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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Health Agency **Date:** February 2016

Appropriation/Budget Activity 0130: Defense Health Program I BA 2: RDT&E	R-1 Program Element (Number/Name) PE 0605026DHA I Information Technology Development - DoD Healthcare Management System Modernization (DHMSM)
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	0.000	88.744	438.376	298.623	-	298.623	42.549	10.326	10.071	10.743	Continuing	Continuing
483A: Information Technology Development - DoD Healthcare Management System Modernization (DHMSM) at DHA	0.000	88.744	438.376	298.623	-	298.623	42.549	10.326	10.071	10.743	Continuing	Continuing

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 496

A. Mission Description and Budget Item Justification

DHMSM will acquire and support deployment, and implementation of an electronic health record (EHR) system that replaces the DoD legacy MHS inpatient and outpatient EHR systems. Overarching goal of the program is to enable healthcare teams to deliver high-quality, safe care and preventive services to patients through the use of easily accessible standards-based computerized patient records resulting in: improved accuracy of diagnoses and medication; improved impact on health outcomes; increased patient participation in the healthcare process; improved patient-centered care coordination; and increased practice efficiencies in all settings, including operational environments.

iEHR RDT&E is reported under the program element (PE) 0605013 through FY 2013 inclusive, but iEHR, VLER Health and DHMSM will be reported under new program element 0605023 for FY 2014.

In FY 2015, PE 0605023 will report only iEHR and VLER Health since DHMSM will have its own PE starting in FY 2015.

In FY 2016 and out, only iEHR Increment 1 will be reported in PE 0605023. DHMSM will continue to be only initiative reported in PE 0605026.

B. Program Change Summary (\$ in Millions)

	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>
Previous President's Budget	91.394	438.376	260.501	-	260.501
Current President's Budget	88.744	438.376	298.623	-	298.623
Total Adjustments	-2.650	0.000	38.122	-	38.122
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.650	-			
• FY 2017 Investment to DoD Healthcare Management System Modernization	-	-	38.122	-	38.122

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Change Summary Explanation

FY 2015: Realignment from Defense Health Program, Research, Development, Test and Evaluation (DHP RDT&E), Program Element (PE) 0605026-Information Technology Development - DoD Healthcare Management System Modernization (DHMSM) (-\$2.650 million) to DHP RDT&E, PE 0605502-Small Business Innovation Research (SBIR) / Small Business Technology Transfer (STTR) Program (+\$2.650 million).

FY 2016: No Change

FY 2017: Defense Health Program, Research, Development, Test and Evaluation (DHP RDT&E), Program Element (PE) 0605026-Information Technology Development - DoD Healthcare Management System Modernization (DHMSM) Investment (+\$38.122 million).

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Health Agency **Date:** February 2016

Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0605026DHA / <i>Information Technology Development - DoD Healthcare Management System Modernization (DHMSM)</i>	Project (Number/Name) 483A / <i>Information Technology Development - DoD Healthcare Management System Modernization (DHMSM) at DHA</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
483A: <i>Information Technology Development - DoD Healthcare Management System Modernization (DHMSM) at DHA</i>	0.000	88.744	438.376	298.623	-	298.623	42.549	10.326	10.071	10.743	Continuing	Continuing

Project MDAP/MAIS Code: 496

A. Mission Description and Budget Item Justification

DoD Healthcare Management System Modernization (DHMSM) Program:

- DHMSM will acquire, deploy, and implement an electronic health record (EHR) system that replaces the DoD legacy MHS inpatient and outpatient EHR systems. The overarching goal of the program is to enable healthcare teams to deliver high-quality, safe, care and preventive services to patients through the use of easily accessible standards-based computerized patient records resulting in: improved accuracy of diagnoses and medication; improved impact on health outcomes; increased patient participation in the healthcare process; improved patient-centered care coordination; and increased practice efficiencies in all settings, including all DoD operational environments.

- DHMSM will be executed to deliver uniform information management options across both garrison and theater environments. DHMSM will focus on the replacement of inpatient and outpatient systems, and will encompass deployment of the enterprise EHR to fixed facilities as well as expeditionary components.

