Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Defense Information Systems Agency										DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*				R-1 ITEM NOMENCLATURE PE 0302019K: *Defense Info. Infrastructure Engineering and Integration*							
COST ($ in Millions)	**FY 2010**	**FY 2011**	**FY 2012 Base**	**FY 2012 OCO**	**FY 2012 Total**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**Cost To Complete**	**Total Cost**
Total Program Element	28.188	16.629	8.366	-	8.366	8.354	8.658	8.787	8.791	Continuing	Continuing
E65: *Modeling and Simulation*	18.071	8.526	5.446	-	5.446	5.448	5.914	6.004	5.917	Continuing	Continuing
T62: *GIG Systems Engineering and Support*	10.117	8.103	2.920	-	2.920	2.906	2.744	2.783	2.874	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Global Information Grid (GIG) Enterprise Wide Systems Engineering (EWSE) project resolves near term (1 to 3 years) high-priority technical issues defined by Assistant Secretary of Defense-Networks and Information Integration (ASD-NII) and DISA, that impact operational capabilities affecting GIG end-to-end (E2E) interoperability and performance. The Chief Technology Officer (CTO) supports efforts that will strengthen the delivery of critical GIG products, services, and capabilities to the warfighter through the establishment of the DISA Technology Management Framework which provides analysis, strategies, and roadmaps, as well as technology development and insertion into DISA programs of record, while also influencing Service/Agency program technology investments. As the Science and Technology arm of DISA, CTO projects are critical to providing the venue for technology assessment and insertion in DISA (and DoD) that will result in more efficient and effective technology investments and ultimately improved global, net-centric operations. The Modeling and Simulation project provides architecture, systems engineering and end-to-end analytical functions for DISA and its customers, ensuring integrated capabilities to fulfill warfighter mission requirements. Continuous direct beneficiaries of these capabilities include ASD NII, the DISA Network Services Directorate, Program Executive Office-Mission Assurance (PEO-MA), the DISN Command Center (DCC), Joint Communications Simulation System (JCSS) users in DoD, and other DISA programs/projects such as Net-Centric Enterprise Services (NCES), CENTRIXS Cross Enclave Requirement (CCER) (PEO-C2C), etc. FY 2012 funding will provide modeling capabilities that will provide DISN Internet Protocol (IP) and Transport Capacity Planning models, to include FY 2012 Technology Refresh and new user requirements, DoD Internet traffic models and analyses for capacity planning and IA initiatives, Voice and Video over IP (VVoIP) modeling tools supporting the Unified Capabilities Requirements (UCR) Document and end-to-end security goals of the evolving DISN, enhanced modeling and instrumentation techniques for net-centric applications planning and tuning and JCSS modeling tools supporting the combatant commands.

The Interoperability Enhancement Process (IEP) supports the resolution of Tactical Data Enterprise Services (TDES) through implementation of issues resolution, the development of TDES capability, and TDES verification and certification. The overarching objective of the IEP will be to support the realization and maintenance of interoperable Net-Centric weapons, sensors, and Command and Control (C2) systems at the tactical edge. Demand-Assigned Multiple Access Compatible (DAMA-C) Ultra High Frequency Satellite Communications (UHF SATCOM) is an essential capability supporting combat search and rescue missions, and other safety-of-life operations. The DAMA-C program will provide significantly improved sharing of legacy UHF satellite resources for tens of thousands of disadvantaged user terminals.

The Enterprise Wide Systems Engineering (EWSE) project will provide technical solutions to addresses unique end-to-end interoperability and performance in DoD and GIG areas of concern. Enterprise-level technical requirements are undefined for a significant number of GIG end-to-end issues. EWSE provides end-to-end system documentation that defines functional, performance, and interface guidelines that programs can build to that is often unavailable. Through the EWSE program,

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no single entity will resolve technical, policy, programmatic issues in a time manner on proposed end-to-end solutions. Without enterprise requirements definition, networks would only interface effectively at Tier 0, effectively defeating the transformational advantages of many next generation GIG components.

