



**CITY OF COLORADO SPRINGS
OFFICE OF THE CITY AUDITOR**

06-151 CITY PBX VOICE MAIL IT AUDIT

PUBLIC REPORT

APRIL 10, 2007

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Office of the City Auditor

Public Report

Date: April 10, 2007
To: Honorable Mayor and Members of City Council
Re: 06-151 – City PBX Voice Mail IT Audit

We have completed an audit of the City's Private Branch Exchange (PBX), Voice Mail Information Technology System.

The purpose of this audit was to review controls over the primary 385 phone exchange and Voice Mail systems implemented at the City of Colorado Springs. The audit included review and evaluation of procedures, practices, and controls related to the systems on a selective basis.

Our fieldwork was done using the point-in-time methodology during a period between March and August 2006. Where necessary, we went back in time to review historical information.

Attached is a copy of our audit report. It contains 14 findings and recommendations we believe are necessary to improve the controls over the operation.

As always, feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Jeff Litchfield".

Jeff Litchfield
City Auditor

Cc: Lorne Kramer, City Manager
Mike Anderson, Assistant City Manager
Ron Cousar, Director of Internal Support Services
André Sodbinow, IT Division Manager (CIO)
Terri Velasquez, Director of Finance
Dal Lockwood, Golf Manager

CITY AUDITOR JEFF LITCHFIELD, CPA CIA CFE

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Introduction

AUTHORIZATION

We performed an information technology audit of the City of Colorado Springs (City) Public Branch Exchange (PBX) and Voice Mail systems. We conducted this audit under the authority of Chapter 1, Article 2, Parts 703, 705, 706 and Part 709 (B) and (C) of the City Code, which state:

1.2.703: ENSURE PUBLIC ACCOUNTABILITY:

The City Auditor shall ensure that administrative officials are held publicly accountable for their use of public funds and the other resources at their disposal. The City Auditor shall investigate whether or not laws are being administered in the public interest, determine if there have been abuses of discretion, arbitrary actions or errors of judgment, and shall encourage diligence on the part of administrative officials.

1.2.705: DETERMINE EFFECTIVENESS AND EFFICIENCY OF PROGRAMS:

The City Auditor shall determine the extent to which legislative policies are being efficiently and effectively implemented by administrative officials. The City Auditor shall determine whether City programs are achieving desired objectives. The City Auditor shall review the administrative control systems established by the enterprises, department or group managers and by the City Manager, Utilities Executive Director and Memorial Hospital Executive Director and determine whether these control systems are adequate and effective in accomplishing their objectives.

1.2.706: EXAMINE BOOKS, RECORDS:

The City Auditor shall examine and inspect all books, records, files, papers, documents and information stored on computer records or in other files or records relating to all financial affairs of every office, department, group, enterprise, political subdivision and organization which receives funds from the City or under the direct or indirect control of the City Council. The Auditor may require any person to appear at any time upon proper notice and to produce any accounts, books, records, files and other papers pertaining to the receipt or expenditure of City funds, whether general or special. If that person fails to produce the papers, then the Auditor may request Council approval to search for and take any book, paper or record in the custody of that person or public official.

1.2.709: MAKE PERIODIC REPORTS TO COUNCIL:

The City Auditor shall make periodic reports to Council which shall include the following:

- B. Information of proposals deemed expedient in support of the City's credit, and recommendations for lessening expenditures, for promoting frugality and economy in City affairs and for an improved level of fiscal management;
- C. Matters concerning the effectiveness and efficiency of the programs and operation of the City;

Introduction

ORGANIZATION PLACEMENT

The City Auditor's Office of the City of Colorado Springs is structured in a manner to provide organizational independence from the entities it audits. This is accomplished by the City Auditor being appointed by and reporting directly to the City Council. The audited entity in this audit reports to the City Manager, who is also a City Council appointee.

SCOPE AND METHODOLOGY

The purpose of this audit was to review controls over the primary 385 phone exchange and Voice Mail systems implemented at the City of Colorado Springs. The audit included review and evaluation of procedures, practices, and controls related to the systems on a selective basis.