- DHMSM will replace the DoD legacy healthcare management systems with a commercial off-the-shelf capability that is open, modular, and standards-based with non-proprietary interfaces. DHMSM will support the Department's goals of net-centricity by providing a framework for full human and technical connectivity and interoperability that allows DoD users and mission partners to share the information they need, when they need it, in a form they can understand and act on with confidence, and protects information from those who should not have it. Once fielded, the EHR will support the following healthcare activities for DoD's practitioners and beneficiaries:
 - o Clinical workflow and provider clinical decision support;
 - o Capture, maintain, use, protect, preserve and share health data and information;
 - o Retrieval and presentation of health data and information that is meaningful for EHR users regardless of where the patient's records are physically maintained; and
 - o Analysis and management of health information from multiple perspectives to include population health, military medical readiness, clinical quality, disease management, and medical research.

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iEHR RDT&E is reported under the program element (PE) 0605013 through FY 2013 inclusive, but iEHR, VLER Health and DHMSM will be reported under new program element 0605023 for FY 2014.
 In FY 2015, PE 0605023 will report only iEHR and VLER Health since DHMSM will have its own PE starting in FY 2015.
 In FY 2016 and out, only iEHR Increment 1 will be reported in PE 0605023. DHMSM will continue to be only initiative reported in PE 0605026.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2015	FY 2016	FY 2017
<p>Title: DoD Healthcare Mgmt System Modernization (DHMSM) Program</p> <p>Description: DHMSM will be executed to deliver uniform information management options across both garrison and theater environments. DHMSM will focus on replacement of inpatient and outpatient systems, and will encompass deployment of the enterprise EHR to fixed facilities as well as expeditionary components.</p> <p>FY 2015 Accomplishments:</p> <ul style="list-style-type: none"> • Completed the following Acquisition Documentation (Acquisition Strategy, Business Case, Engineering Master Plan, Cost and Benefit Analysis, Test Strategy, and Deployment and Training Change Management Plan (DTCM) and Life Cycle Supportability Plan [LCSP]) to support Authority to Proceed (ATP) for Contract Award. Approximately 1300 comments were received by the DHMSM Program Office and favorably adjudicated to ensure that each and every comment received in reference to the acquisition documents was given the proper consideration in reaching an agreed upon resolution thereby delivering quality acquisition documents that were thoroughly vetted and reviewed internally and by external organizations. • Achieved Authority to Proceed (ATP) for contract award. Several steps were taken to achieve ATP for contract award, to include but not limited too; IOC Site Readiness Report to include preparation activities, change management, training, deployment, and testing to indicate the sites are ready for Contractor interaction; Reconciliation Report of functional workflow analysis, led by clinical champions, indicating alignment of capabilities with operations; report indicating GAL readiness and ability to proceed with testing; funding confirmation to prepare and process individual task orders; update Acquisition Documents as required; and infrastructure plans (WAN, LAN, Base Network, Standard Computing Devices), to include funding and schedule status." • The DHMSM Test & Evaluation (T&E) staff developed and coordinated the T&E Master Plan (TEMP). The TEMP summarizes the phases of the DHMSM T&E, along with the approach and activities to be performed in each. The TEMP constituted a pre-Contract Award mandate, which DOT&E and DASD(DT&E) approved as required. • Completion of the DHMSM PMO led source selection activities for the acquisition of a commercial electronic health record (EHR) solution. Solicitation N00039-14-R-0018 was released on 25 August 2014 utilizing full and open competition. Proposals 	88.744	438.376	298.623

