



U.S. GENERAL SERVICES ADMINISTRATION  
Office of Inspector General

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March 6, 2007

MEMORANDUM FOR JAMES A. WILLIAMS  
COMMISSIONER  
FEDERAL ACQUISITION SERVICE (Q)

FROM:

  
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DEPUTY ASSISTANT INSPECTOR GENERAL FOR  
INFORMATION TECHNOLOGY AUDITS (JA-T)

  
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ACQUISITION AUDITS (JA-A)

SUBJECT: REVIEW OF EOFFER/EMOD, GSA'S ELECTRONIC  
CONTRACT PROPOSAL AND MODIFICATION SYSTEM  
REPORT NUMBER A060149/Q/T/P07002

The attached subject audit report presents the results of our review of GSA's system for electronic contract proposal and modification--eOffer/eMod. These two important web-based applications were launched in mid-2004 and currently allow companies to electronically prepare, submit, and modify contract proposals for select Multiple Award Schedules. Our review identifies areas where improvements are needed to ensure successful operations for the system, including achievement of FAS goals to create an interactive, secure electronic environment that simplifies the contracting process. We met with your staff on December 21, 2006 to discuss issues raised during this review including low system utilization rates and weaknesses with important managerial, operational, and technical controls, including system security controls. You have concurred with our findings and recommendations for improving eOffer/eMod, and have noted improvement actions underway. This report includes a Management Response section, which summarizes your written comments to the draft report and a copy of the comments you've provided is included in Appendix B.

In accordance with GSA Order ADM P 2030.2C, a time-phased action plan to specifically address the report recommendations and the Management Decision Record is required within 60 days of the report date. The time-phased action plan and completed Section B of the Management Decision Record should be submitted to the Assistant Inspector General for Auditing (JA), with a copy to the Audit Follow-up and Evaluation Branch (BECA).

It is important that the final actions and all management decisions responding to the report be completed within 12 months of the audit report issue date. Otherwise, the Office of Inspector General must identify in its Semiannual Report to Congress the matters on which final actions

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have not been completed within this timeframe. As such, to the maximum extent possible, your time-phased action plan should schedule actions to be completed within 12 months of the report issue date. To help us improve our customer service, we have attached a Customer Satisfaction Survey developed to obtain feedback regarding how the report and related audit services meet customer expectations. We request that the primary user of this report complete the questionnaire and return it to the Director, Audit Operations Staff (JAO) in the envelope provided. I appreciate the courtesies and assistance provided by you and your staff during our review. Should you have any questions, or if you would like to discuss any aspect of the report in greater detail, please contact me or Donna Peterson-Jones, Audit Manager, on (703) 308-1223.

Attachments

# Audit Report

REVIEW OF EOFFER/EMOD, GSA'S ELECTRONIC  
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REPORT NUMBER A060149/Q/T/P07002

March 6, 2007

**Office of Inspector General  
General Services Administration**



**Office of Audits**



U.S. GENERAL SERVICES ADMINISTRATION  
Office of Inspector General

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Date: March 6, 2007

Reply to: Deputy Assistant Inspector General for  
Attn of: Information Technology Audits (JA-T)

Deputy Assistant Inspector General for  
Acquisition Audits (JA-A)

To: James A. Williams  
Commissioner, Federal Acquisition Service (Q)

Subject: Review of eOffer/eMod, GSA's Electronic  
Contract Proposal and Modification System  
Report Number A060149/Q/T/P07002

This report presents the results of our review of the eOffer/eMod web-based applications that allow companies to electronically prepare and submit contract proposals and contract modifications under the General Services Administration's Multiple Award Schedules (MAS) program.

The General Services Administration launched eOffer and eMod as the paperless means to streamline the contract award and modification process in May and July of 2004, respectively. Our review found that both proposals and modification requests for MAS contracts are still primarily being submitted on paper rather than electronically through eOffer/eMod. Though the number of electronic offers and modifications submitted by vendors has increased over the last three years, overall utilization rates for these two important web applications remain low. Although one goal for eOffer was to reduce the amount of time involved in making contract awards, contract awards made through electronic offers are taking longer to process than awards made on paper offers. Specific performance measures for eOffer/eMod needed to assess customer satisfaction or overall system performance have not yet been established. Currently, justification and important planning information for eOffer/eMod is contained in the Fiscal Year 2004-2007 Exhibit 300 business cases for the Federal Supply Service-19 system. We also identified that specific web application security risks were not adequately considered prior to system deployment. While specific technical security controls have improved, security management for eOffer/eMod needs to be strengthened in response to the reported security vulnerabilities. Specifically, a comprehensive Certification and Accreditation process to verify the adequacy of system security controls for eOffer/eMod and e-authentication risk assessment activities are not yet completed. Immediate attention to each of these risk areas is needed to improve usage rates, system functionality, and security for system resources. Written comments provided by your office have been included in their entirety in Appendix B.



This audit approach was an integrated planning and reporting effort between the JA-T and JA-A audit offices. I wish to express my appreciation to all of your staff and other persons who cooperated during the audit. If you have any questions, please contact me or Gwendolyn McGowan, the Deputy Assistant Inspector General for Information Technology Audits, on 703-308-1223 or Kenneth L. Crompton, the Deputy Assistant Inspector General for Acquisition Audits, on 703-603-0189.



Donna P. Peterson-Jones

Audit Manager

Information Technology Audit Office (JA-T)

REVIEW OF EOFFER/EMOD, GSA'S ELECTRONIC  
CONTRACT PROPOSAL AND MODIFICATION SYSTEM  
REPORT NUMBER A060149/Q/T/P07002

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REVIEW OF EOFFER/EMOD, GSA'S ELECTRONIC  
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**EXECUTIVE SUMMARY**

**Purpose**

Under the General Services Administration's (GSA) Schedules Program, GSA establishes long-term government wide contracts that allow customers to acquire a vast array of supplies and services directly from commercial suppliers. To become a GSA Schedule contractor, a vendor must first submit an offer in response to the applicable solicitation. eOffer is a web-based application that allows companies to electronically prepare and submit a contract proposal to the Multiple Award Schedules (MAS) program. eMod is a web-based application that allows MAS contractors to electronically prepare and submit modifications for existing MAS contracts. The objective of this review was to determine: Are eOffer/eMod realizing expected benefits, including delivery of functional, managerial, and user requirements for the system? Have sufficient security controls been designed and implemented with eOffer/eMod? If not, what improvements are needed to better manage risk with the system?

