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OPERATIONAL TEST
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INFO MEMO

MAR 28 2013

FOR: DEPUTY SECRETARY OF DEFENSE

FROM: J. Michael Gilmore, Director, Operational Test and Evaluation

SUBJECT: Way Forward for Pursuing the President's Agenda for Electronic Health Records Within the Department of Defense

References: (a) Executive Office of the President, President's Council of Advisors on Science and Technology Report, "Realizing the Full Potential of Health Information Technology to Improve Healthcare for Americans: The Path Forward," December 2010
(b) Office of Management and Budget Memorandum, "Implementation of the Virtual Lifetime Electronic Record and Integrated Electronic Health Record," December 6, 2012 (copy attached)
(c) DOT&E Memorandum, "DOT&E Recommended Actions for the integrated Electronic Health Record (iEHR) Interagency Program Office (IPO)," December 19, 2012
(d) DOT&E Memorandum, "Test Implications of the integrated Electronic Health Record (iEHR) Requests for Proposal (RFPs) for Pharmacy, Immunization, and Laboratory," March 15, 2013

- The purpose of this memorandum is to provide rationale for not releasing Requests for Proposal (RFPs) for integrated Electronic Health Records (iEHR) purchases at any time in the near future. Since the beginning of the first term, the White House has been pursuing an open standards approach to iEHR and has expected the DoD to assist in its efforts. Instead of assisting the White House, the DoD has been pursuing a completely different approach that is at best not contributing but is more likely to be detrimental to the President's goals if we proceed now to purchase products.

- The Department's current approach is manifestly inconsistent with the President's open standards agenda for electronic health records. That agenda has been clearly established and the White House has been very active in pursuing it throughout the President's first term.[1] The White House has repeatedly recommended that the Department take an inexpensive and direct approach to implementing the President's open standards. Unfortunately, the Department's preference is to purchase proprietary software for so-called "core" health management functions. This will be an expensive, complete replacement that may or may not succeed and that may or may not result in a system

[1] For a related example, see the directive to "Enable Efficient Information Exchange by Identifying Baseline Data and Systems Requirements for the Federal Government" in the February 2013 Presidential Policy Directive 21.

that adheres to open standards. To adhere to the President's agenda, the iEHR program should be reorganized and the effort to define and purchase "core" functions in the near term be abandoned. The follow-on iEHR program should be reconstituted with a much reduced budget focused on pursuing what the President has actually directed.

- The President's pursuit of open standards for Electronic Health Records (EHR) has involved a broad spectrum of government, industry, and academic participants. In 2010, the President's Council of Advisors on Science and Technology (PCAST) described the value to the nation of an open (not proprietary) universal exchange language for healthcare information (Reference (a)). Throughout his first term, the President pursued open standards for EHR. Reference (a) remains current and is clearly reflected in the December 6, 2012 memorandum from the Office of Management and Budget to the Department's Deputy Chief Management Officer (DCMO), Reference (b), attached at TAB A. The President's National Coordinator for Health Information Technology (ONC), sponsored grants throughout the first term to further the President's open standards agenda and continues to promote nationwide adoption of an open universal exchange language for healthcare information. A number of demonstration projects have now transitioned to active use.

- Throughout the first term, the Department's actions have been inconsistent with the President's agenda. The Department's past and current desire is to completely replace its healthcare Information Technology (IT) package, Armed Forces Health Longitudinal Technology Application (AHLTA), with an existing commercial healthcare management package. The President's science advisors recommend a much less expensive and more likely to succeed approach, described further below. The PCAST and other Presidential advisors (including renowned Healthcare academics and Chief Information Officers (CIOs) of major hospital systems) have stated their countervailing views. Reference (b) is the latest attempt by the White House to provide direction to the Department to join in the President's effort.

- The Department's resistance to the President's open standards agenda appears to be founded largely on an incorrect assumption---namely, the belief that modernizing the Department's health records systems using open standards will take too much time and the lack of immediate progress will inevitably cause the Department to be forced to adopt the VistA software used by the Veterans Administration (VA). Provided the Department moves forward consistent with the President's open standards agenda and makes near-term progress in improving health data sharing between the Department and the VA, this assumption is incorrect. The President's open standards agenda has nothing whatsoever to do with the Department using VistA.

- In order to meet the President's open standards goal, the DoD should first define and test the overall architecture for implementing iEHR and then purchase or build a software "layer" consistent with that architecture enabling the DoD's healthcare system, which is currently AHLTA, to interact with the outside world via open standards while remaining

itself unchanged.[2] That software layer is called an Enterprise Service Bus (ESB), and it is discussed in References (c) and (d). The iEHR Integrated Program Office (IPO) will say that it has implemented an ESB; however, this may or may not be true. The ESB has been purchased, but it has not been connected to anything real. One of the President's healthcare experts expressed doubts to my staff that the IPO's WebSphere implementation of the ESB would be able to implement the President's open standards, as the WebSphere ESB has "hundreds of proprietary interfaces". Furthermore, I understand the foremost ESB products identified in Reference (a) were not represented in the bidding on the IPO's ESB contract.

