

Exhibit R-2, RDT&E Budget Item Justification							DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05			R-1 ITEM NOMENCLATURE Information Systems Security Program (ISSP)/P.E. 0303140K					
COST (in millions)	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Information Systems Security Program/IA01	11.599	17.814	5.987	2.499	2.388	2.419	2.207	2.205
<p>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. The Information Assurance (IA) Program assures availability, confidentiality, and reliability of mission data as it is processed and traverses DOD's networks. Joint Vision 2020 states that protecting the capability to conduct information operations is one of the most important challenges in the future. 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 FY2002 funding for a Hardware and Software Authentication prototype and some FY2003 funding for Public Key Enabling 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 order for DMS to achieve its military functionality, various security improvements were budgeted for and initiated under the ISSP. DISA will incorporate the DOD Public Key Infrastructure and state-of-the-art information security products such as Certificate Authority Workstations, High Assurance Guards, 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. These DMS security services will continue to be developed, improved, and integrated into the product. In addition to the DMS security work, DISA funded work to explore Hardware and Software authentication technology in FY02. In FY02, DMS tested and implemented Release 3.0, which focused on essential Intelligence community requirements and provided automated access controls for compartments, code words, and caveats using ACP 120 implementation of the Common Security Protocol (CSP). DMS started Release 3.0 Maintenance Release (MR1) in FY02. In FY03, DMS will deliver the next maintenance or "dot" release which will provide enhancements and robustness to the organizational messaging capabilities provided in Release 3.0. As a result of Milestone Decision Authority (MDA) direction, DISA/DMS has reprioritized program activities to focus on timely development and</p>								

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implementation of Directory Security Enhancements mandated by OSD. Additionally, in FY03, DISA will be pursuing an effort involving Public Key Infrastructure, which is not related to its DMS work. In this effort, Public Key Enabling (PKE) initiatives will be investigated that will provide engineering solutions for PK enabling network access control and other network devices using COTS products. The goal is to deliver PK enabled Blackberry and other Personal Digital Assistant (PDA) devices to the operational community. This program element in under Budget Activity 5 because it involves the development of major upgrades that increase the performance of existing systems.

Accomplishments/Planned Program:

	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>
Subtotal Cost	10.166	10.501	5.987	2.499

Over the period FY02-FY05 RDT&E dollars are programmed to provide testing support to include Security Test and Evaluation (STE), test equipment, Information Assurance Vulnerability Alerts (IAVA) and development of security products and measures (including Virtual Private Network (VPN) and/or directory strong authentication), to protect DMS against a variety of system vulnerabilities. Such measures are necessary to support validated Multicommand Required Operational Capability (MROC) requirements and insure transition of the Intelligence Community (IC) away from AUTODIN. In FY03 and FY04 DMS must develop a process and provide a plan of action that addresses implementation of any NSA recommended security enhancements as a result of an ASD(C3I) mandated security assessment. In addition, Non-Core Products will support interoperability with Allied and non-DoD organizations in the post DMS Transition Hub (DTH) closure environment, and increase interoperability with the Intelligence Community. 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 products.

