



OFFICE OF INSPECTOR GENERAL

MEMORANDUM

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TO: Inspector General *[Signature]*

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SUBJECT: Survey of Software Technology Purchases

As part of the fiscal year FY 2003 audit plan, we have completed a survey to review some of the software purchases at the Federal Communications Commission's (FCC's) Auctions Bureau and Information Technology Center (ITC). The objective of the survey was to identify possible duplicate software purchases, calculate the amount overspent and make the necessary adjustments to curb future duplicate purchases. The purpose of this survey memorandum is to summarize the results of the survey, document significant observations, and identify areas where additional audit work should be performed.

REASON FOR SELECTION

On September 12, 2003, the Office of Inspector General (OIG) issued Report No. 02-AUD-03-12 entitled "Draft Report on Audit of Auctions Information Technology Capital Investment Practices." The purpose of this Report was to identify factors contributing to the continual rise in Auctions fiscal year program costs and to assess the FCC's information technology capital investment practices for managing the Auctions program. During our review, we found that the Commission is lacking formal, documented IT capital planning processes and procedures with defined criteria for the selection, control, and evaluation of investments. These investments included software purchases. Field work performed during the IT capital investment audit

identified a number of duplicate software purchases.

OBJECTIVE

The objectives of this survey were to: (1) determine if duplicate IT purchases within the FCC exist; (2) document any duplicative costs that may exist; and, (3) Evaluate FCC's IT purchasing strategy to assist in determining if the FCC is receiving the best price.

BACKGROUND

Under guidelines and policies established by the Chairman and the Managing Director, the Information Technology Center (ITC) is responsible for the overall direction of Commission programs involving the use of computer and telecommunications systems. IT-related activities required by each Commission program are identified and evaluated to determine whether they represent core IT services that impact the Commission as a whole or distributed IT services that impact individual Bureaus or Offices. Based on this evaluation, an ITC task force is created to ensure that the needs of each program and the Commission as a whole are met.

Section 309(j)(8)(b) of Title 7, Chapter 5 of the United States Code, grants the FCC the authority to retain Auctions revenue to offset the cost of implementing the Auctions program. Since their issuance, there have not been any further legislative rulings that further clarify and define the costs that can be offset. In FY 1996, the FCC published the *Auctions Cost Recovery Guidelines* which outline the Commission's understanding of retention authority language. The guidelines, which were updated in FY 1999, identify and classify the types of costs that can be offset by Auctions proceeds. Thus, a separate computer system was established for auctions.

On September 12, 2003, the Office of Inspector General (OIG) issued Report No. 02-AUD-03-12 entitled "Report on Audit of Auctions Information Technology Capital Investment Practices." In the final report issued on September 12, 2003, a list of expenditures was examined to determine what was contributing to the annual growth of Auctions costs. Budget object class codes (BOCC) were used to categorize expenditures made by the Auctions Division between FY1997 and FY2003. While there were various trends in expenditures among the BOCC's, the most notable increases came from Contracted Services (BOCC 2500); Personnel Compensation (BOCC 1100); Benefits (BOCC 1200); Equipment (BOCC 3100); and Rent, Communications, and Utilities (BOCC 2300). It was in Equipment (BOCC 3100) that the OIG noted that the growth in this expenditure class resulted from hardware and software purchases for the upgrade of the Auctions IT environment.

After reviewing some of the costs made in Equipment (BOCC 3100), there was evidence of possible duplicate purchases made between ITC and WTB. For instance, WTB made a purchase of (2) Sun Storage Area Networks (SAN) to support its primary site in Washington, DC and its facility in Gettysburg. Consequently, ITC already operates a SAN that "has the potential capability to support the entire Commission infrastructure for data storage and backup capabilities," according to notations made by ITC in a response to a preliminary draft report.

While there are some discrepancies with this finding, the lack of transparency between the two IT purchasers is indicative that there is little coordination among the bureaus when purchasing IT products. Hence, OIG observed an environment where purchases of duplicate IT hardware and software licenses could occur.

SCOPE OF SURVEY WORK PERFORMED

This project was conducted as a survey. A survey is preliminary audit work done before an audit and is not an audit conducted in accordance with Government Auditing Standards (i.e., GAO "Yellow Book" standards). The purpose of a survey is to gather general working information on important aspects of an entity, activity, or program, and to determine the nature and extent of any subsequent audit effort.

