Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency	Date: May 2017
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*

COST ($ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	117.426	9.729	18.041	21.564	-	21.564	22.009	21.335	21.819	22.268	Continuing	Continuing
E65: *Modeling and Simulation*	78.775	5.583	4.084	9.251	-	9.251	9.888	9.611	9.829	10.033	Continuing	Continuing
T62: *DoD Information Network (DoDIN) Systems Engineering and Support*	38.651	4.146	13.957	12.313	-	12.313	12.121	11.724	11.990	12.235	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Information Infrastructure Engineering and Integration effort encompasses two projects: Modeling and Simulation and DoD Information Network (DODIN) Systems Engineering and Support. There are two major activities under the Modeling and Simulation project: Modeling and Simulation and DODIN Enterprise Wide Systems Engineering (EWSE).

The DODIN EWSE activity resolves near term (one to three years) high-priority technical issues defined by DoD Chief Information Officer (DoD CIO) and Defense Information Systems Agency (DISA), that impact operational capabilities affecting DODIN End-to-End (E2E) interoperability and performance.

The Modeling and Simulation project provides architecture, systems engineering and E2E analytical functions for DISA and its customers, ensuring integrated capabilities to fulfill warfighter mission requirements. Ongoing beneficiaries of these capabilities include DoD CIO, the DISA Network Services Directorate, the DISA Enterprise Services Directorate, Program Executive Office-Mission Assurance, the Defense Information Systems Network Command Center and Joint Communications Simulation System users in DoD.

The DoDIN Systems Engineering and Support project performs discovery, research, development and experimentation of emerging and commercial technologies through the Office of the Chief Technology Officer (OCTO) to fill capability shortfalls and technology gaps across the Future Years Defense Program (FYDP). The OCTO identifies these gaps/shortfalls, pursues leading innovative solutions from industry, academia, and the Federal sector, and engages industry partners for commercial best practices. The OCTO Develops technology forecasts and innovation roadmaps for existing and nascent DISA Programs in the following areas: Process/Automation, Cloud, Cyber Security, End-User Devices, Communication (DoDIN/Mobile/End-User Devices). The OCTO conducts technical system engineering reviews and oversight of DISA and DoD enterprise products and services. The OCTO performs early identification of technology needs and explores, develops, and delivers recommended emerging technologies to the DISA Requirements & Analysis Office.

Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency	Date: May 2017
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0302019K *I Defense Info. Infrastructure Engineering and Integration*

B. Program Change Summary ($ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	10.120	18.041	23.499	-	23.499
Current President's Budget	9.729	18.041	21.564	-	21.564
Total Adjustments	-0.391	0.000	-1.935	-	-1.935
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.391	-			
• SBIR/STTR Transfer	-	-			
• Other adjustments	-	-	-1.935	-	-1.935

Change Summary Explanation

The decrease of -$1.935 in FY 2018 is attributable to the shifting of agency priorities to align with evolving mission. The decrease is attributed to the termination in research efforts of the Service Level Interoperability of Tactical Edge Core (SLITEC). Decrease is also attributable to technology maturing at such a rapid pace, it is imperative to rapidly assess, integrate, and transition promising technologies and capabilities. To improve efficiency and effectiveness of these processes, the assessment framework will be streamlined to reduce the timelines, resource requirements, and fiscal requirements. Capability prototypes will be delivered more rapidly through the use of Other Transaction Authorities (OTAs) and/or Broad Agency Announcements (BAAs), and joint assessment initiatives and partnerships will be coordinated. These improvements are expected to yield an estimated cost savings in FY 2018.

Exhibit R-2A, RDT&E Project Justification: FY 2018 Defense Information Systems Agency			Date: May 2017
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	Project (Number/Name) E65 / *Modeling and Simulation*	

COST ($ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
E65: *Modeling and Simulation*	78.775	5.583	4.084	9.251	-	9.251	9.888	9.611	9.829	10.033	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 (E2E) analytical functions for the Defense Information Systems Agency (DISA) and its customers, ensuring integrated capabilities to fulfill warfighter mission requirements. Modeling and Simulation activities support the Department of Defense (DoD) communications planning and investment strategy, including: application performance assessments, contingency planning, network capacity planning and diagnostics, and systems-level modeling and simulation. Project efforts provide across-theater information awareness for Combatant Commands through application solutions for integrated networks, including DoD's missions in Afghanistan and the Defense Information Systems Network (DISN) by: (1) supporting the development and implementation of DoD Information Network (DODIN) Enterprise Wide Systems Engineering (EWSE) processes essential to evolving the DODIN in a manner that enables interoperability and E2E performance for critical DODIN 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 E2E DISA and DoD systems engineering and assessment.

