

**Information Technology Operations Follow-Up Audit
November 2015**

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November 16, 2015

Honorable Mayor and Members of the City Council:

The City Auditor's Office has completed the Information Technology Operations Follow-Up Audit. The audit objective was to determine the implementation status of prior audit recommendations.

The results of our follow-up audit indicate management has fully implemented fourteen, and partially implemented two, of the seventeen original recommendations; and implementation of the remaining recommendation continues to be ongoing due to the nature of the recommendation.

We would like to thank the Information Technology Department staff for their assistance and cooperation during the follow-up audit.

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City Auditor

c: Trey Yelverton, City Manager
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Executive Summary

As part of the Fiscal Year 2015 Annual Audit Plan, the City Auditor's Office has completed a follow-up audit of the Information Technology Operations Audit released in February 2014. 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 audit objective was to determine the implementation status of prior audit recommendations.

Management concurred with all seventeen recommendations in the initial audit report. Audit follow-up indicates that the Information Technology Department has fully or partially implemented all seventeen recommendations.

The following was noted:

- IT now utilizes a decision support tool that aids in: 1) assigning IT staff to projects, 2) tracking time and skill sets allocated to projects, and 3) ensuring that assigned projects are completed within the required timeframe established by legislation and/or as communicated by the IT department.
- A new governance process was created that aligns individual department requests with City priorities and insures appropriate IT resource availability.
 - With the new process, the City Manager's Office:
 - Identifies projects that are most crucial to the City
 - Along with the Chief Information Officer (CIO), evaluates the available human and financial resources to complete those critical projects.
- The CIO implements the projects via a structured project management process.
- Full accountability and transparency related to funds requested and provided for specific IT purposes is ensured through better time tracking and centralized budgeting.
- Role expectations are now documented using the new decision support tool. The Chief Information Officer maximizes the use of employees within other departments that have the skills to perform and report results of business analysis to IT's project management and business analysis teams for further consideration.
- All IT-related purchases are approved by the IT Department after verification that adequate business analysis has been conducted.
- Job descriptions for IT personnel were changed to more accurately reflect the work that is required and to ensure that each employee possesses the qualifications, knowledge, skills and abilities listed in individual job descriptions to effectively fulfill position responsibilities.

- A process was initiated to set goals, objectives and leadership expectations for IT departmental managers and supervisors based on organizational goals and to mentor and hold subordinates accountable for expected performance levels.
- Current staff training needs are determined based on each staff person's current skill set, job requirements, and prior training. Professional training is then provided to staff, as available within the departmental budget.
- Training records of IT employees are maintained in a centralized location and each supervisor assesses the adequacy of the training received by IT staff.
- Performance metrics were updated to ensure that useful information is available to aid in the proper management of IT operations.
- In FY15, the IT Business Analyst team evaluated the outcomes for five projects. The follow-up evaluation was performed by a business analyst not associated with the project development or implementation, and met with each department to review the success criteria on their project. Internal Audit interviewed various departments about the use of Business Analysts and received mixed reviews. We noted the most positive reviews were received from departments with an assigned Business Analyst.

The following was also noted:

- The recommendation to implement and formalize a written project prioritization policy that is aligned with the City's needs has not been fully implemented. Although, as noted above, a new governance structure was formed, no specific, written policy exists to formalize this new process and procedures.
- The recommendation to develop a training policy, which includes identification of training needs and requirements that will allow employees the opportunity to learn and/or enhance IT skills that are necessary to achieve the City's Overall IT objectives, is partially implemented.
 - Training needs are discussed and records are maintained identifying employee training and training needs; however, no formal policy is in place.
- A general recommendation for management to ensure that related prior audit recommendations are contemplated and applied across the organization, when considering project implementation, is ongoing.

Audit Scope and Methodology

The scope of the project was limited to follow up on management's implementation of previous audit recommendations. The following methodology was used in completing the audit:

- Interviewed IT management and other key personnel
- Interviewed other City Department staff, as applicable
- Reviewed IT Department work plans and status reports
- Visually observed use of the Innotas software
- Reviewed relevant supporting documentation, such as budget requests, training records, job descriptions, timesheets, etc.
- Reviewed prior audit and consultant reports and IT responses