The GSA Federal Supply Service (FSS) and the Federal Technology Service has reorganized and the two services have been merged into the new Federal Acquisition Service (FAS), effective October 12, 2006. This report addresses findings and recommendations to the Commissioner of FAS for improving eOffer/eMod.

**Background**

The eOffer/eMod web-based applications allow companies to electronically prepare and submit contract proposals (offers) and current MAS contract holders to prepare and submit contract modifications. The purpose of eOffer is to create an interactive, secure electronic environment that simplifies the contracting process from submission of proposal to award of contract. The purpose of eMod is to streamline and expedite the modification process and to create an electronic modification file. Both applications can be accessed via the web at <http://eoffer.gsa.gov>. Vendors submitting offers and/or modifications are able to sign electronically using digital certificates to create a legally binding electronic contract. Currently, eOffer is available for use on five Multiple Award Schedules: Schedule 70 (Information Technology), Schedule 520 (Financial and Business Solutions), Schedule 541 (Advertising and Integrated Marketing Solutions), Schedule 871 (Professional Engineering Services), and Schedule 874 (Mission Oriented Business Integrated Services). Contracting officers/contract specialists (contract professionals) access electronic offers (e-offers) submitted by vendors via the Offer Registration System, a module of FSS-19. eMod is used by MAS vendors to make modifications to their existing contracts and covers all types of MAS contracts. The electronic modifications submitted by vendors are accessed by contract professionals via a module of the FSS-19 system. The three GSA acquisition centers that accept e-offers include: the IT Acquisition Center – Arlington, VA; the Services Acquisition Center – Arlington, VA; and the Management Services Center – Auburn, WA.

The E-Government Act of 2002 requires Federal agencies to implement electronic signature capability for secure electronic transactions with the government via the E-Authentication initiative. This initiative is intended to provide the critical service of determining that individuals are who they claim to be when conducting electronic transactions with the Federal Government by leveraging existing identity credentials. The initiative is intended to help minimize redundant solutions for the verification of identity and electronic signature requirements for electronic transactions across government. eOffer/eMod is the first system within GSA to use the E-Authentication framework. The GSA Office of Inspector General conducted a review of the E-Authentication initiative in Fiscal Year (FY) 2004<sup>1</sup>. A timeline of other select eOffer/eMod related activities is provided in Appendix A.

### **Results-in-Brief**

GSA launched eOffer and eMod as the paperless means to streamline the contract award and modification process in May and July of FY 2004, respectively. However, both proposals and modification requests for MAS contracts are still primarily being submitted on paper rather than electronically through eOffer/eMod. Though the number of electronic offers and modifications submitted by vendors has increased over the last three years, overall utilization rates for these two important web applications remain low. One of the goals for eOffer is to reduce the amount of time involved in making contract awards. Contrary to expected system benefits associated with streamlined contract award processes, contract awards made on electronic offers are taking longer to process than awards made on paper offers. Currently, justification and important planning information for eOffer/eMod is contained in the FY 2004-2007 Exhibit 300 business cases for the FSS-19 system. However, specific performance measures for eOffer/eMod needed to assess customer satisfaction or overall system performance have not yet been established. Our review found that specific web application security risks were not adequately considered prior to system deployment. While specific technical security controls have improved, security management for eOffer/eMod needs to be strengthened in response to the reported security vulnerabilities. Specifically, a comprehensive Certification and Accreditation (C&A) process to verify the adequacy of system security controls for eOffer/eMod and e-authentication risk assessment activities are not yet completed. Immediate attention to each of these risk areas is needed to improve usage rates, system functionality, and security for system resources, including sensitive data maintained in eOffer/eMod. Taking necessary and important steps to ensure improvements with eOffer/eMod at this time is critical to assist GSA in ongoing efforts to reduce contract award cycle times for the MAS program.

### **Recommendations**

We recommend that the Commissioner, Federal Acquisition Service, with the assistance of appropriate personnel responsible for eOffer/eMod, take the following actions:

1. Closely analyze eOffer/eMod usage rates and develop strategies to address the causes of low usage.

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<sup>1</sup> Review of Federal Technology Service E-Authentication Initiative Report Number A040039/O/T/F04018, September 30, 2004.



2. Address system and process concerns raised by contract professionals to improve electronic offer processing times and ensure that the system addresses evolving agency needs and requirements.
3. Develop an eOffer/eMod business case or update the FSS-19 business case to include system specific performance goals and measures for monitoring actual performance compared to expected results.
4. Ensure that system security controls are maintained to include:
  - a. Completion of the eOffer/eMod Certification and Accreditation (C&A) in accordance with GSA CIO IT Security Policy and procedures.
  - b. Documentation for key security decisions and processes related to the system.
  - c. Development of a proactive approach for identifying and addressing web application security weaknesses.

### **Management Response**

We met with Federal Acquisition Service (FAS) personnel responsible for eOffer/eMod, including the Director of the Contract Management Center (FXC) and the FAS Chief Information Officer to discuss the results of our review and received updated information prior to issuing the draft report. We have also received written comments from the Commissioner of FAS, which are provided in Appendix B. We have carefully considered all comments provided by FAS with this report and the FAS Commissioner has concurred with the findings and recommendations presented. Written comments provided by the FAS Commissioner indicate that FAS will take actions aimed at addressing the risk areas identified for this system. Ongoing or planned management actions to address risks include FAS: (1) embarking on corrective strategies, including monitoring use, obtaining customer feedback, and increasing employee training, (2) improving the communication process between systems personnel and the acquisition centers, (3) developing a business case to determine appropriate shared performance measures for eOffer/eMod, and (4) completing the eOffer/eMod Certification and Accreditation (C&A) and other security controls.

