

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>							<b>DATE:</b> February 2004	
<b>APPROPRIATION/BUDGET ACTIVITY</b> RDT&E, Defense-Wide/05				<b>R-1 ITEM NOMENCLATURE</b> Defense Message System/PE 0303129K				
COST (in millions)		FY03	FY04	FY05	FY06	FY07	FY08	FY09
Defense Message System/DM01		11.279	9.662	6.623	6.348	6.637	6.753	6.935

**A. Mission Description and Budget Item Justification:**

The Defense Message System (DMS) is the Warfighter’s Message System. It is a value-added service of the Global Information Grid (GIG), and provides secure, accountable, and reliable messaging and directory service. The Office of Assistant Secretary of Defense for Networks and Information Integration (NII) directed transition from legacy systems to one, seamless, end-to-end global electronic organizational messaging service within DoD. The DMS Program was established to meet Joint Requirements Oversight Council (JROC) validated messaging requirements for an integrated, writer-to-reader capable organizational messaging service that is accessible from world-wide DoD locations, tactically deployed users, and other designated Federal Government users, with interfaces to Allied users and Defense contractors. It is a flexible Commercial-Off-The-Shelf (COTS) based application providing multi-media messaging and directory services capable of taking advantage of the flexible and expandable underlying Global Information Grid (GIG) network and security services. Defense messaging is based on commercial products that comply with internationally developed message, directory and management standards and recommendations. DMS incorporates state-of-the-art messaging, directory, security, and system management technologies to provide automated access controls for compartments, code words, and caveats using Allied Communications Protocol (ACP) 120 implementation of the Common Security Protocol (CSP). DMS will provide the full range of messaging services to meet organizational and individual messaging needs throughout the DoD. Public Key Infrastructure (PKI) certificates are used for authentication and access control. DMS utilizes FORTEZZA (DoD Class 4 PKI) to provide message signature and encryption via NSA approved algorithms and protocols. This is referred to as the DMS “high grade” of service, and supports the level of protection required for unclassified and classified organizational/military grade messaging. DMS will reliably handle information of all classification levels (Unclassified to Top Secret), compartments, and special handling instructions. The DoD Common Access Card (CAC), with DoD Class 3 PKI certificates, is referred to as DMS “medium grade” service and makes use of commercial security mechanisms to protect the integrity and confidentiality of individual mail. At this time, the CAC does not provide the requisite level of support to meet the requirements of the DMS high grade messaging. The primary focus of DMS is to provide a disciplined interoperable organizational messaging environment that leverages commercial products to the maximum. The principal issue regarding COTS migration is one of timing and the evaluation of what add-ons would be required to make it acceptable for military messaging requirements (DMS high grade). DISA is working closely with

