

# Office of Inspector General

# EVALUATION OF EFFORTS TO INTEGRATE COMMERCIALLY-DEVELOPED SOFTWARE TO HOSPITAL INFORMATION SYSTEMS

While the Veterans Health
Administration has successfully
integrated some commercial software
applications, enhancements can be
made to the process to facilitate
future integration.

Report No.: 7R5-G07-112 Date: August 11, 1997

Office of Inspector General Washington DC 20420



## DEPARTMENT OF VETERANS AFFAIRS Office of Inspector General Washington DC 20420

#### **Memorandum To:**

**Under Secretary for Health (10) Assistant Secretary for Management (004)** 

## **Evaluation of Efforts to Integrate Commercially-Developed Software to Hospital Information Systems**

- 1. As part of our overall audit of the Veterans Health Information System and Technology Architecture (VISTA),¹ the Office of Inspector General (OIG) conducted an evaluation of the process by which commercial off-the-shelf software applications are integrated² with VISTA. The purpose of the evaluation was to assess the progress of the Veterans Health Administration's (VHA) efforts to integrate commercially-developed software and to determine whether commercial software can be successfully integrated with VISTA and deployed nationwide.
- 2. In response to Congress, VHA has been reviewing methods for integrating commercial software into its Decentralized Hospital Computer Program. Reviews of VHA's historical records shows that for the past 13 years VHA has worked toward integrating commercial software into VHA's hospital information systems. The Integrated Hospital System was an early evaluation of a commercially-developed hospital information system. After review and analysis, VHA determined that the Integrated Hospital System was too expensive, was not compatible with information systems at other VA medical centers, and duplicated many functions already available in the current VA hospital information system. Therefore, VHA decided that purchase of a complete commercial hospital information system was not cost effective. Subsequently, VHA established the Hybrid Open Systems Technology Program<sup>3</sup> to continue exploring ways to integrate commercial software with VA's medical information system. Unlike the Integrated Hospital System, the Hybrid Open Systems Technology Program was designed

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<sup>&</sup>lt;sup>1</sup>VISTA was previously designated the Decentralized Hospital Computer Program. VISTA is VHA's main hospital information system.

<sup>&</sup>lt;sup>2</sup> An integrated system is defined as one which supports the exchange of information between VISTA and commercial applications, assuring that components of the automated patient record are not isolated within standalone applications.

<sup>&</sup>lt;sup>3</sup> This office was established in response to a Congressional mandate and is charged with the mission of assessing commercial software and migrating field-tested commercial software applications to VA facilities nationwide.

to combine the best of internally developed software with the best commercial software applications in a hybrid approach.<sup>4</sup> This program under the guidance of VHA's Chief Information Officer has successfully identified some commercial applications that can be integrated with VISTA.

- Our evaluation found that VHA officials have made steady progress toward integrating commercial software and have continued to seek ways to assist VA medical center programmers in integrating commercial products. The VHA Chief Information Officer supports the development of an open data processing system where a variety of software applications can be used, to include commercial and internally-developed applications. VHA officials installed a Message Routing and Translation System (MRTS),<sup>5</sup> an integration engine that allows commercial software to be recognized by VHA internal computer systems, at one medical center to assist in integrating seven specific commercial software applications. Using the MRTS, three of the seven commercial software applications were successfully integrated with VISTA and satisfactory progress has been made toward integrating the remaining four applications. VHA's Chief Information Officer also established a rapid response team to assist field programmers and commercial vendors in adapting commercial software to VISTA. The team was beneficial in working out integration problems between the VHA information system and the commercial software.
- 4. The use of MRTS technology has proven to be successful in integrating software applications. For example, the Department of Defense has decided to deploy a MRTS system worldwide as a part of its Composite Health Care System. In the VA, a MRTS was installed at one VHA medical center and has proven to be successful in integrating commercial applications with VISTA. Based on VHA's success and the demonstrated use of MRTS technology, we believe that the MRTS has the potential to assist VHA in deploying integrated commercial software nationwide. In addition, while we found that Department of Veterans Affairs management officials have differing opinions on deployment and funding strategies for the MRTS, they agreed that there was an important role for the MRTS to play in addressing the nationwide integration problems presented by the use of commercial software. However, the nationwide use of MRTS technology is being delayed because of differences on deployment and funding strategies. Key decisions about funding and deployment of the MRTS nationwide should be made.
- 5. We recommended that the Under Secretary for Health and the Assistant Secretary for Management arrive at a consensus to resolve funding and deployment issues. The

ii

<sup>&</sup>lt;sup>4</sup> Recommendations concerning the organizational structure of the Hybrid Open Systems Technology Office are contained in our report of evaluation titled "The Hybrid Open Systems Technology Program", dated August 17, 1995, Report Number 5R6-G07-086.