Project efforts provide DoD decision makers with services and a suite of tools capable of identifying key points of impact on DoD command and control information systems and recommending trade-offs within the DODIN configuration with regard to prioritized performance, availability, and security. This effort will reduce the risk in products deployed to the warfighter through improved network performance and traffic analysis, and an efficient means of troubleshooting and subsequent redesign.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
Title: Modeling and Simulation	5.583	4.084	9.251
FY 2016 Accomplishments: Resolved high-priority technical issues impacting interoperability of DODIN capabilities in communications, computing services, applications/services, information assurance (IA) and net-centric operations (NetOps). Analyzed/prototyped cloud computing services that can be integrated or interoperated with DoD capabilities. Identified capability candidates for analysis; perform technical market research, alternatives analysis and trade-off studies of candidates within a defined trade space; analyzed and evaluated existing/new capabilities through engineering methods to include proof-of-concept demonstrations; and performed technical assessments to develop technical recommendations supporting solution development decisions. Analyzed/prototyped cloud computing services and open source capabilities for integration and interoperability with DoD capabilities. Examined application of SDN technologies for Core Data Centers and DISN. Performed technical assessments for open source alternatives for new technology solutions. Developed enterprise architecture and SysML modeling artifacts for high priority DISA enterprise services. Enhanced proactive end-to-end performance capabilities, including data collection and tools to support enterprise wide			

Exhibit R-2A, RDT&E Project Justification: FY 2018 Defense Information Systems Agency		Date: May 2017
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** E65 / *Modeling and Simulation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
troubleshooting and analysis. The results will be socialized with the DoD community for action/adoption or further development. Where appropriate, the results will also be documented in GTP for compliance by the POR. Will continue efforts to enhance modeling capabilities that will provide DISN IP and Transport Capacity Planning models, modifying tools and processes to reflect the operational DISN architecture and technologies as evolved under Joint Information Environment (JIE) initiatives and technical advances. These enhancements include: (1) preparing for the FY 2018 Technology Refresh (feasibility analyses required prior to hardware being added to the DODIN) and new user requirements; (2) enhanced modeling and instrumentation techniques for new or evolving enterprise Services and customer needs in DISA program/project decisions and planning; (3) DoD Internet traffic models and analyses for capacity planning and IA initiatives for CYBERCOM and additional organizations within DISA; (4) enhanced modeling tools and techniques to provide inputs to network planning and performance assessments in support of Unified Communications and E2E security goals of the evolving DISN; and (5) an updated version of the Joint Communications Simulation System. ***FY 2017 Plans:*** Will evolve EWSE and standards efforts to operationalize the E2E performance efforts and distill the standards efforts to support DISA Strategic Initiatives and to resolve high-priority technical issues impacting interoperability of DoDIN capabilities in communications, computing services, enterprise applications/services, information assurance (IA) and net-centric operations (NetOps). Will identify capability candidates for analysis; perform technical market research, alternatives analysis and trade-off studies of candidates within a defined trade space; analyze and evaluate existing/new capabilities through engineering methods to include proof-of-concept demonstrations; and perform technical assessments to develop technical recommendations supporting solution development decisions. Will analyze/prototype cloud computing services and open source capabilities for integration and interoperability with DoD capabilities. Will support application and implementation of SDN technologies for Core Data Centers and the DISN. Will continue to enhance end-to-end performance capabilities, including data collection and tools to support enterprise wide troubleshooting and analysis. The results will be socialized with the DoD community for action/adoption or further development. Where appropriate, the results will also be documented in GTP for compliance by the POR. Will continue efforts to enhance modeling capabilities that will provide DISN IP and Transport Capacity Planning models and expand computing infrastructure modeling capabilities, modifying tools and processes to reflect the operational DODIN architecture and technologies as evolved under Joint Regional Security Stacks (JRSS) and the common informational architecture initiatives and technical advances. These enhancements include: (1) preparing for the FY 2019 Technology Refresh (feasibility analyses required prior to hardware being added to the DODIN) and new user requirements; (2) enhanced modeling and instrumentation techniques for new or evolving enterprise services and customer needs in DISA program/project decisions and planning; (3) DoD Internet traffic models and analyses for capacity planning and IA initiatives for CYBERCOM and organizations within DISA; (4) enhanced modeling tools and techniques to provide inputs to network planning and performance assessments			