The audit was conducted in a manner that meets or exceeds the Standards for the Professional Practice of Internal Auditing, a part of the Professional Practices Framework promulgated by the Institute of Internal Auditors. The audit included such tests of records and other supporting documentation as deemed necessary in the circumstances. We reviewed the internal control structure and compliance tests were performed where audit hours permitted. Sufficient competent evidential matter was gathered to support our conclusions.

Our fieldwork was done using the point-in-time methodology during a period between March and August 2006. Where necessary, we went back in time to review historical information.

BACKGROUND

The City either owned or leased different parts of the PBX and Voice Mail systems. The current system configuration had been in existence for approximately 11 years. The systems provided the capabilities of telephone communications for most departments within the City, including some Police substations. The maintenance of the system was performed by City Information Technology (IT) Telecommunication Specialists with assistance when needed from external vendors. Several carriers were used for the processing of external calls including local, long distance, collect, international, and directory assistance. Calls made to and from City phones were routed by the City PBX system to deliver them in the most cost effective manner.

The calls routed to and from the City PBX were captured in the City owned Call Accounting System (CAS). The user departments were charged for their phone usage based on the costs and usage details defined and captured in the CAS system. Costs for equipment provisions were charged back to the user departments based on equipment type and a tiered voice service charge.

There were approximately 1877 stations/phones, 241 ports, 17 cabinets across 15 locations, and 34 key subsystems administered by five City staff members. The system was capable of handling 2300 call completions during any given busy hour. The system processed an average of 400 calls during busy hours, which amounted to about 42 hours of call time. The system was also tied to the Colorado Springs Utilities PBX and the Police Operations Center PBX.

Introduction

OVERALL CONCLUSION

In general, we found our concerns to be mostly related to inadequacies in:

- policies and procedures,
- change control,
- disaster recovery/business continuity,
- contracting,
- logical and physical access security,
- call monitoring and comparisons,
- charge back to user departments,
- call restrictions, and
- monitoring live phone conversations.

The following pages contain 14 findings, recommendations and responses from appropriate City departments.

***We have made no determination as to which findings are more important than others.
Therefore, the findings are not necessarily listed in order of importance.***

Findings, Recommendations and Responses

1. Audits of Usage Anomalies by Carriers

The local and long distance carriers did not monitor for usage anomalies. Without usage auditing by carriers, the ability to detect illegal activity in the early stages is lost.

Auditor's Recommendation:

We recommend the Information Technology Division (IT) coordinate with carriers to perform usage anomalies. We also recommend that Contract Administration add related terms to all telecommunication contracts.

City IT's Response:

Research: City IT agrees in principle.

- All local and long distance carriers utilized by the City currently do not provide any capabilities for monitoring for usage anomalies.
- Local and long distance carriers will not add terms to contracts for services that are not tariffed, nor provided.

Action:

- Based on the above research, we feel the City should continue to accept presented risks for early detection of usage anomalies; however, will attempt to add requirements, if available, to any future contract negotiations with carriers.

Findings, Recommendations and Responses

2. Call Comparison

Calls from the Call Accounting System (CAS) were not compared to MCI or other carrier bills. We noted that in a sample of calls:

- MCI's duration differed from CAS by 4/10 of a minute,
- there was a large fluctuation on the cost of international calls, and
- there were calls on the MCI bills that did not appear on the CAS system.

To perform a call comparison would require the IT Billing Specialist to have access to details from CAS and Corporate Telecom Solutions. The access was limited to some members of the Telecommunication staff. Without comparison, carriers can charge for calls that were not placed by the City or charged at a rate that is not fair, reasonable, or as defined in a contract. Without a comparison, there could be an increase to operating expenses and exposure to the City of telephone fraud.

Auditor's Recommendation:

We recommend:

- IT determine if it is cost beneficial to create and implement policies and procedures for comparing calls from CAS to MCI and/or other telecommunication vendor bills on a regular basis.
- IT work with MCI and other telecommunication carriers to get electronic bills for comparison purposes.
- IT Telecommunication staff verify that the CAS system is not dropping calls.
- The IT Billing Specialist be given read access and training to all billing details in order to make system to system comparisons to assist in challenging bills.