<sup>&</sup>lt;sup>5</sup> A commercially-developed interface engine that enables independently developed applications to work together with little or no modifications to the existing application.

Under Secretary for Health concurred in principle and stated that a working group to review alternatives including the MRTS would be established. The Assistant Secretary for Management concurred with the Under Secretary for Health's implementation plan. We accept the implementation plan and consider the recommendation resolved. We will follow up until the implementation plan is completed.

For the Assistant Inspector General for Auditing

(Original signed by:)

WILLIAM D. MILLER
Director, Kansas City Operations Division

#### **TABLE OF CONTENTS**

|                            |   | <u>Page</u> |  |  |  |
|----------------------------|---|-------------|--|--|--|
|                            | Memorandum to the Under Secretary for Health (10) and to the Assistant Secretary for Management (004) | i           |  |  |  |
| RESULTS AND RECOMMENDATION |   |             |  |  |  |
|                            | VA Has Achieved Some Success at Integrating Commercial Software Products                              | 1           |  |  |  |
|                            | Recommendation  | 5           |  |  |  |
| APPI                       | APPENDIXES  |             |  |  |  |
| I                          | OBJECTIVES, SCOPE AND METHODOLOGY   | 7           |  |  |  |
| II                         | BACKGROUND  | 8           |  |  |  |
| III                        | DESCRIPTION OF CONGRESSIONAL REQUIREMENT AND ROLE OF THE RAPID RESPONSE TEAM                          | 9           |  |  |  |
| IV                         | MEMORANDUM FROM THE UNDER SECRETARY FOR HEALTH  | 11          |  |  |  |
|                            | MEMORANDUM FROM THE DEPUTY ASSISTANT SECRETARY FOR MANAGEMENT   | 14          |  |  |  |
| V                          | FINAL REPORT DISTRIBUTION   | 15          |  |  |  |

#### RESULTS AND RECOMMENDATION

#### **VA Has Achieved Some Success at Integrating Commercial Software Products**

The Veterans Health Administration (VHA) Chief Information Officer (CIO) successfully interfaced<sup>6</sup> and integrated some commercial-off-the-shelf (commercial software) products into the Veterans Health Information Systems and Technology Architecture (VISTA) system. A successful field-tested strategy has been developed that includes providing adequate technical support to integrate Hybrid Open Systems Technology and similar commercial software for Department of Veterans Affairs medical centers (VAMC) VHA implemented this strategy by using a commercially-developed nationwide. Message Routing and Translation System (MRTS) at a VAMC and by establishing a rapid response team to provide programmer expertise to medical center-based Information and Resource Management (IRM) staffs and commercial vendors.

According to program officials, the most significant obstacle to integrating commercial software products is the inability of many commercial applications to interface with VISTA. The MRTS has shown through its implementation at a VHA medical center and by the Department of Defense's (DoD) decision to use it for the worldwide Composite Health Care System that it can effectively integrate commercial applications and substantially overcome system interface obstacles. By its deployment, the MRTS has the potential to make it easier for medical center IRM staffs to use commercial software with VISTA. During our discussions and interviews, we found that various stakeholders had differing approaches to the use of MRTS technology. One office preferred to deploy the MRTS through the Veterans Integrated Service Networks (VISNs),7 while another preferred to deploy it at lead hospitals. In addition, senior VHA officials preferred to offer the MRTS at the discretion of each medical center director or VISN director and as funding became available at each medical center.

The evaluation determined that VHA needs to define its integration strategy. VHA should decide (1) whether to use the MRTS on a nationwide basis, and if VHA decides to use the technology, (2) how to deploy the MRTS to the field activities, and (3) how to fund the deployment of the MRTS. We concluded that the stakeholders in the decisionmaking process need to form a consensus for the future use of the MRTS.

particular operating system. <sup>7</sup> VISNs are networks of VA medical centers located in geographic regions of the United States. There are 22 VISNs that oversee 172 medical centers.