Exhibit R-2A, RDT&E Project Justification: FY 2018 Defense Information Systems Agency		Date: May 2017
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** E65 / *Modeling and Simulation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
in support of Unified Communications and End-to-End (E2E) security goals of the evolving DODIN; (5) capacity planning for data centers infrastructure computing and network; and (6) an updated version of the Joint Communications Simulation System. There is a decrease of -$1.499 between FY 2016 and FY 2017. The FY 2017 funding will be used to broadened and enhanced modeling and simulation methodologies to properly identify the network planning and bandwidth sufficiency needs of the evolving DODIN. ***FY 2018 Plans:*** Will develop modeling and simulation tools to analyze planned changes to the DISN optical and IP core network, data centers, internet and commercial cloud computing gateways, and network security solutions. Will develop capabilities for analysis of software defined networking. Will perform test and evaluation of DISN Internet Access Point security solutions with government and contracted labor support. Will research technologies and solutions that can be transitioned to operations and will demonstrate feasibility through solutions analysis and proof-of-concept development and test. Will perform product and solution assessments using developed modeling tools to provide technical solutions for IT capabilities to ensure compatibility and interoperability with the DISN, data centers, and JIE solution architectures. Will develop application performance monitoring framework to support reliable operation of enterprise services and applications. The increase of +$5.167 from FY 2017 to FY 2018 is attributed to increased efforts in evaluating tools and solutions for a regional defensive cyber security systems, performance of cloud computing and security. Additionally, the increase is associated with test and evaluation of larger scale software defined data centers and network function virtualization. This increase is partially offset by a decrease of -$0.207 is attributed to the Service Requirements Review Board (SSRB) contract reduction.			
Accomplishments/Planned Programs Subtotals	5.583	4.084	9.251

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
• PE 0302019K: *Operation & Maintenance, Defense-Wide*	15.496	15.989	15.606	-	15.606	16.437	16.579	16.911	-	Continuing	Continuing

Remarks

D. Acquisition Strategy

EWSE uses contractors to assist/supplement the Government lead/team for technical activities. Subject matter experts in both large and small businesses are sought for the engineering support. Firm fixed price contracts with one option year are typically used in open competition. Furthermore, technical work with Federally Funded

Exhibit R-2A, RDT&E Project Justification: FY 2018 Defense Information Systems Agency		Date: May 2017
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** E65 / *Modeling and Simulation*

Research and Development Centers (FFRDCs) such as MITRE and MIT Lincoln Lab are established and coordinated when the Government can leverage their expertise and R&D in the key technology.

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 utilizing multi-year (base plus option years) contracts where 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 software) will require contracting with OPNET (e.g., sole source). FFRDCs are also considered depending upon the task.

E. Performance Metrics

DISN core transport bandwidth sufficiency, tied to capacity planning and activation of bandwidth in the DISN optical core to keep at least 25% spare capacity, to allow for provisioning of unforeseen requirements and rerouting under outages.

DISN IP Core bandwidth sufficiency tied to capacity planning and activation of IP bandwidth to maintain average bandwidth utilization of DISN IP Core and NIPRNet backbone circuits under 65% during daily peak periods.

DISN SIPRNet bandwidth sufficiency tied to capacity planning and activation of IP bandwidth to maintain average bandwidth utilization of SIPRNet backbone circuits under 50% during daily peak periods.

The EWSE projects will be measured by the number of technical studies performed with associated systems engineering artifacts (market research reports, technology assessments, solutions analyses, etc.) that are developed to support DODIN capabilities; and the number of proof-of-concept demonstrations or pilots executed to support viability of the technical approach/recommendation. These products will be coordinated with the stakeholders, users and/or Program Management Offices (PMO) to ensure EWSE provides the right deliverables for solution development decisions.

