Department of Veterans Affairs
Office of Inspector General

Review of the Award and Administration of Task Orders Issued by the Department of Veterans Affairs for the Replacement Scheduling Application Development Program (RSA)

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VA Office of Inspector General
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To Report Suspected Wrongdoing in VA Programs and Operations

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Introduction

At the request of the Ranking Member, Senate Committee on Veterans' Affairs, we conducted a review of the Department of Veterans Affairs (VA) Replacement Scheduling Application (RSA) Development Program, which is also referred to in documents as the Scheduling Replacement Project (SRP). Specifically, it was requested that the OIG determine why there was not adequate internal oversight to prevent continued investment in what was ultimately a failed project. It was also requested that the OIG look into related concerns including VA's apparent inability to properly manage Information Technology (IT) projects internally, the impact of the failure of the RSA project on the HealtheVet initiative, and if the failure of the RSA program reflects endemic or systemic problems.

During Fiscal Year (FY) 2000, the Veteran's Health Administration (VHA) determined the need to replace their VistA[1] Scheduling System due to the age of the software as well as a 1998 General Accountability Office report concerning excessive wait times for veterans to schedule appointments. VHA decided to solicit internal proposals from within VA to study and replace the VistA Scheduling System with a Commercial Off-the-Shelf (COTS) software program. A proposal from within VA, which used the Southwest Research Institute (SwRI) as part of their technical team, was selected. At about 14 months into the project, VA significantly changed the scope of the project from a COTS solution to an in-house build of a scheduling application.

After the change to an in-house software project, numerous other changes were made to the requirements of the RSA project during the period April 2002 through April 2005. During this time SwRI was producing the required deliverables and began providing code drops to VA in May 2005. In 2006, VA began testing the code and identifying issues and errors to be addressed. SwRI worked to address issues and refine the code and produced numerous updated versions through 2007. Although beginning in 2005 multiple oversight reviews had identified serious issues that needed to be resolved, VA managers recommended continuing the RSA project and continually adjusted the timeline for the project. A final timeline was set for testing in 2009 and implementation of RSA in January 2010. However, in March 2009, the Project Management Office (PMO) concluded that the code provided to date was not viable and the contract with SwRI was terminated for convenience of the Government.

Results

We determined that program planning and oversight of the RSA project was lacking and/or ineffective. We identified three primary causes. First, there was a lack of program and requirements planning. Planning is crucial to any large IT project, but especially crucial for RSA. Delays in completion of the project and the ultimate failure of the project were due in significant part to the numerous changes in the project direction and requirements over the course of time. Some of these changes were due to the impact of the HealtheVet initiative on the RSA project. Absent defined requirements, a defined IT architecture, and a properly executed

[1] VistA is VA's electronic health record system.

acquisition plan, the RSA program was at significant risk for failure from the very beginning from both a technical and contractual standpoint. Second, VA does not have staff with the necessary expertise to execute large scale IT projects. This issue has been noted in numerous internal and external reviews. Third, responsibility for management of the project changed four times between FY 2000 and FY2009.

We also found that as VA significantly altered the scope of the RSA program, the scope of the work that SwRI was tasked to perform also changed. VA improperly changed the scope of the task order with SwRI when it directed SwRI to change from a COTS solution to an in-house development of scheduling software without any acquisition planning or competing the requirements as required by the Federal Acquisition Regulation (FAR). Even when VA finally competed a task order, the only offer was from SwRI. This may have been due to restrictive requirements that limited competition. Contracting deficiencies were directly related to improper involvement by program officials in the contracting process.

Although procurement oversight was lacking, the failure of the RSA Development Program was not primarily rooted in contracting issues; rather it was due to issues surrounding VA's management of the RSA program and the manner in which VA manages major IT initiatives, in general. Our findings and conclusions are similar to those we identified in prior reviews of failed IT projects, including Audit of VA's HR Links Payroll and Human Resources System Replacement Project (March 29, 2002); Issues at VA Medical Center Bay Pines, Florida and Procurement and Deployment of the Core Financial and Logistics System–CoreFLS (August 11, 2004); the Patient Financial Services System (January 31, 2007); and, Central Incident Reporting Capability (February 26, 2007)[2].

After it became evident that the RSA program was at serious risk for failure, the only significant action VA managers seemed to consider was to utilize the Inter-Agency Agreement (IAA) with the Space and Naval Warfare Systems Center (SPAWAR). In November 2007, VA's Office of Enterprise Development (OED) entered into an IAA with SPAWAR to train and mentor VA employees in the area of IT project management. Our review found that the Statements of Work issued to SPAWAR regarding RSA were broad and general and lacked specific deliverables. With regard to RSA, we identified four amendments to the IAA with SPAWAR that ordered services related to RSA. However, the VA program official was unable to identify or provide us with any deliverables including a report that records indicate may have impacted the decision to terminate the task orders to SwRI. This demonstrates that VA was not performing adequate oversight over the work being done by SPAWAR and has difficulty identifying exactly what SPAWAR had done and by whom. These findings are consistent with our report issued on June 4, 2009, *Review of Interagency Agreement between the Department of Veterans Affairs and Department of Navy, Space Naval, and Warfare Systems (SPAWAR).*

[2] These reports can be viewed on the VA OIG website at http://www.va.gov/oig/publications/.

Suggestions

In our opinion the failure of the RSA project is linked to larger systemic problems relating to the management and implementation of IT projects within VA. Similar problems have been addressed in the numerous other reports related to other failed IT projects that were cited above that we have issued in the last seven years. If VA had both experienced individuals to effectively plan and manage the development and implementation of complex IT projects and an adequate system to monitor and identify program and contracting problems impacting the progress of a project, effective and timely decisions could have been made to either redirect or terminate the project. Secondarily, while the lack of procurement oversight and improper procurement actions may have contributed to the failure of the RSA project, it was not the primary cause.