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<p>the Joint Staff, Services, and agencies, as well as with industry, to ensure satisfaction of DoD's Command and Control (C2) messaging requirements through convergence with these emerging commercial capabilities. This work will continue, though DMS has begun transition acquisition/development to sustainment, subsequent to the Milestone III approval granted in July 2002 by the Milestone Decision Authority (MDA), OASD for Networks, Information and Integration (NII), formerly C3I. This program element is under Budget Activity 5 because it involves the development of major upgrades that increase existing system performance. Also, a portion of the DMS program security effort is funded in PE 0303140K. The funds in PE 0303140K are not duplication of effort.</p> <p><u>Accomplishments/Planned Program:</u></p> <table border="0"> <tr> <td>DMS Systems Engineering</td> <td><u>FY 03</u></td> <td><u>FY 04</u></td> <td><u>FY 05</u></td> </tr> <tr> <td>Subtotal Cost</td> <td>6.450</td> <td>5.202</td> <td>5.643</td> </tr> </table> <p>RDT&amp;E dollars will support basic Systems Engineering activities of both the PMO (including contractor support) and the Prime Integrator, which are critical to completion of worldwide fielding and sustainment of DMS. The supported tasks include Program and Systems Management to conduct technical assessments of the fielded system and its performance in meeting current operational requirements, analyses of existing requirements and recommended solutions; and development of new end to end configuration management products (Non-Core Products) that are identified and embraced by the user community which then must be tested and integrated with the existing DMS System. During FY03 through FY05, the Prime Contractor implements and fields system capabilities through a series of coordinated Maintenance Releases (MR). FY03 funds delivered and supported developmental, operational, and security testing of the DMS 3.0 MR required for closure of the DMS Transition Hubs (DTHs). Content of future DMS MRs are focused on providing messaging products with security fixes, capabilities for allied interoperability and tactical extension, and customer-identified ease of use enhancements identified during the post-DTH closure (legacy infrastructure) stabilization period.</p>									DMS Systems Engineering	<u>FY 03</u>	<u>FY 04</u>	<u>FY 05</u>	Subtotal Cost	6.450	5.202	5.643
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<p>This basic core of activity upgrades will keep the current DMS high grade system up to date with technology, minimize any further divergence from COTS, and provide the basis for full Intelligence Community (IC) and tactical implementation, during the post-AUTODIN closure stabilization period, Allied interoperability, and transition to Next Generation Messaging. System Security enhancements shall also be provided, per OSD guidance contained in the DMS Milestone III (GENSER) decision memorandum.</p> <table border="0"> <tr> <td>DMS Maintenance Release</td> <td><u>FY 03</u></td> <td><u>FY 04</u></td> <td><u>FY 05</u></td> </tr> <tr> <td>Subtotal Cost</td> <td>2.846</td> <td>1.160</td> <td>0.980</td> </tr> </table> <p>In FY2003 DMS Release 3.0 Maintenance Releases (MRs) provided additional security features for organizational messaging through Top Secret/SCI and protection from evolving information warfare threats. Enhancements were included for added robustness to security features and organizational messaging, per OSD guidance contained in the DMS Milestone III (GENSER) decision memorandum. Efforts will be placed on implementation of the NSA recommendations from the Security Assessment and Problem Trouble Reports (PTRs) / fixes in support of the recently delivered Security Enhancements. Future MRs will provide for engineering and integration of security, interoperability, and communications support capabilities and functionality that are unique to DMS operation in the Intelligence Community (IC) and tactical environments. Areas of focus for the IC are directory strong authentication and additional legacy translation support. Areas of focus for tactical use of DMS include operation in limited bandwidth environments, support for broadcast mode protocols, and support for connectionless mode transport in the messaging application.</p> <table border="0"> <tr> <td>Test Support</td> <td><u>FY 03</u></td> <td><u>FY 04</u></td> <td><u>FY 05</u></td> </tr> <tr> <td>Subtotal Cost</td> <td>1.507</td> <td>2.691</td> <td>0.000</td> </tr> </table>									DMS Maintenance Release	<u>FY 03</u>	<u>FY 04</u>	<u>FY 05</u>	Subtotal Cost	2.846	1.160	0.980	Test Support	<u>FY 03</u>	<u>FY 04</u>	<u>FY 05</u>	Subtotal Cost	1.507	2.691	0.000