FY 2016 completed: 1 technical studies, 1 engineering artifact, and 0 concept demonstrations.
FY 2017 planned target: 2 technical studies, 6 engineering artifacts, and 2 concept demonstrations.
FY 2018 planned target: 2 technical studies, 6 engineering artifacts, and 2 concept demonstrations.

The Modeling and Simulation project provides architecture, systems engineering and E2E analytical functions for DISA and its customers, ensuring integrated capabilities to fulfill warfighter mission requirements. Ongoing beneficiaries of these capabilities include DoD Enterprise Activities, the DODIN and DISA applications, as well as engineering capabilities support to programs and projects to address technical and engineering solutions to activities such as information assurance and cyber security; mobility and cloud technologies and warfighter and mission support activities.

Exhibit R-2A, RDT&E Project Justification: FY 2018 Defense Information Systems Agency			Date: May 2017
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*	

COST ($ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
T62: *DoD Information Network (DoDIN) Systems Engineering and Support*	38.651	4.146	13.957	12.313	-	12.313	12.121	11.724	11.990	12.235	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The DoD Information Network (DODIN) Systems Engineering and Support project aligns with the updated DISA Strategic Plan, which includes the Chief Technology Officer's Outlook and a Technology Watchlist. The Watchlist identifies key technology areas that are essential for Defense Information Systems Agency (DISA) including: Process/Automation, Cloud, Cyber Security, End-User Devices, and Communication (DoDIN, Mobile/End-User Devices).

The DODIN Systems Engineering and Support Project ensure the technical strategies for the Defense Information Systems Agency (DISA) are in line with the DoD IT Efficiency strategy and the latest Department of Defense Chief Information Office (DoD CIO) Capabilities Planning Guidance (CPG) through the Office of the Chief Technology Officer (OCTO). These strategies will establish the foundation for DISA's technology investments and technical development. The OCTO leverages emerging technology to drive efficiencies and cost savings to the DoD, the Warfighter, and other Federal Agencies, and provides actionable, decision-oriented information to the Secretary of Defense, Joint Staff, Military Services, Combatant Commands, and other mission partners in satisfying DoD mission objectives.

Cyber security and cloud computing present critical near term challenges, especially the ability to securely leverage commercial cloud service offerings. The OCTO's partnership with Defense Advanced Research Projects Agency (DARPA) will assess and transition technologically relevant and mature solutions. Included are applications with a security wrapper that detect and mitigate cyberattacks; smart routing and managed reputation capability; embedded system defense capabilities; and resilient and intrusion-tolerant network capabilities.

Partnerships with industry, academia, and the Federal sectors will produce requisite cyber measures and ensure optimal use of commercial cloud services. The OCTO will conduct technology assessments, process improvements, as well as the analysis and review of potential technology solutions, products, capabilities and services to ensure consistency with DODIN architecture and standards. Enabled by the Technology Assessment Framework (TAF) and the DISA Technology Information Repository (DTIR), the OCTO will perform "quick looks" and deeper technology evaluations to provide critical awareness, characterization, and suitability of specific technologies. These include the assessments of advanced cloud management capabilities; physical containers to enable mobile data center; emerging open source Storage Service APIs and/or abstractions and global standards for storage services; analytic platform performance baselines of emerging commercial analytic platform products; advanced approaches to Continuity of Operations (COOP) in a hybrid cloud environment; and the next generation software defined networks for automating and virtualizing the DODIN.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
Title: Department of Defense Information Network (DODIN) Systems Engineering and Support	4.146	13.957	12.313
FY 2016 Accomplishments: CTO continued to develop the Technology Environment (TE), composed of the technical infrastructure, associated processes, practices, and methodologies that are used to evaluate and characterize new technologies. Projects like CTO's Quick Win			