- The White House is implementing open standards (with or without DoD assistance) through a market-based mechanism in which commercial product vendors and doctors are given financial incentives to comply with the EHR standards. The standards are being developed as a collaborative, consensus effort by government, industry, and academia. The fast, inexpensive and direct approach for the Department to take, consistent with the above, is to define an architecture for implementing iEHR using open standards and focus its initial efforts on improving data sharing with the VA. The architecture for iEHR necessary to ensure data sharing and adherence to open standards needs to be defined first, before any action is taken to purchase existing software.

- Instead, the course the IPO is now pursuing is to release RFPs to purchase existing proprietary software that may or may not adhere to open standards. In addition to being counter to the White House's direction, this approach could also force the adoption of an architecture for implementing electronic health records across the Department that inhibits, rather than advances, the sharing of health records between the Department and VA -- also counter to the President's clearly expressed goal (early in 2009) to rapidly improve record sharing between the two Departments. The perils associated with purchasing existing products and assuming they will be suitable for use in the absence of an architecture are illustrated by our recent experience attempting to perform an operational assessment of two products (to implement single sign-on and context management) that the IPO recently purchased.[3] Planning for the operational assessment was halted when it was observed that these products could not be made to work at three facilities and were of limited-to-no use at the other two.

- Finally, the office of Cost Assessment and Program Evaluation (CAPE) has argued that purchasing an existing software package now actually lowers the Department's risk because the DoD will gain the advantage of investments made by the selected software vendor as it works to conform over time to the evolving EHR standards that the White House is promoting. There are four problems with this argument. First, of course, it has the DoD free-loading rather than helping with the President's effort. Second, and worse than simply not helping, it may directly harm the President's effort because the DoD will

[2] A defined architecture is actual code that can be used to test interoperability, scalability and other important system features. This concept is described in more detail in References (c) and (d).

[3] Single sign-on is the ability to move from one computer to another without the clinician "losing her place" in the applications she was using. Context management is the ability of all of the applications a clinician is using to change to a new patient if the clinician uses any one of them to focus on a new patient.

be reducing the incentive for at least one market player to conform to the President's open source standards. Third, the argument assumes that the DoD can actually succeed at purchasing, customizing, and installing a major software system to replace its current healthcare system (much less in a timely and cost-effective fashion). This would be the exception not the rule given the Department's consistently poor performance whenever it has attempted wholesale replacement of existing business processes with commercially-derived enterprise software. Fourth, it assumes that the Department could cheaply and successfully evolve its use of the customized proprietary software as that software package was changed to conform to the President's completed EHR standards. DoD software is generally at least one major revision behind the current commercial release, and the evolution of customized software can be phenomenally expensive.

- To adhere to the President's EHR agenda the follow-on iEHR program should be reconstituted with a much reduced budget focused on pursuing what the President has actually directed---defining and testing an architecture using open standards that enables rapid near-term progress on improving data sharing between the Department and the VA.

COORDINATION: NONE

Attachment: TAB A

Prepared by: Dr. Eric Loeb, OSD/DOT&E, 703.697.3655

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

December 6, 2012

MEMORANDUM FOR DEPUTY CHIEF MANAGEMENT OFFICER FOR DEPARTMENT OF DEFENSE AND DEPARTMENT OF VETERANS AFFAIRS ASSISTANT SECRETARY FOR INFORMATION AND TECHNOLOGY

FROM: Steven VanRoekel
U.S. Chief Information Officer

Todd Park
U.S. Chief Technology Officer

SUBJECT: Implementation of the Virtual Lifetime Electronic Record and Integrated Electronic Health Record

Background

On April 9, 2009, President Obama charged the Secretary of Defense and the Secretary of Veterans Affairs to "work together to define and build a seamless system of integration with a simple goal: When a member of the Armed Forces separates from the military, he or she will no longer have to walk paperwork from a Department of Defense duty station to a local Department of Veterans Affairs health center; their electronic records will transition along with them and remain with them forever." To answer the President's call, the Departments of Defense (DoD) and Veterans Affairs (VA) launched the Virtual Lifetime Electronic Record (VLER) effort, which will contain both administrative (i.e. personnel and benefits) and medical information, and provide access to information from day one of a Servicemember's military career through transition to Veteran status and beyond.

On December 4, 2012, DoD and VA briefed the White House on current challenges with the implementation of VLER, heavily focusing on the Integrated Electronic Health Record (iEHR), which will create a unified lifetime electronic health record for Servicemembers and Veterans. The joint work of the two Departments on iEHR is enormously important on several dimensions. Most importantly, this work will improve the quality of care provided to the men and women who serve in the military and their families. In addition, through this work, the Federal Government has an opportunity to help further advance health information technology (IT) in the federal and private sectors through the use of open standards and increased interoperability, which will benefit not just the VA and the DoD, but literally all providers and purchasers of health IT. However, given the large technological requirements and required resources, this initiative carries significant technological and financial risk, and needs to be implemented in the most effective and efficient manner to ensure return on the investment.

