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OPERATIONAL TEST
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INFO MEMO

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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

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