We suggest that VA both develop effective oversight systems and develop in-house staff that has the expertise to fully support, manage and execute complex integrated IT programs. In addition, we suggest that:

- OI&T and program offices with the need for these systems be empowered, resourced, structured, and trained for large-scale systems integration.
- Project and program status assessments be realistic and objective, used at decision points, and allow for "off ramps."
- Fully engage stakeholders and make them actively involved in decision making.
- Decision makers have sufficient technical and change-management knowledge to understand the impact of their decisions.
- The number of VA contracting officers with experience in large IT projects be expanded.

(original signed by:)

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Introduction

Purpose

In response to a letter from the Ranking Member, Senate Committee on Veterans' Affairs, we conducted a review of the award and administration of the task orders issued by the Department of Veterans Affairs' to Southwest Research Institute (SwRI). The purpose of the task orders was to develop the Replacement Scheduling Application (RSA) Development Program, which is also referred to in documents as the Scheduling Replacement Project (SRP). Specifically, we were asked to determine why there was not adequate internal oversight to prevent continued investment in what ultimately was a failed project. We were specifically asked to determine the following:

1. How the failure of RSA affected the overall implementation and investment of the HealtheVet initiative.
2. Why the Department of Veterans Affairs (VA) appears to not have the capability to manage information technology (IT) projects internally.
3. If the RSA failure is an endemic or systemic problem and if there are any other IT projects that are currently suffering failures or setbacks.
4. If there are any steps VA can take to ensure similar failures do not occur on other IT initiatives.

Background

In Fiscal Year (FY) 2000, the Veteran's Health Administration (VHA) issued a Request for Proposal (RFP) announcing the opportunity for Veterans Integrated Service Networks (VISNs) to compete for funding to conduct a business process re-engineering study of VHA's scheduling processes and associated information technology support. This process was central to the scheduling of medical appointments for VA patients. At the time, the VistA Scheduling System software was two decades old and needed to be replaced to enable VHA to efficiently manage capacity to provide care to patients. Within the RFP, it stated that previous analyses conducted by VHA's Office of Information[3] (OI), indicated the cost of making changes to VistA were equal to, if not greater than, the cost of performing a wholesale replacement of the Scheduling System with a commercial product and that commercial scheduling systems existed that could address all VistA deficiencies. However, we found nothing in the documents provided indicating that VA had identified any commercially available software capable of addressing VistA's deficiencies. The plan to replace the system was to be a multi-year project (approximately 4 years) that included an evaluation of VHA's current scheduling practices, an analysis of the ability of VistA and commercial software to meet business needs, and the selection and implementation of a system to meet those needs. The tasks outlined in the announcement to the VISNs were as follows:

[3] This office is now referred to as Office of Information and Technology and is under the Assistant Secretary for Information and Technology, not VHA.

- Task 1- Develop enterprise-wide work process and information flow models for scheduling activity (Business Process Reengineering).
- Task 2- Develop information system specifications, to include a broad range of input from across VHA enterprise including OI.
- Task 3- Evaluate and select a commercial off-the-shelf (COTS) scheduling product to integrate into the system.
- Task 4- Conduct laboratory testing.
- Task 5- Conduct VISN-level testing at 1-2 sites.
- Task 6- Implement redesigned business processes and information technology capabilities in two VISNs.
- Task 7- Implement redesigned business processes and information technology capabilities VHA-wide.

VISNs interested in leading the effort were required to submit a proposal by September 30, 2000. The winning VISN Project Team would work with project management and technical staff from OI who would be responsible for the national efforts associated with the eventual rollout and replacement of the current schedule package. Funding for the project was to be provided by OI and supplemented, as necessary, from VHA reserves.

On February 5, 2001, it was announced that the VISN 16/17 Collaborative Team had been awarded the Scheduling Replacement Business Re-engineering Project. Included in the VISN proposal was the statement that the VISN technical expertise would be augmented by SwRI[4] staff. The two VISNs and SwRI formed a consortium to bring a combination of functional, technical and program management expertise to the project. VISNs 16 and 17 were to provide program direction in close coordination with the VHA OI and the appointed VHA-level Board of Directors. In addition, the two VISNs were to provide functional staff for the project in the form of the clinical business process owners and the Business Office Directors. SwRI was to provide experienced technical staff and apply their expertise in requirements analysis, open architecture design, trade studies, system integration, and software system testing to expedite work on the first four tasks, and ready a product for actual field testing in the two VISNs as soon as possible. To procure the services of SwRI, VISN 16/17 utilized a pre-existing Indefinite Delivery, Indefinite Quantity (IDIQ) contract between SwRI and the Cooperative Administrative Support Unit (CASU),[5] contract number P674P-3209, that was managed out of the contracting office at the VA Medical Center in Temple, Texas.

The VISN Collaborative Team began performance after February 1, 2001, and continued through April 5, 2002. Records indicate SwRI provided deliverables on tasks one through three of the original seven tasks. Results of work on task three indicate that no COTS developer appeared

[4] SwRI is an independent, nonprofit, applied engineering and physical sciences research and development organization that is headquartered in San Antonio, TX.

[5] The CASU Program was an interagency network of Federal entrepreneurial organizations that provided the full range of "best value" support services to Federal agencies on a cost reimbursable basis. The CASU's authority was derived from the Economy Act of 1932 as amended (31 U.S.C. 1535) and the Government Management Reform Act, 1994. (http://www.casu.gov/authority.asp). All VA CASUs have been dissolved.

willing to make the changes necessary to their software so that their scheduling application would work within VA's systems.

On April 5, 2002, the VHA Chief Information Officer issued a memorandum to the Scheduling Project Manager in VISN 16/17 with the following instructions:

> The VA, Office of Information is directing a change in scope for the above referenced proposal and business plan. The VHA requests VISN 16/17 … to redirect their effort and the remainder of the FY02 funds for the current project to build a scheduling application for VHA.
>
> Remaining deliverables on the current task order will be redefined in the new task order….
>
> VISN 16/17 is authorized to proceed upon receipt of this letter to direct SwRI to immediately begin to move forward with work contained in the Inception Phase, Iteration 1, of the new task order….
>
> No proposal is required from VISN 16/17 in response to this letter, as this letter will be followed, within the next 60 days, with a formal SOW for SwRI that details the scope of the entire task order. SwRI will be required to respond to that SOW with formal technical and cost proposals. The period of performance covered by this letter modification to the current task order will be 90 days. This will allow VISN 16/17 time to formulate and issue a formal SOW to SwRI for the change in project scope required to build a scheduling application, and develop a new business plan for the PMO [Project Management Office], Bay Pines OI Field Office.