B. Program Change Summary ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	16.435	16.629	9.102	-	9.102
Current President's Budget	28.188	16.629	8.366	-	8.366
Total Adjustments	11.753	-	-0.736	-	-0.736
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	11.753	-	-0.736	-	-0.736

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2010	FY 2011
Project: E65: *Modeling and Simulation*		
Congressional Add: *Cyber Security*	10.000	-
Congressional Add Subtotals for Project: E65	10.000	-
Congressional Add Totals for all Projects	10.000	-

Change Summary Explanation

The increase of +$11.753 in FY 2010 is due to the following: technical performance analysis assessments, systems architecture development, integration management and technical strategies +$.845M, Design Reference Work +$.557M, UHF-Integrated Waveform +$.351M, and a one-time Congressional-Add for Cyber Security (for the implementation of a cyber accelerator business model) +$10M.

The decrease of -$0.736 in FY2012 is attributable to the completion of the Interoperability Enhancement Process.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Information Systems Agency			DATE: February 2011
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COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
E65: *Modeling and Simulation*	18.071	8.526	5.446	-	5.446	5.448	5.914	6.004	5.917	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The Modeling and Simulation project provides architecture, systems engineering and end-to-end analytical functions for DISA and its customers, ensuring integrated capabilities to fulfill warfighter mission requirements. Modeling and Simulation performs a broad spectrum of activities for the DoD communications planning and investment strategy, to include: application assessments, contingency planning, network capacity planning and diagnostics, and systems-level modeling and simulation. Modeling and Simulation develops across-theater information awareness for Combatant Commands through application solutions for integrated networks, to include DoD's missions in Iraq and Afghanistan and the Defense Information Systems Network (DISN), by: (1) supporting the development and implementation of GIG Enterprise Wide Systems Engineering (EWSE) processes essential to evolving the GIG in a manner that enables interoperability and end-to-end performance for critical GIG programs; (2) developing standardized DISA systems analyses and integration processes to improve systems integration across DISA for all DISA developed communication systems and services; and (3) providing the underlying modeling and simulation and analytical support for end-to-end DISA and DoD systems engineering and assessment. These operations are to provide DoD decision makers, from the OSD level to the warfighter, with services and a suite of tools capable of identifying key points of impact on DoD command and control information systems and recommending tradeoffs within the GIG configuration with regard to prioritized performance, availability, and security. This effort will provide improved performance and cost-avoidance in the selected transitions and network deployments; improved network performance and efficient topology changes via accurate capacity design, as facilitated by insightful traffic analyses; improved performance of applications for DoD and the warfighter; efficient means of troubleshooting and enterprise applications redesign; and reduced risk in the program products provided to the warfighter.

The Interoperability Enhancement Process (IEP) supports the resolution of Tactical Data Enterprise Services (TDES) implementation and issues resolution, the development of TDES capability, and TDES verification and certification. The overarching objective of the IEP will be to support the realization and maintenance of interoperable Net-Centric weapons, sensors, and C2 systems at the tactical edge. The IEP will utilize a jointly defined and developed interoperability tool set to determine the TDES interoperability capabilities of systems. Interoperability shortfalls (gaps) will be identified for each system. The gaps will be based on weapon, sensor or C2 system demonstrated information exchange capabilities analyzed with respect to the current policies, doctrines, architectures, operational concepts, concepts of employment, standards, roadmap(s), and the Joint Mission Threats (JTMs) that collectively form the standard view of the TDES Architecture. The interoperability gaps will be documented to provide each system a common format implementation specification for TDES Interoperability. This requirements process will be updated consistent with the maintenance/upgrade cycle for each system. For emerging (future) systems, the IEP will be conducted prior to Milestone "C" of the platform. DISA will support this process via: the establishment and maintenance of the IEP databases that contain platform system interoperability capabilities; the jointly approved standard view of the TDES Architecture; and the implementation specification(s) for TDES Interoperability. The Services will be responsible for development of the material solutions that provide system compliance with their respective implementation specification(s) for TDES Interoperability. The Services will update the DISA IEP databases with system interoperability capabilities as validated by flag level review. Validated data will include capability deviations and schedules for "full" Joint certification. A second component of the IEP will provide warfighters operationally relevant information to maximize employment of net-

Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Information Systems Agency		DATE: February 2011
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enabled systems. Services have agreed upon common capability characteristics to identify system performance in a joint environment. The collection of these efforts, when synchronized across the services and available to joint warfighters through net-centric capabilities is called Joint Capabilities and Limitations.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012
Title: Modeling and Simulation	8.071	8.526	5.446

FY 2010 Accomplishments:

Funded Enterprise Wide Systems Engineering (EWSE) Integrated Project Teams (IPT)s to resolve near term technical interoperability issues affecting the GIG. Conducted a study of the feasibility of inter-domain routing protocols for MANET networks and IP multicast protocols and analyzed issues affecting the GIG multicast architecture when using IP multicast protocols in the GIG tactical environment. Developed a high-level architecture for the federation of GIG Service Oriented Architecture (SOA) systems. Conducted a study and developed the technical framework and guidance for the Joint Tactical Service development and delivery.

