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Exhibit R-2, RDT&E Project Justification				DATE: February 2005				
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05				R-1 ITEM NOMENCLATURE Information Systems Security Program (ISSP) PE 0303140K				
COST (in Millions)	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11
Information Systems Security Program / IA01	7.673	5.014	0	0	0	0	0	0

A. Mission Description and Budget Item Justification: The DISA Information Systems Security Program (ISSP) is focused on designing and deploying proactive protections, deploying attack detection, and on performing Information Assurance (IA) operations to ensure that adequate security is provided for information collected, processed, transmitted, stored, or disseminated on the Global Information Grid (GIG). These efforts include tasks associated with affording protection to telecommunications, information systems, and information technology that process sensitive and classified data as well as efforts to ensure the confidentiality, authenticity, integrity, and availability of the information and the systems. The information provided here demonstrates how DISA supports the DoD IA Strategic Plan.

DISA protects information by safeguarding data as it is being created, used, modified, stored, moved, and destroyed, on the communication networks, within the enclave, at the enclave boundary, at the client, and within the computing environment. This ensures that all information has a level of trust commensurate with mission needs. The RDT&E portion of DISA's ISSP budget focuses 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 DMS in PE 0303129K. In FY 2004 to support the requirement to develop and implement protection control techniques, DISA established efforts to: identify secure software architectures that use security patterns and multiple levels that are integrated with standard wireless infrastructure; develop secure routing protocols for ad hoc wireless and sensor networks; investigate and identify the benefits of performing wireless and wired network intrusion detection using data mining; develop protocols and methodologies for biometric identity management on wireless networks; test IA cryptographic primitives and protocols; identify improvements to personnel identification schemes; develop a network management risk management framework; and define an organizationally based security assessment tool to monitor compliance with policies and processes. To support development and deployment of protection capabilities across the enterprise, in FY 2004, DISA developed security tools that use shareware, new technologies, embedded Commercial-Off-The-Shelf (COTS) products, and encryption, authentication, access control, and password storage and handling techniques to improve the Global Command and Control System-Joint (GCCS-J) security posture; developed bridge products for transitioning Common Operating Environment (COE) based mission application legacy systems into the Net-Centric Enterprise Services (NCES) environment; and added strong authentication of directory read operations and completed Directorates for Software Engineering (DSE) development on the Defense Message System (DMS). In FY 2005 DMS will increase protection of audit logs and update products for stronger mapping of Public Key Infrastructure (PKI) identity for access control decisions within the FORTEZZA server. Starting in FY 2006 the effort will be entirely funded through PE 0303129K, due to realignment of program elements within DISA. This program element is under Budget Activity 5 because it involves the development of major upgrades that increase the performance of existing systems.

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B. Accomplishments/Planned Program:

Systems Engineering & Integration	<u>FY 04</u>	<u>FY 05</u>	<u>FY 06</u>	<u>FY 07</u>
Subtotal Cost	2.739	1.000	0.000	0.000

RDT&E funds support basic Systems Engineering activities of both the PMO (including contractor support) and the Prime Integrator, and 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 commercially 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). During FY 2004 through FY 2005, the Prime Contractor implements and fields system capabilities through a series of coordinated Product and Maintenance Releases. 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 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 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. DISA developed the following products for the GCCS-J: shareware security tools, new technologies, embedded Commercial-Off-The-Shelf (COTS) products, encryption, authentication, access control, and password storage and handling techniques to improve the security posture of the GCCS-J. Developed and fielded software and documentation that mitigates/fixes security vulnerabilities identified in previous certification and accreditation testing.

<u>Test Support:</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Subtotal Cost	3.159	1.114	0.000	0.000

The Joint Interoperability Test Command (JITC) provides DMS integration test support for all new DMS releases. Each DMS release contains both Information Assurance (IA) and non-IA functionality, and as such, portions of the

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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 (IAVAs), any of which may pertain to information security/assurance. RDT&E funds are programmed to provide testing support to include Development Test and Evaluation (DT&E), Operational Test and Evaluation (OT&E), test equipment, assessment of IAVAs, and development of security products and measures to protect DMS against a variety of system vulnerabilities. DMS will support a series of security tests and develop plans of action to address security risks as security threats change. In FY 2004 and FY 2005, DMS will develop a process and provide a plan of action that addresses implementation of 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.

<u>Security Features:</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Subtotal Cost	1.775	0.000	0.000	0.000

Provided 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. NCES IA Security features include development of bridge products from the COE to the NCES environment.

<u>Congressional Adds:</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Subtotal Cost	0.000	2.900	0.000	0.000

Information Assurance Trend/Metric Analysis Support, and Center for Secure Telecommunications.

<u>B. Program Change Summary:</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Previous President's Budget	6.688	2.493	0.000	0.000
Current Submission	7.673	5.014	0.000	0.000
Total Adjustments	0.985	2.521	-	-

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Change Summary Explanation:

FY 2004 change is due to below threshold reprogramming.

FY 2005 change is due to Congressional Adds and undistributed Congressional reductions to the Defense-Wide RDT&E appropriation.