In response, on the same date, April 5, 2002, the VISN 17 Project Manager, not the Contracting Officer, sent a letter to SwRI directing a change in scope of the project. The letter states that SwRI was to redirect their efforts and the remainder of the FY02 funds for the current project to building a scheduling application for VHA. Communications such as this should have come from the VA Contracting Officer, not the program office. Shortly thereafter, SwRI submitted a proposal in the amount of $20,208,657 for the in-house build, with an estimated delivery date of September 30, 2005. On July 24, 2002, VISN 16/17 accepted SwRI's proposal and task orders were issued under the CASU contract for the re-directed scheduling project.

After the change in scope in April 2002, SwRI began work on developing a new scheduling application. VA continued to simply issue task orders against the CASU contract. During the period of April 2002 through September 2005, nine task orders[6] were issued to SwRI against the CASU contract to cover contract performance requirements. In addition, during this time period VA changed both scope and delivery requirements, which impacted SwRI's ability to complete

[6] The last task order was issued against a different CASU (IDIQ) contract with SwRI, V674P-3498. The contract was not available for our review because the CO did not have a copy. Therefore, we were unable to determine whether the task order was in compliance with the scope of the IDIQ contract.

the tasks in a timely manner. For example, in November 2002, VA changed the programming environment from .Net to Java. In 2003, the introduction of the HealtheVet initiative resulted in the move to a service oriented architecture. Then in 2004, the project was re-directed from Oracle 9iAS to Weblogic.

In April 2005, SwRI was directed by VA to de-scope the contract requirements. SwRI was directed to establish and produce two software application product lines, one for an Alpha product and the other for a Beta product. Alpha was defined as the single-site deployment product and Beta was defined as the national, multiple-site deployment product. SwRI was instructed to develop the products on parallel lines. At this same time, it was determined that the project would not be completed by the expiration of SwRI's contract with the CASU on September 30, 2005, and could not be extended. Because additional time was needed to complete the project, VA determined that an alternate contract vehicle was needed to allow SwRI to continue performance on the project. To meet this need, a limited source justification for a sole-source award to SwRI was prepared. Excerpts from the justification include:

- A sole source award to SwRI for continued development and deployment activities is being sought in order to maintain the current project schedule and minimize the overall lifecycle costs of the project through the Beta deployment.
- SwRI has been determined to be the sole source provider of the continuation and completion of the development of the RSA software program. SwRI has been designing this program under the previous awarded CASU contract, introducing another contractor at this point could cause the government a duplication of costs already expensed. The issue of liability of product performance will also be severely compromised.
- It is anticipated that the negotiated cost to the Government for service, will be fair and reasonable and in accordance with General Service Administration (GSA) contract pricing.
- Time and funds invested to date could not be recouped if a competitive process were used to award a contract for another firm to start the work….The schedule and cost associated with switching contractors would significantly jeopardize the successful entry into Alpha and Beta deployment and would likely result in an unsuccessful national deployment within any reasonable schedule.

On October 11, 2005, the limited source justification for award of a Firm-Fixed Price (FFP) Contract under SwRI's GSA contract number GS-35F-0533L was approved. On October 1, 2005, a FFP purchase order was issued to SwRI under its GSA Federal Supply Schedule (FSS) 70[7] contract, GS-35F-0533L. The estimated total cost of the purchase order was $7,726,929 and the performance period was October 1, 2005, through September 30, 2006. Over the next two and half years the following additional task orders were issued non-competitively to SwRI against their FSS contract.

[7] FSS 70 – GSA's Federal Supply Schedule for information technology supplies and services.

Period of Performance	Estimated Cost
October 1, 2006 through September 30, 2007	$6,000,000
October 1, 2007 through December 31, 2007	$4,489,089
January 7, 2008 through March 31, 2008	$3,900,000
April 1, 2008 through April 30, 2008	$1,261,935
May 1, 2008 through May 31, 2008	$1,269,664
May 31, 2008 through December 31, 2008	$9,100,000

We note that the original task orders were not available for our review because the files maintained by VA were incomplete. We had to piece together the number and value of the actual task orders to conduct our review from records obtained from the contracting office, program office, and SwRI.

In February 2005, SwRI delivered version 1.0 of RSA. The code was the primary deliverable under the task orders. Internal testing of the code by VA began in April 2006 and their analysis of the product determined that there were 350 critical errors in the code to be addressed. SwRI subsequently produced several versions of code with defect repairs and provided version 2.0 for the alpha candidate in December 2006, followed by several more versions in early 2007. In August 2007 SwRI provided to VA alpha version 2.1.1, and beta version 3.0. By May 2008, VA instructed SwRI to halt all work on the beta version and to place all resources on the alpha code effort. By then the alpha code was up to version 2.1.5. In total, SwRI had delivered more than 18 versions of code for RSA.

Also, in May 2008, the Contracting Officer submitted a request for a Business Clearance Review for another sole-source task order under SwRI's FSS contract. However, it was determined by the procurement analyst in the Office of Acquisition and Logistics (OA&L) who conducted the review, that the issuance of a sole source task order was not in accordance with Federal Acquisition Regulations (FAR) and the procurement would need to be re-solicited as a FFP competitive task order. Accordingly, in July 2008, a FFP/time and material hybrid Request for Quotations (RFQ) was issued to four GSA contractors, as required under FAR Part 8.4. SwRI was the only contractor that responded to the RFQ. On August 1, 2008, Task Order number 671-C81353 was issued to SwRI for $11,502,818, with a base period of award date through September 30, 2008 with a 1-year option period. On October 1, 2008, the option period was exercised with a period of performance of October 1, 2008 thru September 12, 2009. However, in March 2009, the RSA program office responsible for the RSA development made the determination that the alpha code was not viable because alpha was designed with the limitation that it can be deployed to only one site, whereas the business requirements dictate a deployment to 128 major sites plus smaller sites. Therefore, VA terminated the task order for the convenience of the Government. From October 1, 2005 through September 30, 2009, seven (7) task orders were issued against SwRI's GSA contract to cover performance requirements for RSA for a total of $41.1 million.[8]

[8] The last task order #671-C81353/671-C81491 was terminated for convenience. The termination settlement was for a total payment of $6,442,275.47, of which $990,371.87 remains to be invoiced. There are two task order numbers because one is for the base period (FY 2008), and the second is for the option period (FY 2009).