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<p>The Joint Interoperability Test Command (JITC) provides DMS integration test support for all new DMS releases, including correction of problems associated with system capability. Each DMS release contains both Information Assurance and non-IA functionality, and as such, portions of the Developmental Testing involve testing of functionality specifically geared to information security/assurance. JITC provides on-site development testing in preparation for operational test, and participates in operational assessment or formal operational test of each DMS release. In FY04 JITC will test recently delivered Directory Security Enhancements. During FY03 RDT&amp;E dollars provided testing support to include Development Test and Evaluation (DT&amp;E), Operational Test and Evaluation (OT&amp;E), test equipment, assessment of Information Assurance Vulnerability Alerts (IAVAs) and development of security products and measures to protect DMS against a variety of system vulnerabilities. Such measures are necessary to support validated Multi-command Required Operational Capability (MROC) requirements and insure transition of the IC away from AUTODIN. DMS will support a series of security tests and develop plans of action to address security risks as security threats change. In FY04 and FY05, DMS will develop a process and provide a plan of action that addresses implementation of any NSA recommended security enhancements as a result of an ASD(NII) mandated security assessment. DMS will continue to support a series of security tests and development plans of action to address security risks; this testing will be performed by JITC, and funded with Information System Security Program (PE 0303140K) funds in FY05.</p> <table border="0"> <tr> <td>Requirements/Architectural Development</td> <td><u>FY 03</u></td> <td><u>FY 04</u></td> <td><u>FY 05</u></td> </tr> <tr> <td>Subtotal Cost</td> <td>0.476</td> <td>0.609</td> <td>0.000</td> </tr> </table> <p>In order to preserve a seamless tactical and strategic DMS implementation, including interoperability with the Nuclear C3 community and Allied communities, the DMS program will focus on long-term requirements definition, architectural development, analysis of alternatives, and proof of concept efforts. The DMS program will support development of a follow-on solution (to the existing National Gateway) that will obviate reliance on the interim legacy Nuclear C3 messaging solution. Proof of concept studies and prototyping will continue to ensure continued interoperability via Allied gateways.</p>									Requirements/Architectural Development	<u>FY 03</u>	<u>FY 04</u>	<u>FY 05</u>	Subtotal Cost	0.476	0.609	0.000
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<p>The DMS Program will complete an engineering assessment of the operational system, including analysis of the architecture and system management components, to determine the impact of increased reliance on domain devices.                      The fielding of DMS in support of Emergency Action Message (EAM) users will be completed by the end of March 2004.</p> <p><b>B. Program Change Summary:</b></p> <table border="0"> <thead> <tr> <th></th> <th><u>FY 03</u></th> <th><u>FY 04</u></th> <th><u>FY 05</u></th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget</td> <td>11.446</td> <td>10.170</td> <td>6.640</td> </tr> <tr> <td>Current President's Budget</td> <td>11.279</td> <td>9.662</td> <td>6.623</td> </tr> <tr> <td>Total Adjustments</td> <td>-.167</td> <td>-.508</td> <td>-.017</td> </tr> </tbody> </table> <p>Change Summary Explanation:                      FY 03 change is due to below threshold reprogramming.                      FY 04 change is due to undistributed congressional reductions to the Defense-wide RDT&amp;E appropriation as well as below threshold reprogramming.                      FY 05 change is due to revised fiscal guidance.</p> <p><b>C. Other Program Funding Summary:</b></p> <table border="0"> <thead> <tr> <th></th> <th><u>FY 03</u></th> <th><u>FY 04</u></th> <th><u>FY 05</u></th> <th><u>FY 06</u></th> <th><u>FY 07</u></th> <th><u>FY 08</u></th> <th><u>FY 09</u></th> <th><u>To Complete</u></th> <th><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>Procurement, DW</td> <td>18.043</td> <td>5.238</td> <td>4.261</td> <td>4.777</td> <td>3.750</td> <td>3.765</td> <td>3.782</td> <td>Contg</td> <td>Contg</td> </tr> <tr> <td>O&amp;M, DW</td> <td>9.465</td> <td>21.104</td> <td>27.434</td> <td>25.237</td> <td>23.698</td> <td>22.158</td> <td>22.719</td> <td>Contg</td> <td>Contg</td> </tr> </tbody> </table>										<u>FY 03</u>	<u>FY 04</u>	<u>FY 05</u>	Previous President's Budget	11.446	10.170	6.640	Current President's Budget	11.279	9.662	6.623	Total Adjustments	-.167	-.508	-.017		<u>FY 03</u>	<u>FY 04</u>	<u>FY 05</u>	<u>FY 06</u>	<u>FY 07</u>	<u>FY 08</u>	<u>FY 09</u>	<u>To Complete</u>	<u>Total Cost</u>	Procurement, DW	18.043	5.238	4.261	4.777	3.750	3.765	3.782	Contg	Contg	O&M, DW	9.465	21.104	27.434	25.237	23.698	22.158	22.719	Contg	Contg
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D. Acquisition Strategy: The overall strategy is based upon the fundamental premise that COTS products will continue their evolution through the constant refresh of commercial technology. To maintain an interoperable system, DMS will continue to use a single contractor as an overall integrator. Contract Administration is under a fee for service arrangement by the DMS Contracting Office, which is based at Maxwell Air Force Base (MAFB)-Gunter Annex, Alabama (AL). Additionally, DMS utilizes contract vehicles within DISA to acquire other equipment and services to support the implementation of DMS such as the Next Generation Contract. All contracts have been competitively awarded and provide support in the following areas: program planning and control; analytic services of the DMS system integration; organizational messaging; tactical deployment; operations; configuration management; and training and logistics. These contracts also provide support for fielding of Virtual Private Networking (VPN) technology that will protect the DMS backbone. The DMS employs several strategies for the acquisition of products and services:

- a. Ordering of DMS hardware, software, integration, engineering and technical services from the DMS Lockheed Martin contract.
- b. Standard commercial products and services required to accomplish DMS implementation are bought via existing GSA Schedule or other high volume/ID-IQ contract vehicles. Specialized security products (such as High Assurance Guard [HAG] and Certificate Authority Workstation [CAW]) are provided by NSA and incorporated as Government Furnished Equipment (GFE) by the integrator.
- c. MITRE as a Federally Funded Research and Development Center (FFRDC) provides systems engineering and integration support for the DMS community, applying engineering discipline and principles to DMS in functional areas of system architecture, technical strategy, program strategy, and program execution.

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Exhibit R-3 Cost Analysis									DATE: February 2004	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT					PROJECT NAME AND NUMBER			
RDT&E, Defense-Wide/05		Defense Message System (DMS)/PE 0303129K					Defense Message System/DM01			
Cost Category	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Product Development Systems Engineering and Integration	CPFF, FFP/ Comp	Lockheed Martin, Company Manassas, VA	12.809	6.143	05/04	5.798	05/05	0	24.750	24.750
Systems Integration	CPAF/ SS	Data Systems Analysts Fairfax, VA	1.591	0	N/A	0	N/A	0	1.591	1.591
Systems Engineering	CPAF/ SS	Data Systems Analysts Fairfax, VA	4.299	0	N/A	0.450	02/05	0	4.749	4.749
	FFRDC	MITRE, Arlington, VA	3.185	0.218	10/03	0	N/A	0	3.403	3.403
	CPFF/ Comp	Booz, Allen & Hamilton, McLean, VA	2.866	0	N/A	0	N/A	0	2.866	2.866
	CPFF/ SS	Getronics, Alexandria, VA	0.324	0	N/A	0	N/A	0	0.324	0.324
	CPFF/ Comp	SETA, McLean, VA	2.113	0	N/A	0	N/A	0	2.113	2.113
	FFP SS	TELOS Ashburn, VA	0.855	0	N/A	0.375	02/05	0	1.230	1.230
	TM Comp	SRA Arlington, VA	0.665	0	N/A	0	N/A	0	0.665	0.665
	CPFF SS	NAVSEA Laurel, MD	1.145	0	N/A	0	N/A	0	1.145	1.145
Subtotal Product Development			29.852	6.361		6.623				

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<b>Exhibit R-3 Cost Analysis</b>	<b>DATE:</b> February 2004
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Cost Category	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
Developmental Test & Evaluation	MIPR	Joint Inter-Operability Test Command (JITC), Indian Head, MD	4.477	2.241	10/03	0	N/A	0	6.718	6.718	
	CPAF/SS	Data Systems Analysts Fairfax, VA	1.570	0	N/A	0	N/A	0	1.570	1.570	
Tactical Testing	MIPR/ARMY	Executive Agent Tactical Switch Systems	0.538	0	N/A	0	N/A	0	0.538	0.538	
Operational Test & Evaluation	MIPR	JITC Ft Huachuca, AZ		0.150	0.450	10/03	0	N/A	0	0.600	0.600
Subtotal Test and Evaluation			6.735	2.691		0					
EAM Hybrid Solution	CPFF/SS	NAVSEA Laurel, MD	0	0.382	10/03	0	N/A	0	0.382	0.382	
	OTF&O/DISA Ctr	SAIC	0	0.105	10/03	0	N/A	0	0.105	0.105	
	MIPR	JITC Indian Head, MD	0	0.123	10/03	0	N/A	0	0.123	0.123	
Subtotal EAM Hybrid Solution			0	0.610		0					
<b>TOTAL</b>			<b>36.587</b>	<b>9.662</b>		<b>6.623</b>					

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Exhibit R-4 Schedule Profile													Date: February 2004																									
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05													Program Element Number and Name Defense Message System PE 0303129K													Project Number and Name DMS/DM01												
Fiscal Year	2003				2004				2005				2006				2007				2008				2009													
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4										
Dvlpmnt of 3.0/ Directory Security Phase 1				△																																		
Closure of DMS Transition Hubs (DTH)				△	△	△	△	△	△																													
Begin Dvlpmnt Test of 3.0/MR2 – MR13								△				△				△				△				△				△				△						

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Exhibit R-4 Schedule Profile													Date: February 2004																									
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Fiscal Year	2003				2004				2005				2006				2007				2008				2009													
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4										
3.0/MR2-MR12 Operational Assessment								△			△				△				△				△				△				△							
Implementation											△				△				△				△				△				△							
Other Transition Tests					△						△				△				△				△				△				△							

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Exhibit R-4a Schedule Detail						DATE: February 2004	
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RDT&E, Defense-Wide/05	Defense Message System PE 0303129K			DMS/DM01			
<u>Schedule Profile</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Development of 3.0/ Directory Security Phase 1	1Q						
Closure of DMS Transition Hubs (DTHs)	2Q - 4Q	1Q - 2Q					
Begin Dvlpmt Test of 3.0/MR2 - MR13		1Q & 3Q	1Q & 3Q	1Q & 3Q	1Q & 3Q	1Q & 3Q	1Q & 3Q
3.0/MR2-MR12 Operational Assessment		4Q	2Q & 4Q	2Q & 4Q	2Q & 4Q	2Q & 4Q	2Q & 4Q
Implementation			1Q & 3Q	1Q & 3Q	1Q & 3Q	1Q & 3Q	1Q & 3Q
Other Transition Tests		1Q	1Q	1Q	1Q	1Q	1Q

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