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<sup>&</sup>lt;sup>6</sup> An interface is programming that enables dissimilar software applications to work and communicate in a

#### **VHA Progresses Toward Integrating Commercial Software**

In 1983, and in response to a Congressional mandate, the Department of Veterans Affairs (VA) established the Integrated Hospital System (IHS) at five medical centers. The IHS system consisted of using existing commercial software hospital information systems and determining if they could be cost effectively interfaced with VHA's Decentralized Hospital Computer Program (DHCP). After analyzing the outcome of the IHS model VHA decided that IHS would not satisfy the VA hospital's information needs. IHS was too expensive, it was not compatible with installed information systems at other VA medical facilities, and it duplicated existing functions resident in the DHCP.

VHA next established the Hybrid Open System Technology Program Office to continue exploring ways to adapt commercial software to VHA's medical information system. This office was given the responsibility to assess commercially available software and determine if it could be deployed nationwide to VAMCs. VHA tested a MRTS interface engine at one medical center and also established a rapid response team to assist individual medical centers with integrating commercial software. (See Appendix III, page 9 for a description of the Congressional requirement and role of the rapid response team).

## A MRTS May Result In Cost-Effective And Efficient Integration of Commercial Software Products Nationwide

VHA Chief Information Officer officials have identified two general approaches to integrating commercial software products into VISTA: (1) a point-to-point interface approach, and (2) an interface engine approach. A point-to-point interface approach involves implementing a direct link between VISTA and a commercial software product. Under many circumstances, a point-to-point approach is the most cost-effective and efficient method of interfacing commercial software products. However, when examined from the viewpoint of creating an integrated system, the point-to-point approach has several shortcomings. As the number of commercial software products increases, the number and associated costs of interfaces required to integrate these products increase. Also, if system requirements change, programmers must write new interfaces. The point-to-point approach to application integration requires an increasing commitment of resources to develop and maintain the growing number of interfaces. With the exception of one VAMC, all commercial software interfaces written to VISTA have been point-to-point.

The interface engine approach directs messages between VISTA and commercial applications, thus enabling the VISTA system to communicate with commercial software products. The use of the interface engine approach is most effective when attempting to integrate multiple commercial software applications.

A MRTS, as demonstrated at a test VA medical center, provides the flexibility to

- monitor and control existing interfaces,
- make local modifications to commercial software products easier, and
- make the exchange of information between commercial software products easier.

The use of a MRTS substantially reduces the number and the complexity of interfaces required to integrate commercial software products and results in decreased development and maintenance costs. For example:

To integrate 6 commercial software products using a MRTS would require only 12 interfaces. According to industry sources, developing an interface using a MRTS costs approximately \$6,000. Assuming a \$100,000 license fee for the use of the MRTS, the total cost to fully integrate 6 commercial software products would be approximately \$172,000.8

This compares favorably to the \$900,000 (30 interfaces multiplied by \$30,000 per interface) it would cost to integrate the same 6 commercial software products using a point-to-point approach.

The MRTS also has Electronic Data Interchange (EDI) capabilities which enables an organization to process and exchange a large amount of data at high speed and low cost. For example:

The Utah Health Information Network used a MRTS to create connections between and across healthcare payers, providers, and Intermountain Health Care, an integrated healthcare network composed of 24 hospitals, 20 medical groups, and 200 physicians. As a result, eligibility, orders, results, and claims flow instantaneously and electronically throughout any connected software application in the State of Utah.

In our opinion, the EDI capabilities of the MRTS could be used to link VA medical facilities to VISNs and link VISNs to VA Central Office. It also could be used to exchange data between VA medical facilities and affiliated hospitals, DoD, and the Veterans Benefits Administration (VBA).

3

<sup>&</sup>lt;sup>8</sup>The number of interfaces required and their associated costs used in this example are industry averages based on a study conducted by Healthcare IT Strategies.

According to a May 9, 1995, Health Care View Research Note titled *Interface Engines Are Smart Middleware*, *Part* 2, interface engines will be installed in 80 percent of large health care organizations and in 20 percent of other enterprises by 1997. DoD studied the benefits of a MRTS and decided to install and deploy a MRTS system worldwide as part of its Composite Health Care System. Also, a management consultant in a March 1996 study commissioned for VA titled *Interface Engine Product Evaluation* concluded that,

"The breadth and depth of features available, along with the large number of installed products, supports the conclusion that interface engines constitute a useful and maturing technology that can enable [commercial software] integration [at VA] to proceed immediately."