In addition to the task orders issued to SwRI for the primary RSA project work, VA issued a separate FFP Task Order to SwRI on August 22, 2008 with an estimated value of $625,233, and a period of performance of August 25, 2008 through December 23, 2008. The task order was to allow VA to buy the build management system and get final delivery of the RSA Beta baseline and all associated artifacts and documentation developed by SwRI. This deliverable was to be the final Beta code baseline as it existed when SwRI halted development at the request of VA. The completion and delivery of an automated build management system was necessary to enable VA or other parties to fully and correctly install the baselines in other environments. Delivery of the build management system also included appropriate training materials and the requirement that SwRI train not more than seven designated VA staff members and demonstrate the build management system.

A summary of the 16 task orders that were awarded is shown in the table below.

Table 1 – Task Order Amounts

Time Period	Awarded Amount	Contract Vehicle/Type
April 2001 to September 2005	$28,646,334	CASU/Task Order.
October 2005 to August 2008	$29,703,652	GSA/ Cost Plus Fixed Fee
September 2008 to September 2009	$ 9,112,819	GSA/ Firm Fixed Price
September 2008 to September 2009	$ 2,389,999	GSA/ Time & Material
	$69,852,804	
Beta Task Order (August 2008)	$ 610,423	GSA/ Firm Fixed Price
Beta Task Order (August 2008)	14,810	GSA/ Time & Material
	$ 625,233	

During the early to mid-2008 time period, VA management began to seriously address the schedule slippage of the RSA project. Preliminary conclusions were that VA lacked technical staff, as well as a full-time Contracting Officer's Technical Representative (COTR) dedicated to this project was needed because of the magnitude of the RSA project. In June 2008, an Operation Test Readiness Review Board (Board) was convened to review the findings of the Technical Review Board and Enterprise Architecture Review Board and to ascertain whether the RSA software, associated IT infrastructure, any necessary business process modifications, and staff training were ready to proceed to Alpha deployment. The Board consisted of the executives from the Office of Information & Technology and VHA. The Board noted serious issues that needed to be resolved such as lack of configuration management, lack of release management, and architecture issues surrounding the HealtheVet initiative. However, notwithstanding these unresolved issues, they recommended proceeding toward alpha deployment and set a schedule with alpha testing to commence in September 2008, beta testing in 2009, and national implementation of RSA in January 2010. Another preliminary findings report by the PMO concerning RSA also was issued in June 2008. The findings were based on interviews with some of the RSA project team members that identified issues regarding the RSA schedule slippage. This report cited a significant number of issues that related to both the management of

the RSA project and VA's management of IT projects in general. Some of the significant overarching issues identified are listed below.

- There is no one at the enterprise level to guide overall implementation.
- There is no overarching risk manager.
- There is no overall requirements management for HeV.
- There appears to be no one at the enterprise level to help projects resolve issues.
- Issues identified by the Board have been acknowledged but it appears that no action has been taken.
- There is no set guidance for all teams involved.
- There does not appear to be an integrated Project Plan.
- Stovepipe development is being done.
- Management has changed frequently in many areas.
- Training money got used for other purposes and training in general is lacking.

Scope and Methodology

To address the objectives of this review, we reviewed contract documentation from 2001 through the contract termination in 2009. This includes documents maintained in the Contracting Officer files, the Contracting Officers Technical Representatives (COTR) files, and the program manager's files. We also interviewed the Contracting Officer, COTR, the current and previous RSA program managers, and SwRI key personnel. In addition, we conducted a site visit to the contracting office of the South Texas Veterans Health Care System located in San Antonio, Texas.

Results

We determined that program planning and oversight of the RSA project was lacking and/or ineffective. We identified three primary causes. First, there was a lack of program and requirements planning. Planning is crucial to any large IT project, but especially crucial for RSA. Delays in completion of the project and the ultimate failure of the project were due in significant part to the numerous changes in the project direction and requirements over the course of time. Some of these changes were due to the impact of the HealtheVet initiative on the RSA project. Absent defined requirements, a defined IT architecture, and a properly executed acquisition plan, the RSA program was at significant risk for failure from the very beginning from both a technical and contractual standpoint. Second, VA does not have staff with the necessary expertise to execute large scale IT projects. This issue has been noted in numerous internal and external reviews. Third, responsibility for management of the project changed four times between FY 2000 and FY 2009.

We also found that as VA significantly altered the scope of the RSA program, the scope of the work that SwRI was tasked to perform also changed. VA improperly changed the scope of the task order with SwRI when it directed SwRI to change from a COTS solution to an in-house development of scheduling software without any acquisition planning or competing the requirements as required by FAR. Even when VA finally competed a task order, the only offer was from SwRI. This may have been due to restrictive requirements that limited competition. Contracting deficiencies were directly related to improper involvement by program officials in the contracting process.

Although procurement oversight was lacking, the failure of the RSA Development Program was not primarily rooted in contracting issues; rather it was due to issues surrounding VA's management of the RSA program and the manner in which VA manages major IT initiatives, in general. Our findings and conclusions are similar to those we identified in prior reviews contracts for failed IT projects, including HR Links, CoreFLS, the Patient Financial Services System, and Central Incident Reporting Capability (CIRC).[9]

Issue 1: Oversight on the RSA Project and SwRI Contract Was Ineffective.