City IT's Response:

Research: City IT accepts the recommendations.

Action:

- Based on the limited budget and current resources available, IT has determined that a more comprehensive analysis for comparing calls from CAS to vendor bills is not cost effective at this time. The current process takes into account the total dollars and minutes per month both from CAS and from the vendor bills to determine if the variance warrants further investigation.
- The City now receives electronic billing information from all current local and long distance carriers who provide this service.
- Testing has been done and a determination made that the PBX system and CAS system are operating as required and that no call information is being dropped.
- Read access and training to all electronic billing information, including CAS, has been given to the billing specialist in order to allow for more detailed system comparisons.

Findings, Recommendations and Responses

3. Change Management

PBX/Voice Mail related moves, adds, changes, and deletes were not documented showing approval. In addition, changes to hardware, software, and all system configurations were not documented. Change management controls had not been implemented on the PBX to ensure that only authorized programs and modifications were implemented. The lack of change management controls resulted in several days of call data being lost because changes were not tested to ensure the system was still functioning as intended. Effective configuration management facilitates greater system availability, minimizes production issues, and resolves issues faster.

Auditor's Recommendation:

We recommend:

- IT create and implement policies and procedures that require documentation for all PBX/Voice Mail hardware, software, and all system configuration changes.
- IT create and implement policies and procedures that include techniques that help ensure all system, programs, and program modifications to the PBX are properly authorized, tested and approved, and that access to and distribution of programs is carefully controlled.
- IT evaluate the communication between the PBX switch and CAS to ensure adequate backup controls have been implemented to avoid loss of data; an analysis be made before a change to the billing rate is implemented to determine if it is in the best interest of the City. Once the analysis is complete, it should be documented and approved before the change is made.
- IT coordinate with end users to implement adequate controls to protect sensitive or critical resources in a cost efficient and effective manner.

City IT's Response:

Research: City IT accepts the recommendations.

Action:

- The City IT Customer Support section has created a procedure on the Move/Add/Change process for all Network and PBX/Voice Mail related changes utilizing the current Clarify ticketing system
- Telecommunications has drafted a change control policy for all PBX/Voice Mail System hardware/software changes that could effect systems operations.
- An evaluation has been completed and an IT Project has been created to add a backup server to the call accounting system to prevent any loss of data with expected completion of May 31, 2007.
- A policy has been created to address current/future rates and charges along with an approval process to ensure that changes are in the best interest of the City.
- IT works with City business groups to insure adequate controls are in place to protect sensitive or critical resources on an as needed basis.

Findings, Recommendations and Responses

4. Classification of Resources, Service Level Agreements, Business Impact Analysis and Business Continuity / Disaster Recovery

We noted classification of resources as they pertain to the business of the City, service level agreements with City departments, an analysis of the impact of the loss of the PBX and Voice Mail systems on City departments and business continuity / disaster recovery planning were not adequate. Without adequate classification of resources, service level agreements, business impact analyses and business continuity / disaster recovery planning, some conditions may lead to insufficient protection of sensitive or critical resources; there is a risk of disproportionately high expenditures for controls over low-risk resources; there is an inadequate means to measure that all the business requirements are being met by the PBX and Voice Mail systems; and there is an inadequate means to ensure minimum business impact to the City departments in the event of a PBX/Voice Mail service interruption.

Auditor's Recommendation:

We recommend IT coordinate with end users to:

- Define and classify resources for the PBX and Voice Mail systems.
- Develop Service Level Agreements which take into consideration the classification of resources.
- Develop a Business Impact Analysis from the results of the Service Level Agreements and resource classifications.
- Develop and implement proper contingency and disaster recovery plans based on the above.

City IT's Response:

Research: City IT accepts the recommendations.

Action:

- City IT classifies all telephone systems and services as critical to City operations. The PBX system currently has duplicated processors for redundancy and all critical equipment sparing has been maintained. City IT has positioned itself to be able to repair or replace any telephone equipment at any City site in less than 24 hours.
- City IT has developed Service Level Agreements which address telecommunications and networks at a city-wide level which will be implemented in 2007.
- Business impact analysis can not be determined by this department – this is a requirement of each business group as part of their Continuity of Government analysis – recommendation would then be to create specific SLA's if needed based on the Continuity of Government-Business Impact Analysis submissions.
- City IT will re-evaluate and document proper contingency and disaster recovery plans based it's own participation in the City's Continuity of Government initiative.