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Subtotal Cost			<u>FY 02</u> 0.170	<u>FY 03</u> 0.000	<u>FY 04</u> 0.000	<u>FY 05</u> 0.000		
<p>RDT&E dollars support Service/Agency DMS implementations/transition, as required, but primarily for tactical and IC, for AUTODIN closure, thereby reducing the risk to a high risk DTH closure schedule and assist in the definition of performance improvements needed by users to further stabilize implementation. In FY03, the responsibility for funding this task will shift from DISA/DMS to the Services and Agencies.</p>								
Subtotal Cost			<u>FY 02</u> 0.799	<u>FY 03</u> 2.488	<u>FY 04</u> 0.000	<u>FY 05</u> 0.000		
<p>The Management Work Station (MWS) provides DMS system/component management capability for System Administration. During FY02, RDT&E dollars supported MWS software upgrades and refreshes that provide the necessary usability upgrades and fixes to current system software problems. As new maintenance releases are fielded the MWS must be upgraded to support complex DMS security features that support sustainable operational use of the system. In FY03, as a result of MDA direction, DISA/DMS has reprioritized program activities to focus on timely development and implementation of Directory Security Enhancements mandated by OSD. The MWS replacement functionality is nearing completion and delivery for implementation. Continuing product updates will occur as part of the total maintenance release effort.</p>								
Public Key Enablement (PKE)	<u>FY 02</u> 0.000	<u>FY 03</u> 4.825	<u>FY 04</u> 0.000	<u>FY 05</u> 0.000				
<p>This is expected to be a one time initiative to:</p> <ul style="list-style-type: none"> - Provide evaluations of PK Enabled applications and methodologies - Secure interoperable products across DOD that leverage the DOD PKI Security services for authentication and access control. - Upgrade of the Army and Air Force SIPRNet and NIPRNet authentication and access control. 								

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- Joint development partnership with Microsoft for secure collaboration, email, and directory services.
- Provide 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.

	<u>FY 02</u>	<u>FY 03</u>	<u>FY 04</u>	<u>FY 05</u>
Hardware/Software Authentication	0.464	0.000	0.000	0.000

Developed and engineered a working prototype of authentication technology hardware/software which provided a proof of concept model for technical feasibility and applicability to the Information Assurance (IA) mission. Funding decreases in FY03 because phase 1 of the project has been completed. Once the prototype is evaluated, the government will determine if it will proceed with Phase 2.

B. Program Change Summary:	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>
Previous President's Budget	11.636	17.620	12.553	12.586
Current President's Budget	11.599	17.814	5.987	2.499
Total Adjustments	-.037	0.194	-6.566	-10.087

Change Summary Explanation:

FY 2002 change was due to below threshold reprogramming.

FY 2003 change is due to a congressional increase for an Internet security effort as well as undistributed congressional reductions to the Defense-wide RDT&E appropriation.

FY 2004 - 2005 change: With approval of Milestone III for the General Services (GENSER) community, the DMS program has begun transition from acquisition/development to sustainment. Consequently, this submission has realigned

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program controls to reflect more O&M funding, and less RDT&E funding. While RDT&E funding is still needed for remaining development activities associated with Intelligence Community requirements, the functionality now in full fielding (to the GENSER community) is in a operations and maintenance mode. Future functionality/program activities associated with sustainment of existing product capabilities will be funded in the O&M appropriation; engineering, development, and test activities associated with enhanced system capabilities will be funded in the RDT&E appropriation.

C. Other Program Funding Summary:

	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>	<u>FY09</u>
Operations and Maintenance:	137.466	159.100	164.522	173.223	195.130	191.233	206.467	193.395
Procurement:	42.229	49.931	32.860	28.568	28.099	27.780	28.417	29.044

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.

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).

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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:

- Ordering of DMS hardware, software, integration, engineering and technical services from the DMS Lockheed Martin (LMC) contract.
- 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.
- 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.

