Design Studio	Use
<i>Lawson Smart Notification (4)</i>	<i>Do Not Use</i>
Workforce Management	
Qquest Software Systems TimeForce TM	Replaced by Kronos
<i>Perceptive Vision's ImageNow Software</i>	<i>Do Not Use</i>
<i>Moore Wallace Universal PrintMerge Solution)</i>	<i>Replaced by NEPS, then purchased MHC Document in FY2008 to replace NEPS</i>

Source: Information Technology and Financial and Management Resources Departments

- (1) Used for budget-to-actual reporting.
- (2) Replaced with Lawson Business Intelligence (LBI) which management indicates is used on a limited basis for general reporting.
- (3) The Lawson Business Component Integrator module purchased is no longer supported by Lawson.
- (4) Management indicated that intentions are to use Lawson Smart Notification after LBI is fully functional.

Lawson Functionality

The utilization and functionality of Lawson modules purchased by the City of Arlington are mentioned in other audits conducted by the City Auditor's Office. For example, a January 2009 CityNet (Lawson e-Recruiting) audit indicated that an inoperable interface between e-Recruiting and the Lawson human resources information system resulted in manual, time-consuming labor. Future audits may identify additional opportunities for improvement with CityNet functionality. The City Auditor's Office has not performed a comprehensive review of all CityNet functionality.

Detailed Audit Findings

1. The methodology used to allocate costs appears unreasonable.

Cost allocation models should be based on methodologies that closely equate costs to the level of services received. Each city makes payments based on a cost allocation model agreed upon by all three cities. Because the City of Arlington has more employees than the cities of Carrollton and Grand Prairie, the allocation model results in the City of Arlington carrying the majority of the financial burden. Under the current agreement, each city has one vote. The NCTCOG indicated that the participating cities chose this model for licensing the software because it was the typical model at the time.

Exhibit D of the Shared Services Center Cooperative of North Texas Interlocal Agreement, entitled "Budget Allocation Methodology" states that the allocation methodology will be based on the number of full-time, part-time and contractual employees from January 1, 2006 through September 30, 2006 (the first year), and on the number of transactions after the first year. Minutes from a May 2007 Shared Services Board meeting indicate that the City of Arlington requested that the cost allocation methodology be modified. However, the modification was not agreed upon by the other cities.

The initial agreement was based on the NCTCOG providing necessary hosting for three cities with Lawson software on the same server. Now that Velocity provides hosting services and each City has its own server, the number of transactions could now be irrelevant. If all three cities are on the same type of hardware, one could argue that the costs should be allocated evenly.

Recommendation:

The Finance and Management Resources and Information Technology Directors should request that the Shared Services Board revisit the cost allocation methodology to ensure that it is relevant and equitable. The Directors should request a contract revision/amendment if the most equitable allocation methodology is inconsistent with the current contract requirements.

Management's Response:

Concur. The Cities of Arlington, Grand Prairie, Carrollton, and the North Central Texas Council of Governments entered into an interlocal agreement on November 22, 2004 as part of the Shared Services project, and thus establishing the Shared Services Cooperative. Among the functions of the cooperative is to administer the affairs of the participant cities relative to the cooperative agreement, and to create and administer an annual budget for the cooperative based on previously established criteria. Exhibit D of the interlocal agreement calls for the budget allocation of the first year to be based on the number of employees (full-time, part-time, and contractual), with subsequent years to be based on the number of transactions. The transactional budget method was never used, however, and annual budget allocations continue to be based on the number of employees per city.

IT management will determine the feasibility and cost effectiveness of moving to a transactional based CityNet budget allocation model. If the analysis shows the city would benefit financially from such a change, the CIO will present to the Share Services Board a proposal for modifying the cost allocation to this new model.

Target Date: April 2010
Responsibility: Louis Carr, Chief Information Officer

2. Improved communication regarding the impact of Lawson functionality on department operations appears necessary.

A post-implementation assessment is often used to determine the success of a new system implementation. The Information Technology Department conducted a post-implementation assessment in November 2008 and concluded that overall, the core modules of Lawson software, as implemented during the assessment, appeared to be effective. However, there were some aspects of functionality that users felt could be improved. For example, the post-implementation assessment indicated that departments created additional spreadsheets to track fixed assets by funding source. The ability to eliminate duplication of effort contributes to the success of an enterprise system. Management indicated that the results of their self assessment were communicated to the Department Heads that were a part of the shared services project.

The Information Technology Department recently organized a project management office that is responsible for the oversight of system implementation projects. Department Heads determine which projects are the most critical based on the project's impact on their department's operations. The Information Technology Department addresses each project based on the City Manager's Office's prioritization and IT staff availability. Projects currently being managed by the IT Project Management Office are included in a technology projects schedule/list.

Recommendation:

The Information Technology Director should consider establishing a Lawson Users Group, consisting of Lawson representatives from each department, to share experiences, discuss departmental information system needs that are currently not being met, etc. Any issues that result in an IT project should be incorporated into IT's project list that is prioritized by the City Manager's Office.

Management's Response:

Partially Concur. Changes to the Lawson application environment are driven, in large part, by application software improvements and updates provided by the vendor. There are three existing committees that can review Lawson functionality and effectiveness. Those committees, the Technical Resource Committee (TRC), the Lawson Steering Committee and the Information Technology Executive Steering Committee (ITEC) are all existing committees that could influence Lawson related projects.

It is not necessary to form a new committee, but the Lawson Steering Committee, comprised of the Finance director, the Workforce Services director and Chief Information Officer, will take a more active role in collecting input from Lawson users and analyzing that input. From that input, recommendations for enhancements and new Lawson projects would be forwarded to ITEC for prioritization.

Target Date: May 2010
Responsibility: Louis Carr, Chief Information Officer