



Accounting and Information
Management Division

B-282775

May 24, 1999

The Honorable Arlen Specter
Chairman, Committee on Veterans' Affairs
United States Senate

Subject: VA Y2K Challenges: Responses to Post-Testimony Questions

Dear Mr. Chairman:

This letter responds to your May 7, 1999, request that we answer questions relating to our April 20, 1999, testimony¹ on the Department of Veterans Affairs' (VA) efforts to address the Year 2000 (Y2K) computer problem. Your questions, along with our responses, follow.

1. *Based on GAO-recommended milestones for the Y2K assessment phase, renovation phase, and validation phase, VA has made significant progress in its Y2K readiness efforts. However, key actions remain to be performed, as stated in your testimony. With time being a primary challenge, what level of assurance can GAO give the committee staff on VA's ability to achieve Y2K compliance?*

We cannot provide assurances that VA will not encounter any problems in its efforts to achieve Y2K compliance. However, we believe the actions that VA has taken will help minimize Y2K disruptions. For example, in April 1997 the Veterans Benefits Administration (VBA) changed its Y2K strategy from developing new systems to converting existing ones. In addition, both VBA and the Veterans Health Administration (VHA) created Y2K project offices to oversee and coordinate their agencywide Y2K activities; they also reported they had completed renovation, validation, and implementation of their mission-critical systems.

VA, though, has work remaining to ensure that it can deliver benefits and health care into the next century. For example, VBA and VHA must still complete testing of their mission-critical systems to determine if the systems are Y2K compliant. The specific tests to be carried out include systems-acceptance and end-to-end tests.²

¹Year 2000 Computing Crisis: Key Actions Remain to Ensure Delivery of Veterans Benefits and Health Services (GAO/T-AIMD-99-152, April 20, 1999).

²Systems-acceptance testing requires that individual systems be tested, including full future-date testing, on a compliant platform. End-to-end testing of multiple systems verifies that a defined set of interrelated systems, which collectively support an organizational core business area or function, continue to work as intended in an operational environment, either actual or simulated.

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Even after testing is done, VA's vulnerability to business-process-system failures remains. VA still risks encountering unanticipated Y2K problems, since its systems may contain erroneous date codes not uncovered during Y2K-related testing. Because of this risk, VA must have business continuity and contingency plans to reduce the possibility of Y2K-related system failures. This effort should not be limited to the risks posed by the Y2K-induced failures of VA's internal information systems, but must include the potential Y2K failures of external sources of information and data, including its business partners and public infrastructure service providers.³ The existence of one weak link in the chain of critical dependencies will subject even the most successful Y2K program to failure in protecting against a disruption of business operations.

To reduce the risk of Y2K business failures, and in response to recommendations in our August 1998 report,⁴ VA has developed business continuity and contingency plans. Last January, VBA completed a draft business continuity and contingency plan for its core business processes, as well as a related planning template for its regional offices. The plan addresses risks, including mitigation actions to reduce the impact of Y2K-induced business failures, and analyzes the effect on each business line of a number of potential Y2K disasters, including loss of electrical power, loss of communications, loss of data-processing capabilities, and failures of internal infrastructure. According to VBA officials, testing of the plan is scheduled for this August.

In addition, in March 1999, VHA issued its Patient-Focused Year 2000 Contingency Planning Guidebook to its medical facilities, describing actions they can take to minimize Y2K-related disruptions to patient care. The guidebook discusses how a medical facility should develop contingency plans for each major hospital function—such as radiology, pharmacy, and laboratory—as well as for each major support function—such as telecommunications, facility systems, medical devices, and automated systems. The guidebook also stresses that Y2K contingency plans should be tested and suggested that the medical facilities begin testing next month.

2. *In comparison to other federal cabinet departments, how do you score VA's work to date on the Y2K challenge?*

We have not scored the Y2K progress of VA or any other federal department. Instead, we assessed each department's performance using the criteria contained in our Y2K guides.⁵

³Business partners include other federal agencies, hundreds of state and local agencies, international organizations, and private-sector entities. Services provided by the public infrastructure include power, water, transportation, and voice/data telecommunications.

⁴Year 2000 Computing Crisis: Progress Made in Compliance of VA Systems, But Concerns Remain (GAO/AIMD-98-237, August 21, 1998).

⁵Year 2000 Computing Crisis: An Assessment Guide (GAO/AIMD-10.1.14, September 1997), Year 2000 Computing Crisis: Business Continuity and Contingency Planning (GAO/AIMD 10.1.19, August 1998), and Year 2000 Computing Crisis: A Testing Guide (GAO/AIMD-10.1.21, November 1998).

Based on our assessments, VA continues to make progress in renovating, validating, and implementing its mission-critical systems. For example, VA reported that it had renovated and implemented all of the mission-critical applications supporting its 11 systems areas. In addition, VA has taken a leadership role in the federal government in determining the Y2K compliance status of biomedical equipment and the readiness of pharmaceutical and medical-surgical manufacturers. Finally, VA has taken steps to address the risk of unanticipated failures by developing business continuity and contingency plans.