Findings, Recommendations and Responses

5. Expired and Non-existing Contracts

The City contracted with ICG, Qwest, MCI, Evolving Systems, and Corporate Telecom Solutions for telecommunication services. Additional vendors may have been used that were not reviewed in this audit. Signed contracts did not exist for MCI, Evolving Systems, and Corporate Telecom Solutions in the City Contracting office. The signed contracts for ICG and Qwest had expired. A warrant requisition was being used to pay for current MCI and Qwest services. A purchase order was being used to pay for current ICG and Corporate Telecom Solutions services. We also noted that adequate sole source documentation did not exist for any of the telecommunication services being provided. At one time telecommunication services were provided by a sole source because there was no other vendor that could provide the service. Since deregulation of the telecommunication industry, that was no longer the case. The City could potentially experience a loss of critical telecommunications services if a vendor were to decide to no longer provide the service because a valid contract was no longer in place or did not exist. Federal Communication Commission (FCC) and/or Colorado Public Utilities Commission (PUC) tariffs may protect the City from disconnection but most likely would not protect against rate increases. This could leave the City exposed to potentially pay more than fair and reasonable costs for telecommunication services.

Auditor's Recommendation:

We recommend:

- that all telecommunication services, as defined by procurement requirements, should be sent out for bid;
- that sole sourcing documentation should be included with the contract;
- that all contracts should include details of the costs and services that will be provided;
- City Contracting should be responsible for negotiating telecommunication contracts;
- that a regular review of vendors to determine if there are services that are being paid by warrant requisition or purchase order for services where a contract should exist be performed; and
- that new services acquired should be documented in contract amendments.

City IT's Response:

Research: City IT accepts the recommendations.

Actions:

- City IT agrees with City Contracting's response and will follow all City Contracting & Purchasing guidelines.
- City Telecommunications requested City Contracting to conduct a training and informational session on current City purchasing policies and procedures. Completed on September 11, 2006 for all Telecommunications staff.

Findings, Recommendations and Responses

City Contracting Response:

- a. City Contracting will require all telecommunications services that exceed \$5000 and have more than one open market competitor who can provide the service will be bid out. If the services exceed \$50,000 annually, these services will be formally bid out.
- b. In order to determine the necessity to bid out telecommunication services or to award sole source contracts for the services, the IT department will be required to submit sole source documentation in accordance with the Procurement regulations that must be approved by the City Contracting Manager. In instances where it is documented that the source is the only known source but factual knowledge of this fact cannot be substantiated, a short term contract may be entered in to with the known source and the City Contracting Office may issue an RFI through web site looking for other sources. If the RFI does not result in finding additional sources then this will be used to further justify sole source in the future.
- c. All awarded contracts including sole source contracts will contain specific pricing structure for services being provided.
- d. City Contracting will be involved in all negotiations involving sole source contracts or contracts resulting from RFP's.
- e. In cooperation with Accounts payable, we are establishing an annual review of all warrant requisitions issued in the past year by one of our Analysts. Our plan is to have this staff member review all of the warrant requisitions issued in the past year during the 2nd qtr of the current year. Also we are asking Accounts Payable to bring large repetitive warrant requisitions as they occur during the year for our review.
- f. A proper change order will be required to add services in any awarded contract.

Findings, Recommendations and Responses

6. Monitoring and Utilization Tracking

Only limited call pattern exceptions were tracked, reviewed, and reconciled by IT staff. In addition, inactivity reports were not produced and there were no time of day restrictions defined on the system. Undetected fraud could result in inappropriate expenses to the organization. In addition, there could be expenses for telephone lines no longer in use.

Auditor's Recommendation:

We recommend IT create and implement policies and procedures for monitoring exceptions for call patterns or inactivity. We also recommend that time of day restrictions be implemented for areas where they should be used.

City IT's Response:

Research: City IT agrees in principle.