Documentation provided by the contracting and program offices showed that there was oversight of the technical aspects of contract performance but minimal oversight over the contracting processes of the RSA project. However, the technical oversight of performance did not prevent the ultimate failure of the project to deliver a useable product because VA did not take timely and appropriate action to address issues and concerns identified during the oversight processes. The lack of planning and constantly changing requirements increased the risk of project failure because it produced an environment where it was difficult to obtain a clear understanding of the status and progress of the project and difficult to support a "no-go" or stop decision.

[9] These reports are listed and cited on page ii of the Executive Summary.

a. Oversight–Technical

RSA records show that technical oversight of contract performance was conducted by several committees and groups that were established from the inception through the termination of the project. The function of these oversight entities was to monitor contract performance and the progress of the development of RSA.

Several technical reviews and assessments on the RSA clearly monitored the status of the project, and identified its strengths and weaknesses. There is significant correspondence in the files showing that the Project Management Office (PMO) was fully aware of the status of deliverables and actively involved with the progress, or lack thereof, of the project.

Listed below are some of the committees and groups established for the RSA.

- Schedule Replacement Project Steering Committee
- VISN 16/17 RSA Team
- SRP Board of Directors
- End User Interface Team
- RSA Functional Integrated Product Team
- RSA Change Control
- Clear Quest
- Technical Review Board
- RSA Executive Functional Integrated Process Team

In addition to these committees and groups, the following documented reviews and assessments were performed on RSA.

February 2005	General Assessment of the Health of the Major IT Programs across the Agency to include the HealtheVet initiative
January 2007	Go/No Go Decision for RSA Project
May 2007	Independent Review of VHA Scheduling Replacement Project
September 2007	Mission Diagnostic for Replacement Scheduling Application, Alpha Deployment: Assessment Results
March 2008	The Office of Enterprise Development (OED) Assessment Findings and Recommendations HealtheVet Replacement Scheduling Application
June 2008	Operational Test Readiness Review Board
June 2008	Preliminary Findings Report for RSA Project
March 2009	SRP Status Briefing
April 2009	RSA V3.1.0.1 Software Assessment Report
April 2009	After Action Review of RSA Project

These reviews show that as early as 2005, VA management was aware of serious problems with the RSA project. Reviews showed that the PMO did not have the required staff or the authority and responsibility for a large scale system integration program. Concerns were also raised that

program plans were only minimally defined for VA IT projects. However, it appears that no specific actions were taken to correct these problems.

In January 2007, a "go" decision was made to continue with the RSA Alpha product; however, by September of 2007, an assessment by Carnegie Mellon - Software Engineering Institute identified and reported to VA issues that needed to be addressed before the application could ever be deployed. Then again in March 2008, in a VA presentation which cites an assessment completed by a SPAWAR team of Subject Matter Experts hired by OED reported numerous issues and vulnerabilities impacting the RSA. Nonetheless, the project was allowed to continue and the problems were not addressed. Another report issued in June 2008 found numerous significant issues with the RSA; yet the project continued. Finally, in March 2009, during an SRP Status Briefing given by the SRP Program Manager, it was recommended that the agreement with SwRI be discontinued.

We note that the RSA was one of the earliest complex IT projects envisioned by VHA. However, there was no in-house expertise in dealing with an IT project of this magnitude at the time the project was started. Project oversight was focused mainly on monitoring SwRI's progress and the timely production of the contract deliverables. When it came time to determine if the deliverables (or drop codes) were adequate, the internal VA testing environment was not ready and the in-house expertise was not always available. There was not enough emphasis or forethought put into making sure VHA was ready to test, evaluate and deploy the code when it was ready. Then as the HealtheVet initiative developed, changes to RSA became necessary.

There is no question that the original intent and design of the RSA, as envisioned in 2001, was significantly impacted by numerous events over the years. These include advances in technology, changes in programming code, organizational changes in VA's IT structure, personnel shortages and re-assignments within the project, and new IT initiatives. There is also no question that the systemic problems that impacted other failed IT projects in the VA over the last few years contributed to the ultimate failure of the RSA.

In conclusion, based on the documentation provided, there was oversight performed on the RSA, especially in the later years of the project, where the problems being encountered were identified and discussed at various levels of the PMO and VA IT management. However, the oversight did not prevent project failure. This was due to the changing requirements for RSA, lack of a defined HealtheVet system architecture, lack of staff with the expertise to handle a project of this scale, lack of responsibility and authority, and the inability to conduct tests of the software code at an early stage of development. It was also due to the failure of VA to continue with the project without addressing issues raised in the various reviews that were conducted.

b. Oversight– Contracting

We concluded that there was minimal oversight of the contracting processes on the project, beginning with the initial award of the in-house build to SwRI on July 24, 2002. The contracting activity for RSA was placed in the South Texas Veterans Health Care System in San Antonio, TX because they were located in the same city as SwRI. There was no attempt to identify a CO with experience on multi-year complex IT projects. This contract was simply assigned to a CO as one of several contracts under the CO's authority.

The award of the task order to SwRI on July 24, 2002, directing a change in scope of the project from the use of COTS to an in-house build, violated the requirements for competition set forth in FAR Part 6. This fundamental change in the scope of the work performed by SwRI from assisting VISN 16/17 in the analysis and selection of a COTS solution to the complete development of a new scheduling application was an inappropriate procurement action. Once the PMO determined a different course of action was necessary because a COTS solution was not a viable option, a new requirement and acquisition plan should have been developed by VA. Once the new requirement and acquisition plan were developed, VA was required to compete the requirement. However, the PMO re-directed SwRI to change the scope of their work and submit a proposal due to the change. VA simply modified the task order with a completely new statement of work. The PMO had no authority to contact SwRI and direct them to change the scope of the project. Any change in direction should have been discussed with the Contracting Officer and the Contracting Officer should have been responsible for contacting the vendor. Since the change in direction clearly changed the scope of the contract, any existing task orders should have been terminated for the convenience of the Government. Because this was essentially a new requirement developed by VHA valued in excess of $20 million, VA should have followed the procedures for a competitive procurement. There is no evidence or support in the files supporting an award to SwRI under their CASU contract without competition. Once the CASU contract expired, contracting officials received further instructions from the PMO to use SwRI's GSA contract. It was not until May 2008 that procurement officials in OA&L determined that the RSA effort should be competed. However, by that time SwRI clearly had a clear competitive edge as the incumbent contractor working on the RSA project for close to seven years.