Exhibit R-2A, RDT&E Project Justification: FY 2018 Defense Information Systems Agency		Date: May 2017
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
Concept Demonstrators (QWCD) delivered to the department and the Warfighter a more secure light weight tablet device that allow full access to office automations which can be leveraged anytime and anywhere. Within the TE, CTO performed technical assessments and proof of concepts for key capability portfolios (Networking, computing & storage, UC, mobility, cyber security, and network operations). CTO included cloud computing technologies and innovative service delivery models, mobile devises, application development and vetting best practices, and next generation virtualized Software Defined Networks for automating and virtualizing the DoD Information Network (DoDIN). CTO continues to partner with commercial partners, academia, technology analysis centers, as well as member organizations within the Intelligence Community, to bring state of the art capabilities to DISA for better communications and monitoring tools, enterprise services and improved end-user services and capabilities. The CTO authored the Software Defined Network (SDN) security framework document which provides security parameters for the SDN. CTO has developed to concept of operations market analysis report for milCloud v2.0 which is the next generation DoD cloud environment.			
FY 2017 Plans: Will conduct technology assessments, process improvements, as well as the analysis and review of potential technology solutions, products, capabilities and services to ensure consistency with DODIN architecture and standards. Enabled by the TAF and the Defense Technical Intelligence Report (DTIR), the OCTO will perform “quick looks” and deeper technology evaluations to provide critical awareness, characterization, and suitability of specific technologies. These include the assessments of advanced cloud management capabilities, physical containers to enable mobile data center; emerging open source Storage Service APIs and/or abstractions and global standards for storage services, analytic platform performance baselines of emerging commercial analytic platform products, advanced approaches to COOP in a hybrid cloud environment, and the next generation software defined networks for automating and virtualizing the DODIN. Will assess and transition technologically relevant and mature solutions, provides smart routing and managed reputation capabilities; Software Symbiotes which provides embedded system defense capabilities; and advanced technologies and protocols that provide resilient and intrustion-tolerant network and messaging capabilities. Will produce requisite cyber measures and ensure optimal use of commercial cloud services through Partnerships with industry, academia, and the Federal sectors. The increase of +$9.811 from FY 2016 to FY 2017 is primarily attributable to the discovery, research, development and experimentation of emerging and commercial technology needed to support the development and adoption of key technological solutions, the realignment of civilian Full-Time-Equivalents (FTEs) and the associated payroll from PE0604764K to promote centralized, coordinated technology policy, direction, standards, and leadership allowing CTO and DISA the ability to influence			

Exhibit R-2A, RDT&E Project Justification: FY 2018 Defense Information Systems Agency		Date: May 2017
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
and promote technology innovation that meets future DoD requirements. In addition, CTO will perform assessment and reconnaissance of emerging technologies. ***FY 2018 Plans:*** The CTO will expand its focus on laboratory prototyping known as Software Defined Everything (SDE) which is based on the notion of using software to keep redefining itself, rather than being locked into operating in a specific way. It is easily reconfigurable and extensible software that rapidly morphs to adapt to newly emerging situations. SDE will serve as an enabler to leverage capabilities from five principal areas. These five areas are; Process/Automation, Cloud, Cyber Security, End-User Devices, Communication (DoDIN, Mobile/End-User Devices). CTO will conduct technical assessments for future cloud computing technologies and innovative service delivery models, mobile devices, application development and vetting best practices, and next generation virtualized Software Defined Networks (SDN) for automating and virtualizing the DODIN. CTO will partner with commercial partners, academia, technical analysis centers, as well as organizations within the Intelligence Community, to bring state of the art capabilities to the DISA/DoD resulting in better communications and monitoring tools, enterprise services and improved end-user services and capabilities. CTO will continue to pursue and refine methods, processes and strategies to assist in the acceleration of capability into the operational environment. There is a decrease of -$1.644 from FY 2017 to FY 2018. The FY 2017 funding will be used to morph to an internet 2.0 environment where DoD, other government organizations, coalition members, first responders, private industry, academia and commercial vendors will be able to share secured data and information in such a way that adversaries can be identified, found, brought to Justice before inflicting harm on innocent citizens and allies anywhere in the world. CTO will aggressively pursue next generation technologies to feed the internet 2.0 environment. These technologies will be leveraged through the expansion of a CTO futuristic Skunk Works effort known as Software Defined Everything (SDE) which is based on the notion of using software to keep redefining itself, rather than being locked into operating in a specific way. It is easily reconfigurable and extensible software that rapidly morphs to adapt to newly emerging situations. SDE will serve as an enabler for the internet 2.0 environment. This increase is partially offset by a decrease of -$0.276 is attributed to the Service Requirements Review Board (SSRB) contract reduction.			
Accomplishments/Planned Programs Subtotals	4.146	13.957	12.313