- All external billable calls to the City are currently tracked and distributed on a monthly basis to City departments for their review.
- Neither the PBX nor Voice Mail systems have the capability to monitor for inactivity.
- Times of day restrictions are currently not applicable due to the City's broad work force and the different department's hours of operations.

Action:

- City IT has in place a process where Call Accounting System exception reports currently provided by the Call Accounting System will be made available on a monthly basis or as needed for further analysis by Telecom Staff.
- Time of day options will be addressed on an individual department basis as requests are received and reviewed.

Findings, Recommendations and Responses

7. Logical Access Controls

Logical access (password) controls were inadequate. Without adequate logical access controls there could be unauthorized access to these systems.

Auditor's Recommendation:

We recommend IT implement adequate logical access controls.

City IT's Response:

Research: City IT agrees in principle.

- City password policy is currently addressed in section 3.5 of the Information Technology Security Policies Manual.

Action:

- City IT has implemented a process to address adequate logical access controls and will continue to follow all recommendations based on the Information Technology Security Policy.

Auditor's Response:

- Section 3.5 of the Information Technology Security Policy (ITSP) addresses password length. The ITSP does not address password expiration or the periodic changing of passwords. The existing policy is not in accordance with generally accepted IT security practices or industry best practices. We recommend the ITSP be updated to require a minimum password length of eight characters and that all passwords are required to be changed at least every 90 days.

Findings, Recommendations and Responses

8. Over Billing for Telecommunication Services

For the month of December 2005, the total billed by vendors for long distance and directory assisted calls was marked-up by about 80% before being charged to City departments. It appeared this type of mark-up occurred throughout the audit period. The excess revenues were used to purchase unbudgeted equipment.

International calls were charged back at rates that were much different than the actual charge by the service provider. In the month of March 2005, international calls charged to the City had a large mark-up while those billing in December 2005 were charged at a significant discount.

In addition, the duration on the MCI bill differed from what was reported in CAS. For the majority of the calls we reviewed, the MCI billing ranged from 6 to 24 seconds longer per call than what was recorded in the CAS.

Auditor's Recommendation:

We recommend:

- IT review the costs established in CAS compared to the costs billed by the vendors for each service and only charge back user departments near actual costs.
- A call comparison be conducted and it include a verification of call duration between CAS and the vendor bill.
- The 501-8740 account only be used as an internal service account and not used to make purchases.
- The Answer Supervision software be evaluated and implemented to assist in determining if a call was completed before billing the users based on CAS information.

City IT's Response:

Research: City IT agrees in principle.

Action:

- An evaluation has been completed using current data and a determination made to modify the current rate structure.
- Based on the limited budget and current resources available, IT has determined that a more comprehensive analysis for comparing calls from CAS to vendor bills is not cost effective at this time. The current process takes into account the total dollars and minutes per month both from CAS and from the vendor bills to determine if the variance warrants further investigation.
- The use of the 8740 account was developed and approved with the guidance of the Budget and Finance departments. The IT Billing section is currently working with the Budget office to analyze methods of funding operational requirements in IT.
- Answer Supervision has been implemented on long distance trunks as recommended.

Findings, Recommendations and Responses

9. Periodic Review of Services

ICG provided a number of different telecommunication services for the City. The total contract payment for the month of February 2006 was \$3,277.33. There had not been a review to determine if all of the services were still required and if the City was paying fair and reasonable costs for such services. It appeared the same situation existed with other telecommunication service providers. Without a periodic review of services, the City could be paying higher than fair and reasonable costs for services. In addition, the City could be billed for services that are no longer needed.

Auditor's Recommendation:

We recommend IT review the services provided by ICG and other telecommunication vendors to determine if the rates are fair and reasonable and that all services are still required.

City IT's Response:

Research: City IT accepts the recommendations.

Action:

- All services from ICG utilized for PBX system operations were last reviewed on August 7, 2006 and was determined that all services provided were in use, required, and the rates were fair and reasonable. A new contract was negotiated with the assistance of City Contracting in 2006.
- The Telecommunications department participates in scheduled meetings with vendors to go over services, issues, costs, billing, and promotions.