• Modeling and Simulation produced: Strategic DISN IP and Transport Asynchronous Transfer Module (ATM) elimination and Technology Refresh models for the Pacific and CONUS theaters. A DISN goal is to eliminate the ATM layer of the current network, for both cost-efficiencies and to achieve IP convergence.
• Strategic IP modeling and analysis for NIPRNET Hardening Initiatives, which greatly strengthens the NIPRNET Information Assurance (IA) defenses in exchanges with the Internet. Modeling and analysis helps ensure no unintended impacts on performance for the users by the new insertions into the network, as well as the expected impact on Internet exchanges.
• DoD Internet usage and growth projection models and analyses for capacity planning and information assurance initiatives.
• Software release for Joint Communication Simulation Support (JCSS); JCSS training class for users of JCSS software; JCSS User Conference for discussion of new requirements and developments among the widespread community of users.
• Defense Switched Network (DSN) performance reporting and outage scenario assessments.
• Baselining of the allied and coalition partners Combined Cross Enclave Requirements (CCER) communications in Southwest Asia (SWA).
• HAIPE - Border Gateway Protocol Peer Discovery analyses.

FY 2011 Plans:

Fund EWSE efforts to resolve near term (1 to 3 years) high-priority technical issues impacting operational capabilities affecting GIG end-to-end performance. Define a standard set of Virtual Private Network (VPN) services for the GIG community and Community of Interest (COI) data sharing capabilities and develop an end-to-end VPN architecture using Multi-Protocol Label Switching (MPLS) and industry open standard VPN technologies. Continue to develop GIG Technical Profiles (GTP) for GIG enterprise services. Work with key stakeholders (STRATCOM, JFCOM, DoD Components) to develop the Joint Training and Experimentation Network (JTEN) and the future GIG air-borne layer tactical network architecture to support effective joint war fighting missions. Develop a policy-based information sharing architecture to support dynamic information sharing and

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012

dissemination capabilities across multiple domains of different security classifications. Develop a global access architecture to support enterprise users within DoD, based on recent development of global authentication and access control guidelines. This project supports DoD Programs of Record, JTF-GNO, OASD NII/DoD CIO, JCS/J6, STRATCOM and DoD Components. The cost per project/effort is $0.675 million.

Modeling and Simulation funding supports continued, enhanced, modeling capabilities that will provide:
• DISN IP and Transport Capacity Planning models for FY 2011 - CONUS, SWA, EUROPE, and PACIFIC theaters, to support decision-making on DISN changes to meet evolving user requirements.
• JCSS software release, with integration of new communication device models; model development guide; training of new users.
• DoD Internet usage and growth projection models and analyses for capacity planning and information assurance initiatives, for DISA Director, JTF-GNO, and Network Services (NS) decisions.
• New/enhanced modeling tools to provide inputs to network planning in support of UCR goals of the evolving DISN, with focus on the transition of DSN from its current circuit-switched technology to an IP service.
• Continued IP modeling and analyses for new/augmented NIPRNET Hardening Initiatives.
• Performance measurements and analyses to guide Thin Client and DCO program decisions.
• EWSE modeling support.

FY 2012 Plans:
Funds will provide continual EWSE efforts to resolve near term (1 to 3 years) high-priority technical issues impacting operational capabilities affecting GIG end-to-end (E2E) performance in transport, computing services, applications, information assurance (IA), NetOps and Enterprise Services.