Although there appear to be many advantages to using a MRTS, there are also some drawbacks. The initial costs to procure and deploy a MRTS system are high, and there are technical problems that need to be addressed and answered before a MRTS could be employed to its full potential. According to the Chief Architect for VISTA, these technical problems relate mainly to decisions that VHA officials need to make concerning the future architectural design of VISTA. He also stated that most of these technical problems would still need to be addressed if the MRTS were used or not. In his opinion, the main obstacle to fully integrating commercial software products with VISTA is a lack of funding.

## Future Use of the MRTS Should Be Determined By a Consensus of the Interested Parties

VHA's CIO staff acknowledged that there is an important role for a MRTS to play in integrating commercial software products with VISTA. In 1995, the systems integrator at VAMC Philadelphia proposed that the MRTS be deployed nationally. His plan called for linking VA medical facilities to VISNs and each VISN to VA Central Office. The plan also called for linking affiliates, VBA, and DoD. In a different approach, a senior OIRM official stated a preference to deploy the MRTS based on lead medical facilities instead of by VISN.

A senior official in the VHA CIO office stated that his preferred deployment strategy would be to publicize the availability of the MRTS to individual VAMCs or groups of medical centers and to assist them to purchase a MRTS. This strategy allows individual VA medical centers that are attempting to integrate multiple commercial software products the opportunity to use a MRTS. However, the strategy does not meet the broader VHA strategic goal to have an open system suitable for a variety of commercial and internally-developed software because it does not provide for those medical centers that may not be able to fund a MRTS. Also, this deployment strategy does not take advantage of economies that can be achieved by volume purchases of the MRTS.

VA needs to decide on an approach to the system integration problem. The MRTS technology has demonstrated the ability to provide the capability to integrate applications into VISTA. At this time, a management consensus is needed to either use the MRTS or develop an alternate approach to the system integration problem.

#### Recommendation

We recommend that the Under Secretary for Health and the Assistant Secretary for Management arrive at a consensus for the future use of the interface engine (MRTS) that will optimize the use of that technology and that meets VHA strategic goals.

#### **Under Secretary for Health Comments**

The Under Secretary concurred in principal. Some of the Under Secretary's comments were not included in the final report because they pertained to suggested changes to the report which we accepted and made, or pertained to issues that were not within the scope of the evaluation.

The Under Secretary stated that the report neither conveys the complexity nor the technical challenges of the issues concerning the use of the MRTS, and it oversimplifies the issue of application integration by focusing only on data routing. Other considerations were discussed that add to the complexity of integrating disparate applications.

A concern was stated about the OIG's conclusions that MRTS substantially reduces the number of complex interfaces and results in decreased development and maintenance costs. While the Under Secretary acknowledges that this may be true at the data flow level, he stated it may not be true at the application level because there are still point-to-point exchanges.

Additional comments were made about the report not containing any cost estimates for the purchase of the hardware on which the MRTS resides, and the lack of costs for resources to maintain the MRTS.

#### **Implementation Plan**

VHA's Chief Information Office will establish a working group with representatives from all of the Associate Chief Information Offices, VISN CIOs, the Philadelphia, PA medical center and the Department of Defense to discuss the benefits and drawbacks of using a MRTS and other interface engines. The VHA CIO will keep the Assistant Secretary for Management apprised of the working group's progress.

#### **Deputy Assistant Secretary for Information Resources Management Comments**

The Deputy Assistant Secretary for Information Resources Management stated that VHA, as the responsible program office, should generate a plan of action for implementing the MRTS and deploying it nationwide, if they choose to do so. The Deputy Assistant Secretary acknowledged that VHA was not ready to decide on use of the MRTS or some other solution and concurred in VHA's plan to establish a working group to study alternatives.

#### **Office of Inspector General Comments**

The Under Secretary for Health and the Deputy Assistant Secretary for Information Resources Management provided acceptable comments and an implementation plan to satisfy the recommendation. We consider the recommendation resolved and will follow up on the implementation plan.

Some of the comments indicate a misunderstanding of the recommendation. The OIG did not recommend that the MRTS be deployed. The evaluation determined that the MRTS had been successful at the Philadelphia VAMC and had potential for deployment. Our conclusion was that VA needs to decide an approach to the system integration problem and that a management consensus is needed to either use the MRTS or develop an alternate approach to the system integration problem.