It is clear that the PMO played a major role in the decision making related to acquisition strategy when such decisions should have been made by individuals with knowledge and experience in contracting. It appears that contracting officials simply followed instructions from the PMO without exercising their responsibilities in the procurement process. It is not clear whether the contracting officers had any choice in the matter. As we have reported in the past, contracting officials are often forced by program and other management officials to take actions that violate Federal procurement laws and regulations or are not in the best interest of the Government.[10]

It is uncertain if proper oversight of contracting decisions and processes would have changed the outcome of the project. If the initial award had been competed with a performance based statement of work, procurement officials would have been required to develop an appropriate acquisition plan to support the acquisition which may have triggered VHA and OI to better define the requirement and forced certain issues that needed to be addressed to the surface. Also, VHA may have been provided alternate solutions to developing RSA if a properly defined requirement was competed.

Once the initial award was made, the COs responsibility, in part, becomes ensuring the Government is receiving the products and/or services identified in the contract. To do this, they rely on the COTR to track the contractor's performance. The COTR is the technical expert in the program office with the knowledge and experience to evaluate contractor performance. If there are problems with performance or deliverables, the CO is responsible for resolving these issues

[10] See reports cited on page ii of the Executive Summary.

and protecting the Government's interest. In this case, the CO was not informed of any significant issues by the program office, or COTR, regarding SwRI's performance or timeliness on contract deliverables. The contract files do not contain any indication of unsatisfactory performance by SwRI. The past performance evaluations completed by the Program Mangers indicated satisfactory performance in all areas. All code development deliverables were met by SwRI and delivered per the terms and conditions of the contract. This is further indication that the failure of the project was directly related to VA's failure to adequately plan the project.

Issue 2: The RSA Failed Due to Project Specific and Broader IT Issues.

The documentation provided showed that multiple issues arose throughout the development and testing of the RSA project. RSA was an early IT project and numerous technological changes, organizational changes, and new VA or IT initiatives were developed during the RSA project. Because RSA is a complex system that must communicate with numerous external sub-systems to function, the often incomplete status or delayed development and testing of these sub-systems impacted the progress of the development and implementation of RSA.

A number of issues that impacted the success of this project were related to systemic issues affecting the VA IT environment as a whole. These systemic issues have been identified in reports issued by various groups within VA, including the OIG, and by outside consultants. Efforts undertaken to resolve the systemic issues were not successful. For example, in November 2007 VA's Office of Information and Technology (OI&T), OED entered into an Interagency Agreement (IAA) with the Space and Naval Warfare Systems Center, hereinafter referred to as SPAWAR. One of the main purposes of the IAA was to train and mentor VA staff. This was done by VA in an effort to address the fact that VA does not have personnel with the expertise in enterprise development to plan and manage the development of the IT systems needed by VA entities. However, our recent review of the IAA with SPAWAR, (*Review of Interagency Agreement between the Department of Veterans Affairs and Department of Navy, Space Naval and Warfare Systems Center (SPAWAR),* dated June 4, 2009), showed that instead of resolving the systemic issues, the IAA seems have perpetuated them and in some cases created new issues.

a. RSA Specific Issues that Affected the Success of RSA.

As previously discussed, RSA was a large, multi-year, IT system development project. There were some project specific changes and major redirections in project design over the developmental lifecycle that resulted in longer delivery times and increased costs. Some of the major changes are delineated below.

- On April 5, 2002, the scope of the project was changed from developing a COTS solution to an in-house build.
- In November 2002 the project was re-directed from programming in .Net to JAVA.
- In October 2003 the service oriented architecture was re-directed due to the HealtheVet initiative.
- In June 2004 the project was re-directed from Oracle 9iAS to Weblogic.
- In April 2005 the project was directed to de-scope. SwRI was given direction to establish and produce two software application production lines, one for the de-scoped (i.e., Alpha

Product) and the other for the Beta Product line. SwRI was directed to maintain documentation for each project line independent of the other.
- In April 2008, SwRI was redirected to place all resources on the Alpha delivery and stop working on the Beta product.

Factors as cited by various assessments by VA and external sources, other than changes in direction, which impacted the RSA program include:

- Integrated test environments were unavailable.
- Project critical dependencies were missing or not fully developed.
- Integrated planning and sequencing was immature.
- Two major organizational realignments of the IT personnel during the RSA performance period which impacted all IT projects, including RSA.
- The level of technical integration required new organizational constructs which were not developed until last couple of years.

All of these project specific factors certainly impacted the progress, and ultimately the failure, of the RSA project. However, systemic issues in VA's IT programs that were prevalent during the RSA's performance period exacerbated these problems and contributed to the failure.

The other significant factor in the failure of the RSA project was the change in responsible organizations for the RSA project that occurred. VHA OI was responsible for the project when RSA was initiated. In February 2001 responsibility was assigned to VISN 16 and 17 and the VHA appointed Board of Directors. In November 2006 VA aligned all IT activities under OI&T which include the RSA project. In April 2007 RSA was transferred to OED within OI&T.

b. VA IT Systemic Issues that Affected the development and implementation of RSA.

In addition to the project specific issues, systemic issues within VA exacerbated the existing, project specific issues and independently contributed to the failure of the project. For example, as early as February 2005, systemic issues within the VA's HealtheVet initiative were identified. Because RSA is a component of HealtheVet, these issues ultimately impacted the development of an implementable RSA.

Various assessments and studies within VA and by outside entities have identified deficiencies in VA's oversight and management of complex IT projects. The assessments and studies we identified spanned the time period of February 2005 to April 2009. During this timeframe there were at least ten assessments or studies done. Based on our review of the documentation provided to us during our review, we have listed some of the major systemic issues that have been identified as affecting the RSA and/or HealtheVet programs.

- VA lacks adequate in-house expertise to fully support, manage and execute complex integrated programs.
- Lack of consistent leadership and direction at senior VA levels.
- No integrator responsible for a master schedule at the enterprise level for RSA.
- No overarching risk manager.

