

OFFICE OF AUDITS & ADVISORY SERVICES



IT BILLING AUDIT REPORT

FINAL AUDIT REPORT

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May 23, 2011

TO: W. Harold Tuck
Chief Information Officer

FROM: James L. Pelletier
Chief of Audits

FINAL REPORT: IT BILLING AUDIT

Enclosed is our report on the IT Billing Audit. We have reviewed your responses to our recommendations and have attached them to the audit report.

The actions taken and/or planned, in general, are responsive to the recommendations in the report. As required under Board Policy B-44, we respectfully request that you provide quarterly status reports on the implementation progress of the recommendations. The Office of Audits & Advisory Services will contact you or your designee near the end of each quarter to request your response.

Also attached is an example of the quarterly report that is required until all actions have been implemented. To obtain an electronic copy of this template, please contact Franco Lopez at (858) 505-6436.

If you have any questions, please contact me at (858) 495-5661.

JAMES L. PELLETIER
Chief of Audits

AUD:FDL:aps

Enclosure

c: Donald F. Steuer, Chief Financial Officer
Tracy M. Sandoval, Assistant Chief Financial Officer/Auditor and Controller
Brian M. Hagerty, Group Finance Director, Finance and General Government Group

INTRODUCTION

Audit Objective The Office of Audits & Advisory Services (OAAS) has completed an audit of the charges incurred relative to the Information Technology (IT) Telecommunications Service Agreement (the Contract or Agreement). The objective of the audit was to verify the accuracy and integrity of billed charges.

Background In January 2006, the County entered into a contract with Northrop Grumman Information Technology, Inc. (NGIT) to improve the County's use of IT and telecommunications and the manner in which these services were obtained.¹ Per the contract, the goal of the outsourcing initiative was to efficiently utilize the County's IT and telecommunications resources to benefit the citizens of the County.

Total billed charges to the County during FY 2009-10 amounted to \$126.4M.

Audit Scope & Limitations The scope of the audit focused on Agreement charges incurred during FY 2009-10 and the first half of FY 2010-11. This includes all charges incurred as outlined in the County's billing system (Chargeback) as well as those charges which were invoiced separately from Chargeback.

This audit was conducted in accordance with auditing standards prescribed by the Institute of Internal Auditors, Inc., as required by California Government Code, Section 1236.

Methodology OAAS performed the audit using the following methods:

- Reviewed the Agreement as well as relevant guidance available;
- Interviewed County and NGIT stakeholders;
- Mapped key processes and assessed the risks to achieving accurate IT billing;
- Obtained and analyzed detailed IT billing information; and
- Identified, reviewed, and tested controls which ensure the County is billed correctly.

AUDIT RESULTS

Summary Within the scope of the audit, we found that billed Agreement charges are generally accurate. Audit testing verified that charges incurred by the County agreed with the source records of NGIT and its subcontractors. However, the audit found that strengthening controls associated with monitoring Agreement charges and maintenance of Chargeback will improve the integrity of the billing system and could result in cost savings for the County.

¹ With the County's approval on April 30, 2011, NGIT assigned the Contract to Hewlett Packard's Enterprise Services (HP). Commencing on May 1, 2011, HP agreed to assume NGIT's obligations as Contractor.

Finding I: Improvement in County Departments' Monitoring and Maintenance of IT Billing Information in Chargeback is Needed

A review of County IT billing controls found varying degrees of monitoring by County departments. Some departments review all line items in their monthly billing, while other units only ensure billing falls within past trends. Additionally, varying degrees of emphasis in maintaining user information accuracy in Chargeback were observed. Out of 45 Countywide IT service users sampled, 24 (53%) had inaccurate asset and service user information in Chargeback.

Testing showed that these inconsistencies resulted in a variety of undetected discrepancies and avoidable costs (e.g., unused computers, data jacks, and email accounts). Two examples are provided below. Additional cost avoidance examples related to monitoring of Agreement charges are included in Findings II, III, and IV.

- **Unutilized Assets and Services** – Within a Countywide sample of 45 IT service users, the assets and services of nine users (20%) were found to be unutilized. In each case, the asset or service was assigned to a separated County employee but was left active pending the arrival of a new employee. Separated employees include terminated, retired, or transferred employees. The elapsed time since separation ranged from 2 to 14 months. Departments indicated that leaving the assets and services of separated employees active was a general practice, in part due to the assumption that deactivating and reactivating would incur a cost. However, according to the Agreement, there are no additional charges associated with activating or deactivating IT user services such as computers, data jacks, e-mail accounts, or phone lines.
- **Inaccurate Project Closure Agreements** – The Project Closure Agreements (PCAs) of five Work Requests sampled did not support the respective costs or schedules outlined in Chargeback. When asked about the discrepancies, NGIT indicated that the process is subject to inaccurate estimates, inaccurate charges, and subcontractor billing lags, but that quality reviews (certified by both the Contractor and the County) should have captured these discrepancies. Currently, there is no requirement that Work Request PCAs be reconciled against actual Chargeback costs incurred before a project closure. Based on the sample, the current Work Request project close-out process does not appear to ensure accurate PCA reporting, which is used by the County in measuring Work Request related Minimum Acceptable Service Levels (MASLs).