The implementation provided in response to this report which stated that a working group would be formed to review the MRTS and other alternatives fully meets the intent of our recommendation.

#### OBJECTIVES, SCOPE AND METHODOLOGY

#### **Objectives**

The purpose of this review was to assess:

- The progress VHA has made toward integrating commercially-developed software to VHA's medical information system.
- Whether Hybrid Open Systems Technology commercial applications can be successfully integrated into VISTA and deployed to VA facilities nationwide.

#### **Scope and Methodology**

We conducted this evaluation as part of an ongoing review of the VISTA system. In evaluating VHA's ability to integrate commercial software products with VISTA, we interviewed responsible government and private sector officials involved with commercial software applications integration and reviewed pertinent documentation. Specifically, we conducted interviews with officials at the Information Resource Management Field Office (IRMFO) responsible for applications integration and interface development in San Francisco. We also reviewed documentation and interviewed officials at VAMC Philadelphia to determine whether they had met the Congressional mandate to integrate selected commercial software products. Additionally, at VAMC Philadelphia, we assessed how effectively the MRTS integrated commercial software products with VISTA.

We also interviewed officials at the Hybrid Open Systems Technology Program office to determine their role in integrating commercial software products with VISTA, and reviewed contractual terms and statements of work relating to the establishment of an integration laboratory.

The review was conducted in accordance with general evaluation standards and included such tests of procedures, practices, and records as we considered necessary under the circumstances.

#### **BACKGROUND**

#### **History of VISTA**

In February 1982, the Administrator of the Veterans Administration issued an executive order establishing the DHCP. The purpose of DHCP was to provide timely and cost-effective automatic data processing technology and resources to support clinical and administrative functions at VA medical centers. The executive order placed responsibility for the management of hospital data processing at the facility level. Additionally, regional Information Systems Centers were established to develop and test DHCP software. The Medical Information Resource Management Office in VA Central Office was responsible for providing central support for developing and implementing DHCP.

Concurrent with efforts to establish DHCP, Congress mandated that VA compare the cost-effectiveness of developing software internally as opposed to purchasing commercial software from private sector sources. To accomplish this mandate, VA contracted with three commercial vendors in 1983 to install complete health information systems in three VAMCs, with two additional sites added later. VA designated this initiative the Integrated Hospital System (IHS). Over time, this comparison showed that IHS was too expensive, was not compatible with information systems at other VA medical centers, and duplicated many existing DHCP functions.

In 1992, the Deputy Secretary decided to continue to evaluate commercial software products and approved the establishment of the Hybrid Open Systems Technology Program. The purpose of this program was to: (1) assess commercial software applications, and (2) deploy field-tested software applications to VA facilities nationwide. While IHS used commercial software applications exclusively, the intent of the Hybrid Open Systems Technology Program was to combine the best of internally developed software with the best commercial software applications in a hybrid approach.

In 1995, DHCP came under the direction of the VHA Office of Chief Information Officer who implemented a new IRMFO organization and restructured the headquarters office. The reorganization eliminated line management functions and re-focused the role of the office as a program office with responsibility for policy development and strategic planning. The IRMFO in Birmingham directs the day-to-day operations and line management of staff at seven IRMFO campuses.

In September 1996, VA changed the name of DHCP to VISTA. The new name reflects changes in the computer infrastructure that allows commercial software to be used along with DHCP software.

#### DESCRIPTION OF CONGRESSIONAL REQUIREMENT AND ROLE OF THE RAPID RESPONSE TEAM

#### VAMC Philadelphia Successfully Integrated Commercial Software Products

In 1992, Congress gave the following mandate to VAMC Philadelphia:

- Procure the services of an experienced commercial vendor to serve as a systems integrator to integrate DHCP administrative and reporting functions with commercial applications.
- Design the commercial software applications in modular form, thus allowing them to be used at VA medical centers nationwide.
- Secure authority to procure additional copies of the modular applications for use throughout the VA system.

The goal at VAMC Philadelphia was to integrate seven commercial software applications with DHCP, now VISTA. Currently, responsible officials at VAMC Philadelphia have succeeded in integrating three commercial software products and are close to completion on all seven applications. These officials stated that they could not have achieved this success without the use of a MRTS.

