April 1998

VETERANS AFFAIRS

Status of Effort to Consolidate VA Data Centers

GAO	United States General Accounting Office Washington, D.C. 20548

**Accounting and Information
Management Division**

B-279359

April 22, 1998

The Honorable Chaka Fattah
House of Representatives

Dear Mr. Fattah:

As requested by your office, we reviewed the Department of Veterans Affairs' (VA) plans to consolidate mainframe computer operations at the Veterans Benefits Administration's (VBA) benefits delivery centers in Hines, Illinois, and Philadelphia, Pennsylvania, at VA's Austin, Texas Automation Center (AAC). Our objective was to determine the current status of VA's efforts to consolidate its data centers.

Results in Brief

In response to a 1995 Office of Management and Budget (OMB) bulletin urging federal departments to consolidate their data centers as a way of reducing operating costs, VA hired a contractor to study various alternatives. The contractor concluded, in June 1996, that consolidation of VBA's Hines and Philadelphia data centers at VA's AAC was the most cost-effective solution and would bring VA into compliance with OMB's criteria for cost-effective data center size.

However, in March 1997 VA decided to defer consolidation to ensure that available resources and attention could be focused on solving VBA's Year 2000 computing problem.[1] OMB subsequently urged VA to address consolidation concurrently with the Year 2000 issue.

The department is now planning the data center consolidation. VA and VBA have recently formed a team to develop plans to address factors that were not fully considered in the original 1996 analysis, such as how displaced personnel at Hines and Philadelphia will be accommodated. VA and VBA have stated that they intend to proceed in 2000 with data center consolidation, once VBA has completed its effort to address the Year 2000 issue.

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[1]The Year 2000 problem is rooted in how dates are recorded and computed. For the past several decades, many existing computer systems have used a two-digit date field to represent the current year—such as "97" for 1997. However, such a format does not distinguish between 2000 and 1900. Computer programs that are not corrected to accommodate the 2000 date could process information incorrectly, affecting the payment of benefits and provision of services.

Background

VA comprises three major components: the Veterans Health Administration, which provides services through the nation's largest health care system; the National Cemetery System, which provides burial services in 113 national cemeteries and headstones for veterans in private cemeteries; and VBA, which provides nonmedical benefits to veterans and their dependents. In fiscal year 1997, VBA reported that it paid about $23 billion in benefits to at least 4.4 million veterans and their dependents.

Three data centers currently support key VA business processes. AAC, VA's data center in Austin, uses IBM and other computer equipment to process the department's accounting and financial management information related to administrative operations. AAC also provides information systems and telecommunications services to several VA customers, including the National Cemetery System, Veterans Health Administration, and the Office of the Inspector General. AAC had a computer operations staff of 114 as of January 1998.

VBA's Hines center processes compensation and pension, education, and vocational rehabilitation claims using Honeywell and IBM computer equipment; VBA's Philadelphia center processes insurance claims using IBM equipment and processes benefit transactions using Honeywell equipment. As of January 1998, the Hines center had an operations staff of 164 and the Philadelphia center had an operations staff of 98. Each location also has a VBA systems development center, staffed with 102 people at Hines, 48 people at Philadelphia, and 59 people at Austin, as of January 1998, providing software development and service support to VBA's benefits programs.

Objective, Scope, and Methodology

Our objective was to determine the current status of VA's plans to consolidate its data centers. To do this, we reviewed relevant studies and plans commissioned by VA and VBA on data center consolidation. These studies and plans included VA's Summary of Data Center Consolidation Implementation Plans, January 1997; VA's Data Center Consolidation Alternatives Analysis and Business Case Analysis, June 1996; VA's Data Center Consolidation Strategic Plan, June 1996; Veterans Benefits Delivery Network Payment System Conversion Analysis, February 1996; Conversion Study for the Department of Veterans Affairs (Philadelphia, Pennsylvania), January 1996; and the Conversion Study for the Department of Veterans Affairs (Hines, Illinois), December 1995. We did not independently verify savings estimations or other information in these studies and plans.

We compared VA's plans with guidance contained in OMB Bulletin 96-02, dated October 4, 1995. In addition, we interviewed VA and VBA information resources management officials in Washington, D.C., VBA officials at the Hines and Philadelphia benefits delivery and systems development centers, and representatives of VA's data center consolidation support contractor. We also met with OMB officials regarding OMB Bulletin 96-02 and VA's compliance with its requirements. We performed our audit work between October 1997 and March 1998 in accordance with generally accepted government auditing standards.

