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OFFICE OF THE COMPTROLLER
CITY OF ST. LOUIS



DARLENE GREEN
Comptroller

Internal Audit Section

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March 7, 2005

Michael Wise, Director
Information Technology Services Agency (ITSA)
City of St. Louis
City Hall Room 214
1200 Market Street
St. Louis, MO 63103-2826

RE: Process Review of Information Technology Services Agency - Help Desk
(Project # 2004-35)

Dear Mr. Wise:

Enclosed is a report of our review of Information Technology Services Agency (ITSA) Help Desk process for the period July 1, 2003 through January 31, 2004. The objective of this review was to determine if Help Desk has:

- Developed and implemented sufficient controls to adequately ensure all problems reported by users are documented and problem resolution is initiated.
- Developed and implemented procedures for the timely monitoring and resolution of reported problems.

This review was made under authorization contained in Section 2, Article XV of the Charter, City of St. Louis, as revised, and has been conducted in accordance with the *International Standards for Professional Practice of Internal Auditing*.

Our fieldwork was substantially completed on May 27, 2004. Management responses to the observations and recommendations noted in the report were received on March 4, 2005 and have been incorporated in the report.

If you have any questions, please contact me at (314) 613-7410.

Respectfully,

A handwritten signature in cursive script, appearing to read "Mohammad H. Adil".

Mohammad H. Adil, CPA
Internal Audit Manager

CC: Honorable Darlene Green, Comptroller
Rita Kirkland, Director of Operations, Office of the Mayor
Marie Jeffries, Executive Assistant, Budget Division

CITY OF ST. LOUIS
INFORMATION TECHNOLOGY SERVICES AGENCY (ITSA)
HELP DESK PROCESS REVIEW
JULY 1, 2003 THROUGH JANUARY 31, 2004

EXECUTIVE SUMMARY

Purpose

We have completed a process review of the ITSA Help Desk (Help Desk). The purpose of this review was to determine if Help Desk has:

- Developed and implemented sufficient controls to adequately ensure all problems reported by users are documented and problem resolution is initiated.
- Developed and implemented procedures for the timely monitoring and resolution of reported problems.

Conclusion

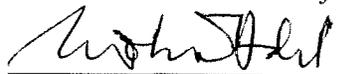
We commend Help Desk employees for their dedication to their jobs and the professionalism and courtesousness displayed when dealing with customers.

However, we concluded that opportunity exists for Help Desk to develop and implement sufficient controls to ensure that all problems reported by users are documented and resolved promptly. The following are observations resulting from our review:

1. Opportunity to Develop and Implement Written Policies and Procedures
2. Opportunity to Improve Help Desk Employees' Technical Capabilities and Define their Career Paths
3. Opportunity to Establish Goals for Help Desk and Its Employees
4. Opportunity for Periodic Surveys on Users' Satisfaction with Help Desk Functions
5. Opportunity to Establish User Service Level Agreement for Help Desk Functions

Each of these observations is discussed in more detail in the *Detailed Observations, Recommendations and Management's Responses* section of this report.

This review was made under authorization contained in Section 2, Article XV of the Charter, City of St. Louis, as revised, and has been conducted in accordance with the *International Standards for Professional Practice of Internal Auditing*.



Mohammad H. Adil, CPA
Internal Audit Manager

3/7/05
Date

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OBSERVATIONS

Background

The ITSA Help Desk (Help Desk) is the customers' primary point of contact with the ITSA with respect to the services provided by the agency. In addition to the resolving the customers' computer related problems it also serves as an official communicator of information technology activities. Help Desk handles an average of 150 calls from end users and departments per week. The Help Desk unit is headed by a manager assisted by a supervisor and two full time employees.

Purpose

The purpose of this review was to determine if Help Desk has procedures in place to document and resolve the reported problems promptly.

Scope and Methodology

We confined the review to evaluating Help Desk process over the period July 1, 2003 through January 31, 2004. Our procedures included inquiries of management and staff, observation of relevant processes, and reviews for compliance with policies and procedures, as well as applicable laws and regulations. We performed limited tests of controls, followed up on prior audit observations and performed other procedures as considered necessary. Our fieldwork was substantially completed on May 27, 2004

Exit Conference

An exit conference was held with the management of ITSA on January 6, 2005 to discuss the observations and recommendations noted in the report. Michael E. Wise, Director, ITSA; Gene P. Brantley, Support Services Manager, ITSA and Gerald Raske, Network services Manager, ITSA, represented ITSA. Mohammad H. Adil, Internal Audit Manager, and Olaide Hassan, Auditor-in-Charge, represented the Internal Audit Section.