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Exhibit R-3 Cost Analysis										DATE: February 2003		
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 03 Cost	FY 03 Award Date	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	21.328	7.132	05/03	2.917	05/04	.814	05/05	32.191	32.191	32.191
Systems Engineering	T&M/C	Internosis, Arlington, VA	0.000	0.750	02/03	0.000	N/A	0.000	N/A	0.750	0.750	0.750
	CPAF/SS	Data Systems Analysts Fairfax, VA	0.000	1.195	04/03	0.418	04/04	0.000	N/A	1.613	1.613	1.613
	FFRDC	MITRE, Arlington, VA	0.000	0.400	10/02	0.000	N/A	0.000	N/A	.400	0.400	0.400
Systems Engineering and Implementation	T&M/C	Microsoft, Redman, WA	0.000	0.547	03/03	0.000	N/A	0.000	N/A	0.547	0.547	0.547
Systems Integration	CPFF/C	SAIC, Arlington, VA	1.054	0.000	12/02	0.000	N/A	0.000	N/A	1.054	1.054	1.054
	CPFF/C	UNISYS, Arlington, VA	1.300	0.000	N/A	0.000	N/A	0.000	N/A	1.300	1.300	1.300
	CPFF/C	Booz, Allen & Hamilton, McLean, VA	0.170	0.371	11/02	0.000	N/A	0.000	N/A	0.541	0.541	0.541
	T&M/C	SRA, Fairlakes, VA	0.000	2.528	02/03	0.000	N/A	0.000	N/A	2.528	2.528	2.528
Engineering/Technical Services	MIPR	GATE Tech. Intnat'l, Inc. Boca Raton, FL	0.464	0.000	N/A	0.000	N/A	0.000	N/A	0.464	0.464	0.464
Subtotal Product Development				24.316	12.923		3.335		.814			
<u>Test and Evaluation</u>												
Operational Test & Evaluation	MIPR	Joint Inter-operability Test Command, Ft Huachuca, AZ	2.730	1.216	10/02	0.000	N/A	0.000	N/A	3.946	3.946	3.946
Test and Evaluation												
Security/Developmental Test & Evaluation	MIPR	Joint Inter-Operability Test Command, Indian Head, MD	0.000	2.100	10/02	2.652	10/03	1.685	10/04	6.437	6.437	6.437

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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 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation Test and Evaluation	MIPR	Joint Interoperability Test Command, Ft Huachuca, AZ	0.000	1.000	12/02	0.000	N/A	0.000	N/A	1.000	1.000	1.000
Security/Development Test & Evaluation	CPAF/SS	Data Systems Analysts Fairfax, VA	0.178	0.575	12/02	0.000	N/A	0.000	N/A	0.753	0.753	0.753
Subtotal Test and Evaluation			2.908	4.891		2.652		1.685				
TOTAL			27.224	17.814		5.987		2.499				

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Exhibit R-4 Schedule Profile															Date: February 2003																													
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	2002				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	1	2	3	4												
Delivery 3.0 Gold to JITC and Test	△	△																																										
Begin Dvlpmnt of 3.0/MR1	△	△																																										
3.0 Gold Operational Test			△																																									
Begin Dvlpmnt of 3.0/MR2 – MR8				△				△				△				△				△				△				△				△												
Begin Dvlpmnt of 3.0/MR9																																△												
Begin Dvlpmnt Test of 3./MR1 – MR8				△				△				△				△				△				△				△				△												
3.0/MR1-MR7 Operational Test		△	△			△	△			△	△			△	△			△	△			△	△			△	△			△	△													

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Exhibit R-4a Schedule Detail							DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT				PROJECT NAME AND NUMBER			
RDT&E, Defense-Wide/05	Information System Security Program (ISSP) PE 0303140K				ISSP / IA01			
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Delivery 3.0 Gold to JITC and Test	1Q - 2Q							
Begin Dvlpmt of 3.0/ MR1	1Q - 2Q							
3.0 Gold Operational Test	3Q							
Begin dvlpmt of 3.0/ MR2 - MR8	4Q	1Q & 4Q	1Q & 4Q	1Q & 4Q	1Q & 4Q	1Q & 4Q	1Q & 4Q	1Q & 4Q
Begin dvlpmt of 3.0/ MR9								4Q
Begin Dvlpmt Test of 3.0/MR1 - MR8	4Q	4Q	4Q	4Q	4Q	4Q	4Q	4Q
3.0/MR1-MR7 Operational Test	2Q - 3Q	2Q - 3Q	2Q - 3Q	2Q - 3Q	2Q - 3Q	2Q - 3Q	2Q - 3Q	2Q - 3Q