We requested written comments on a draft of this report from the Acting Secretary of Veterans Affairs or his designee. The Assistant Secretary for Policy and Planning provided us with written comments. These comments are discussed in the "Agency Comments" section and are reprinted in appendix I.

VA Responds to OMB Requirement

In September 1993, the National Performance Review issued a report[2] that discussed information technology goals, including establishing an effective and efficient information infrastructure to support electronic operations. One action item for this goal was to develop a governmentwide data center consolidation and modernization plan for reducing the number of federal data centers and improving their operations. A committee comprised of personnel from the National Performance Review and the Council of Federal Data Center Directors was tasked to develop this plan. The committee issued a report[3] in February 1995 that recommended a data center consolidation strategy to improve efficiency and lower costs, and provided a plan for implementing this strategy.

Acting upon the recommendations in the committee's report, OMB issued Bulletin 96-02 on consolidation[4] of agency data centers in October 1995. The bulletin directs federal agencies to reduce the number of data centers and their cost of operations. OMB wanted agencies to achieve this goal over a 24-month period by consolidating operations at smaller data centers to

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[2]From Red Tape to Results: Creating a Government that Works Better & Costs Less, Report of the National Performance Review, Vice President Al Gore, September 7, 1993.

[3]Consolidation of Federal Data Centers, Federal Data Center Consolidation Committee, Council of Federal Data Center Directors, February 1995.

[4]The bulletin defines three types of consolidation: (1) collocation or moving information processing systems from multiple locations to one location where they operate as discrete systems, (2) hardware consolidation/upgrade or combining hardware components from various locations into centralized, modernized (upgraded) configurations, and (3) workload consolidation or moving software applications from two or more computer systems to a single computer system.

larger ones. Under OMB Bulletin 96-02, agencies were to prepare analyses and plans for data center consolidation and complete consolidation activities by June 1998. Agencies were to submit to OMB the following documents: (1) an inventory of agency data centers by March 1, 1996, (2) a data center consolidation strategy by June 3, 1996, and (3) a detailed implementation plan by September 2, 1996.

VA Analysis Concludes That AAC Consolidation Is the Most Cost-Effective Solution

In 1996, VA took action to address the OMB requirements by contracting with a consulting firm to develop an alternatives and business case analysis, as well as a strategic plan and an implementation plan for data center consolidation. The contractor considered three alternatives: (1) keep the VBA data centers and AAC at their current locations, (2) consolidate all IBM and part of the Honeywell processing at AAC, but leave Hines as a redundant site handling regional processing, and (3) consolidate all VBA IBM and Honeywell processing at AAC.

The contractor concluded that consolidation of VBA's data center operations at AAC was the most cost-effective alternative and would meet the OMB requirement for data center consolidation. According to the contractor's analysis, consolidating the VBA data centers at AAC would save VA almost $49 million, compared with the other two alternatives, over a 6-year life.[5] Most of the savings would result from eliminating computer operations positions at VBA data centers.

The contractor recommended consolidation of the VBA data centers at AAC because this was the only alternative meeting the criteria in OMB's Bulletin 96-02. The criteria stipulated minimum data center mainframe processor target sizes in terms of millions of instructions per second (MIPS).[6] Table 1 compares the size of AAC and VBA data center processing equipment with OMB's minimum sizing requirements for data center mainframe processors. Data centers that have fewer MIPS than OMB's target sizes are considered to be candidates for consolidation. According to a Federal Data Center study, larger data centers are more effective than smaller data centers. Empirical studies[7] of data centers and experience show that the cost per unit of output of a large data center is less than the cost of the same unit of output from a smaller data center.

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[5]This estimate is in present-value dollars.

[6]MIPS is a measure of processor speed.

[7]These studies analyzed certain metrics, including a total cost-per-unit of processing power consumed, central processing unit utilization, and some measure of disk and tape utilization and print management.

Table 1: VA Data Center Size and OMB Criteria for Cost-Effective Data Center Sizing

Data center	IBM MIPS		Honeywell MIPS	
	OMB minimum requirement	Data center actual size	OMB minimum requirement	Data center actual size
AAC	325.0	404.0	175.0	n/a
Hines	325.0	13.5	175.0	13.0
Philadelphia	325.0	28.0	175.0	10.0

Source: OMB Bulletin 96-02 and Department of Veterans Affairs Data Center Consolidation Alternatives Analysis and Business Case Analysis, June 1996. We did not independently verify this information.