Management's Response

Management responses to the observations and recommendations noted in the report were received on March 4, 2005 and have been incorporated into the report.

Acknowledgement

Internal Auditor acknowledged the cooperation and support of the Help Desk employees in particular and the ITSA management in general during the review.

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OBSERVATIONS

Status of Prior Observations

The last audit conducted of ITSA was on Information Systems Services (ISS-now ITSA) Risk Assessment and Audit Plan with a report issued April 26, 2000. We reviewed the recommendations noted in the report pertaining to Help Desk to determine the status of the recommendations. Per our review, the status of the recommendations is noted below:

1. Review resources devoted to the Help Desk function and compare them to Industry standards to determine if additional resources are needed. **{Resolved}**
2. Review the organization and structure of the Help Desk for efficiency and effectiveness. **{Resolved}**
3. Establish goals and measures of performance for Help Desk as a whole and for each staff member assigned. **{Partially Resolved}**
4. Establish policies regarding user practices that lead to increased help demands. **{Not Resolved}**
5. Establish user service level agreement that relates to the capacity of budget supported resources. **{Not Resolved}**
6. Develop customer service oriented representatives. **{Resolved}**
7. Periodically survey users on satisfaction with the help desk function. Use the survey results to continuously improve. **{Not Resolved}**.

Summary of Current Observations

We commend Help Desk employees for their dedication to their jobs and the professionalism and courteousness displayed when dealing with customers.

However, we concluded that opportunity exists for Help Desk to develop and implement sufficient controls to ensure that all problems reported by users are documented and resolved promptly. The following are observations resulting from our review:

1. Opportunity to Develop and Implement Written Policies and Procedures
2. Opportunity to Improve Help Desk Employees' Technical Capabilities and Define their Carriers Path

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OBSERVATIONS

Summary of Current Observations continued...

3. Opportunity to Establish Goals for Help Desk and Its Employees
4. Opportunity for Periodic Surveys on Users' Satisfaction with Help Desk Functions
5. Opportunity to Establish User Service Level Agreement (SLA) for Help Desk Functions

Each of these observations is discussed in more detail in the *Detailed Observations, Recommendations and Management's Responses* section of this report.

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**DETAILED OBSERVATIONS, RECOMMENDATIONS
AND MANAGEMENT'S RESPONSES**

1. **Opportunity to Develop and Implement Written Policies and Procedures**

Written policies and procedures assist in ensuring that operational procedures and job functions are:

- Approved by management.
- Effectively communicated to and understood by staff.
- Consistently performed in accordance with management's goals and objectives.

Written policies and procedures also provide a basis for training and cross training of the current and new employees and provide a basis for the development of performance standards and measures.

Help Desk does not have a written policies and procedures in place. Lack of written policies and procedures increases the risk that control procedures will not be effective or may be over-ridden, employees will not be effectively trained and appropriate performance standards and measures may not be developed.

Prior Internal Audit report dated April 26, 2000 on Information System Risk Assessment and Audit Plan also recommend the establishment of written policies and procedures for the Help Desk functions.

The Help Desk claimed to be in the process of putting together a policies and procedures manual.

Recommendation

We recommend that the management complete the development and implementation of the policies and procedures for the Help Desk Functions. The policies and procedures should be:

- Approved by ITSA Director
- Formally communicated to the Help Desk employees.
- Reviewed and updated periodically.

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**DETAILED OBSERVATIONS, RECOMMENDATIONS
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1. **Continued...**

The procedures should include at a minimum, the following:

- Receiving and recording call requests.
- Assigning requests to technicians.
- Follow up with technicians and call back on completed requests.
- The work request escalation process.

Management's Response

Developing policies and procedures is an ongoing process. It requires constant review in order to incorporate the current environment into developed policies. ITSA is in the process of including our new Help Desk software (Front Range's H.E.A.T) into our existing documentation. While we are making these modifications, ITSA will take this opportunity to review all Help Desk policies and procedures to ensure that they adhere to Internal Audit's recommended criteria.

2. **Opportunity to Improve Help Desk Employees' Technical Capabilities and Define their Career Paths**

During our review we noted the Help Desk employees have not received the necessary training that will enhance their technical capabilities to resolve most of the customers' requests themselves. Currently most of the requests are escalated and assigned to ITSA technicians.

In December 2003, of the three hundred and fifty-nine (359) requests received by Help Desk, eighty-two (82) or 23% were directly resolved by the Help Desk, forty-six (46) requests or 13% were jointly resolved by the Help Desk and the technicians and the remaining two hundred and thirty-one (231) or 64% were escalated to technicians. Some survey responses described the Help Desk function as merely taking calls and suggested additional technical training to enhance their capabilities.