IT billing monitoring and maintenance of the information in the Chargeback system is the responsibility of County departments. However, there are currently no policies or procedures for departments on the activities required for effective monitoring and maintenance. While Chargeback training is available through the County's Learning Management System, a more comprehensive set of policies and procedures are needed to assist departments in assessing the

appropriateness of charges, detecting overcharges, and identifying cost avoidance opportunities.

Recommendation: The County Technology Office (CTO) should work with the Auditor and Controller and the IT Governance Structure to establish, for Countywide implementation, IT billing monitoring policies and procedures. These should include, but are not limited to:

- Review frequency;
- Evaluation of asset utilization and deactivation of unused assets and services; and
- Expectations and responsibility for system maintenance.

Finding II:

Avoidable Telecommunication Charges

An analysis of monthly phone charges identified 5,137 primary phone lines with limited or no usage costs during the period of July 2009 to July 2010.² Specifically, these lines demonstrated limited or no outbound calls external to the County's internal phone network.

To assess the extent that limited usage lines may represent avoidable costs, a sample of phone lines was selected for testing and interviews were conducted to determine if the phone lines were still required. Out of 30 phone lines tested, 20 lines (66%) were confirmed by the departments to be no longer required. It is important to note that certain types of phone lines, such as emergency lines, must be left in operation regardless of their usage. Additionally, some lines are utilized solely for incoming calls, such as customer service lines and certain fax lines, and generate no usage costs.

Of the twenty lines no longer needed, 10 phone lines belonged to general lines (e.g., fax lines and conference room lines). The remaining 10 phone lines belonged to employees who had separated from their department. Similar to Finding I, departments indicated that leaving phone services active after an employee separation was a common practice, in part due to the assumption that deactivating and reactivating would incur a cost.

Detailed phone line service and usage information is currently reported monthly in separate categories within Chargeback. However, identifying phone lines with limited or no outbound calling usage requires a detailed comparative analysis of service and usage by phone line. This analysis is not part of the Chargeback reporting capability.

Recommendation: The CTO should work with NGIT to produce a periodic report that will assist the County in identifying unutilized and underutilized phone services that can then be reviewed by the departments for potential deactivation. Guidance for the availability and use of the report should be included in the policies and procedures discussed in Recommendation I.

² Limited usage was assessed as less than one minute of use during the period.

Finding III: Storage Incorrectly Billed

Review of the Contractor's files identified incorrectly billed storage within each of 10 storage units (servers) sampled from the July 2010 billing. Each unit contained one or more directories, including Operating System (OS) and back-up storage files, billed to the County which were contractually unbillable. The contract specifies that storage that is not part of usable capacity (i.e., OS files, data replication, and back-up storage) is not billable to the County. However, interviews with Contractor staff and review of detailed billing support found that Contractor Database Administrators routinely utilize storage (billed to the County) for contractually unbillable activities for their operational needs.

The review also found that six of these same units were billed at full allocated storage capacity, which is beyond maximum billable limits. These units were used for Enterprise Resource Planning (ERP) software storage. A previous work request (SD-WR-6112) authorized NGIT to bill the County for the full allocated storage capacity for all ERP based servers from January to July 2009. However, billing was not restored to normal maximum limits following this authorized period.

Neither NGIT nor the County identified these issues because a process is not in place to report on and evaluate billable versus unbillable storage services provided to the County by the NGIT subcontractor. Chargeback does not provide the detail needed (i.e., detailed directory information or server utilization factors) to identify unbillable storage, and no alternative is currently available.

Recommendation: The CTO should work with NGIT to:

1. Assess the impact of incorrectly billed storage across all units billed to the County and dispute overcharges as appropriate; and
2. Establish a reporting and review process with sufficient detail to assess billable and unbillable storage. These controls may include, but are not limited to:
 - a. Standardization of directory labels that discern billable from unbillable activity for the Contractor; and
 - b. Implementation of periodic review of detailed storage reports from the Contractor.

Guidance for the availability and use of the report should be included in the policies and procedures discussed in Recommendation I.

Finding IV: Historical Resolution of Disputes Was Not Timely

At the commencement of test work (September 2010), there were 5,969 outstanding Chargeback disputes, totaling \$1,762,635, which occurred between January 2007 to September 2010. During the course of this audit (as of January 2011), 5,786 disputes amounting to \$1,452,189 were resolved by the CTO and NGIT as shown in Table 1.

Table 1. Disputes Resolved During Audit Period

Month End	Disputes	Dispute Amount
September 2010	5,969	\$1,762,635
January 2011	183	\$310,446
Totals	5,786	\$1,452,189

As of January 2011, there were 183 outstanding Chargeback disputes amounting to \$310,446 as shown in Table 2.