Findings, Recommendations and Responses

10. International Calls

We noted more than 70 international calls were made by the Valley Hi Golf concessionaire to overseas locations. Our research found the concessionaire reimbursed the City for the cost of these calls. We have three concerns in this area. First, City policy does not allow employees to place long distance calls and then reimburse the City for those calls. Secondly, the method of charging the concessionaire for the calls varied greatly over the period. And thirdly, the contract with the vendor was unclear on the parties' responsibilities for telephone service.

Since City employees are required to use a calling card or third party billing for toll related calls, we believe the same requirement should apply to City vendors.

The cost defined in CAS for charging back international long distance calls to City departments ranged from \$0.09 to \$8.30 a minute and did not appear to have a correlation to the actual cost charged the City. In addition, for a nine day period, the cost was defined as \$0.00.

The contract for the vendor did not clearly address the responsibilities for the vendor regarding use of a City telephone. It did not address usage and requirements to pay associated costs for long distance, international calls, and directory assistance calls.

Without accurate charge information, charge backs to City departments could be less than actual expenses. The City would be paying for vendors to make international calls without a method to recover the costs. Without a clearly defined provision in the contracts, the City might not have a legal right to collect for personal vendor expenses.

Auditor's Recommendation:

We recommend City Contracting:

- Coordinate with Golf Administration to modify the vendor contract language.
- Make certain that telephone usage be addressed in all contracts of this nature moving forward.
- Request international access to be removed from the phone line used by the vendor.

We recommend IT:

- Perform a study to determine the reasonable price for charging back costs for long distance, international, and directory assistance calls to City departments.
- Evaluate results of the study and create policies and procedures to reflect the processes and implement changes.
- Coordinate with City management to determine if allowing international access is absolutely required for City business purposes and if allowing access is cost beneficial for the City to maintain.

City IT's Response:

Research: City IT accepts the recommendations.

Action:

Findings, Recommendations and Responses

- An evaluation has been completed using current data and a determination made to modify the current rate structure for long distance, international, and directory assistance calls to City departments. Because some international rates are subject to change daily, an average cost has been determined and implemented in the CAS system with approval of the IT Division Manager and will be initially recalculated in the second quarter of 2007 based on new contracted international rates and reviewed annually, thereafter.
- A policy has been drafted to address the charges assessed to all long distance calls made on the City network.
- Based on International calling volume in the last 6 months, all international calling capabilities have been restricted except for those departments that have requested the ability within the past 6 months.

City Contracting Response:

The contracts have been amended and signed by the vendors of both Valley Hi and Patty Jewett Golf contractors.

Golf Administration Response

Golf Administration management requested international calling be removed from the vendor phone on 6-29-06.

Findings, Recommendations and Responses

11. Physical access controls

Adequate physical access controls were not in place for all components of the PBX and Voice Mail systems.

Auditor's Recommendation:

We recommend IT coordinate with Facilities to adequately implement controls to physically protect all telecommunication equipment.

City IT's Response:

Research: City IT agrees in principle.

- The Telecommunications department has and continues to make recommendations to building managers for proper Telecommunication equipment rooms.
- Voice Mail equipment is currently housed in a secured facility.
- Physical security of telecommunications equipment is currently addressed in the City's Information Technology Security Policy section 4.1

Action:

- The Telecommunications department will continue to inform and make recommendations to building managers for proper Telecommunication equipment rooms for all new, remodeled, and existing facilities, but currently have no enforcement authority over other departments.

Auditor's Response:

- Section 4.1 of the ITSP addresses the physical security of Department-level IT assets. It also addresses the sharing of facilities with other agencies and the securing of City IT assets in such situations. The exceptions we noted in our review were at facilities used by other City departments, not external agencies. Section 5.2 of the ITSP implies that telecommunications and telephone equipment are Enterprise-level IT assets. As such, physical security of Enterprise-level IT assets should be governed by Section 5.1 of the ITSP. However, this section does not adequately detail physical security of Enterprise-level IT assets outside of a data center environment. We recommend that section 5.1 of the ITSP be expanded to include securing Enterprise-level IT assets at remote facilities managed by other City departments. This section should also give City IT the ability to enforce the physical security guidelines at remote facilities housing Enterprise-level IT assets.