- Organizational changes at the senior levels of management affect the ability to get resources and continued sponsorship needed to resolve infrastructure issues.
- Coordination with other projects, infrastructure, etc., was insufficient.
- Limited evidence of applicable policy and process enforcement.
- Lack of clearly defined governance, accountability, roles and responsibilities within OED and across organizational boundaries.
- Evidence of changes to Integrated master Schedule without full analysis of impact.
- Unclear ability to trace requirements across continuum.
- No evidence of HealtheVet Infrastructure Plan.
- Design changes and technology redirections that often cause delays in IT projects.
- Evidence of inefficient and ineffective Acquisition Management Practices.

This list of deficiencies is not a comprehensive list of all the issues identified in reviews of the RSA project or the overarching HealtheVet program. However, it does include most of the significant issues that were identified multiple times in various assessments. In particular, the significant factors in the failure of the RSA project were the lack of an infrastructure plan for the HealtheVet initiative, the lack of in-house expertise to fully support, manage and execute complex integrated programs, and the lack of central leadership responsible for the coordination and oversight complex IT projects needed to ensure success.

Currently there is no testing of any RSA code taking place. All development and testing activities have been stopped while an Analysis of Alternatives (AOA) is being performed. Because it was not clear who was performing the AOA we asked the RSA Program Manager who was performing the AOA and were told that it was decided that OED will lead the AOA with representation from VHA and other resources, including contracting for services as needed.

One interesting point regarding the AOA is that one of the options to be considered is the use of a COTS software product. This represents a full circle back to the beginning of the project in FY 2000.

c. Attempt to utilize IAA with SPAWAR is not an effective solution.

After the determination that implementation of a "one-site only" Alpha code was not viable for national rollout, an assessment of the "multiple-site" Beta code was performed to determine its viability for national rollout and fulfillment of business needs. Around the same time, discussions began regarding SPAWAR's role in the future RSA development and creating a transition to a blended VA and SPAWAR development efforts. The current RSA Program Manager recommended that a blended team, leveraging SPAWAR for core engineering, technical leadership, and additional IT providers for application development, integration, and delivery, be created. The team would report to the RSA Program Manager. The RSA Program Manager further recommended that a mechanism be established to fully empower SPAWAR government employees to act on behalf of VA. We do not believe this to be a viable solution because our review of the SPAWAR contract found that most of the work was being performed by contractors, not SPAWAR Government employees. VA's IAA with SPAWAR was an attempt by VA to manage IT initiatives by bringing expertise to VA and mentoring VA staff; however, as noted in our report issued on June 4, 2009, *Review of Interagency Agreement*

between the Department of Veterans Affairs and Department of Navy, Space Naval, and Warfare Systems (SPAWAR), VA has relinquished much of the decision making to SPAWAR and its contractors.

We also question this solution given SPAWAR's involvement in the assessments of the project prior to the termination of the task orders with SwRI. We reviewed task order listings for SPAWAR and found RSA mentioned in the following SOWs:

1) OED Replacement Scheduling Activity-Enrollment System Application (RSA-ESR) Technical Consultation and Engineering Services SOW va-3.1-00008-08-v1.0 (Amendment Number 1).
2) OED Replacement Scheduling Activity-Enrollment System Application (RSA-ESR) Technical Consultation and Engineering Services SOW va-3.1-00008-08-v2.0 (Amendment Number 2).
3) OED Replacement HealtheVet Application Technical Consultation and Engineering Services SOW va-3.1-00008-08-v4.0 (Amendment Number 3).
4) OED HealtheVet Application, Replacement Scheduling Activity (RSA) Tiger Team, Technical Consultation and Engineering Services SOW va-3.1-00008-08-v1.0 (Amendment Number 5).

We found that VA was unable to determine exactly what work was to be performed on or relating to RSA by SPAWAR, what deliverables were required under the SOWs, or which VA personnel were monitoring or tracking the work. When the current RSA Program Manager was asked to provide us with copies of the deliverables under the four SOWs, he responded:

> I have not been able to locate anything regarding these 4 SOWs. The first and last were not technically assigned to RSA but were created to support RSA and HealtheVet from other parts of the organization. I have not received a copy of them and the person who created them is now gone. I have never received a copy of the middle two, as the only copy I received for my program is VA-3.1-00008-08-V6.0.

This response further demonstrates the lack of a comprehensive plan for the development and implementation of RSA which ultimately resulted in the failure of the project.

This finding regarding the lack of VA oversight of the work relating to RSA that was supposedly performed under the IAA is consistent with findings reported in our report issued on June 4, 2009. In summary, the findings in the report relevant to this review are as follows:

- The SOWs were often broad and general in nature and lacked specific deliverables.
- Problems with the implementation of the IAA are due to poor administration by both OED and SPAWAR.
- OED was not performing adequate oversight to ensure that funds were spent appropriately. OED could not tell us who was performing the work under the IAA, how many people were providing services, or where they were located.

- Insufficient technical and legal reviews conducted by the Office of Acquisition, Logistics & Construction (OAL&C) and the Office of General Counsel (OGC), respectively.

It is of concern that the OED is unable to provide copies of work performed under the IAA, especially since this work may have impacted decisions relating to RSA—in particular the decision to terminate the task orders issued to SwRI. We noted in the records that evaluations of RSA were conducted by the "Tiger Team," which is specifically referred to in Amendment 5 to the IAA. We also noted that the current Project Manager has several contract employees listed in VA's Outlook directory as "direct reports," which raises the issue whether recommendations and decisions are being made independently by VA personnel or are influenced by contractor personnel who may ultimately benefit from the decisions.

Issue 3: Why Does VA Appear Not to Have the Capability to Manage IT Projects Internally?

In the letter requesting that we review the failure of RSA, the Ranking Member noted:

> VA appears to recognize their own inability to properly manage IT projects internally. On March 31, VA awarded an $11 million contract to a firm to 'support all operational and technical requirements associated with the systemic analysis planning, and budgeting, and execution of IT investments.' Why does VA appear not to have the capability to manage these projects internally?