While we have not scored VA's Y2K work to date, others have. Subsequent to receiving and assessing agencies' quarterly report submissions, the Office of Management and Budget (OMB) issues a report placing each agency into one of three Y2K-readiness categories: tier 1 (agencies demonstrating insufficient evidence of progress), tier 2 (agencies showing evidence of progress but about which OMB has concerns), and tier 3 (agencies making satisfactory progress). According to OMB's most recent report (based on February 1999 data), VA was one agency making satisfactory progress—tier 3.⁶

Similarly, the House Subcommittee on Government Management, Information, and Technology, Committee on Government Reform, has assessed agencies' quarterly report submissions to OMB and issued report cards on agencies' Y2K progress. Based on data in VA's February 12, 1999, quarterly report to OMB, the Subcommittee Chairman gave VA a grade of "A-."

3. *In what area(s) should VA concentrate over the next 6 months to ensure that its highest risk areas are addressed prior to January 1, 2000?*

The most critical areas in which VA needs to focus during the remainder of this year include the following:

- Complete Y2K testing of VBA and VHA mission-critical systems—including systems acceptance testing (with full future-date testing) and end-to-end testing on compliant platforms.

⁶The other tier-3 agencies were the Departments of Education, Housing and Urban Development, and the Interior, as well as the Environmental Protection Agency, Federal Emergency Management Agency, General Services Administration, National Aeronautics and Space Administration, National Science Foundation, Nuclear Regulatory Commission, Office of Personnel Management, Small Business Administration, and Social Security Administration. Agencies demonstrating insufficient evidence of progress (tier 1) included the Departments of Health and Human Services and Transportation, as well as the U.S. Agency for International Development. Agencies showing evidence of progress but about which OMB has concerns (tier 2) included the Departments of Agriculture, Commerce, Defense, Energy, Justice, Labor, State, and the Treasury.

- Set deadlines to ensure that VHA's facilities systems are Y2K compliant.⁷
- Develop business continuity and contingency plans for VHA consolidated mail outpatient pharmacies to ensure the uninterrupted supply of medication to veterans in the event of Y2K problems in these facilities.
- Ensure that VHA's consolidated mail outpatient pharmacy systems are Y2K compliant.
- Coordinate closely with the Food and Drug Administration and industry trade associations efforts in obtaining and sharing information on the Y2K readiness of specific pharmaceutical and medical-surgical suppliers that did not respond to VHA's survey.
- Conduct business continuity testing to evaluate whether VBA and VHA contingency plans are capable of providing the desired level of support to VA's core business processes and whether the plans can be implemented within a specified period of time.

4. *Are there any areas where you have concluded that VA has misdirected its efforts on Y2K? What are they?*

There are none at this time. Although we had expressed concern in the past about VBA's strategy for addressing the Y2K problem, VBA has modified this strategy appropriately.⁸ Specifically, VBA's initial strategy was to develop new benefits payment systems to replace its current payment systems. We felt that this was a high-risk strategy because VBA lacked an integrated systems architecture, its software development processes were at an "ad-hoc and chaotic" level, and its systems development efforts were already experiencing schedule delays. Based on these concerns, we believed that VBA might not be able to complete its replacement Y2K activity in time. In response to these concerns, VBA redirected its Y2K strategy to focus on renovation of its current benefits payments systems rather than development of new, replacement payments systems.

5. *What are VA's greatest strengths in the effort to surmount the Y2K challenge?*

One of VA's greatest strengths is the designation of Y2K as the department's top information technology priority. In response to our May 1997 report, VA stated that it considers successful resolution of Y2K challenges to be an overriding departmentwide goal and, as such, redirected all necessary resources to anticipate and resolve any Y2K-related problems. At the VA Secretary's insistence, Y2K is now a departmentwide issue receiving the attention of each of VA's major benefits delivery organizations, as well as VA's many support organizations.

⁷Facilities systems include environmental control systems such as heating, ventilating, and air conditioning systems; alarm systems; fire detection and control systems; water management systems; and security systems.

⁸Veterans Benefits Computer Systems: Risks of VBA's Year-2000 Efforts (GAO/AIMD-97-79, May 30, 1997).

Another strength of VA's is that it has been very responsive in dealing with the Y2K challenge and in implementing key recommendations for improving its Y2K efforts. For example, in our May 1997 report,⁹ we made numerous recommendations designed to correct weaknesses in VBA's Y2K efforts. These were in the areas of program management, systems assessment and prioritization, completion of inventories and development of plans for addressing internal and external software interfaces, prioritizing information technology projects to make the best use of limited resources, and developing business continuity and contingency plans for critical business processes. VA took action to implement these recommendations leading to a reduction in Y2K-related risks.

Our August 1998 report¹⁰ made recommendations that VA (1) ensure that its Y2K mission-critical efforts have adequate resources, (2) establish critical deadlines for the preparation of business continuity and contingency plans for mission-critical functions affecting benefits delivery, and (3) ensure rapid development of business continuity and contingency plans for each medical facility. Again, VA concurred with and initiated actions on all of our recommendations.

We provided a draft of this letter to VA officials, and their comments have been incorporated where appropriate.

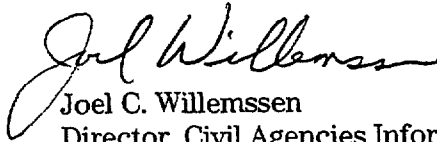
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⁹GAO/AIMD-97-79, May 30, 1997.

¹⁰GAO/AIMD-98-237, August 21, 1998.

Should you or your staff have any questions concerning this report, please contact me at (202) 512-6253. I can also be reached by e-mail at willemsenj.aimd@gao.gov.

Sincerely yours,



Joel C. Willemsen
Director, Civil Agencies Information Systems

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