The Department of Defense, Department of Veterans Affairs and White House agreed to work together closely over the next several months to tackle and resolve key issues. The Secretary of Defense and the Secretary of Veterans Affairs have directed their staffs to develop a plan to accelerate the current iEHR program to meet or beat scheduled targets, using open architecture and non-proprietary design. In specific, the two departments agreed to take the following actions to help VLER and iEHR succeed:

- DoD and VA will submit an updated background document that includes: 1) an outline of VLER/iEHR milestone progress and achievements to date, noting any deviation from the original milestones and timeline; 2) a breakout of current funding allocations to date that describes what software or other deliverables have been produced with the resources expended; 3) information about the scale and reach of the iEHR effort (number of clinical sites, number of patients served, funding amount) along with private sector benchmarking data; 4) a description of currently deployed and future planned capabilities; and 5) any other challenges with recommendations for jointly resolving those issues. This document will delineate between the two types of VLER/iEHR milestones: those focused on open standards and data interoperability of current systems, and those focused on the full deployment of iEHR software capabilities. DoD and VA will also provide a detailed project plan and schedule for current VLER/iEHR milestones and objectives.
  Due date: Close of business on December 7, 2012

- DoD and VA will immediately form a cross-Department workgroup to implement this newly agreed approach for the implementation of VLER/iEHR. DoD and VA will submit workgroup names and contact information to the White House.
  Due date: Close of business on December 7, 2012

- DoD and VA will provide a status briefing on projected FY14 VLER/iEHR implementation costs.
  Due date: As soon as possible, but no later than December 18, 2012

- DoD and VA will develop a recommended strategy to separate out and make rapid progress in 2013 on interoperability and exchange of health records between the DoD and VA, while continuing to pursue the common iEHR software platform in a linked, parallel effort. The interoperability and exchange strategy will build on and leverage activities such as:
  - VA and DOD's common data model and synchronization efforts;
  - Health IT standards adopted by the Department of Health and Human Services for Meaningful Use Stage 2, including content, vocabulary, and transport standards; and
  - VA and DOD efforts to share data directly with patients, including initiatives such as Blue Button.

This strategy should enable significantly accelerated progress on the VLER component of the agenda, including both VA-DoD records exchange and the ability for the agencies to exchange information with private sector health care providers.
Due date: January 15, 2013

- DoD and VA will submit a draft proposal on how to reconcile and balance expectations concerning DoD's acquisition plan for iEHR with VA's modular development process. The objective is for VLER/iEHR execution to exhibit both large-scale program management discipline and drive forward using modular, best-practice IT development approaches that divide the work into manageable pieces that can be defined, developed, and deployed within months instead of several years.[1] DoD and VA are expected to prioritize VLER/iEHR efforts to ensure all milestones are met within schedule and budget.
Due date: January 15, 2013

- DoD and VA will work through and confirm a development approach that publishes open standards and interface specifications in a manner that enables stakeholders across the board to develop the ability to integrate with iEHR, while clearly retaining the right and obligation to test those integrations in the organizations' internal environments and ensure their true compatibility.
Due date: January 15, 2013

- DoD and VA will submit recommendations on reorganizing and improving VLER/iEHR governance. This governance proposal will include clearly defined roles and responsibilities for all stakeholders based on an agreed upon set of objectives, take into account each Department's internal governance processes without impacting milestones and progress, and outline a standard process for the Interagency Program Office (IPO) to escalate and resolve issues as well as communicate progress to DoD and VA leadership. This structure and process will ensure that VA and DoD are supported as two equal partners.
Due date: January 15, 2013

- The Office of Management and Budget and Office of Science and Technology Policy will establish an executive steering committee that will host quarterly meetings with DoD and VA leadership to help advance the progress of VLER/iEHR. The committee's role will be to facilitate discussion on issues of concern and help resolve matters that may be in contention between the agencies. DoD and VA will be expected to provide an agenda and relevant background materials at least 72 hours in advance of each executive steering

[1] OMB Contracting Guidance to Support Modular Development: http://www.whitehouse.gov/sites/default/files/omb/procurement/guidance/modular-approaches-for-information-technology.pdf

committee meeting, which will serve to update the committee on progress, costs, scheduling, and bring any obstacles, sources of delay, or similar issues, as well as recommendations, to the committee's attention.
Due date: On-going; initial meeting to occur by January 21, 2013

- DoD and VA will submit a revised lifecycle cost estimate for the iEHR that takes into account work already underway to assess variation across the capabilities to be deployed, overlap between those capabilities, the range of private sector technologies and service offerings that could be brought to bear, etc.
Due date: February 4, 2013

We greatly appreciate the Department of Defense and Department of Veterans Affairs' commitment to implementing VLER/iEHR successfully, and look forward to the path ahead.