Modeling and simulation funding will provide continued, enhanced, modeling capabilities that will provide:
• DISN IP and Transport Capacity Planning models, to include addressing FY 2012 Technology Refresh and new user requirements in each theater when identified.
• DoD Internet traffic models and analyses for capacity planning and IA initiatives, for DISA Director, JTF-GNO, and Network Services.
• New/enhanced modeling tools to provide inputs to network planning in support of UCR and end-to-end security goals of the evolving DISN, to ensure timely support of the plans/stages in the DISN Technical Evolution Plan and GIG Convergence Master Plan.
• Enhanced modeling and instrumentation techniques for net-centric applications planning and tuning.
• Modeling support for customer needs in DISA program/project decisions and planning.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Information Systems Agency		DATE: February 2011
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012
The decrease in total funding shown between FY 2011 and FY 2012 is due to the expected closeout of the Interoperability Enhancement Process (IEP) project in FY 2011.			
Accomplishments/Planned Programs Subtotals	8.071	8.526	5.446

	FY 2010	FY 2011
Congressional Add: Cyber Security	10.000	-
FY 2010 Accomplishments: Provided funding for the implementation of a cyber accelerator business model. It also provided funding for research and demonstration projects where innovative and high-pay off commercial technologies, such as security services, are identified, quickly developed and effectively applied to national cybersecurity requirements.		
Congressional Adds Subtotals	10.000	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PE 0302019K: *Operation & Maintenance, Defense-Wide*	72.407	69.826	69.207	0.000	69.207	72.463	72.459	73.647	74.664	Continuing	Continuing

D. Acquisition Strategy

The GIG EWSE project uses a number of contractors for technical IPT support, and piloting and validation support with SRA, Booz Allen Hamilton, Netconn, Lockheed Martin and Raytheon being the main providers for this support. These companies are uniquely qualified to provide the necessary level of technical support needed to address GIG end-to-end performance issues.

Modeling and Simulation uses a range of contractors for modeling support to the various projects. Contractors range from small to large business, predominantly using open competition methods and Firm Fixed Price (FFP) tasks, and seeking multi-year (base plus option years) contracts as possible. Support includes network modeling tool and processes development to adapt to ever-evolving OSD/DISA programs and projects, analyses, capacity planning, and network redesign using the models. Some specific support (e.g., integration with proprietary OPNET software) will require contracting with OPNET (e.g., sole source). Federally Funded Research and Development Centers (FFRDC) are also considered depending upon the task.

The Interoperability Enhancement Process funds are executed via Military Inter-departmental Purchase Requests (MIPR) with associated Service Level Agreements to Air Force and Navy IAW the execution of IEP Management Plan.

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E. Performance Metrics

Modeling and Simulation performance measured by DISN core bandwidth sufficiency tied to transport and IP capacity planning and activation of bandwidth in the DISN core to keep at least 25 percent spare capacity to allow for provisioning of unforeseen requirements and rerouting under outages.

The IEP utilizes the joint set of Net-Ready Key Performance Parameters (NR-KPPs) as the metrics for interoperability assessment. These NR-KPPs are applied to all legacy or new weapons, sensors and C2 systems. The iSmart tracking matrix measures data reuse, and data validation process with feedback loops to validate data based upon JITC testing results.

The IEP will capture and assess standard RAM performance metrics such as Operational Availability (Ao), Mean Time Between Failures (MTBF), and Mean Time To Repair (MTTR). Additionally, Customer Usage Reports will be generated to ascertain peak usage periods, potential latency/quality of service issues, and most used/ least used of the sub-application capabilities.