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
• O&M, DW/PE 0302019K: *Operation & Maintenance, Defense-Wide*	0.994	2.607	2.773	-	2.773	2.814	2.899	2.962	3.035	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: FY 2018 Defense Information Systems Agency		Date: May 2017
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

Market research during the acquisition process includes a review of DISA contracts, other DoD contract vehicles, and other Federal Government agency contracts which are advertised for Government-wide usage. This market research also includes consideration of small businesses including minority/women owned (8A) businesses, Historically Black Colleges and Universities, mentor/protégé and other specialized contract vehicles and processes. Market research evaluates all contractors available from DISA sources for their ability to deliver the products specifically required for the unique program efforts. The program works collaboratively with vendors to obtain generic cost data for planning and analysis purposes. Past and current contract prices for similar work and other government-wide agency contracts provide additional sources of information. Quotes from multiple sources help provide averages for more realistic cost estimates. DISA makes a concerted effort to award many of its contracts to small businesses. Additionally, many of the DISA contracts are awarded with multiple option periods. These have the benefit of fixing labor costs over an extended period and minimizing the administrative costs associated with re-issuing short-term contracts.

E. Performance Metrics

Number of Technology Assessments

Performance is measured by the number of technologies assessed and the technologies transitioned or presented to DISA decision-making bodies such as the Service Portfolio Council (SPC) for acquisition decisions. The assessments identify, promote, channel and align technology research and investments. The objectives are to satisfy warfighter requirements by addressing capability gaps, to improve operational effectiveness and efficiency, and to reduce the time needed to field emerging technologies.

Measure/Goal: Number of technology assessments instantiated within the CTO Technology Environment. Number of research initiatives designed, developed, demonstrated, and transitioned or presented to DISA decision-making bodies such as the SPC for acquisition decisions.

FY 2016 Actual: 10 Assessed and 5 transitioned Target: Met
FY 2017 Target: 8 Assessed and 5 transitioned
FY 2018 Target: 12 Assessed and 8 transitioned

Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Defense Information Systems Agency			Date: May 2017
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering and Technical Services	FFRDC	MITRE : McLean, VA	7.527	1.584	Oct 2015	2.299	Oct 2016	1.500	Oct 2017	-		1.500	Continuing	Continuing	Continuing
Industry Tech Res	C/FFP	Gartner : Various	0.249	-		-		-		-		-	0	0.249	0.249
GIG Technical Insertion Engineering	C/FFP	SRA, Inc. : Fairfax, VA	1.211	-		-		-		-		-	0	1.211	1.211
Product Development	C/Various	Raytheon : Various	1.601	-		-		-		-		-	0	1.601	1.601
DAMA-C	MIPR	Defense Micro-electronics Activity : Various	11.794	-		-		-		-		-	0	11.794	11.794
Thin Engineering Support	MIPR	MIT Lincoln Labs : Lexington, MA	4.260	-		-		-		-		-	0	4.260	4.260
Engineering and Technical Support	C/FFP	Moya Technologies, Inc. : TBD	1.212	-		-		-		-		-	0	1.212	1.212
Engineering Technical Services	MIPR	TBD : TBD	3.315	-		-		-		-		-	0	3.315	3.315
Product Development	C/FFP	Science and Technology Associates, Inc : Arlington, VA	1.551	-		0.540	Jul 2017	-		-		-	0.000	2.091	2.091
Product Development	MIPR	SPAWAR : Charleston, SC	0.376	-		-		-		-		-	0	0.376	0.376
Product Development	MIPR	NSA : Ft. Meade, MD	0.691	-		-		-		-		-	0	0.691	0.691
Engineering Technical Services	C/FFP	TWM : Falls Church, VA	0.202	-		-		-		-		-	0	0.202	0.202
Product Development	C/FFP	SOLERS : Arlington, VA	0.995	-		1.378	Jul 2017	0.650	Jul 2018	-		0.650	Continuing	Continuing	Continuing
Product Development	C/FFP	Booz Allen Hamilton : McLean, VA	0.500	-		-		0.562	Jan 2018	-		0.562	Continuing	Continuing	Continuing
Product Development	MIPR	JITC : Ft. Meade, MD	0.351	-		-		-		-		-	0	0.351	0.351

Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Defense Information Systems Agency			Date: May 2017
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Technical Services	MIPR	Various : Ft. Meade, MD	1.742	1.429	Dec 2015	0.782	Oct 2016	1.528	Oct 2017	-		1.528	Continuing	Continuing	Continuing
Engineering Technical Services	C/Various	IV2: IT Consulting Services, LLC : Jackson, WY	1.074	0.600	Oct 2015	-		-		-		-	Continuing	Continuing	Continuing
Engineering Technical Services	C/FFP	Information Assurance TWM Follow On : TBD	-	0.533	Oct 2015	0.208	Oct 2016	-		-		-	Continuing	Continuing	Continuing
Engineering Technical Services	C/CPFF	TIE NEMS: B&D Consulting : TBD	-	-		0.564	Oct 2016	-		-		-	Continuing	Continuing	Continuing
Engineering Technical Services	C/Various	Tapestry Technologies, INC : TBD	-	-		1.637	Mar 2017	2.536	Mar 2018	-		2.536	Continuing	Continuing	Continuing
Management Services - Civilian Pay	Various	Various : Ft. Meade	-	-		6.549	Oct 2016	4.957	Oct 2017	-		4.957	Continuing	Continuing	Continuing
Engineering Technical Services	C/FFP	PMPC-Itility LLC : Ft. Meade, MD	-	-		-		0.580	Mar 2018	-		0.580	Continuing	Continuing	-
		Subtotal	38.651	4.146		13.957		12.313		-		12.313	-	-	-

	Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	38.651	4.146		13.957		12.313		-		12.313	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: FY 2018 Defense Information Systems Agency		Date: May 2017
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*

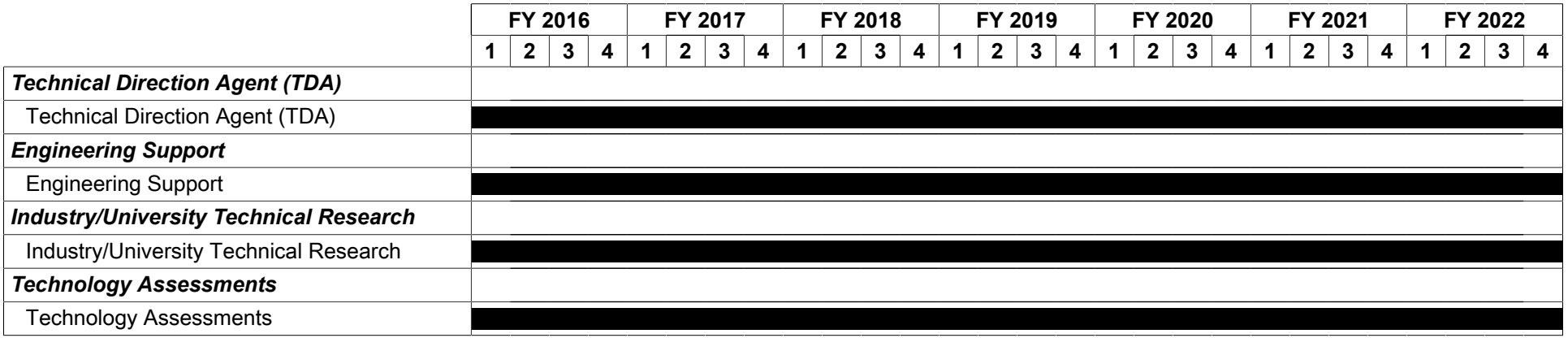

Exhibit R-4A, RDT&E Schedule Details: FY 2018 Defense Information Systems Agency		Date: May 2017
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Technical Direction Agent (TDA)				
Technical Direction Agent (TDA)	1	2016	4	2022
Engineering Support				
Engineering Support	1	2016	4	2022
Industry/University Technical Research				
Industry/University Technical Research	1	2016	4	2022
Technology Assessments				
Technology Assessments	1	2016	4	2022