To address this question, we attempted to locate the contract cited in the letter. Nothing was found in VA's Electronic Contract Management System (e-CMS) or in the Federal Procurement Data System that matched the description. When we inquired about the contract with officials in VA's Office of Acquisition, Logistics, and Construction (OAL&C), we found that no one had knowledge of any contract meeting the description. We contacted the Ranking Member's staff who provided us with a press release that identified the contractor. However, when we still were unable to identify the contract in the appropriate data systems or in OAL&C, we contacted the OI&T and found out that the contract was awarded by GSA through another agreement between VA and GSA that allows GSA to act as a contracting entity for OI&T. No one in VA had a copy of the task order issued by GSA, only a Statement of Work, which may or may not have been the Statement of Work included in the contract. Although the agreement between VA and GSA indicated that a VA COTR would be appointed, we found that the COTR was at GSA. We also found that this was not the only contract awarded by GSA under the IAA to procure services for OI&T. A spreadsheet maintained by OI&T showed that since FY 2007 at least 68 contracts valued at more than $77 million have been awarded by GSA for services, including software licenses, for OI&T. There is essentially no visibility within VA over these procurements. VA appears to merely fund the contracts through GSA.

The contracts demonstrate that OED is not the only entity within OI&T that is contracting out some of its functions and responsibilities. The contract referenced in the Ranking Member's letter was awarded in March and was for the Office of IT Enterprise Strategy, Policy, Plans and Programs (ESPPP). The organization appears to rely significantly on the vendor to support its operations. ESPPP has the responsibility to develop the Enterprise Architecture and IT Strategic

Plan; develop IT Program Management policies and standards; and, monitor compliance with cost, schedule, and performance goals for major IT initiatives which includes the RSA project. Because of time constraints and the fact that the relevant records were at GSA, we did not conduct a detailed review of this task order (estimated cost at over $11 million). However, based on our review of the statement of work and interview with program officials, it appears the vendor provides a significant level of effort and support to ESPPP in conducting its mission. It is another indicator of the lack of qualified experts within OI&T to effectively execute and manage large scale IT projects.

In response to the Ranking Member's specific question, we believe VA lacks the expertise needed to plan and manage IT programs and projects and has become dependent on third party contractors to perform these functions.

Issue 4: The Failure of RSA Negatively Affects the HealtheVet Initiative.

We did not review the HealtheVet initiative as a whole nor did we review other components of HealtheVet. We did find that RSA was the next major rollout of the HealtheVet initiative and is a component that is critical to its success because it will be used within the overall HealtheVet initiative. We believe the schedule slippage of RSA most likely will negatively impact on the timely implementation of the HealtheVet initiative.

It is, however, important to note that one of the major contributing factors to the failure of RSA was the lack of a defined common architecture of HealtheVet. So while it is possible to conclude that the failure of RSA negatively impacts the HealtheVet initiative, one can also conclude that the many issues relating to HealtheVet had a negative impact on the success of the RSA project. In short, there are multiple factors that have and will continue to cause delays in the implementation of the HealtheVet initiative.

Conclusions and Suggestions

In our opinion, the failure of the RSA project is due mainly to larger systemic problems relating to the planning, management and implementation of IT projects within VA that have been addressed in this and numerous other reports in the last 7 years. If VA had both experienced individuals and an adequate system in place to quickly identify program problems impacting the progress and ultimate success of a project, it would have been much more likely that effective and timely decisions would have been made to either redirect the project, or terminate it.

The success of complex IT projects such as RSA requires a solid structure within VA that has in place the necessary staff with required expertise to plan and monitor the projects, define requirements, and develop solid acquisition plans. Without these key components, it is difficult, if not impossible, to provide effective oversight of a major IT initiative such as RSA. Our review of the documentation related to RSA showed there was oversight during the life of the project, but it was ineffective which ultimately resulted in a failed project. We found that the contractor, SwRI, met its contractual responsibilities in that SwRI delivered code and other deliverables that satisfied the contract requirements.

Although this review was limited to RSA, the prior OIG reports cited above relating to other failed IT projects in VA have identified the same systemic problems that resulted in the failure of RSA. We believe that VA's OED has recognized that these systemic issues exist, and has attempted to resolve them by relying on third parties to plan and manage IT projects.

In response to the failure of the RSA project as well as issues with other significant IT projects, the Secretary announced a new IT management approach for VA in June 2009. All IT programs and projects must be implemented using the Project Management Accountability System (PMAS) which takes an "incremental development approach that ensures frequent delivery of new functionality to customers coupled with a rigorous management approach that halts programs that fail to meet delivery milestones. This new system should ensure early identification and correction of failing IT programs."[11]

On July 17, 2009, the Secretary also announced the temporary halt to 45 IT projects that included the RSA project. According to the press release, "No further development will occur … A new project plan that meets the requirements of Program Management Accountability System (PMAS) must be created by the project manager and approved by VA's Assistant Secretary for Information and Technology before resuming." We believe the PMAS is a step in the right direction. An incremental approach will provide project managers an opportunity to identify and correct problems or halt failing IT programs. However, VA still needs to address the problem of the lack of qualified staff in key positions and lack of necessary expertise to effectively execute the PMAS approach. As noted in the OIG's report on the SPAWAR, relinquishing too much control and placing too much reliance on SPAWAR only compounded and added to the issues surrounding complex IT projects such as the RSA project.

[11] From a VA news release dated June 19, 2009.

Ultimately, we suggest that OED develop in-house staff that has the expertise to fully support, manage and execute complex integrated IT programs. In addition, we suggest that:

- OI&T and program offices with a need for these systems be empowered, resourced, structured, and trained for large-scale systems integration.
- Project and program status assessments be realistic and objective, used at decision points, and allow for "off ramps."
- Fully engage stakeholders and ensure their active participation in decision making.
- Decision makers have sufficient technical and change-management knowledge to understand the impact of their decisions.
- The number of VA contracting officers with experience in large IT projects be expanded.

Appendix A

OIG Contact and Staff Acknowledgments

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Appendix B

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