The EWSE projects will be measured (metrics) by the number of intermediate and final GTGs and/or GTPs that are published to support interoperability of DISA C2 programs and the number of engineering/technical solutions that are adopted by programs/initiatives across DoD, COCOMs, and the services. These solutions will be coordinated with the stakeholder/user, to ensure EWSE has the right solution to the right problem.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Defense Information Systems Agency		DATE: February 2011
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	SS/FFP	OPNET Tech, Inc.:Bethesda, MD	2.142	0.880	Aug 2011	1.262	Aug 2012	-		1.262	Continuing	Continuing	3.800
Product Development	C/CPFF	APPTIS:Chantilly, VA	0.817	0.320	Jan 2011	0.336	Jan 2012	-		0.336	Continuing	Continuing	0.873
Product Development	SS/FFP	Noblis:Falls Church, VA	0.972	0.340	Jan 2011	-		-		-	Continuing	Continuing	0.980
Product Development	C/FFP	Booz Allen, Hamilton:McLean, VA	1.092	-		1.092	Dec 2011	-		1.092	Continuing	Continuing	1.092
Product Development	C/FFP	NRL:Washington, DC	0.100	-		-		-		-	Continuing	Continuing	0.100
Product Development	C/CPFF	TBD:TBD	0.161	-		1.006	Mar 2012	-		1.006	Continuing	Continuing	0.161
Product Development	C/FFP	To be determined:To be determined	1.100	1.100	Dec 2010	0.500	Dec 2011	-		0.500	Continuing	Continuing	3.300
Product Development	C/CPFF	Unknown:Unknown	0.426	0.500	Dec 2010	0.500	Dec 2011	-		0.500	Continuing	Continuing	0.500
Product Development	C/CPFF	Not known:Not known	1.670	1.439	Mar 2011	0.750	Mar 2012	-		0.750	Continuing	Continuing	3.147
Product Development	MIPR	Various:Various	3.464	3.547	Dec 2010	-		-		-	Continuing	Continuing	7.011
Enterprise Wide Systems Engineering	C/FFP	Northrop Grumman:Fairfax, VA	1.784	-		-		-		-	Continuing	Continuing	1.784
Clear Sky Pilot	C/CPFF	AFRL Terremark:TBD	3.000	-		-		-		-	Continuing	Continuing	3.000
Narus	C/CPFF	AFRL:TBD	1.450	-		-		-		-	Continuing	Continuing	1.450
Cyber Accelerator	C/CPFF	DTIC:TBD	2.800	-		-		-		-	Continuing	Continuing	2.800
Commercial Integration Demonstration	C/CPFF	DTIC:TBD	2.750	-		-		-		-	Continuing	Continuing	2.750
		Subtotal	23.728	8.126		5.446		-		5.446			32.748

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	SS/CPFF	Comptel:Arlington, VA	1.672	0.400	Jan 2011	-		-		-	Continuing	Continuing	1.200
		Subtotal	1.672	0.400		-		-		-			1.200

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Defense Information Systems Agency			DATE: February 2011
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	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	25.400	8.526		5.446		-		5.446			33.948

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Defense Information Systems Agency		DATE: February 2011
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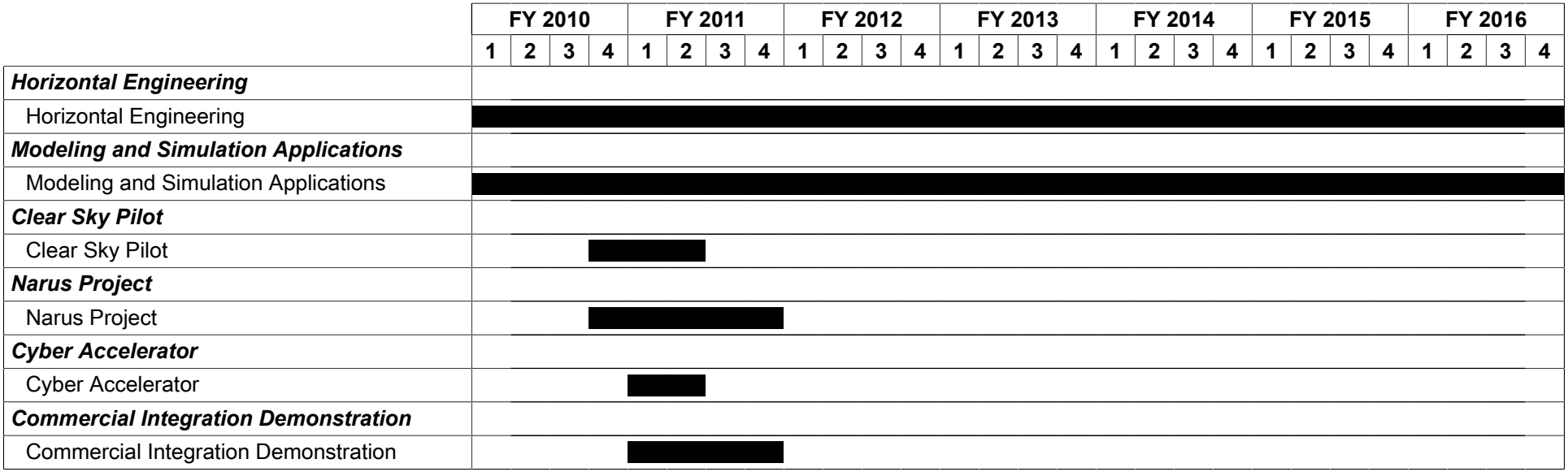