C. Other Program Funding Summary:

	<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>FY 10</u>	<u>FY11</u>
Operations and Maintenance:	116.048	99.981	174.253	175.739	168.223	180.451	178.792	171.230
Procurement:	30.360	46.618	27.072	20.847	21.476	27.946	31.059	32.982

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.

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.

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There are 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 function areas of system architecture, technical strategy, program strategy, and program execution.
- d. Pragmatics Corporation will provide engineering and technical services in support of the Secure Telecommunications Network Initiative.

E. Performance Metrics:

The following Metrics are being collected and tracked in support of the Global Command Control System (GCCS):

1. Sites and developers that are applying and executing GCCS-J security processes and methodologies.
2. Number of Applications developers successfully applying documents and assessment tools.

The following Metrics are being tracked in support of the Net-Centric Enterprise Services (NCES) program:

1. Measure the value that NCES adds by developing applications that pull the right information at the right time, and in the right format to meet the war fighter's operational/tactical needs.
2. Compressing decision cycles by providing near real-time connectivity/computing power for war fighters and other national security users to enhance collaboration and parallel vice sequential actions.

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Information Systems Security Program / IA01	7.673	5.014	0	0	0	0	0	0

The following Metrics are being tracked in support of the DMS program:

1. Assessment of all Information Assurance Vulnerability Alerts (IAVAs) and the development of the required security products and measures to protect DMS against all system vulnerabilities. DMS is funded through PE 0303129K, which currently has 24 Key Performance Parameters to meet critical operational requirements contained in the validated Joint Staff requirements document.

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Exhibit R-3 Cost Analysis						DATE: February 2005						
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 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Product Development Systems Engineering and Integration	CPFF, FFP/c	Lockheed Martine Company, Manassas, VA	31.571	1.000	05/05	0.000	N/A	0.000	N/A	0.000	32.571	32.571
Systems Engineering	CPAF/SS	Data Systems Analysis Fairfax, VA	0.980	0.000	N/A	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	N/A	0.000	0.584	0.584
Systems Integration	CPFF/C	SAIC, Arlington, VA	2.489	0.000	N/A	0.000	N/A	0.000	N/A	0.000	2.489	2.489
	CPFF/C	UNISYS, Arlington, VA	1.300	0.000	N/A	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	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	N/A	0.000	2.528	2.528
Engineering/Technical Services	T&M/C	Pragmatics, McLean, VA	<u>1.775</u>	<u>0.000</u>	N/A	<u>0.000</u>	N/A	<u>0.000</u>	N/A	<u>0.000</u>	<u>1.775</u>	<u>1.775</u>
Subtotal Product Development			41.563	1.000		0.000		0.000		0.000	42.563	42.563
Test and Evaluation Operational Test & Evaluation	MIPR	Joint Interoperability Test Command, Ft Huachuca, AZ	3.746	0.000	11/04	0.000	N/A	0.000		0.000	3.746	3.746
Test and Evaluation Security/Developmental Test & Evaluation	MIPR	Joint Interoperability Test Command, Indian Head, MD	2.577	0.700	10/04	0.000	N/A	0.000		0.000	3.277	3.277

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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 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Security/Development Test & Evaluation	CPAF/SS	Data Systems Analysis Fairfax, VA	0.753	0.000	N/A	0.000	N/A	0.000		0.000	0.753	0.753
Security Test & Evaluation	MIPR	National Security Agency	0.400	0.414	01/05	0.000	N/A	0.000	N/A	0.000	0.814	0.814
Conduct Security Test & Eval	CPFF/C	Computer Sciences Corp Falls Church, VA	0.100	0.000	04/05	0.000	N/A	0.000	N/A	0.000	0.100	0.100
EAM Hybrid Solution	MIPR	JITC Indian Head, MD	0.000	0.000	10/04	0.000	N/A	0.000	N/A	0.000	0.000	0.000
Subtotal Test and Evaluation			7.576	1.114		0.000		0.000		0.000	51.253	51.253
Congressional Adds	TBD	TBD	0.000	2.900	TBD	0.000	N/A	0.000	N/A	0.000	2.900	2.900
TOTAL			49.139	5.014		0.000		0.000		0.000	54.153	54.153

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Exhibit R-4 Schedule Profile													Date: February 2005																									
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	2004				2005				2006				2007				2008				2009				2010				2011									
	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						
<u>DMS Products</u>																																						
Begin Dvlpmnt of 3.0/ MR2 – MR4																																						
Begin Dvlpmnt Test of 3./MR1 – MR3																																						
3.0/MR1-MR3 Operational Test																																						

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Exhibit R-4a Schedule Detail		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05	PROGRAM ELEMENT Information System Security Program (ISSP) PE 0303140K	PROJECT NAME AND NUMBER ISSP / IA01

<u>Schedule Profile</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>	<u>FY 2010</u>	<u>FY 2011</u>
DMS Products								
Begin Development of 3.0/MR2 - MR4	1Q & 4Q	1Q & 4Q						
Begin Development Test of 3.0/MR1 - MR3	4Q	4Q						
3.0/MR1-MR3 Operational Test	2Q - 3Q	2Q - 3Q						