REVIEW OF EOFFER/EMOD, GSA'S ELECTRONIC  
CONTRACT PROPOSAL AND MODIFICATION SYSTEM  
REPORT NUMBER A060149/Q/T/P07002

**INTRODUCTION**

The General Services Administration (GSA) has recognized a complete paperless solicitation-contracting environment as one of its business goals. In May and July of Fiscal Year (FY) 2004, GSA Federal Supply Service (FSS) launched eOffer/eMod as a component of the FSS-19 system. eOffer/eMod are Internet web-based applications that allow companies to electronically prepare and submit multiple award schedule (MAS) contract proposals (offers) and current contract holders to prepare and submit contract modifications. These web applications were developed as part of a task order for the FSS-19 system under an existing Applications Maintenance and Enhancements Blanket Purchase Agreement with Unisys. Vendors are required to have a digital certificate to use eOffer/eMod, which enables the system to produce an electronic signature to create a legally binding contract agreement. eOffer/eMod utilizes a step-by-step procedure to ensure that offers and modifications contain information required under FSS solicitations. A primary objective for the eOffer system is to provide an interactive, secure electronic environment that simplifies the contracting process from submission of proposal to award of contract and to enable a seamless transmission of data from the vendor community to the Federal Acquisition Service (FAS) contracting offices. eMod allows MAS contractors to electronically prepare and submit contract modifications to FAS. The intent with eMod is to streamline and expedite the modification process for existing MAS contracts and to create an electronic modification file. Vendors can access both eOffer and eMod online, at <http://www.eoffer.gsa.gov>. Contracting officers/contract specialists (contract professionals) access and review electronic offers (e-offers) and modifications (e-mods) submitted by vendors via the FSS-19 system. While all GSA acquisition centers can modify existing MAS contracts with data provided through e-mods, currently only three GSA acquisition centers accept e-offers from vendors. The centers that accept e-offers include: the IT Acquisition Center - Arlington, VA; the Services Acquisition Center - Arlington, VA; and the Management Services Center - Auburn, WA.

The E-Government Act of 2002 requires Federal agencies to implement electronic signature capability for secure electronic transactions with the government. The Federal E-Authentication initiative is intended to provide the critical service of determining that individuals are who they claim to be when conducting electronic transactions with the Federal Government by leveraging existing identity credentials. The establishment of the E-Authentication initiative is intended to help minimize redundant solutions across government for the verification of identity and electronic signature requirements for electronic transactions. eOffer/eMod is the first application of the Federal E-Authentication initiative within GSA. The GSA Office of Inspector General completed a review of the E-Authentication initiative in FY 2004<sup>2</sup>. We also included

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<sup>2</sup> Review of Federal Technology Service E-Authentication Initiative Report Number A040039/O/T/F04018, September 30, 2004.

eOffer/eMod in our FY 2005<sup>3</sup> annual evaluation of IT security controls required for the Federal Information Security Management Act (FISMA) review. A timeline of other select eOffer/eMod related activities is provided in Appendix A.

### **Objectives, Scope, and Methodology**

Our overall objective for this review was to determine: Are eOffer/eMod realizing expected benefits, including delivery of functional, managerial, and user requirements for the system? Have sufficient security controls been designed and implemented with eOffer/eMod? If not, what improvements are needed to better manage risk with the system?

We interviewed senior management officials within FAS/FSS and analyzed key documentation for the FSS-19 system and for eOffer/eMod. We met with and obtained information from the FAS Chief Information Officer (CIO); the Director of the Contract Management Center; Unisys Project Manager for eOffer/eMod; GSA Project Manager for eOffer/eMod; the Division Director of the Systems Management Center; eOffer/eMod helpdesk personnel in the Systems Support Division; the Deputy Program Manager - E-Authentication in the Office of the Commissioner; the Senior Assistant General Counsel of the Personal Property Division; the Information System Security Manager for eOffer/eMod; and the Information System Security Officer for eOffer/eMod. We also interviewed 16 contract professionals at three acquisition centers that support MAS contracts through eOffer: the IT Acquisition Center – Arlington, VA; Services Acquisition Center – Arlington, VA; and Management Services Center – Auburn, WA.

We also reviewed the eOffer/eMod website, system user guides, and training materials to gain an understanding of the applications. We obtained user views on eOffer/eMod by reviewing user satisfaction surveys completed by eOffer/eMod vendors and internal eOffer/eMod surveys completed by contract professionals within FSS. We analyzed FY 2004-2007 Exhibit 300 business cases for the FSS-19 system that included eOffer/eMod. We analyzed the eOffer System Security Plan, dated April 2004 and the FSS-19 Certification and Accreditation package, dated June 2004. We analyzed the FSS Applications Maintenance and Enhancements Blanket Purchase Agreement under which eOffer/eMod were developed. We also analyzed cycle times for award processing times and number of electronic offers and modifications. We performed a limited scope assessment of web application security controls for eOffer/eMod during this audit to determine the adequacy of remediation of publicly disclosed vulnerabilities.

We considered applicable Federal laws, regulations, and policies including: Office of Management and Budget (OMB) Circular No. A-130, Appendix III, Security of Federal Automated Information Resources, revised November 2000; OMB Circular No. A-11, Part 7, Planning, Budgeting, Acquisition, and Management of Capital Assets, June 2005; the GSA Information Technology (IT) Security Policy, CIO P 2100.1C, February 2006; National Institute of Standards and Technology (NIST) Special Publication 800-18, Guide for Developing Security Plans for Information Technology Systems, February 2006; NIST Special Publication 800-53, Recommended Security Controls for Federal Information Systems, February 2005; GSA Information Technology (IT) Capital Planning and Investment Control, CIO 2135.1, June 2002;

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<sup>3</sup> FY 2005 Office of Inspector General FISMA Review of GSA's Information Technology Security Program Report Number A050174/O/T/F05024, September 21, 2005.

GSA Information Technology (IT) Capital Planning and Investment Control, CIO 2135.2A, September 2006; the Government Performance Results Act of 1993; the e-Government Act of 2002; the Government Paperwork Elimination Act, October 1998; the Paperwork Reduction Act of 1995; and applicable Federal Acquisition Regulations and General Services Acquisition Manual (GSAM) regulations.

We performed our audit work between March 2006 and October 2006 in accordance with generally accepted government auditing standards. The audit was managed under an integrated audit approach being piloted by the Information Technology (IT) Audit Office (JA-T) and the Acquisition Program Audit Office (JA-A). Audit work was primarily performed at FSS headquarters in Arlington, Virginia.