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Defense Information Systems Agency		DATE: February 2011
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Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Horizontal Engineering				
Horizontal Engineering	1	2010	4	2016
Modeling and Simulation Applications				
Modeling and Simulation Applications	1	2010	4	2016
Clear Sky Pilot				
Clear Sky Pilot	4	2010	2	2011
Narus Project				
Narus Project	4	2010	4	2011
Cyber Accelerator				
Cyber Accelerator	1	2011	2	2011
Commercial Integration Demonstration				
Commercial Integration Demonstration	1	2011	4	2011

Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Information Systems Agency			DATE: February 2011
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COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
T62: *GIG Systems Engineering and Support*	10.117	8.103	2.920	-	2.920	2.906	2.744	2.783	2.874	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The Chief Technology Officer (CTO) supports efforts that will strengthen the delivery of critical Global Information Grid (GIG) products, services, and capabilities to the warfighter through the establishment of DISA Technology Management Framework which provides analysis, strategies, and roadmaps, as well as technology development and insertion into DISA programs of record while also influencing Service/Agency program technology investments. As the Science and Technology arm of DISA, CTO projects are critical to providing the venue for technology assessment and insertion in DISA (and DoD) that will result in more efficient and effective technology investments and ultimately improved global, net-centric operations.

•Capability 1 supports end-to-end reviews of all solutions, programs, and services to ensure all are consistent with GIG architecture and standards. These projects provide direct support to Services, COCOMS, OSD, and the Joint Staff as well as the DoD business and acquisition communities and the intelligence community. The end result is more efficient and effective technology investments and ultimately improved global, net-centric operations which are delivered via GIG products, services, and capabilities to the Services, COCOMS, OSD, and the Joint Staff as well as the DoD business and acquisition communities and the intelligence community.

•Capability 2 supports various aspects of evolving the GIG, including developing enterprise system architecture constructs for the GIG and components, providing engineering guidance for component evolution, including incorporation of new technology from industry. Engineering and technical support of the DISA programs implementing the GIG involves technical research and analysis of state-of-the-art and emerging technologies, security, architectures, and application frameworks. This involves the identification and recommendation of innovative engineering techniques, technologies and products that are critical to the DISA in its role of instantiating the GIG architecture; the support of information exchanges with the Services, OSD, the COCOMS, and the Joint Staff to identify opportunities, issues, and solutions to improve the DISA products; and, facilitation and harmonization of cross-corporate programs relative to the DISA programs and the GIG.

The other mission in this exhibit is performing classified work. All aspects of this project are classified and require special access. Detailed information on this project is not contained in this document, but is available to individuals having special access to program details.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012
Title: Global Information Grid (GIG) Systems Engineering and Support	10.117	8.103	2.920
FY 2010 Accomplishments: FY 2010 funding of $2.718 million developed the definition and initial phases of the Technology Management Framework (TMF); continued support of the Technology Readiness Assessments for several key DISA programs of record; continued support for the enterprise Thin-Client pilot and development of a complete enterprise systems architecture, which identified technology gaps and			

Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Information Systems Agency		DATE: February 2011
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012
coordinated mitigation strategies with the NCES program and other enterprise service efforts for providing mobile-mission, mobile warrior enterprise user services. The remaining FY 2010 funding performed classified work. ***FY 2011 Plans:*** FY 2011 funding of $4.121 million will be used to continue evolve the Technology Management Framework and continue support of the Technology Readiness Assessments, an essential capability supporting several key DISA programs of record; continued engineering support for initial increment of an enterprise-capable Thin-Client service leveraging technology gap mitigations in identity management, SIPRNet CAC, and soft-client technologies with a hand-off of services to a program of record. The Enterprise Architecture definition effort will continue to evolve with increased emphasis on transitional issues such as application virtualization, application and network performance tuning, Defense Enterprise Computing Center (DECC) hosting optimization to include cloud computing techniques; and focused technology investigation into several commercial product assessments for the possible inclusion of these capabilities into the next generation GIG to improve information sharing, information security, and network performance. The balance of the funding performed classified work. ***FY 2012 Plans:*** FY 2012 funding of $2.920 million will be used to refine several major elements of the Technology Management Framework and continue support of the Technology Readiness Assessments, an essential capability supporting several key DISA programs of record; the Strategic Technology Plan will be updated to better align with the technologies that were identified in the Technology Watch List and the Technology Environment will be expanded to include venues such as DoD test ranges and the non-DoD Federal sector and peering with DoD and national laboratory assets. The Enterprise Architecture and Infrastructure effort will continue defining/refining technology gaps and mitigation of identified deficiencies through technology innovation activities and focused investments which will translate into piloting activities in support of GIG optimization resulting in improved information sharing, information security, and network performance of the GIG. The decrease of -$1.201 between FY 2011 and FY 2012 is due to the completion of DAMA-C and support for the thin client.			
Accomplishments/Planned Programs Subtotals	10.117	8.103	2.920

Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Information Systems Agency		DATE: February 2011
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C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• O&M, DW/PE 0302019K: *Operation & Maintenance, Defense-Wide*	72.407	69.826	69.207	0.000	69.207	72.463	72.459	73.647	74.664	Continuing	Continuing

D. Acquisition Strategy

Full and open competition resulted in a contract with Raytheon, Arlington, VA.

These projects provide technical, engineering, and integration expertise to the DISA Chief Technology Officer (CTO) in support of the major GIG components, which include: GIG Enterprise Services (GES), Defense Information Systems Network (DISN), Satellite Communications (SATCOM), GIG Directory Service, Global Combat Support System (GCSS), Joint Command and Control (JC2), Joint Planning and Execution Services (APES), Teleport, Global Command and Control System (GCCS), Enterprise Services Management (ESM), Information Assurance (IA), Wireless Services, Net-Centric Enterprise Services (NCES), and other related components. This project provides technical, engineering, and integration expertise to the DISA Chief Technology Officer (CTO) in support of thin client VCJCS initiatives. This effort will provide support to DISA and Joint Staff in its mission of providing a Multi-Level Service (MLS) Thin Client solution developed for the DoD for GIG Enterprise Services. The Enterprise Thin Client MLS solution will transition into programs of record, to be delivered in the DISA Computing Services Cloud. Through this project MITRE will support the definition and implementation of various aspects involving the GIG. MITRE (FFRDC) will provide support to DISA in its mission of providing end-to-end systems engineering for the DoD for GIG Enterprise Services. MITRE (FFRDC) will ensure that system integration and implementation is coordinated with other major C2 systems via its support to other C2 System Program Executive Offices.

E. Performance Metrics

The CTO has developed different sets of metrics to ensure that whichever metrics are applied, they are relevant and have meaning to the project's purpose and projected outcome, consistent with DISA mission objectives, POR technology requirements and gaps, and CTO technology themes. Performance is measured by achievement of project milestones and the acceptance/transition of these technologies/services/capabilities into programs of record or as a new, separate program/service offering to the DoD and IC communities. Specific and measurable metrics that will be introduced and used include number and percentage of emerging and mature technologies adopted and/or adapted by DISA and/or the Department to address/satisfy the documented technology and service gaps identified in capstone enterprise environment architectures, program/project needs statements, and other key technology planning and guideline documents; and the number and percentage of technology research and development initiatives and investments in the Department, peering organizations, and/or industry partners that are attributable to technology research, investments and evolution plans in DISA and promoted via the technology watch-list and outreach activities used to identify, promote, channel and aligning technology research and investments to reduce time to field new/emerging technologies to satisfy warfighter requirements.

Program Management Support: In FY 2010, shared services and support functions were consolidated across the CTO. An information assurance roadmap for future program integration activities was developed, contracting requirements were consolidated into fewer contract vehicles, and knowledge management repositories were

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refined for contracting and DISA executive views. Additionally DISA requested a change to realign the CTO civilian pay funding from O&M to RDT&E, to support those personnel engaged in non-headquarters RDT&E activities. The whole of the CTO organization is now included in the budgeting of these funds.

In FY 2011, Program Management Support provides managers with project management, financial management, contract management assistance, information assurance technical expertise, knowledge management, outreach, and transition engineering. Program management resources continue to support the growth in all key mission areas of technology analysis, assessment, evaluation, and integration. Additionally, DISA will need continued civilian pay funding to cover salaries and benefits for government civilian personnel assigned to CTO; training, professional development and travel for CTO personnel; and supplies and services for CTO operations.

