

Exhibit R-2, RDT&E Budget Item Justification	DATE: February 2004
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APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05		R-1 ITEM NOMENCLATURE Information Systems Security Program (ISSP)/P.E. 0303140K						
COST (in millions)		FY03	FY04	FY05	FY06	FY07	FY08	FY09
Information Systems Security Program/IA01		18.005	6.688	2.493	0	0	0	0

A. Mission Description and Budget Item Justification: The Information Systems Security Program (ISSP) provides for the protection and defensive operation at the tactical, operational, and strategic levels and assures availability, confidentiality, and reliability of mission data as it is processed and traverses DOD's networks. DISA has the responsibility to ensure the Global Information Grid (GIG) contains adequate protection against attack and robust dynamic network capabilities are maintained to allow DOD to move toward a common goal: a joint force - persuasive in peace, decisive in war, and preeminent in any form of conflict. Therefore, the role of the IA program is to improve the information superiority posture of the DOD. This program provides the DOD-wide security architecture, technical implementation strategy, and current security operations - proactive, routine, and crisis-response. With the exception of some Global Command & Control System - Joint (GCCS-J), Public Key Enabling (PKE) and Common Operating Environment (COE) Security efforts, the RDT&E portion of DISA's ISSP budget focuses predominantly on the security aspects of the Defense Message System (DMS). These funds are not duplicative of, but rather are additive to, work being done by the Defense Message System in PE 0303129K. DMS is the Warfighter's message system and as such is a value added service of the Global Information Grid (GIG), and provides secure, accountable, and reliable messaging and directory service. The DMS Program was established to meet Joint Requirements Oversight Council (JROC) validated messaging requirements. It is a flexible Commercial-Off-The-Shelf (COTS) based application providing multi-media messaging and directory services that incorporates state-of-the-art messaging, directory, security, and 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). DISA will incorporate the DOD Public Key Infrastructure and state-of-the-art information security products such as Certificate Authority Workstations (CAWs), High Assurance Guards (HAGs), and Firewalls. New or improved hardware and software must be prototyped and tested to ensure DMS responds to the Services' demands for secure commercial messaging capabilities. Multiple security level technologies, based upon High Assurance Guards, must be incorporated to provide secure interoperability between messaging enclaves of differing security classifications. In FY04 & FY05 these DMS security services will continue to be developed, improved, and integrated into the product. In FY03, DMS delivered Maintenance Release 1 to DMS Release 3.0, which provided commercially available security updates and other changes to maintain compliance with evolving DOD security policies, thereby improving upon organizational messaging capabilities provided in Release 3.0. As a result of Milestone Decision Authority (MDA) direction, DISA/DMS reprioritized FY 2003 program activities to focus on timely development and

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implementation of Directory Security Enhancements mandated by OSD. DMS will continue to use PE 0303140K funding in FY04 & FY05 for the purchase of HAGs, CAWs, FORTEZZA cards and readers to incorporate security related functionality within the Maintenance Releases (MRs). Within the MRs, DMS will continue to support a series of security tests and develop plans of action to address security risks. There are no deliverables that are specifically and singularly related to IA; each deliverable works in conjunction with the DMS product. Some deliverables include the following: System Evolution/Integration and Interoperability Engineering, System Security (including security patches and incorporation of Information Assurance Vulnerability Alerts (IAVAs), and Security Technical Implementation Guide (STIG) compliance). DMS funds programmed in PE 0303140K continued development and incorporation of emerging Information Security technologies required to sustain generational enhancements inherent to a COTS-based strategy and maintain security vigilance. Additionally, DISA pursued an effort involving PKI, which is not related to its DMS work. In this effort, Public Key Enabling (PKE) initiatives were investigated for the purpose of providing engineering solutions for PK enabling network access control and other network devices using COTS products. The goal was to deliver PK enabled Blackberry and other Personal Digital Assistant (PDA) devices to the operational community. Engineering efforts to identify robust solutions for the Secure Telecommunications Networking Initiative are planned for in FY2004. This program element is under Budget Activity 5 because it involves the development of major upgrades that increase the performance of existing systems.

Accomplishments/Planned Program:

DMS Systems Engineering:	<u>FY 03</u>	<u>FY 04</u>	<u>FY 05</u>
Subtotal Cost	8.911	2.529	0.661

RDT&E dollars support basic Systems Engineering activities of both the PMO (including contractor support) and the Prime Integrator, as are critical to completion of worldwide fielding and sustaining of DMS. The supported tasks include Program and Systems Management to conduct technical assessments/analyses of new commercial available security features, and incorporate them into DMS. In addition, changes are made to DMS products, documentation, and procedures to ensure continued compliance with evolving security policies, including implementation of Security Technical Implementation Guides (STIGS), Security Policy Translation Tables (SPTTs), and Security Policy Information Files (SPIFs).