The purpose of this particular survey was to examine some of the IT software purchases made between the Auctions Division and ITC, report the results to the Inspector General, and recommend the next course of action. To meet this goal, this survey had a series of milestones. The first milestone was to gain an understanding of what work has been done in this area and to decide a method in achieving results. A considerable amount of attention went into analyzing what other firms both public and private have done to centralize their IT departments. This information was obtained through daily publications, weekly journals, and in-house memorandums. Given the amount of information obtained and the impetus given by the Office of Management and Budget (OMB) to conform to the SmartBUY initiative, we adopted the General Services Administration (GSA) prices as the standard for comparison.

Federal guidance in this area is extensive. OMB has released a series of Circulars and Memorandums that provided criteria for this survey. Circular A-130 requires agencies fund a portfolio of investments across the agency that maximizes return on investment for the agency as a whole. The Clinger-Cohen Act requires agency heads to establish goals for improving the efficiency and effectiveness of agency operations.

Recent guidance is even more specific. Memorandum 03-18, *Implementation Guidance for the E-Government Act of 2002*, directs agency CIOs to consider reusing technology, including software, where applicable. OMB Memorandum 03-14, *Reducing Costs and Improving Quality in Federal Purchases of Commercial Software*, cites the uncoordinated approaches of federal agencies to acquire software as wasteful and ineffective. Furthermore, it states that if the federal government applied a government-wide approach for enterprise licenses on common software, there would be substantial benefits to the taxpayer.

The next step was to acquire some of the purchase order reports from ITC and the Auctions Division and compare them to find any irregularities. The work papers KPMG developed for the IT Capital Investment Audit provided much of this information. The KPMG data contained purchase orders that were occasionally accompanied with a detailed invoice list. It is important to note that many purchase orders that did come with additional invoice information facilitated data analysis. Once we entered the purchase orders into a database, a comparison of the

individual acquisitions was made to try and find any duplicate purchases. Afterwards, we finalized the survey by examining the costs of one particular purchase order with the costs found in the GSA Advantage Schedules. The particular purchase order contained a detailed invoice list of CISCO products. By deconstructing the list with the GSA prices, an attempt was made to determine if GSA prices were the most advantageous to use.

The final milestone was to determine if any aspects of IT software purchases need further OIG involvement and review. The survey report will recommend what, if any, additional action the OIG should take on the purchase of IT software.

To accomplish the objectives of this survey, the OIG used the following methodology. We reviewed IT purchasing information, including documentation policy, practices, invoices, templates, checklists, and GSA Advantage schedules. Federal government documents, including OMB circulars, were also reviewed. And, interviews were conducted with other members on the Commission that have expertise on this subject.

SUMMARY OF OBSERVATIONS

As part of the survey process, we evaluated the Commission's role in the purchasing of IT software to identify areas where weaknesses or inefficiencies exist which may require more comprehensive audit coverage.

Review of the IT Purchases

The first step was to compare the IT purchases made between the Auctions Division and ITC in FY 2001 and FY2002. Based on the information we have, there appears to be a considerable amount of items listed that may be duplicates of prior purchases. They are duplicates in the sense that Auctions or ITC would go out and purchase a software package, and then the other division would then go out and purchase the same software despite its availability within the Commission. For instance, both Auctions and ITC continue to upgrade the two separate versions of WinRunner and LoadRunner licenses (see Appendix 1). Even though these licenses have an expiration date, there is still enough overlap for both parties to share the software.

Regardless of which department purchased the software first, the information available adequately illustrates a perpetual problem occurring between these two departments. The total excess spent currently approximates \$58,000 (see Appendix 1 for details). With more accurate records this amount could become higher. Furthermore, there may be reason to believe that there are multiple software purchases for the same application within the Commission.

Limited Review made by Office of Managing Director (OMD)

In discussing the ongoing survey with representatives from OMD in a meeting on October 27,

2003, OIG provided invoices for them to review. The invoices submitted to OMD were purchases made from the vendors of Internet Security Systems Inc., Tripwire, Merant, and Mercury Interactive. While the results of the OMD review were not evaluated by OIG, OMD had returned feedback on October 10, 2003, by notifying OIG of significant institutional changes that were being implemented in FY' 04.

OIG has learned that OMD is implementing in FY 2004 a system called a "cross-walk". A "cross-walk" organizes software purchases by inventorying specific details of the software descriptions which would make future purchases held in check in case such an item has already been purchased or licensed. Not only would such a list prevent duplicative purchases, but it would also consolidate listed items in order to negotiate "best value" from vendors on future purchases.

OMD has also stated to OIG that future software purchases that are made between Auctions and ITC will be reviewed in periodic meetings between Auctions and ITC purchasing and contract personnel. These meetings will coordinate future software purchases by eventually assimilating such information into the "cross-walk" list generated by OMD.