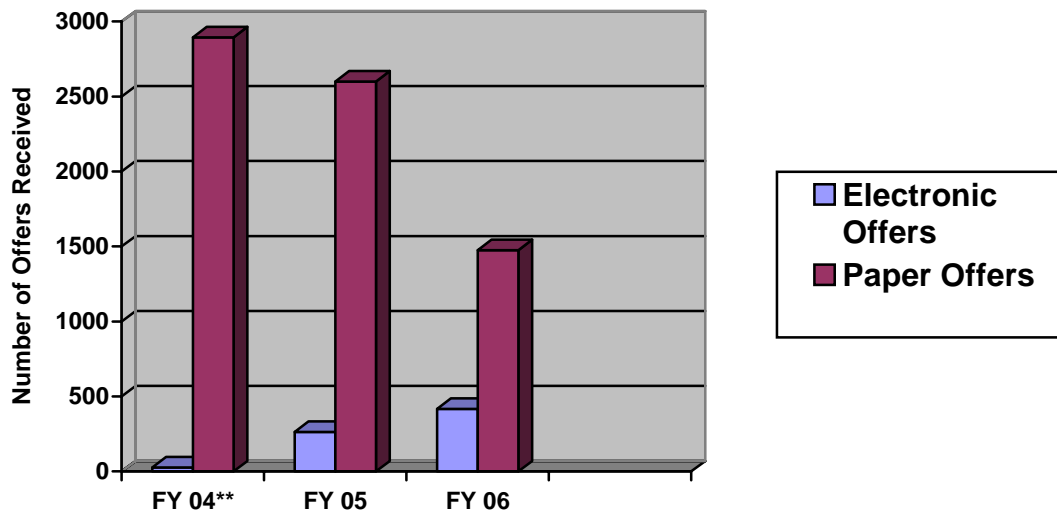
## **RESULTS OF AUDIT**

The eOffer/eMod web applications were initiated in FY 2004 as a paperless means to streamline GSA's contract award and modification process in support of GSA's schedules program. However, both proposals and modification requests for MAS contracts are still primarily being submitted on paper rather than electronically through eOffer/eMod. Though the number of electronic offers and modifications submitted by vendors has increased over the last three years, overall utilization rates for these two important web applications remain low. One of the goals for eOffer is to reduce the amount of time involved in making contract awards. Contrary to expected system benefits associated with streamlined contract award processes, contract awards made on electronic offers are taking longer to process than awards made on paper offers. Currently, justification and important planning information for eOffer/eMod is contained in the FY 2004-2007 Exhibit 300 business cases for the FSS-19 system. However, specific performance measures for eOffer/eMod needed to assess customer satisfaction or overall system performance have not been established. Our review found that specific web application security risks were not adequately considered prior to system deployment. While specific technical security controls have improved, security management for eOffer/eMod needs to be strengthened in response to the reported security vulnerabilities. Specifically, a comprehensive Certification and Accreditation (C&A) process for eOffer/eMod and e-authentication risk assessment activities are not yet completed. Immediate attention to each of these risk areas is needed to improve usage rates, system functionality, and security for system resources, including sensitive data maintained in eOffer/eMod. Taking necessary and important steps to ensure improvements with eOffer/eMod at this time is critical to assist GSA in ongoing efforts to reduce contract award cycle times for the MAS program.

### **Utilization of eOffer/eMod Remains Low**

Although GSA has implemented eOffer/eMod as the paperless means to streamline the contract award and modification process, most MAS proposals and modification requests are still being submitted on paper rather than electronically, through these web-based applications as expected. GSA has spent over \$10 million to develop and maintain eOffer/eMod over the last three years. eOffer is available for use by vendors for only five out of 42 total Multiple Award Schedules: Schedule 70 (IT Solutions), Schedule 520 (Financial and Business Solutions), Schedule 541 (Advertising and Integrated Marketing Solutions), Schedule 871 (Professional Engineering Services), and Schedule 874 (Mission Oriented Business Integrated Services). Though the number of electronic offers and modifications submitted by vendors has increased, overall system utilization rates remain low due to lack of acceptance by contracting professionals and weak incentives to encourage vendors to submit electronic offers and modifications for schedules contracts through eOffer/eMod. The following graphs illustrate the utilization rates for eOffer/eMod for FY's 2004, 2005, and 2006:

**Graph A: Utilization Rates of eOffer vs. Paper MAS Contract Offers\***

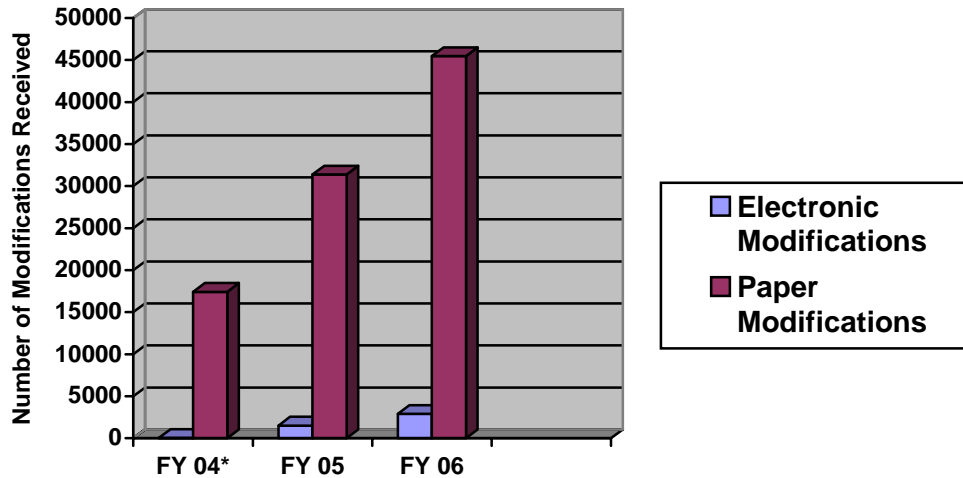


\*For select schedules utilizing eOffer

\*\*FY 04 data represents May-September 2004

Although the number of electronic offers through eOffer has increased steadily over the last three years, on average, electronic offers comprise only 9% of all offers received since May 2004. Graph A illustrates a comparison of paper and electronic offers received by the three GSA acquisition centers that receive electronic offers through eOffer. While GSA intended to have eOffer available for six more schedules by December 2006, a plan is not yet in place as to when all 42 schedules will be available. According to FAS management, adding more schedules to eOffer has been delayed due to a shift in priorities and resources resulting from GSA's plan to expedite the MAS program contract award process. Not having all schedules available on eOffer may be deterring vendors from conducting business with the government through electronic transactions. In order to improve electronic submission of offers for the MAS program, FAS plans to provide a total end-to-end electronic contracting process through implementation of the Solicitation Writing System (SWS) within the FSS-19 environment. A July 2005 business case analysis performed for the upcoming SWS stated that a favorable return on investment from the FSS investment in eOffer has not been realized since eOffer cannot receive offers electronically for all the solicitations. SWS is intended to support the President's Management Agenda by supporting the use of eBusiness technologies. This new electronic process requires standardization and automation of the solicitation component of the acquisition system to be able to promote the integration of solicitation information between relevant existing acquisition system modules, which includes eOffer. If successful, SWS would improve the supply chain process by affording the federal agencies a faster receipt of goods and services in a more timely and efficient manner by increasing the vendor responses via eOffer. With the utilization rates being low and only five schedules available on eOffer thus far, GSA may not be realizing enough benefit from eOffer to justify the cost.

**Graph B: Utilization Rates of eMod vs. Paper MAS Contract Modifications**



\*FY 04 Data represents July-September 2004

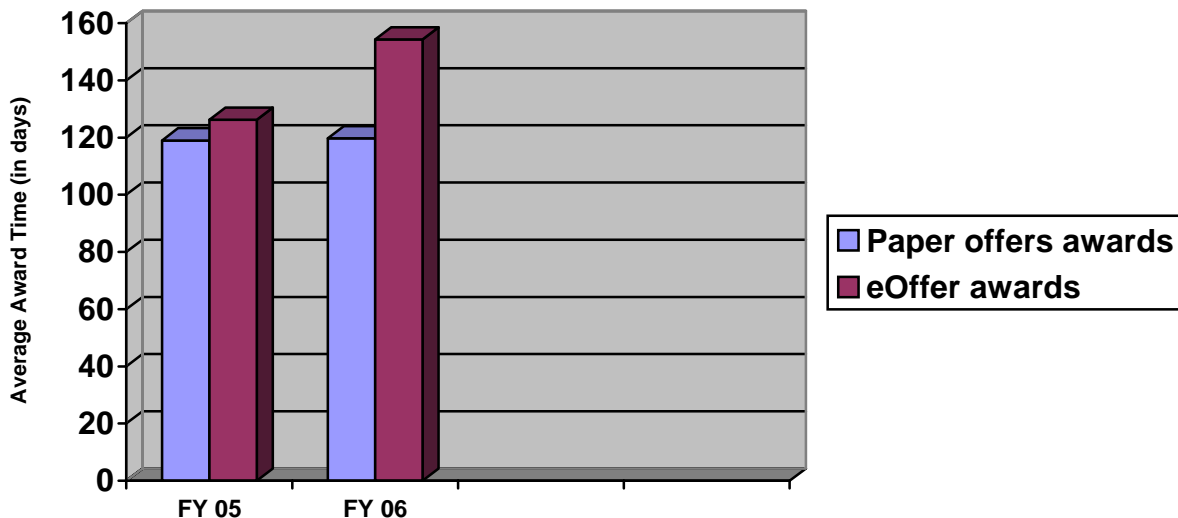
Utilization rates for eMod remain low and have not kept pace with the increase in contract modifications. While eOffer is available on a limited number of schedules, eMod is available for use on all schedules. A careful analysis of implementation shortfalls for eMod is needed to close the gap between electronic vs. paper MAS contract modifications. Although the number of electronic modifications for existing MAS contracts has increased over the last three years, on average, electronic modifications comprise only 4.5% of all modifications received since the implementation of eMod. Graph B shows a comparison of paper and electronic modifications received from July 2004 through FY 2006 at ten acquisition centers that process electronic modifications submitted by vendors via eMod.

Though there has been an increase in the number of electronic offers and modifications submitted by vendors since the system has been online, electronic offers and modifications continue to represent a low percentage of overall offers and contract modifications received. Interviews with 16 contract professionals and results of a FSS survey of contracting officers conducted in October and November of 2005 indicate that contract professionals may not be encouraging vendors to use eOffer/eMod. Lack of buy-in was apparent during our interviews with contract professionals and some contract professionals stated that having incentives to promote the use of eOffer/eMod would help them encourage the use of the applications by vendors. According to the FY 2006 FSS-19 business case, an additional benefit of eOffer/eMod is potential cost savings for other agencies as a result of more vendor choices and thus increased competition leading to better pricing. Further, eOffer/eMod supports the President's Management Agenda Financial Management Goal and was to result in cost savings realized by the Government through the streamlining of the contract award process. Although eOffer/eMod does streamline the contract award process, increased usage resulting from availability to more vendors can further aid in achieving this financial management goal.

## **Reduced Time for Processing Contract Awards May Not Be Achieved with eOffer**

Although eOffer was expected to streamline the MAS contract award process, awards made on electronic offers through eOffer are taking longer to process than awards selected from paper offers. The following data related to award processing times for electronic offers and paper offers demonstrates that the goal has not been met with the system. Graph C illustrates that it is taking longer for contract professionals to award contracts through eOffer than it is taking to award contracts on traditional paper offers<sup>4</sup>. In FY 2005, the average time that it took to award an MAS contract with proposals submitted on paper was 119 days and the average time to award a contract via eOffer was 126.2 days. In FY 2006, the average award time for paper offers was 119.7 days, while the average award time for electronic offers was 154.3 days. Instead of seeing a drop in processing times in the second full year of eOffer deployment, the average award time to process electronic offers has increased by 28.1 days.