In FY 2012, there will be a continued need for core program management support to the technology analysis, assessment, evaluation, and integration activities to manage financial accounts, oversee information assurance activities, assist in contract administration, and provide technical advice and assistance through the use of subject matter experts. Program Management support will also provide asset management, quality assurance and business line improvement, information assurance oversight, technical oversight and assistance, web support, and application hosting fees. Technology Integration support, including knowledge management expertise, outreach, transition engineering expertise, and scenario and/or capability-based demonstrations, will continue for all the program managers in each of the mission areas. If FY 2012 funding is reduced for this mission set, critical information, GIG 2.0/Web 3.0, and enterprise missions services supporting DoD and the VCJCS information sharing vision will be delayed or halted; and DISA will not be able to provide DoD and its partners with the innovative technologies that can make a difference in the new era of warfighting by enabling the operational transformation of warfighting. DoD must be IT-enabled with the ability to out-think our adversaries.

Lack of program management funds will result not only in the inability of CTO to complete the technological and operational objectives, but also hinder the ability to provide management oversight, and to respond quickly to data calls from a single knowledge base.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Defense Information Systems Agency		DATE: February 2011
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering and Technical Services	FFRDC	MITRE:McLean, VA	21.336	1.650	Oct 2010	1.725	Oct 2010	-		1.725	Continuing	Continuing	19.270
Industry Tech Res	FFRDC	Gartner:Various	0.051	0.120	Oct 2010	0.120	Oct 2012	-		0.120	Continuing	Continuing	0.171
GIG Technical Insertion Engineering	C/FFP	SRA, Inc.:Fairfax, VA	1.211	-		-		-		-	Continuing	Continuing	2.472
Product Development	C/FFP	Raytheon:Various	0.787	0.510	Oct 2010	0.616	Oct 2010	-		0.616	Continuing	Continuing	0.788
DAMA-C	MIPR	Defense Micro-electronics Activity:Various	7.700	3.982	Mar 2011	-		-		-	0.000	11.682	11.682
Thin Engineering Support	MIPR	Air Force Research Lab:Various	-	1.500	Sep 2011	-		-		-	0.000	1.500	1.500
Engineering Technical Services	Various	Various:Various	0.750	0.341	Oct 2009	0.459	Oct 2012	-		0.459	Continuing	Continuing	
		Subtotal	31.835	8.103		2.920		-		2.920			

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	31.835	8.103		2.920		-		2.920			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Defense Information Systems Agency		DATE: February 2011
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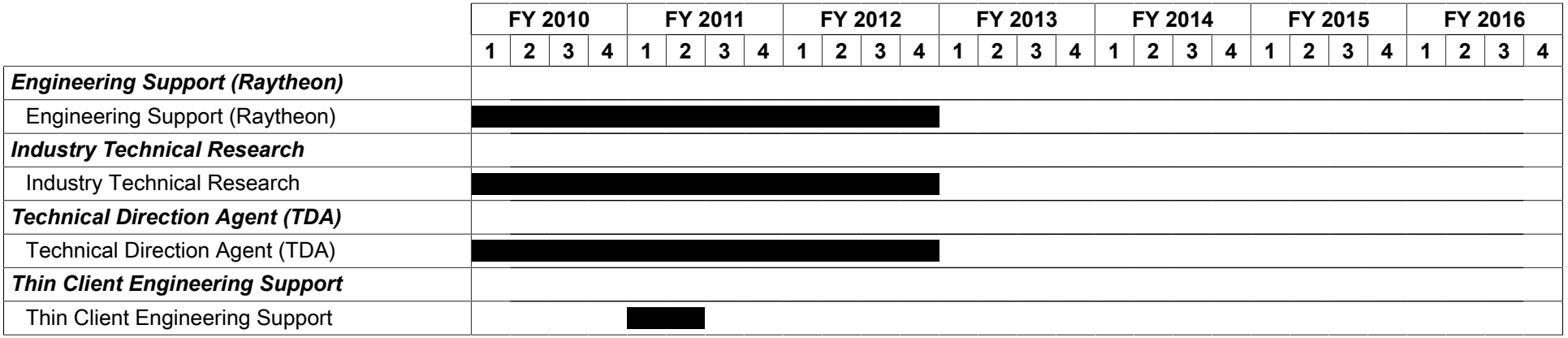

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Defense Information Systems Agency		DATE: February 2011
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Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Engineering Support (Raytheon)				
Engineering Support (Raytheon)	1	2010	4	2012
Industry Technical Research				
Industry Technical Research	1	2010	4	2012
Technical Direction Agent (TDA)				
Technical Direction Agent (TDA)	1	2010	4	2012
Thin Client Engineering Support				
Thin Client Engineering Support	1	2011	2	2011