Only VA's AAC met OMB's minimum MIPS requirement; VBA's Hines and Philadelphia centers did not meet this requirement.

The contractor's January 1997 implementation plan discussed at a high level several areas that VA would have to address in order to successfully collocate its data centers at one location, including a consolidation management strategy and a detailed human resources strategy with transfer options and other benefits to limit any adverse impact on VA employees. According to the contractor's implementation plan, consolidation would result in as many as 274 mainframe operations positions being phased out or redirected—177 at Hines and 97 at Philadelphia. Because consolidation of the systems development centers was not considered, systems development personnel at these centers would not be affected.

VA Consolidation Postponed Pending Completion of VBA Year 2000 Compliance Activity

In March 1997, VA decided to postpone its plans for data center consolidation because of concerns that VBA might not be able to complete necessary Year 2000 computer system modifications and consolidation at the same time. We first raised concerns about the Year 2000 issue in June 1996.[8] At that time, we indicated that Year 2000 should be VBA's first information technology priority and that plans to consolidate VBA's data centers would be an additional risk to VBA's Year 2000 effort. VA told OMB that the decision to postpone data center consolidation reflects VA's primary goal of ensuring that payments to veterans and their dependents continue without interruption beyond January 1, 2000. VA also told OMB that it plans to proceed with data center consolidation once the Year 2000 computing problem is resolved.

[8]Veterans Benefits Administration: Management and Technical Weaknesses Must be Overcome If Modernization Is To Succeed (GAO/T-AIMD-96-103, June 19, 1996).

OMB Asks VA to Address Year 2000 and Data Center Consolidation Concurrently

In June 1997, OMB informed VA that it should reconsider its decision to postpone data center consolidation. OMB officials stated their belief that VA and VBA could address both the Year 2000 computing problem and data center consolidation at the same time. OMB further said that it would use its statutory authority to ensure compliance with OMB Bulletin 96-02.[9] In November 1997, as part of internal fiscal year 1999 budget negotiations between OMB and VA, OMB again urged VA to accelerate data center consolidation and concurrently address Year 2000 computer modifications.

According to VA's Deputy Assistant Secretary for Information Resources Management, the department is now taking steps to proceed with data center consolidation planning. However, she stressed that VA is still committed to resolving the VBA Year 2000 computing problem before it begins data center consolidation. At the present time, VA expects to consolidate its mainframe computer operations sometime in 2000.

Current Status of Data Center Consolidation

In response to OMB's concern about data center consolidation, the VA Chief Information Officer and VBA formed a team comprised of the data center directors, staff in the VBA Chief Information Officer's office, and a liaison from VA's Office of Information Resources Management to jointly develop a new plan for collocation. The new plan is to take into account the changes that have occurred since the contractor's January 1997 implementation plan, including upgrades to various computer platforms and Year 2000 strategy changes. VA officials acknowledged that, among other things, a detailed human resources plan is needed to address how displaced personnel at the benefits delivery centers will be accommodated. OMB has asked that VA submit the collocation plan to them by March 31, 1998.

To meet the OMB requirements, VA expects that its data center collocation plan will contain several items, including

- a human resources plan to include transfer and training options describing how VA will accommodate VBA benefits delivery center employees at risk of losing their jobs,

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[9]Clinger-Cohen Act (P.L. 104-106, section 5113(b)(5)(B)).

- a transition plan, describing how VA will move from its current architecture to its planned post-consolidation architecture,[10]
- a security and disaster recovery plan covering the transition and post-consolidation environments,
- an acquisition plan to support data center consolidation and modernization efforts that require new or upgraded hardware, software, and communications equipment and facility improvements,
- a fee-for-service structure describing how new customers will be charged for use of the data center, and
- a resources management plan that reflects projected consolidation costs for capital investments, travel and relocation, software licenses, human resources, communications, facility improvements, and disaster recovery.

According to VBA's Chief Information Officer, VBA has drafted a collocation plan covering the above items. However, to date the VA/VBA joint team has not met to discuss this draft plan.