## Rapid Response Team Concept Helped to Accelerate the Applications Integration Process

VHA Chief Information Officer's staff established a rapid response team to help solve immediate problems with commercial software integration. The rapid response team consisted of five full-time programmers whose mission was to:

- Deliver interfaces to make commercial software products operational quickly.
- Develop an interface mechanism that allows individual medical centers flexibility in accessing available commercial software products.
- Support approved Hybrid Open Systems Technology projects as the initial priority.
- Facilitate timely delivery of a Health Level Seven (HL7)<sup>9</sup> generic interface standard.

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<sup>&</sup>lt;sup>9</sup>The HL7 communications standard is considered the standard for the health care industry nationwide. By using the HL7 standard, software developers can write standards-based interfaces that permit commercial software products to communicate with VISTA.

• Catalogue existing commercial software applications that interface with VISTA for use by other VA medical centers nationwide.

The rapid response team was essential to the success achieved at VAMC Philadelphia. Before the involvement of the rapid response team, VAMC Philadelphia IRM staff members and commercial vendors expressed frustration at attempting to integrate the seven selected commercial software products. Cooperation, coordination, and the timely exchange of information between VISTA programming officials and commercial software vendors are essential to ensure the success of commercial software integration efforts. According to a representative of VAMC Philadelphia's systems integrator, the rapid response team was a central point of contact for commercial software vendors to obtain answers to questions about VISTA and the integration process.

#### MEMORANDUM FROM THE UNDER SECRETARY FOR HEALTH

#### **Department of Veterans Affairs**

#### Memorandum

FINAL REPORT

Date: Jul 14, 1997

From: Under Secretary for Health (10/105E)

Subj: OIG Draft Report, Evaluation of Efforts to Adapt Commercially-Developed Software to Hospital Information Systems

- To: Assistant Inspector General for Auditing (52)
  - 1. The draft report was reviewed by the appropriate VHA offices. Although we concur in principle with the recommendation, we have several concerns about the usefulness of the evaluation.
  - 2. It is our goal to use commercial-off-the-shelf (COTS) software as is, not to adapt the software as you state in the report title. It is more appropriate to describe VHA's effort as trying to create an information system environment that enables the integration and use of commercial technologies. The title should be changed, therefore, to reflect our efforts to integrate rather than adapt COTS products.
  - 3. You need to clarify your statement on page ii, paragraph 3, "In response to a Congressional mandate to develop integration processes, VHA installed a Message Routing and Translation System (MRTS)..." Based on the appropriation language you cite, which deals primarily with the transition at VAMC Philadelphia from the integrated hospital system (IHS) to the hybrid open host system (HOST), your characterization of the language as a Congressional mandate for all of VHA does not seem to be supported. Also, the commercial vendor contracted to serve as the system integrator, as directed by Congress in the appropriation language, recommended the use of a MRTS, not because of a Congressional mandate, but because of the number of applications being integrated. The MRTS was necessary to achieve integration of the existing commercial packages purchased during the IHS project, and it reduced the number of transmissions of similar data needed by all seven commercial products used. It did not eliminate the need for the development of Veterans Health Information System and Technology Architecture (VISTA) HL 7 interfaces for each affected package.
  - 4. The report conveys neither the complexity nor the technical challenges of the issues concerning the USE of a MRTS, and it oversimplifies the issue of application integration by focusing only on data routing. There is no discussion of a number of other important issues, such as non-standardized vocabulary barriers; user presentation issues that arise when ancillary service staff and others have to switch between two or more applications; multiple sign-on

VA Form 2105 Mar 1986 Requested changes were made.

Clarification in the report was made as suggested.

#### MEMORANDUM FROM THE UNDER SECRETARY FOR HEALTH

#### 2. Assistant Inspector General for Auditing (52)

security considerations; record archiving; and, authoritative repositories. All of these conditions add to the complexities of integrating disparate applications. For the report to suggest MRTS technology is the solution to successful software integration based on consideration of only the message routing and translation aspect of integration without consideration of these other issues is not supportable.