Status of Prior Audit Recommendations

AUDIT RECOMMENDATION	CONCUR /DO NOT CONCUR	MANAGEMENT RESPONSE	RESPONSIBLE PARTY	DUE DATE	IMPLEMENTATION STATUS
<p>1. The Chief Information Officer should continue efforts to utilize decision support tools. At a minimum these tools should aid in assigning IT staff; tracking time and skill sets allocated to projects; and ensuring that assigned projects are completed within the required timeframe established by legislation and/or as communicated by the IT department.</p>	<p>Concur</p>	<p>The City acquired the Innotas Project Management Office tool in FY2013. The department will continue with this process as recommended.</p>	<p>Chief Information Officer</p>	<p>Completed and Ongoing</p>	<p>Implemented. Management Comment: The IT department continues to utilize the Innotas Project Management tool for project management, employee timekeeping, Project and capacity projections and overall decision support for IT department utilization.</p>
<p>2. The City Manager should restructure ITEC by reducing the number of member to no more than seven (7) department heads that are to be rotated, as recommended in the 1999 Gartner Study. Consideration should be taken to limit the appointment to one department head from each service team to serve as the service team's representative.</p>	<p>Concur</p>	<p>A new governance structure was formally implemented in December 2013 designating the City Manager's Office (CMO) comprised of the City Manager and 3 Deputy City Managers, as the IT governance committee. Under the new structure, the CMO first reviews all project requests at the initial project concept stage, utilizing high level information from the IT Business Analysts. If the CMO agrees the concept meets the City's business objectives, funding availability and overall priority, IT then proceeds to develop a full project request. The project request is then returned to the CMO for further assessment, funding assignments, project impact and priority on IT and project direction. The new governance process aligns individual department requests with City priorities and insures appropriate IT resource</p>	<p>Deputy City Manager-Strategic Support</p>	<p>Completed and Ongoing</p>	<p>Implemented. Management Comment: The CMO made up of the City Manager, Deputy City Manager-Strategic Support, Deputy City Manager-Economic Development, and Capital Investment and Deputy City Manager-Neighborhood Services continue in the role as the IT governance body aligning projects to enterprise and council goals.</p>

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		availability.			
<p>3. The City Manager should require that the restructured ITEC resume its intended function by identifying and prioritizing projects that are most crucial to the City. ITEC should then discuss available human and financial resources that are available to complete those critical projects with the CIO, designated Deputy City Manager and/or entire City Manager’s team. Any necessary re-prioritization should be made upon analyzing projects, associated risks and available resources.</p>	Concur	<p>The process of the City Manager’s Office performing the role of the governance body streamlines the governance process to be much more effective.</p>	Deputy City Manager-Strategic Support	Completed and Ongoing	<p>Implemented. Management Comment: <i>Same as #2 above.</i></p>
<p>4. The Chief Information Officer, in conjunction with the City Manager’s Office, should create and formalize a project prioritization policy that is aligned with the City’s needs. The project prioritization policy should include factors such as business strategy, legal/regulatory/security, business risk, return on investment (increased productivity; decreased costs; increased revenue; disaster avoidance, etc.) and should</p>	Concur	<p>This action has been completed with the change in the IT governance role becoming a function of the City Manager’s Office.</p>	Deputy City Manager-Strategic Support	Completed and Ongoing	<p>Partially Implemented. Management Comment: The <i>policy</i> document is the Annual City Budget which requires all projects to be in alignment with the City’s needs and Council Strategy. The <i>process</i> includes departments working with IT BA’s to develop an annual request list in the first quarter of the fiscal year. Concept documents are completed and presented to the CMO / governance team who determine which projects should have further analysis and be considered during the Budget planning process. Those projects</p>

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<p>address action to be taken when the prioritized list is approaching IT capacity.</p>					<p>selected to move forward are returned to the BA group who complete a formal analysis of each request providing strategic analysis on investments for acquisition, ongoing ownership, department benefits, risks and returns over time. The CMO then reviews this information in the 3rd quarter as part of the next year’s budget process and aligns the requests with available resources and council strategy for that next fiscal year.</p> <p>Internal Audit Comment: Due to the lack of a specific, formal, documented policy for this process, we consider this recommendation partially implemented. Good internal controls dictate that significant processes be documented in a policy that outlines the goals of the process, the methodology used for decision making, key procedures, expected outcomes, etc.</p>
<p>5. The City Manager should require that a manageably-sized Information Technology Executive Committee re-prioritize projects based on a formalized project prioritization policy that emphasizes significant business risk. If IT capacity is adequate, the Chief Information Officer should be required to implement the</p>	<p>Concur</p>	<p>With the governance process residing within the City Manager’s office, project decisions regarding IT capacity, resources, funding and scheduling are now incorporated into the full project decision process. Project scheduling aligned with resourcing would flow through the Project Management Office and information regarding project status would be reported to CMO and ITEC members.</p>	<p>Deputy City Manager-Strategic Support</p>	<p>Completed and Ongoing</p>	<p>Implemented.</p> <p>Management Comment: The City Manager continues to achieve this through the annual budget process. At the time the Council approves the annual budget; all IT projects submitted have been reviewed to include all required resources. IT supplies a project implementation schedule as part of this submission process which is then implemented through the IT Project management office. Weekly</p>