**Graph C: Average Award Times—eOffer vs. Paper Offers**



In October 2005, FSS conducted an eOffer survey to obtain feedback from contract professionals within the IT Acquisition Center. Thirty-two responses were received from contract professionals who had processed an e-offer. Our analysis of the survey results found that some contract professionals conveyed complaints from vendors about the system, desired additional training, and wanted additional system enhancements to make the use of eOffer more seamless. Our interviews with contract professionals who process electronic offers also identified a need for system enhancements to assist them in processing electronic offers more efficiently and reduce the contract award time. They conveyed that the system does not solicit enough information from vendors to allow for contract professionals to adequately evaluate the proposals. Some vendors submit only information that the system requires. However, eOffer does not require vendors to submit specific documentation, which contract professionals need to

<sup>4</sup> Note that information on paper offers may not be as reliable as eOffer data, since it is manually entered and can be manipulated.



make a thorough evaluation of the proposal. For instance, eOffer does not prompt the vendor to submit past performance information, the FSS schedule price list, corporate experience, and executive summaries. Because contract professionals must follow-up with vendors to request this type of information, electronic offers are not being processed in a time-efficient manner.

While feedback was solicited on the system from contract professionals during beta testing conducted in April 2004, some contract professionals we interviewed also stated that system shortfalls may have been avoided had they been more involved in the system development process. Beta testing involved having vendors submit proposals through a beta system and ten contract professionals from the IT Acquisition Center participated. The contracting officers reviewed the documents and began mock negotiations with the contractor. The electronic proposals were then taken to the signature process. A contract professional who participated in the beta testing stated that the tests focused on verifying whether or not the system worked, but did not consider how the system supports the contract professionals with evaluating and processing MAS contract proposals. Consequently, more input from individuals that have an understanding of the procurement process could have been beneficial during system development and may have resulted in improved system functionality for electronic offer processing.

Contract professionals raised specific concerns about having difficulty retrieving information that is uploaded into eOffer by the vendors. In the paper process, GSAM 504.803 prescribes a standard contract file format that is used to organize contract information. Paper files are organized using 27 tabs to separate the documents by type. However, this organization standard was not implemented with documents uploaded into eOffer. With eOffer, contracting staff can access the vendor uploads that make up their proposal within the Offer Registration System (ORS), a module of FSS-19. Each uploaded document is a separate link and contract professionals have complained that there is no way to know what each link represents without having to click on the link and open each document individually. GSA is currently developing an electronic contract file that will organize contract information that is similar to the paper process format. Contract professionals we spoke with stated they would benefit by having better organization of the information within ORS that the vendors provide into eOffer or any future enhancements to the application.

### **System Specific Performance Goals and Measures Needed**

System specific performance measures for assessing customer satisfaction and overall goals for eOffer/eMod are not in place to guide needed improvements and to ensure expected benefits are achieved. Currently, eOffer/eMod is included in the OMB Exhibit 300 budget submission for the FSS-19 system, and business cases for FY 2004 through FY 2007 state that FSS-19 supports the goal of “Operating Efficiently and Effectively” by continuously enhancing automated processes, such as those in eOffer/eMod, based on improvements to the internal processes and user requirements. While the FY 2006 and FY 2007 business cases include the performance improvement goal to reduce cycle time to process offers and contract modifications, they are not system specific performance goals and measures sufficient to guide system operations and

maintenance decisions. OMB budget procedures<sup>5</sup> require that agencies institute performance measures and management processes that monitor actual performance compared to expected results. System performance measures are important because they can be used to measure progress towards milestones in terms of cost and capability of the system and to help ensure that the IT investment meets specified requirements.

The use of e-Authentication, which is an e-Gov initiative, makes the eOffer/eMod applications important and gives them high visibility. eOffer/eMod are important applications needed to carry out the vision of electronic contracting at GSA. Updated GSA policy<sup>6</sup> on IT Capital Planning and Investment Control states that during budget formulation, business cases will be prepared for proposed major IT investments. The policy states that performance measures and management processes that monitor and compare actual performance to planned results must be instituted. High visibility applications like these should be considered major IT investments and should have business cases that identify system specific performance measures and goals. System goals should be specific enough to provide the means for evaluating the system's performance on a regular basis. For effectiveness, performance measures need to be tracked in a manner that shows progress against the goal. Adequate performance measures could provide management valuable information related to system performance and customer satisfaction.

### **Continued Improvements Needed to Maintain System Security**

Web application security controls were not adequately considered prior to the implementation of eOffer/eMod, and system security processes and documentation needed to ensure recently improved controls are maintained remain incomplete. Further, the required certification and accreditation process is not yet completed for these important applications and necessary e-Authentication risk assessment activities have not been performed. Continued improvements in these areas are needed to maintain system security and to ensure long-term success for eOffer/eMod.

### **Key Security Steps Not Completed**

Important security controls were not adequately addressed with the Certification and Accreditation process completed for eOffer/eMod. Certification is a comprehensive assessment of the management, operational, and technical security controls for an information system. Accreditation is the official management decision of a senior agency official to authorize operation of an information system and to explicitly accept any risk to agency operations, agency assets, or individuals based on the implementation of an agreed-upon set of security controls. eOffer/eMod began operations under an Interim Authority to Operate (IATO) that was contingent upon key security steps to be completed within six months of the date of the letter, April 2004. As part of the IATO, a System Security Plan was completed for eOffer/eMod in April 2004, which indicated that rules of behavior have not been established to ensure that system users are aware of consequences for unauthorized actions. Informing users of the consequences of unauthorized access can deter malicious use of the system. In June 2004, eOffer/eMod was included as part of the FSS-19 system Certification and Accreditation package.

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<sup>5</sup> OMB Circular A-11, Part 7, Planning, Budgeting, Acquisition, and Management of Capital Assets, June 2005.

<sup>6</sup> GSA Information Technology (IT) Capital Planning and Investment Control, CIO 2135.2A, September 2006.

However, with the FSS-19 Certification and Accreditation, key security steps identified in the eOffer/eMod IATO were not completed. For example, the FSS-19 Contingency Plan was not updated to include eOffer/eMod, the FSS-19 Risk Assessment was not updated to address threats to eOffer/eMod, and rules of behavior have not yet been established for eOffer/eMod.