- 5. Your conclusion that MRTS substantially reduces the number of complex interfaces and results in decreased development and maintenance costs is based on the assumption that each of the six applications reviewed has a bi-directional interface to MRTS for a total of twelve interfaces. This may be true at a data flow level, but at the application level actual exchanges are still point-to-point and require individual trading partner interfaces. Although we agree that there is great value to MRTS technology, given the state of health care application software, we question the costs cited. It would have been helpful to us if the report reviewed actual Department of Defense (DoD) unit costs, including the number of applications interfaced and the necessary time commitment.
- 6. Also, the report does not contain any cost estimates for the purchase and maintenance of the hardware on which the MRTS resides. Neither does it recognize that communication clients need to be created for each interface (e.g., the Philadelphia CoPath Application required creation of four clients at \$10,000 each), the resources needed (i.e., FTEE) to create and maintain routing and translation tables within the MRTS and other such items. This information, along with a more in-depth discussion of the reasons why the cited 80 percent of large health care organizations will install interface engines by 1997 as well as the reasoning behind DoD's decision to use a MRTS worldwide would be helpful in understanding how to relate these experiences to VA and assist in our decision making.
- 7. In addition to these comments, we are providing an action plan which responds to the report recommendation. Thank you for the opportunity to review the report. If you have any questions, please contact Paul C. Gibert, Jr., Director, Reports review and Analysis Service (105E), Office of Policy, Planning and Performance at 273.8360.

(Original signed by:)

Kenneth W. Kizer, M.D., M.P.H.

Attachment

#### **FINAL REPORT**

The scope of the evaluation did not include a review of DoD planned costs. However, these considerations would be appropriate for the suggested working group to review.

The OIG did not perform an in-depth review of the use of MRTS technology. The health care industry is moving to the use of MRTS as a cost effective solution. The proposed working group should explore the reasons why the health care industry is using the MRTS technology

#### MEMORANDUM FROM THE UNDER SECRETARY FOR HEALTH

| Action Plan in Response to  | OIG/GAO/MI Audits/Progr | am Evaluations/Reviews      |  |  |
|---|-------------------------|-----------------------------|--|--|
| Name of Report: Evaluation<br>to Hospital Information Sys<br>Project No.: None<br>Date of Report: Undated   |                         | ercially-Developed Software |  |  |
| Recommendations/<br>Actions   | Status                  | Completion<br>Date          |  |  |
| Recommendation 1.: We recommend that the Under Secretary for Health and the Assistant Secretary for Management arrive at a consensus for the future use of the interface engine (MRTS) that will optimize the use of that technology and that meets VHA strategic goals.  |                         |                             |  |  |
| Concur in principle   |                         |                             |  |  |
| VHA's Chief Information Officer will establish a working group with representatives from all of the Associate Chief Information Offices, VISN CIOs, the Philadelphia, PA medical center and the Department of Defense to discuss the benefits and drawbacks of using a MRTS and other interface engines. The VHA CIO will keep the Assistant Secretary for Management apprised of the working group's progress. |                         |                             |  |  |
|   | In process              | 12/31/97                    |  |  |
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## MEMORANDUM FROM THE DEPUTY ASSISTANT SECRETARY FOR MANAGEMENT

#### **Department of Veterans Affairs**

#### Memorandum

Date: Jun 25, 1997

From: Deputy Assistant Secretary for Information Resources Management (045)

Subj: Draft Report, Evaluation of Department of Veterans Affairs' Efforts to Adapt
Commercially-Developed Software to Medical Automated Data Processing Systems
To: Assistant Inspector General for Auditing (52)

- 1. Thank you for the opportunity to review your draft report, subject as above. I note your identification of a commercially available system that might allow our Veterans Health Information Systems Technology Architecture (VISTA) to communicate with non-VISTA products.
- 2. This report indicates there should be consensus between the Assistant Secretary of Management and the Under Secretary for Health for future use of an identified interface engine—the Message Routing and Translation System (MRTS) that will optimize the use of that technology and that meets VHA strategic goals. It is our opinion that VHA, as the responsible program office in charge of this effort, should generate a plan of action for implementing this system and deploying it nationwide, if they choose to do so.
- 3. Discussion between my office and that of the VHA Chief Information Officer indicates VHA has not settled on the use of MRTS versus some other solution. Currently, VHA is discussing the possibility of forming a working group to deal with issues of interconnectivity between VISTA and commercial technology (of which MRTS may be one solution). It is our understanding that the Office of Management will be asked to be a part of this group. VHA's proposed completion date for their working group is December 31, 1997. I concur with VHA's approach.
- 4. Again, I appreciate the opportunity to review this draft report. If you have questions, please contact me at 273-8855 or have a member of you staff contact Mr. Tim Weigel at 273-8050.

(Original signed by:)

Nada D. Harris

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Independent Agencies, Committee on Appropriations

Chairman, House Committee on Veterans' Affairs

Ranking Member, House Committee on Veterans' Affairs