We also noted that the opportunity does not exist for the vertical mobility on the job for the Help Desk employees. Some of them have been doing the same job of receiving customers' requests and assigning them to technicians since they joined the Help Desk. Lack of opportunity to grow on the job may de-motivate the employees.

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2. **Continued...**

Recommendation

We recommend that ITSA management design training courses that will enhance the technical competence of the Help Desk employees. ITSA management should also provide opportunity to Help Desk staffs to advance on the job.

Management's Response

ITSA Management provides training opportunities for all ITSA employees as available budget permits. Unfortunately Help Desk skills are more often acquired through on the job experience. This OJT is enhanced by assigning a Network Specialist to Help Desk duty, making them available to assist and impart knowledge to the Customer Service representatives who are receiving calls and assigning work orders. We also hope to rely more heavily on our Help Desk software's knowledge base to assist both Help Desk technicians and the general users in resolving common problems. Heat's Knowledge base will recommend solutions to common problems when queried with problem symptoms.

When this observation was initially written, Help Desk employees were classified as Clerk Typist 1 and 11 with no clear opportunity for advancement within the ITSA structure. As a result of a Personnel Department review, all have been reclassified and given the new job descriptions. The normal progression would be Customer Service Representative 1 to a Customer Service Representative 11 followed by a jump to Microcomputer Support Specialist.

3. **Opportunity to Establish Goals for Help Desk and Its Employees**

Properly defined goals provide standards for measuring performance of a business and of its employees.

ITSA has not established goals for the Help Desk and for its employees. Per the management, ITSA has adopted the City's personnel department's job descriptions for clerk typist I and II to evaluate Help Desk employees' performance. Comments received from customers and supervisory observations are also considered in measuring employees' performance. However, the lack of defined goal for the Help Desk as a whole and for each of its employees will not provide the needed objectives toward which staff performance can be directed and measured.

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DETAILED OBSERVATIONS, RECOMMENDATIONS
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3. Continued...

Desk as a whole and for each of its employees will not provide the needed objectives toward which staff performance can be directed and measured.

Recommendation

We recommend that in addition to developing employee job descriptions, the ITSA management should also establish goals for the Help Desk as a whole and for each of its employees.

Management's Response

ITSA management adheres to the Department of Personnel guideline for employee evaluation. This includes establishing Standards of Performance, Responsibilities and Objectives for each employee. Now that clear job titles and descriptions have been established by the Department of Personnel, Help Desk Management will establish the criteria under which Help Desk employees will be evaluated.

4. **Opportunity for a Periodic Survey on Users' Satisfaction with Help Desk Functions**

A standard Users satisfaction feedback provides information about the quality of services provided and areas that requires improvement.

Except for the occasional complimentary letters received from customers on the services provided by the individual Help Desk employee, ITSA has not formally requested for customer's opinion on the services received by them.

With the absence of customer feedback, ITSA will not be able to determine satisfaction level and trends of services provided by Help Desk. Customer feedback helped in the process of effecting necessary changes that promote efficiency in services.

Recommendation

We recommend that ITSA management establish a procedure which will ensure that customer's satisfaction surveys are periodically conducted to determine User's satisfaction level on the services provided by Help Desk.

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4. **Continued...**

Management's Response

Help Desk staff perform follow up surveys on all calls prior to work orders being closed. The user is contacted to verify that the problem was resolved and to obtain comments on the problem resolution and user satisfaction. The user comments are recorded as journal entries in the original work order for management review.

5. **Opportunity To Establish User Service Level Agreement (SLA) with Vendor for Help Desk Functions**

Establishing User Service Level Agreement (SLA) with a reputable Vendor enhances Help Desk capability in providing efficient and steady service to end users.

Per discussion with the ITSA management, the department has not established service agreement with any outside vendors.

ITSA manager indicated that requests that cannot be handled by the Help Desk or the technicians are referred to the department heads and managers.

Inability of the Help Desk /Technician to provide solutions to reported problems may result in long response time, downtime and the corresponding cost effects and frustration to the end users.

Recommendation

We recommend that the ITSA management establish a User Service Level Agreement with a reputable Vendor. Such agreement should contain the following among others:

- List of services to be provided.
- Condition of services availability
- Responsibility for all parties.
- Services standard with time frames
- Escalation procedures
- Cost

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5. Continued...

Management's Response

ITSA currently contracts with Southwestern Bell Communications for equipment and Network monitoring and maintenance services. Their expertise can be called upon as budget allows.