As part of our FY 2005 annual FISMA review<sup>7</sup>, we communicated specific system security weaknesses for eOffer/eMod to system security officials with written management correspondence conveyed in January 2006. During this timeframe a significant security incident disrupted system operations for eOffer/eMod involving the unauthorized actions of a system user. However, at the end of our review, the Certification and Accreditation of system security controls for eOffer/eMod had not yet been completed in accordance with Agency IT Security Policy and procedures. While FAS plans to complete a separate C&A for eOffer/eMod, it is important that a process for maintaining adequate security be established quickly to ensure the integrity, reliability, and availability for these important applications and to avoid potential security incidents in the future.

GSA's IT Security Policy requires that all information systems that allow authentication of users for the purpose of conducting government business electronically must complete an e-Authentication risk assessment. The Office of Management and Budget has issued guidance<sup>8</sup> on how to conduct e-Authentication risk assessments, stating that the purpose of an e-Authentication risk assessment is to determine the appropriate assurance level for a system. The National Institute of Security and Technology<sup>9</sup> has developed a complementary e-Authentication technical guidance that agencies must use to identify appropriate technologies for securing Federal systems based on assurance levels. The first step in conducting an e-Authentication risk assessment is to perform a system risk assessment. However, a risk assessment has not been completed as part of a C&A for eOffer/eMod. Guidance for e-Authentication risk assessments focuses on controls for authenticating users and does not directly apply to authorization controls, which focus on the actions permitted within the system after a user has been authenticated to the system. eOffer/eMod was designated at a level 3 assurance and it became the first GSA application to utilize digital certificates provided through the Federal E-Authentication initiative. While level 3 may be the correct assurance level for eOffer/eMod, key security decisions, such as this, should be documented with a complete e-Authentication risk assessment. Management controls should be in place to ensure that all necessary security controls including provisions for authenticating users and authorizing access to sensitive information contained in eOffer/eMod are properly documented.

### Web Application Security Controls Not Adequately Considered

Necessary web application security controls were not adequately considered prior to the deployment of eOffer/eMod. Due to inherent risk with web applications, special security considerations are needed to protect against threats such as Cross-site Scripting and Structured

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<sup>7</sup> FY 2005 Office of Inspector General FISMA Review of GSA's Information Technology Security Program Report Number A050174/O/T/F05024, September 21, 2005

<sup>8</sup> OMB M-04-04 E-Authentication Guidance for Federal Agencies, December 16, 2003.

<sup>9</sup> NIST Special Publication 800-63 Electronic Authentication Guideline, April 2006.

Query Language (SQL) Injection that can compromise the integrity and availability of the system, the confidentiality of data contained within the system, or exploit system users. Specific web application vulnerabilities were discovered within eOffer/eMod by a system user in December 2005. This security incident resulted in eOffer/eMod being shut down for six days while the security of the system was assessed and vulnerabilities were repaired. The incident was also reported to the United States Computer Emergency Readiness Team, and system security officials have taken steps to further address the reported vulnerabilities. The FAS CIO has utilized a tool for an automated source code review of eOffer/eMod that includes limited testing of vulnerabilities identified in the Open Web Application Security Project (OWASP) *Top Ten Most Critical Web Application Security Vulnerabilities*. Our follow-up tests of technical controls verified that the reported weaknesses have been corrected. A complete Certification and Accreditation would include an assessment of web application security controls, as required by GSA's IT Security Policy, and is needed to ensure that improved security is maintained as new risks are introduced with system enhancements and changing cyber security threats.

### **CONCLUSION**

GSA has implemented eOffer/eMod as the paperless means to streamline the contract award and modification process. However, most offers and modification requests are still being submitted on paper rather than electronically through these important web applications as expected. Close monitoring of usage rates for eOffer/eMod is needed to address the causes of low system utilization in support of GSA's goal is to reduce the time it takes for contractors to obtain a basic GSA schedule contract. Although eOffer was expected to streamline the contract award process, contract awards made on electronic offers are taking longer to process than awards made on paper offers. Because it is taking longer to award contracts on electronic offers than it does to award contracts on paper offers, we believe that improvements to the eOffer system are needed to support contract professionals in increasing electronic offer processing. Contract professionals have indicated that issues with system functionality have hindered their ability to process electronic offers in a timely manner. Further, specific performance measures for eOffer/eMod needed to assess customer satisfaction and system performance have not been established. While specific technical security control weaknesses for eOffer/eMod, which resulted in application vulnerabilities affecting the confidentiality and integrity of the system have been addressed, necessary security documentation and processes remain incomplete. Taking constructive steps to improve eOffer/eMod will better position GSA for success with the planned SWS initiative to automate and streamline the entire MAS contract award process.

### **RECOMMENDATIONS**

We recommend that the Commissioner, Federal Acquisition Service, with the assistance of appropriate personnel responsible for eOffer/eMod, take the following actions:

1. Closely analyze eOffer/eMod usage rates and develop strategies to address the causes of low usage.

2. Address system and process concerns raised by contract professionals to improve electronic offer processing times and ensure that the system addresses evolving agency needs and requirements.
3. Develop an eOffer/eMod business case or update the FSS-19 business case to include system specific performance goals and measures for monitoring actual performance compared to expected results.
4. Ensure that system security controls are maintained to include:
  - a. Completion of the eOffer/eMod Certification and Accreditation (C&A) in accordance with GSA CIO IT Security Policy and procedures.
  - b. Documentation for key security decisions and processes related to the system.
  - c. Development of a proactive approach for identifying and addressing web application security weaknesses.

### **MANAGEMENT RESPONSE**

We met with Federal Acquisition Service (FAS) personnel responsible for eOffer/eMod, including the Director of the Contract Management Center (FXC) and the FAS Chief Information Officer to discuss the results of our review and received updated information prior to issuing the draft report. We have also received written comments from the Commissioner of FAS, which are provided in Appendix B. We have carefully considered all comments provided by FAS with this report and the FAS Commissioner has concurred with the findings and recommendations presented. Written comments provided by the FAS Commissioner indicate that FAS will take actions aimed at addressing the risk areas identified for this system. Ongoing or planned management actions to address risks include FAS: (1) embarking on corrective strategies, including monitoring use, obtaining customer feedback, and increasing employee training, (2) improving the communication process between systems personnel and the acquisition centers, (3) developing a business case to determine appropriate shared performance measures for eOffer/eMod, and (4) completing the eOffer/eMod Certification and Accreditation (C&A) and other security controls.