Agency Comments and Our Evaluation

In commenting on a draft of this report, the Department of Veterans Affairs provided additional comments regarding the joint VA/VBA team's efforts to develop a data center collocation plan. VA stated that, in January 1998, VBA began to draft a collocation plan. In February 1998, VBA forwarded this draft plan to VA's Chief Information Officer and AAC for their review and comments. In addition, VA stated that, while the data center consolidation team has not formally met, it did conduct a series of telephone conference calls during March 1998 to discuss the draft plan. VA stated that it plans to submit to OMB a framework addressing the areas required by OMB. In addition, VA advised us that it plans to develop a detailed cost analysis and human resources analysis that will identify and provide employment options for personnel at the data centers affected by consolidation. Finally, VA stated that it plans to contact OMB during May 1998 to provide the status of its planning efforts.
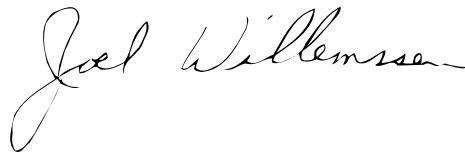
As agreed with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution until 5 days from the date of the report. At that time, we will send copies to the Chairman and

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[10]According to OMB Bulletin 96-02, the transition plan should describe (1) the baseline workload mix and corresponding performance levels of the closing site that must be met by the receiving site, (2) reconfiguration of the receiving site to accommodate additional data processing and communications workload requirements, and (3) systems integration and testing to ensure that the configuration meets the specifications. This plan should also include a schedule showing start and end dates for transition tasks and milestones.

Ranking Minority Member of the Subcommittee on Oversight and Investigations, House Committee on Veterans' Affairs, and the Chairman and Ranking Minority Member of the Subcommittee on Benefits, House Committee on Veterans' Affairs. We will also provide copies to the Chairmen and Ranking Minority Members of the Senate and House Committees on Veterans' Affairs, the Senate and House Committees on Appropriations, the Secretary of Veterans Affairs, and the Director of the Office of Management and Budget. Copies will also be made available to others upon request.

Please contact me at (202) 512-6253 or by e-mail at *willemssenj.aimd@gao.gov* if you have any questions concerning this report. Major contributors to this report are listed in appendix II.

Sincerely yours,

Joel Willemssen

Joel C. Willemssen
Director, Civil Agencies Information Systems

Comments From the Department of Veterans Affairs

DEPARTMENT OF VETERANS AFFAIRS
ASSISTANT SECRETARY FOR POLICY AND PLANNING
WASHINGTON DC 20420

MAR 3 0 1998

Mr. Gene L. Dodaro
Assistant Comptroller General
U. S. General Accounting Office
441 G Street, NW
Washington, DC 20548

Dear Mr. Dodaro:

I have received your draft report, *VETERANS AFFAIRS: Status of Effort to Consolidate VA Data Centers* (GAO/AIMD-98-94) and am pleased to offer these comments.

As recommended by the Vice President's National Performance Review, the Department of Veterans Affairs has been working with the Office of Management and Budget to streamline its data processing activities by consolidating them in the Austin Automation Center. This has been a challenge because of concurrent priority activity to remedy potential Year 2000 problems.
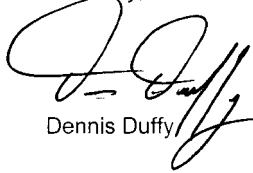
Nevertheless, by early January 1998, the Veterans Benefits Administration (VBA) and the Assistant Secretary for Management (VA's CIO) established their Data Center Consolidation Team. The VA/VBA team is composed of Data Center directors, staff in the VBA CIO's Office and a liaison from VA's Office of Information Resources Management. At that time, VBA had begun drafting a collocation plan since the plan was due to OMB at the end of March 1998. During February 1998, VBA forwarded the draft plan to VA's CIO and the Austin Automation Center (AAC) for their review and comments, and VBA has incorporated them into the draft plan. Although the team has not formally met, an initial telephone conference was held on March 12, 1998, followed by a series of subsequent calls that discussed versions of the draft plan. Representatives from Austin are planning to meet in VACO with other team members to finalize the plan. By March 31, 1998, VA will submit to OMB a framework for addressing areas required by OMB's circular. We will also produce a detailed cost analysis and a human resources analysis that will identify and provide employment options for personnel impacted by the data center consolidation. VA will contact OMB during the week of May 5, 1998, to provide the status of these efforts.

2. Mr. Gene L. Dodaro

   The number of FTEE referenced in the GAO report will be refined in the collocation plan. The plan will show the number of FTEE and the potential savings which could result from collocation.

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Sincerely,

Dennis Duffy
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Major Contributors to This Report

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