Table 2. Outstanding Disputes by Year as of January 2011

Fiscal Year of Dispute	Number of Disputes	Amount Disputed
FY 2007-08	7	\$7,636
FY 2008-09	4	\$131,670
FY 2009-10	104	\$152,061
FY 2010-11	68	\$19,079
Totals	183	\$310,446

The Agreement contains a timeline for dispute resolution procedures which is meant to resolve disputes within two months of notification. While efforts are still underway by the CTO and NG to resolve outstanding disputes, a total of 115 items remain open from previous fiscal years. Additionally, the County has opted to pay the Contractor in full for all charges monthly and does not withhold disputed amounts (as allowed in the Agreement), which may be a factor in limiting the County's ability to negotiate with the Contractor to resolve dispute items timely. While there is some fiscal cost to advance payment of disputed items, ongoing follow-up activities by departmental IT billing reviewers represents a greater fiscal impact of untimely dispute resolution.

Recommendation: At the end of test work, the CTO provided a draft of dispute resolution procedures. The CTO should implement these draft procedures to ensure all disputes are resolved in a timely manner in accordance with dispute resolution procedures and timeline requirements outlined in the Agreement. The County should also consider withholding payment of any invoice, or amount thereof, that the County, in good faith, disputes is due.

Office of Audits & Advisory Services

Compliance **R**eliability **E**ffectiveness **A**ccountability **T**ransparency **E**fficiency

VALUE

DEPARTMENT'S RESPONSE



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Enterprise Architecture & Technology
Financial & Contract Mgmt Services
Risk Management
Service Management

5/13/2011
Ref: 11-IA-283

James L. Pelletier
Chief of Audits
County of San Diego

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MAY 19 2011

OFFICE OF AUDITS & ADVISORY SERVICES

Subject: COUNTY TECHNOLOGY OFFICE RESPONSE TO AUDIT RECOMMENDATIONS:
IT Billing Audit

Dear Mr. Pelletier,

In accordance with the Board of Supervisor Policy B-44 the following are the County Technology Office's written response addressing audit findings and recommendations contained in the draft IT Billing Audit Report.

Finding I: Improvement in County Departments' Monitoring and Maintenance Of IT Billing Information in Chargeback is Needed

OAAS Recommendation:

The County Technology Office (CTO) should work with the Auditor and Controller and the IT Governance Structure to establish, for countywide implementation, IT billing monitoring policies and procedures. These should include, but are not limited to:

- Review frequency;
- Evaluation of asset utilization and deactivation of unused assets and services; and
- Expectations and responsibility for system maintenance.

Action Plan: The County Technology Office agrees with the audit findings for this item and will work within the IT Governance Structure to develop IT billing monitoring policies and procedures to be implemented at the department level. It will, however, be the sole responsibility of those County departments to implement the procedures.

Planned Completion Date: 12/15/11

Finding II: Avoidable Telecommunication Charges**OAAS Recommendation:**

The CTO should work with NGIT to produce a periodic report that will assist the County in identifying unutilized and underutilized phone services that can then be reviewed by the departments for potential deactivation. Guidance for the availability and use of the report should be included in the policies and procedures discussed in Recommendation I.

Action Plan: The County Technology Office agrees with the audit findings for this item and will work with the Outsourcer to develop a report addressing the unutilized and underutilized phone service. The report will be covered in the chargeback monitoring policy and procedures.

Planned Completion Date: 12/15/11

Finding III: Storage Incorrectly Billed**OAAS Recommendation:**

The CTO should work with NGIT to:

1. Assess the impact of incorrectly billed storage across all units billed to the County and dispute overcharges as appropriate; and
2. Establish a reporting and review process with sufficient detail to assess billable and un-billable storage. These controls may include, but are not limited to:
 - a. Standardization of directory labels that discern billable from un-billable activity for the Contractor; and
 - b. Implementation of periodic review of detailed storage reports from the Contractor.

Guidance for the availability and use of the report should be included in the policies and procedures discussed in Recommendation I.

Action Plan: The County Technology Office agrees with the audit findings for this item. The County has reviewed the remainder of the servers to identify any missed charged storage. Credits for the incorrectly billed storage have been issued by the Outsourcer. The County will work with the Outsourcer to develop a report providing the visibility necessary to monitor storage to a level to allow for the discovery of such mischarges. The report will be covered in the chargeback monitoring policy and procedures.

Planned Completion Date: 12/15/11

Finding IV: Historical Resolution of Disputes Was Not Timely

OAAS Recommendation:

At the end of test work, CTO provided a draft of dispute resolution procedures. The CTO should implement these draft procedures to ensure all disputes are resolved in a timely manner in accordance with dispute resolution procedures and timeline requirements outlined in the Agreement. The County should also consider withholding payment of any invoice, or amount thereof, that the County, in good faith, disputes is due.

Action Plan: Prior to the commencement of the Audit, the County Technology Office had already undertaken a comprehensive review of the Dispute Process. Based upon this internal CTO review, the County Technology Office implemented improvements to the dispute resolution process and has targeted to resolve 90% all chargeback disputes within sixty days of submittal.

With respect to withholding payments, this policy had been discussed, and agreed-to, prior to the commencement of this audit. CTO will consider whether to present this item through the IT governance process for reconsideration.

Planned Completion Date: Complete

Contact Information for Implementation: Richard Corsi, Finance & Contract Manager
If you have any questions, please contact me at (619) 595-4628

Regards,



W. Harold Tuck *for*
Chief Information Officer