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<p>During FY03 through FY05, the Prime Contractor implements and fields system capabilities through a series of coordinated Product and Maintenance Releases. FY03 funds delivered and supported fielding the first Release 3.0 maintenance release, containing critical functionality required for closure of the DMS Transition Hubs (DTHs). Future DMS Release 3.0 maintenance releases will provide additional critical enhancements to the organizational messaging capabilities provided in Release 3.0. 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, final AUTODIN closure, Allied interoperability, and transition to Next Generation Messaging. DISA is working closely with Joint Staff, Services, and Agencies as well as with industry, to ensure satisfaction of DOD's command and control (C2) messaging requirements through convergence of DMS security mechanisms with emerging commercial capabilities. 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>Directory Security Enhancements</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>0.910</td> <td>0.000</td> <td>0.000</td> </tr> </table> <p>As a result of Milestone Decision Authority (MDA) direction, DISA/DMS reprioritized FY 03 program activities to focus on timely development and implementation of Directory Security Enhancements mandated by OSD. The enhancements were delivered as a software maintenance release.</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>3.168</td> <td>3.159</td> <td>1.832</td> </tr> </table> <p>The Joint Interoperability Test Command (JITC) provides DMS integration test support for all new DMS releases. 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. Problems found during testing may result in "fixes" in the form of Problem Trouble Reports (PTRs) or Information Assurance Vulnerability Alerts</p>									Directory Security Enhancements	<u>FY 03</u>	<u>FY 04</u>	<u>FY 05</u>	Subtotal Cost	0.910	0.000	0.000	Test Support	<u>FY 03</u>	<u>FY 04</u>	<u>FY 05</u>	Subtotal Cost	3.168	3.159	1.832
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(IAVAs), any of which may pertain to information security/assurance. RDT&E dollars are programmed to provide testing support to include Development Test and Evaluation (DT&E), Operational Test and Evaluation (OT&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. DMS Release 3.0 MR1 and Directory Security Enhancements were tested in FY 03. 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 JITC security tests and develop plans of action to address security risks.

Security Features	<u>FY 03</u>	<u>FY 04</u>	<u>FY 05</u>
Subtotal Cost	5.016	1.000	0.000

Public Key Enablement (PKE):

- Provides evaluations of PK Enabled applications and methodologies
- Secures interoperable products across DOD that leverages the DOD PKI Security services for authentication and access control.
- Upgrades of the Army and Air Force SIPRNet and NIPRNet authentication and access control.
- Joint development partnership with Microsoft for secure collaboration, email, and directory services.
- Provides engineering solutions to achieve seamless secure computing from desktop to laptop to handheld devices, thereby providing continuity and availability of services.
- Deliver PK enabled Blackberry, Common Access Card (CAC), and other Personal Digital Assistant (PDA) devices to the operational community to provide secure capability to PDAs and thereby extending PKI into the wireless environment.
- Provides engineering efforts to identify robust solutions for the Secure Telecommunications Networking Initiative by performing security readiness reviews on voice data networks, researching and developing a Security Technical Implementation Guide (STIG) for use on the nodes of voice networks, and examining methods of securely managing Voice over Internet Protocol (VoIP) networks.