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B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2015	FY 2016	FY 2017
<p>were received on 31 October 2014. Proposal evaluations were conducted in FY15 Q1 through Q3. A competitive range was established on 18 February 2015 and an award made on 29 July 2015. .</p> <ul style="list-style-type: none"> • Contract N00039-15-D-0044 was awarded on 29 July 2015 with a total ordering ceiling of \$4.3 billion. The award was made without protest. The total ordering period is up to 10 years if all options are exercised and award terms earned. The indefinite delivery, indefinite quantity (IDIQ) contract is for the acquisition of a commercial EHR solution and associated engineering, testing, deployment, and sustainment activities. The contract contains both cost reimbursement and fixed price line items with various incentive fee structures. This contract will improve current interoperability among DoD, the VA and private sector health-care providers and enable each to access and update health records. Contract is based on protocols established by the Office of the National Coordinator for Health Information Technology and the DoD/VA interagency program office. • Pre-award, the CMIO team was integrally involved, working with DHA, in the development and validation of 9 test and evaluation scenarios (BPM Phase 1) and 498 enterprise workflows (BPM Phase 2). Five of the 9 scenarios will be used for test and evaluation, while the other four are completely mapped to Cerner and Henry Schein workflows that will be used in test and evaluation. The 498 enterprise workflows have been mapped to the Cerner and Henry Schein workflows that will be used to configure the model build. The BPM phase 1 and 2 effort was instrumental to shorten the time to complete the review of over 644 Cerner and Henry Schein workflows, and contributed to a more comprehensive set of test and evaluation scenarios. • Pre-award, the Change Management team developed a draft Change Management strategy and Issue Resolution and Change Control Process (IRCCP). This effort provided the foundation for the Change Management Plan and the Change Control Process that is in use today, and continues to provide a roadmap for change management activities within the scope of the DHMSM contract. • Initiated development and configuration of Government Approved Laboratories for testing of the DHMSM EHR. The Fixed Facility Government-Approved Laboratory (GAL) is sited in a warehouse complex owned by GSA in Auburn, WA. Captured baseline equipment and medical device requirements from both clinical subject matter experts and the solution providers in order to outfit the FF GAL, which included infrastructure upgrades; power, telephone system, wired network, non-infrastructure items; tables, chairs, desks, computers, and various types of test equipment such as medical devices (physiological monitors, automated pharmacy systems, etc.) and peripheral devices (barcode scanners, wristband and label printers, etc.). The Operational Medicine (OM) GAL is sited at Fort Detrick, MD and has been set up to include a number of powered and environmentally conditioned Alaska shelters to include the addition of network and telephone system infrastructure and additional power handling capability. Coordinated with DISA and DHA Infrastructure technicians to provision commercial and military communication circuits in both 			

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B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2015	FY 2016	FY 2017
<p>GALS. Directed the activities to ensure the cybersecurity infrastructure in the GALs mirrored the production environment to ensure a realistic test and evaluation atmosphere. The OM GAL will be transitioned to the Joint Operational Medicine Information Systems (JOMIS) Program Office in FY16 and JOMIS will complete the outfitting and equipping process in coordination with DHMSM and will support the testing of the DHMSM EHR.</p> <ul style="list-style-type: none"> • Initialized Independent Verification and Validation (IV&V) planning activities and team. The IV&V team began staffing up following the award of the DHMSM EHR contract. The first major activity for the team was development of the Integrated Test and Evaluation Plan (ITEP), which describes all activities included in, or required for, the execution of the DHMSM Developmental Test and Evaluation (DT&E) program. During DT&E, the IV&V team will plan, perform, and analyze testing in order to assure that the EHR solution suits the needs of DoD, is fully functional in the DoD environment, and to provide an objective assessment of products and processes associated with the usage of the EHR. <p>FY 2016 Plans:</p> <ul style="list-style-type: none"> • Initial Design Review/Final Requirements Review. • Formal (or Final) Design Review/Test Readiness Review. • System Verification Review/Operational Test Readiness Review. • Configuration & Integration Test. • Developmental Test & Evaluation. • Training for Subject Matter Experts. • Limited Fielding Training. • Installed at Initial Operational Capability Sites. • Continue Configuration and Integration of solution in testing environment. • Continue Independent Verification and Validation (IV&V). <p>FY 2017 Plans:</p> <ul style="list-style-type: none"> • Finalize Operational Test & Evaluation. • Finalize Operational Readiness Review. • Full Initial Operation Capability (IOC) Fielding Training. • Onsite support. • IOC Declaration. • Full Deployment Decision ATP 			
Accomplishments/Planned Programs Subtotals	88.744	438.376	298.623

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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• BA-1, PE 0807787: <i>DoD Healthcare Management Systems</i>	56.986	89.188	129.969	-	129.969	203.725	246.122	317.228	340.071	Continuing	Continuing
• BA-3, PE 0807787: <i>Information Technology Development and Sustainment - DoD Healthcare Management System Modernization</i>	0.000	0.000	29.468	-	29.468	499.193	547.160	532.476	474.888	Continuing	Continuing

Remarks

D. Acquisition Strategy

Evaluate and use the most appropriate business, technical, contract and support strategies and acquisition approach to minimize costs, reduce program risks, and remain within schedule while meeting program objectives. Strategy is revised as required as a result of periodic program reviews or major decisions.

E. Performance Metrics

Each program establishes performance measurements which are usually included in the MHS IT Annual Performance Plan. Program cost, schedule and performance are measured periodically using a systematic approach. The results of these measurements are presented to management on a regular basis in various as part of the Integrated Product and Process Development (IPPD) process, In Process Reviews (IPRs), or other reviews to determine program effectiveness and provide new direction as needed to ensure the efficient use of resources are also used.

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