### **INTERNAL CONTROLS**

Our overall objective for this review was to determine: Are eOffer/eMod realizing expected benefits, including delivery of functional, managerial, and user requirements for the system? Have sufficient security controls been designed and implemented with eOffer/eMod? If not, what improvements are needed to better manage risk with the system? We conducted a limited review of internal controls for eOffer/eMod as outlined in Government Accountability Office standards. We focused our review on management, operational and technical controls for eOffer/eMod, as well as user satisfaction. The Results of Audit and Recommendations sections of this report state in detail the need to strengthen specific managerial, operational and technical controls with eOffer/eMod. Our review did not include a detailed analysis of all controls or capabilities within eOffer/eMod.

REVIEW OF EOFFER/EMOD, GSA'S ELECTRONIC  
 CONTRACT PROPOSAL AND MODIFICATION SYSTEM  
 REPORT NUMBER A060149/Q/T/P07002

**eOffer/eMod Timeline of Select Activities**

Jun 01	Blanket Purchase Agreement Statement of Work issued for FSS Applications Maintenance and Enhancement
Jan 03	eOffer/eMod project plan developed
Jan 03	eOffer/eMod development begins
Jul 03	Requirements document for eOffer/eMod prepared
Apr 04	eOffer/eMod beta testing conducted
Apr 04	eOffer/eMod security plan released
Apr 04	Interim Approval to Operate (IATO) eOffer/eMod system in initial operating capability letter signed by the FSS CIO. The letter states that eOffer/eMod can be operated in Beta and initial production mode for a period of six months contingent upon a list of security controls that must be implemented.
May 04	eOffer goes on-line
June 04	eOffer/eMod combined with FSS-19 Certification and Accreditation package
July 04	eMod goes on-line
Aug 04	Date on the revised version of Task Order #4 – Order Processing Statement of Work (eOffer/eMod is covered under this Task Order)
Oct 04	Implementation due date for security controls listed in the IATO letter dated April 04
Oct 05	User satisfaction surveys are sent out to GSA contracting officers.
Dec 05	Security flaw in eOffer reported to the GSA OIG hotline. Hotline complaint alleges that the system allows unauthorized parties to view and modify corporate and financial information submitted by vendors.
Jan 06	eOffer/eMod taken offline to address hotline complaint allegations
Jan 06	SecureInfo security testing report released. The report found that the security vulnerabilities identified in the hotline complaint had been removed.
Oct 06	Planned implementation of the Acquisition Desktop, a tool to be used by contracting officers to create/review solicitations, review offers, etc.

REVIEW OF EOFFER/EMOD, GSA'S ELECTRONIC  
CONTRACT PROPOSAL AND MODIFICATION SYSTEM  
REPORT NUMBER A060149/Q/T/P07002

**GSA FAS Response to Draft Report**



GSA Federal Acquisition Service

FEB 21 2007

MEMORANDUM FOR ANDREW PATCHAN  
ASSISTANT INSPECTOR GENERAL FOR AUDITING (JA)

FROM: JAMES A. WILLIAMS  
COMMISSIONER  
FEDERAL ACQUISITION SERVICE (Q)

SUBJECT: GSA Draft Report, "Review of eOffer/eMod, GSA's  
Electronic Contract Proposal and Modification System"  
(A060149), dated January 17, 2007

My staff and I have reviewed the above report and concur with the report recommendations. Specific comments on the recommendations are provided in the attached statement.

Please call me at (703) 605-5400 if you have any questions. Your staff may contact Cathy Fick at (703) 605-5452 or [catherine.fick@gsa.gov](mailto:catherine.fick@gsa.gov) for additional information.

Attachment

cc: Gwendolyn A. McGowan (JA-T)

U.S. General Services Administration  
2200 Crystal Drive  
Arlington, VA 20406-0003  
[www.gsa.gov](http://www.gsa.gov)

Federal Acquisition Service (FAS) Comments on the  
GSA Final Report: "Review of eOffer/eMod,  
GSA's Electronic Contract Proposal and Modification  
System (A060149)

Recommendation 1: Closely analyze eOffer/eMod usage rates and develop strategies to address the causes of low usage.

FAS Response:

We agree with this recommendation.

While we're pleased with the eOffer/eMod systems and the level of customer and contracting officer interest in processing contract documentation electronically, we recognize that usage has not been expanding as quickly as anticipated. We're now embarking on corrective strategies including more closely monitoring use, obtaining frequent customer feedback, increasing employee training, and making on-going improvements to the e-Offer and e-Mod systems. These efforts should significantly increase usage by the end of FY 2008.

Toward that end, I'm pleased to report that eOffer has been rolled out to a fourth Acquisition Center. Schedule 541 was transferred to the Greater Southwest Acquisition Center (7FCO) late last fiscal year and contracting officials in that location were trained on eOffer during September 2006.

Recommendation 2: Address systems and process concerns raised by contract professionals to improve electronic offer processing times and ensure that the system addresses evolving agency needs and requirements.

FAS Response:

We agree with this recommendation.

To improve communication, systems personnel will meet with representatives from the GSS and ITS portfolios to develop ways to improve conference calls and other information issuances to acquisition centers. Based on these meetings an action plan will be developed.



Recommendation 3: Develop an eOffer/eMod business case or update the FSS-19 business case to include system specific performance goals and measures for monitoring actual performance compared to expected results.

FAS Response:

The FAS Chief Information Officer (CIO) agrees with this recommendation.

The Office of Acquisition Management (QV) will work with the FAS CIO to determine appropriate next steps insofar as developing a business case. QV will also work with the CIO and the business portfolios that have schedules to determine appropriate shared performance measures for the eOffers and eMods systems.

Recommendation 4: Ensure that system security controls are maintained to include: (a) completion of the eOffer/eMod Certification and Accreditation (C & A) in accordance with GSA CIO IT Security Policy and Procedures; (b) documentation for key security decisions and processes related to the system; and (c) development of a proactive approach for identifying and addressing web application security weaknesses.

FAS Response:

We agree with this recommendation.

These actions should be completed by December 31, 2007.

REVIEW OF EOFFER/EMOD, GSA'S ELECTRONIC  
CONTRACT PROPOSAL AND MODIFICATION SYSTEM  
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