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COST (in millions)		FY03	FY04	FY05	FY06	FY07	FY08	FY09
Information Systems Security Program/IA01		18.005	6.688	2.493	0	0	0	0
B. Program Change Summary:		<u>FY03</u>	<u>FY04</u>	<u>FY05</u>				
Previous President's Budget		17.814	5.987	2.499				
Current President's Budget		18.005	6.688	2.493				
Total Adjustments		0.191	0.701	(0.006)				
<u>Change Summary Explanation:</u>								
FY 2003 change is due to below threshold reprogramming.								
FY 2004 change is due to a congressional increase of \$1.0 million for the Secure Telecommunications Networking Initiative, undistributed congressional reductions to the Defense-wide RDT&E appropriation as well as below threshold programming.								
FY 2005 change is due to revised fiscal guidance.								
C. Other Program Funding Summary:								
	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>	<u>FY09</u>	
Operations and Maintenance:	150.026	131.529	171.597	197.290	205.550	204.860	209.358	
Procurement:	46.095	22.790	44.827	37.429	29.817	29.868	34.837	
D. Acquisition Strategy:								
Public Key Enablement activities are emerging in DOD and the commercial marketplace. Time and materials contracts provide maximum flexibility, as this work is unprecedented and difficult to assign firm fixed price and specific level of effort in advance. IT integration companies with IA as a core competency will assist DOD in addressing the challenge of PK Enabling DOD's mission critical applications while keeping in step with COTS evolution.								
GATE Technologies International, Inc. will perform Phase 1 of a three-phased development approach to engineer and develop a working prototype of the authentication technology hardware/software.								
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Information Systems Security Program/IA01		18.005	6.688	2.493	0	0	0	0
<p>The overall DMS 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.</p> <p>The DMS employs several strategies for the acquisition of products and services:</p> <p>a. Ordering of DMS hardware, software, integration, engineering and technical services from the DMS Lockheed Martin contract.</p> <p>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.</p> <p>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 function areas of system architecture, technical strategy, program strategy, and program execution.</p>								
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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		Information Systems Security Program (ISSP) PE 0303140K				Information Systems Security Program/IA01				
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
<u>Product Development</u>										
Systems Engineering and Integration	CPFF, FFP/C	Lockheed Martin Company, Manassas, VA	28.608	2.963	05/04	.814	05/05	0.000	32.385	32.385
Systems Engineering	CPAF/SS	Data Systems Analysts Fairfax, VA	0.980	0.000	N/A	0.000	N/A	0.000	0.980	0.980
	FFRDC	MITRE, Arlington, VA	0.584	0.000	N/A	0.000	N/A	0.000	0.584	0.584
Systems Integration	CPFF/C	SAIC, Arlington, VA	1.054	1.000	03/04	0.000	N/A	0.000	2.054	2.054
	CPFF/C	UNISYS, Arlington, VA	1.300	0.000	N/A	0.000	N/A	0.000	1.300	1.300
	CPFF/C	Booz, Allen & Hamilton, McLean, VA	0.336	0.000	N/A	0.000	N/A	0.000	0.336	0.336
	T&M/C	SRA, Fairlakes, VA	2.528	0.000	N/A	0.000	N/A	0.000	2.528	2.528
Engineering/Technical Services	TBD	TBD (via NexGen)	<u>0.000</u>	<u>1.225</u>	03/04	<u>0.000</u>	N/A	0.000	1.225	1.225
Subtotal Product Development			35.390	5.188		.814				
<u>Test and Evaluation</u>										
Operational Test & Evaluation Test and Evaluation	MIPR	Joint Inter-operability Test Command, Ft Huachuca, AZ	3.746	0.000	N/A	0.289	11/04	0.000	4.035	4.035
Security/Developmental Test & Evaluation	MIPR	Joint Inter-Operability Test Command, Indian Head, MD	1.577	1.000	10/03	0.471	10/04	0.000	3.048	3.048

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APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05	PROGRAM ELEMENT Information Systems Security Program (ISSP) PE 0303140K	PROJECT NAME AND NUMBER Information Systems Security Program/IA01
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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
Security/Development Test & Evaluation	CPAF/SS	Data Systems Analysts Fairfax, VA	0.753	0.000	N/A	0.000	N/A	0.000	0.753	0.753
Security Test & Evaluation	MIPR	National Security Agency	0.000	0.400	01/04	0.147	01/05	0.000	0.547	0.547
Conduct Security Test & Eval	CPFF/C	Computer Sciences Corp Falls Church, VA	0.000	0.100	04/04	0.260	04/05	0.000	0.360	0.360
EAM Hybrid Solution	MIPR	JITC Indian Head, MD	0.000	0.000	N/A	0.512	10/04	0.000	0.512	0.512
Subtotal Test and Evaluation			<u>6.076</u>	<u>1.500</u>		<u>1.679</u>				
TOTAL			41.466	6.688		2.493				

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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 Information System Security Program (ISSP) PE 0303140K														Project Number and Name Project ISSP/IA01													
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/ MR2 – MR4		△					△	△			△	△				△																									
Dvlpmnt Test of 3./MR1 – MR3				△				△				△				△																									
3.0/MR1-MR3 Operational Test		△	△			△	△			△	△																														

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Exhibit R-4a Schedule Detail	DATE: February 2004
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APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05	PROGRAM ELEMENT Information System Security Program (ISSP) PE 0303140K	PROJECT NAME AND NUMBER ISSP / IA01
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<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/ MR2 - MR4	1Q & 4Q	1Q & 4Q	1Q & 4Q				
Development Test of 3.0/MR1 - MR3	4Q	4Q	4Q				
3.0/MR1-MR3 Operational Test	2Q - 3Q	2Q - 3Q	2Q - 3Q				

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