Findings, Recommendations and Responses

12. System Restrictions

Most users were granted permissions to make local, long distance, Canadian, and directory assisted calls as a default. Other issues were identified that could result in inappropriate use of the City phone system. In addition, there was no documentation supporting approval for granting users special permissions like long distance, international calling, and to accept collect calls. For the month of December 2005 there were a total of 98 directory assistance calls billed by Qwest and Corporate Telecom Solutions, at an actual cost of \$74.50. In 2005, there were a total of 72 international calls totaling \$233.96. In April 2006, there were five collect calls totaling \$25.14 from different carriers on the Qwest bill. In 2006, there were several collect calls accepted at a phone assigned to the vendor of the City Auditorium. Some of the collect calls were from Correctional Billing Service and the phone had a total charge to the City on the February Qwest bill of \$123.51. Without adequate restrictions, the City could incur unnecessary expenses.

Auditor's Recommendation:

We recommend City IT implement adequate system restriction to control use of the City phone system.

City IT's Response:

Research: City IT agrees in principle.

Action:

- The level of calling restrictions is provided or denied based on requests received from Department Telecom Administrators.
- Forwarding of calls to external numbers allows calls to be answered by department provided cell phones.

Findings, Recommendations and Responses

13. Collect Calls

Details for collect calls were not being charged back to the departments. We also noted that there were collect calls accepted at a phone that appeared to be assigned to a vendor. The contract with the vendor did not cover the responsibility for collect calls. Without chargebacks, the true operating expenses of the departments would not be realized. In addition, misuse could go undetected and the City could be paying for collect calls that are the responsibility of a vendor or an employee.

Auditor's Recommendation:

In a previous finding, we recommended IT limit the use of accepting collect calls. In addition, we recommend:

- That all details for collect calls be sent and charged back to the responsible departments.
- That Contracting review existing vendor contracts and also include in future contracts, the responsibility for phone charges.
- That all departments ensure reimbursement for phone charges that are the responsibility of an employee or vendor.

City IT's Response:

Research: City IT agrees in principle.

Action:

- Collect calls made by departments are determined each month and a copy of the bill along with a memo to the department head is sent asking for review of the calls and determination of whether the calls were work related or personal in nature. If personal, they are advised to reimburse as appropriate, per City Policy # 56. As a result, the collect call volume has decreased substantially.
- For City Contracting response, reference Recommendation #10 Response.
- Reimbursement of personal calls is currently addressed in City Policy #56.

Findings, Recommendations and Responses

14. Monitoring Phone Calls

There were inadequate policies and procedures governing the ability to monitor or record phone calls made on City phone lines. Phone calls made on City phone lines could inappropriately be monitored leaving the City exposed to a potential liability and violation of Federal and State statutes.

Auditor's Recommendation:

We recommend that IT develop policies and procedures to govern the monitoring of phone calls made on City phone lines. These policies and procedures should be developed in consultation with the City Attorney's Office to ensure they comply with Federal and State statutes. The procedures should include adequate details that could be used to aid in the defense of a case challenging any monitored phone call in a court of law. Once developed, these policies and procedures should be distributed to all City employees for their use and knowledge whenever phone calls made on City phone lines are monitored.

City IT's Response:

Research: City IT agrees in principle.

- The IT department considers Voice conversations as electronic information and are therefore addressed in the City's IT Security Policy.
- There are currently no City PBX telephone setups for monitoring to our knowledge. Bridging of lines on multiple multi-line telephone sets is currently allowed per departmental requests based on their business requirements determined by their managers.

Action:

- Telecommunications has drafted a policy and procedure to address any request received for monitoring or recording of telephone conversations to include input and legal requirements from the City Attorney's Office.

Auditor's Response:

During IT's changes to their policy and procedures, we want to stress the need to clarify that telephone systems are included in the overall definition of "systems". In addition, we believe electronic information, which is currently defined in the policy as "any data that has been entered into a computer, stored in a computer, or retrieved from a computer" needs to be expanded to clarify it includes Voice conversations as mentioned in IT's response above.