Review of Logicon Invoice for CISCO Purchases

The next step was to compare the prices found in an original invoice made out by Logicon, Inc. in YR. 2001 with the current YR. 2003 prices found in GSA schedules (see Appendix 2). The Logicon purchases were for maintenance on devices manufactured by CISCO Systems. We reviewed these invoices because the documentation on the purchases was very detailed. While the survey tabulates the costs of the items purchased by the FCC, it also makes an estimate of the total cost that would occur if the FCC had purchased such items today (YR. 2003) based on GSA Schedules.

The review found that while most costs are reduced in time, the total purchase for YR. 2003 using the GSA list price would exceed the total purchase made in YR. 2001. The total calculated from the lowest prices GSA listed exceeded the cost of the total on the original invoice by over \$38,000 (Appendix 2 details the work performed). Although this data would favor directly purchasing IT products from a private vendor instead of using the GSA schedules, it is important to consider some variables in the price differences. By comparing the list prices in YR. 2001 with YR. 2003, there is a reduction in cost over time. The reduction in cost could stem from the diminishing value of Information Technology through time as it is surpassed by more efficient upgrades. Furthermore, when purchasing IT products from a private vendor, bulk rates are usually factored into the total cost. Thus, the original invoice may illustrate considerable savings since such a large purchase was made.

By comparing the prices from the invoice and the current GSA Schedule prices, we think we can find the most advantageous method of purchasing IT products.

While this survey hoped to draw a finite conclusion in determining the best approach to take, it is flawed by specific variables that are stated above. Had the original invoice contained up to date

information, then the results of this survey may prove more beneficial in calculating price differences.

What can be concluded is the possibility that purchasing Information Technology from a private vendor could preclude overall savings from GSA if such vendors are offering discounts on bundled purchase orders. If this was the case then there should be some caution in deciding to completely integrate GSA schedule prices as the standard.

We recommend a further review of more current invoices based on the "cross-walk" list to find out if GSA prices are more advantageous.

Survey Limitations

A problem that hindered this survey was the lack of consistent documentation that detailed the purchase order. A systemic problem lies initially in the procedural steps it takes to log IT data within the Commission. The purchase order itself gave a vague description of the technology to be acquired. In some cases, there were some purchase orders that did not have any additional attachments. Furthermore, the complexity of the application was not always stated even when the purchase order contained a separate invoice detailing each item. Without clear and accurate accounts of the products purchased, there are some difficulties in comparing duplicate purchase orders.

One of the issues that stems from lack of proper documentation is the question of assuredness that two products are actually related to each other. For example, Auctions made a purchase from Internet Security Systems, Inc. for a 'System Scanner 90' (see Appendix 1). ITC also made a purchase for a similar item called a 'System Scanner 10'. While Auctions may have made a purchase for an advanced version of this software, it can not be assured unless a further review is made.

A remedy for this setback could be a review of the licensing agreements that come along with the software purchases. The licenses will provide more information about each application's utility and the rights of the user. The invoices would occasionally list how many users could install the application, but it may not be concise enough to rely on.

The scope of this survey is also limited in range. Because we are only dealing with Auctions and ITC, we are not sure that we have the whole universe of contracts that apply to this issue. It is reasonable to assume that a survey that currently reviewed the entire Commission's IT software purchases would uncover further excess. However, OMD's "cross-walk" list may prevent future excess from occurring.

The results of the OMD review went unaccounted for in this survey. While we were unable to retrieve or evaluate these results, we did receive confirmation that centralizing measures were being put into operation. Thus, one could extrapolate that the results of the review were significant enough to evoke a change in procedures. However, it is recommended that the results

of this review be evaluated in the future for auditing purposes.

FUTURE AUDIT COVERAGE

Since OIG has learned that OMD is implementing procedures that will affect the way software is inventoried and purchased, there is no need to perform any additional audit work by examining software purchases between ITC and Auctions. Furthermore, the method of operations implemented will have a significant impact on the way we would make purchases through GSA. Thus, it is not significant to continue examining the price differences between private vendors and GSA until these operations are developed. However, such operations should be reexamined at a later date to see if these methods are effective.

CONCLUSION

Based on the results of this survey, the Office of Inspector General should not perform additional audit work on the purchases of IT software within the Commission. There currently is enough information to demonstrate that items are duplicated in the purchase orders between two offices, yet procedures have recently originated to prevent future purchases from being duplicated. The OIG should continue to analyze invoices with GSA Advantage Schedules to find out the best method for purchasing software, but an analysis of this nature should come at a later date when the information from the "cross-walk" list is relevant. It is also advised at a later date to revisit the methods of operations that OMD has implemented in order to see if they are effective.