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<p>projects via a structured project management process. Alternatively, if IT capacity is not adequate, the City Manager should request additional funding for contracted services to implement the identified projects within a specified timeframe and within the allotted funding.</p>					<p>status updates of all projects are published and periodic discussion of all project progress statuses are reviewed with the Deputy City Manager-Strategic Support</p>
<p>6. The Chief Information Officer should ensure that there is full accountability (e.g., accurate and complete tracking of how the funds were utilized) and transparency related to funds that are requested and provided for specific IT purposes.</p>	Concur	<p>The Chief Information Officer has provided a full accounting for all funding and will continue to support this process in the future. Accountability and transparency continue to be a core value of the Information Technology Department and is supported by the Chief Information Officer, Managers, Supervisors and staff.</p>	Chief Information Officer	Completed and Ongoing	<p>Implemented. Management Comment: The Chief Information Officer has provided a full accounting for all funding and will continue to support this process in the future. Accountability and transparency continue to be a core value of the Information Technology Department and is supported by the Chief Information Officer, Managers, Supervisors and staff.</p>
<p>7. The Deputy City Manager over Information Technology should ensure all future additional funding requests are accompanied by verifiable and accurate skill assessments required to complete the projects.</p>	Concur	<p>The Deputy City Manager over Information Technology will continue to ensure additional funding requests include all appropriate information to accurately represent project requests. During the governance process, the Business Analyst gathers requirements based on information from the department Subject Matter Experts, IT Technologists and vendors to determine project estimates. This information will include IT and department skills analysis and will be communicated as part of this</p>	Deputy City Manager-Strategic Support Chief Information Officer	Completed and Ongoing	<p>Implemented. Management Comment: The Deputy City Manager-Strategic Support has ensured all appropriate information accompanies each funding requests through the IT project governance process and the annual budget process.</p>

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		additional funding requests process.			
<p>8. The Chief Information Officer should maximize the use of employees within other departments that have the skills to perform and report results of business analysis to IT’s project management and business analysis teams for further consideration.</p>	Concur	<p>Many City departments currently utilize employees within their department to perform IT functions including: Application Administration, System Administration, Data Base Administration, Desktop Support and a variety of other IT activities which otherwise may need to be performed by IT staff. These non-IT staffs receive direction from their department leadership without direction from IT. In some cases, workload is relieved from IT and in other cases; IT must provide support to these individuals, on demand, when work exceeds their skills and abilities.</p> <p>IT does not have the authority to direct or manage the activities of these individuals. This issue was also identified and documented in the CliftonLarsenAllen (CLA) Security Assessment. Where possible, IT utilizes these individuals along with department subject matter experts to augment the business analysis process.</p> <p>The finding does not adequately represent the functional role or skills required of an IT Business Analyst (BA). Specific training and skills are developed for business analysis methodology, reviewing current process, modeling for potential process changes, the probability of success and dissecting</p>	Chief Information Officer and City Department leadership	Completed and Ongoing	<p>Implemented.</p> <p>Management Comment: The Chief Information Officer continues to utilize other department resources during the analysis process.</p>

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		<p>issues to the root cause prior to selecting a solution. BA's play a key role in managing communication between departments and IT, verifying and setting expectations, coordinating reuse of existing solutions between departments and verifying accurate and complete information prior to start of a project. The use of BA's as a specifically skilled resource in the success of IT departments is evident in city and county IT departments all across the DFW region.</p> <p>Business analysis performed by non-IT department personnel may contain bias towards a single, predetermined department technology solution often lacking an understanding of current enterprise standards, the skills IT currently contains to support potential solutions and the best practice of reviewing People, Process then Technology. Their analysis skills relate to understanding the particular technology and do not extend into analysis of the business need, business process, change management within the department users or alignment with organizational or department goals. This practice has impacted performance levels for IT for years causing missed expectations for meeting the customer's needs.</p> <p>IT is committed to provide quality products and services in a timely and cost effective manner. IT will continue</p>			

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		to utilize the skills possessed by non-IT department staff and skills of IT technologists to assure the analysis process is completed appropriately for each business request.			
9. After a trial period, the Chief Information Officer should assess the success of business analysis across the organization and determine if the number (not the function) of IT Business Analyst positions is warranted and supported by customer need and the City's overall strategic plan.	Concur	The Chief Information Officer has assessed and recommended as part of the budget process in FY13 and FY14. The CIO will continue to review and assess all positions to insure the appropriate level of resources to meet the City's needs.	Chief Information Officer	Ongoing	Implemented. Management Comment: The BA team documents expected outcomes in the Success Criteria section included in every PCA, BRD and Project Charter we write. In FY15, the IT BA team evaluated the outcomes for 5 projects. The follow-up evaluation was performed by a business analyst who was not associated with the project development or implementation and met with each department to review every success criteria on their project. Each criterion was graded as: fully achieved, partially achieved or not achieved. Based on the criterion grades, the project was given an overall grade with the same three levels.
10. The City Manager should require that all IT-related purchases should be approved by the IT Department after verification that adequate business analysis has been conducted.	Concur	The City Manager concurs and will require IT related purchases be verified and approved by the Information Technology Department.	Deputy City Manager – Strategic Support	Completed and Ongoing	Implemented. Management Comment: The procurement office continues to involve IT on all appropriate purchases requiring IT approval.
11. The Deputy City Manager over Information Technology	Concur	The Deputy City Manager over Support Services will work with the Chief		Ongoing	Implemented.

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<p>should require that job descriptions be updated to more accurately reflect the work that is required, and then initiate a process to ensure that each employee possesses the qualifications, knowledge, skills and abilities listed in individual job descriptions to effectively fulfill position responsibilities.</p>		<p>Information officer and Director of Human Resources to ensure job descriptions are reviewed on a timely basis</p>			<p>Management Comment: Job descriptions have been reviewed with position descriptions updated when gaps are identified.</p>
<p>12. The Deputy City Manager over Information Technology should initiate a process to set forth goals, objectives and leadership expectations to IT departmental managers and supervisors based on organizational goals and to mentor and hold subordinates accountable for expected performance levels.</p>	Concur	<p>The Deputy City Manager over Information Technology concurs and will continue to set expectations of IT Department leadership to meet organizational goals.</p>	Deputy City manager-Strategic Support	Completed and Ongoing	<p>Implemented. Management Comment: The Deputy City Manager over Information Technology will continue to set expectations of IT Department leadership to meet organizational goals.</p>
<p>13. The Chief Information Officer should determine current staff training needs, based on each staff person's current skill set, job requirements, and prior training. Professional training should then be provided to staff, as available within the departmental budget.</p>	Concur	<p>The Chief Information Officer will continue to review staff training needs and these will be addressed appropriately.</p>	Chief Information Officer	Ongoing	<p>Implemented. Management Comment: The Chief Information Officer will continue to review staff training needs during the employee performance review and feedback process, and training needs to be addressed appropriately. .</p>
<p>14. The Chief Information Officer should develop a</p>	Concur	<p>The Chief Information Officer will develop a training program to allow IT</p>	Chief Information	Ongoing	Partially Implemented.

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<p>training policy that includes identification of training needs/requirements which will allow employees the opportunity to learn and/or enhance IT skills that are necessary to achieve the City's overall IT objectives.</p>		<p>employees training opportunities which benefit the City's overall IT objectives.</p>	<p>Officer</p>		<p>Management Comment: The Chief Information Officer continues to align the training program with the employee review and development process to ensure IT staff members have necessary skills to achieve objectives.</p> <p>Internal Audit Comment: Information Technology does identify training needs/requirements, which allows employees the opportunity to learn and enhance IT skills that are necessary to achieve the City's overall IT objectives; however, there is no formal written training policy in place.</p>
<p>15. The Chief Information Office should maintain training records of IT employees in a centralized location and use that information to routinely assess the adequacy of training received by IT staff.</p>	<p>Concur</p>	<p>The Chief Information Officer will ensure that the department will continue to track and record training progress of each employee.</p>	<p>Chief Information Officer</p>	<p>Completed and Ongoing</p>	<p>Implemented.</p> <p>Management Comment: The Chief Information Officer continues to maintain training records for all staff.</p>
<p>16. The Chief Information Officer should require that performance metrics are updated to ensure that useful information is available to aid in the proper management of IT operations.</p>	<p>Concur</p>	<p>The Chief Information Officer will ensure useful report information is available as part of the redevelopment of the Help Desk tool set to measure over all effective incident management.</p> <p>As part of the IT FY2014 work plan, IT staff will be installing a fresh version of the Magic Helpdesk software and configuring the application as designed out of the box. This work will enable the CIO and manager responsible for IT Customer Support Services to better measure IT incidents and address any</p>	<p>Chief Information Officer</p>	<p>January 2015</p>	<p>Implemented.</p> <p>Management Comment: The Chief Information Officer continues to submit appropriate performance metrics each year as part of the annual budget process. Results are published and reviewed quarterly by the CMO.</p>

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		training needs.			
17. The Chief Information Officer should ensure that audit-specific recommendations are applied across the organization when considering implementation.	Concur	The Chief Information Officer will continue to work with the City Manager's Office and department directors to ensure audit specific recommendations are appropriately applied throughout the enterprise IT systems.	Chief Information Officer	Ongoing	Ongoing Management Comment: The Chief Information Officer continues to apply audit recommendations to all aspects of accountability of the IT department.