

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency **Date:** May 2017

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>					R-1 Program Element (Number/Name) PE 0303126K / <i>Long-Haul Communications - DCS</i>							
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	218.752	36.884	13.994	15.428	-	15.428	15.002	14.951	15.262	15.557	Continuing	Continuing
PC01: <i>Presidential and National Voice Conferencing/</i>	65.571	28.122	3.072	3.195	-	3.195	3.159	3.134	3.148	3.256	Continuing	Continuing
T82: <i>DISN Systems Engineering Support</i>	153.181	8.762	10.922	12.233	-	12.233	11.843	11.817	12.114	12.301	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Information Systems Network (DISN) is the Department of Defense's (DoD's) consolidated worldwide telecommunications capability that provides secure, end-to-end information transport for DoD operations. It also provides the warfighter and the Combatant Commands (COCOMs) with a robust Command, Control, Communications, Computing, and Intelligence infrastructure to support DoD net-centric missions and business requirements. The Defense Red Switch Network (DRSN) is a DoD Secure Voice, Command and Control Network that is controlled and directed by the Joint Staff and the Office of the Secretary of Defense. It provides multi-level secure, rapid, ad hoc, voice calling and conferencing capability to the President, Secretary of Defense, Services, COCOMs, subordinate organizations (military and civilian) and coalition allies. DRSN also supports the Presidential and National Voice Conferencing (PNVC) (formerly known as National Emergency Action Decision Network (NEADN)) and the Enhanced Pentagon Capability/Survivable Emergency Conferencing Network. These funds support three major efforts:

DISN Systems Engineering Support: This effort includes engineering for Networking capabilities and optical transport capabilities to ensure the essential operations of a robust and secure DISN; refreshing the systems that instrument and automate the operations, administration, maintenance and provisioning functions and creating a single DISN-wide view for network managers and operators.

PNVC: The PNVC provides selected system engineering for continued development and testing of the PNVC equipment for senior leaders. The PNVC system provides a military, satellite-based, survivable, secure, and near toll-quality voice conferencing capability for the President, Secretary of Defense, Chairman, Joint Chiefs of Staff, and other senior national/military leaders anywhere in the world as needed. Funding supports the acquisition activities for the PNVC baseband equipment, including critical and essential engineering required to develop new vocoder and cryptographic and audio-summing equipment.

DoD Mobility: The Mobility Program will lead the development of an Enterprise Solution to support Controlled Unclassified Information (CUI) and leverage commercial carrier infrastructure to provide entry points for both classified and unclassified wireless capabilities. Continued evolution and expansion, within the Department, of the DoD Mobility program will allow for increased mobile services in direct support of the warfighter and the COCOMs.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency					Date: May 2017
Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 0303126K / <i>Long-Haul Communications - DCS</i>			
B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	36.830	13.994	13.517	-	13.517
Current President's Budget	36.884	13.994	15.428	-	15.428
Total Adjustments	0.054	0.000	1.911	-	1.911
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.054	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	1.911	-	1.911
<u>Change Summary Explanation</u>					
The increase of \$1.911 in FY2018 will fund additional support to meet new operational needs in a more rapid manner and simultaneously take advantage of industry advancements. This will include research and test activities in support of necessary encryption, cybersecurity, redundancy and diversity requirements integrated into the DISN. The effects of this enhancement will include test and evaluate technologies enabling both current and future projected DISN services, networking technologies and architectures to include but not limited to connectivity devices to access points, software defined capabilities and survivability. This also supports test and deploy DISN capabilities into tactical environments.					

UNCLASSIFIED

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 0303126K / Long-Haul Communications - DCS				Project (Number/Name) PC01 / Presidential and National Voice Conferencing/			
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
PC01: Presidential and National Voice Conferencing/	65.571	28.122	3.072	3.195	-	3.195	3.159	3.134	3.148	3.256	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
The Presidential and National Voice Conferencing (PNVC) (formerly called National Emergency Action Decision Network (NEADN)) provides system engineering, development and testing of the equipment for senior leaders. The PNVC system provides a military satellite-based, world-wide, survivable, secure, and near toll-quality voice conferencing capability for the President, Secretary of Defense, Chairman, Joint Chiefs of Staff, and other senior national/military leaders. By implementing new technology capabilities (e.g. Ethernet-Framing and higher data rate), this project provides improved performance to the survivable voice conferencing capability. This project supports the acquisition activities for the PNVC baseband equipment, including engineering required to develop new vocoder, cryptographic and audio-summing equipment.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2016	FY 2017	FY 2018	
Title: Presidential and National Voice Conferencing (PNVC)									28.122	3.072	3.195	
Description: Presidential and National Voice Conferencing (PNVC) Systems Engineering conduct analyses for continuity of NEADN voice conferencing for national/military leaders through PNVC deployment. Program continues engineering, technical analysis, development, and coordination to ensure terminal, baseband, and satellite synchronization for voice conferencing amongst senior leaders.												
FY 2016 Accomplishments:												
Continued to perform integration and testing of the pre-production units for BIG and the Audio Conferencing Equipment at the JITC and Colorado Springs test facilities. These efforts will lead into the initial testing of the production units. Also provided systems engineering and testing support to integrate baseband kits to military aircrafts (Air Force E-4B and Navy E-6B).												
FY 2017 Plans:												
Continue to support PNVC integration and testing and fielding of initial capability and upgrades at PNVC sites. This includes systems engineering and testing support to the various platforms receiving the capability.												
The decrease of -\$25.050 from FY 2016 to FY 2017 is primarily attributed to the one time increase in FY 2016 to complete the airborne variants of the PNVC baseband equipment. The original environmental requirements for the PNVC baseband equipment were changed in FY14 and the original designs were deemed suitable only for ground locations. This necessitated the creation of airborne variants of the baseband equipment to meet the more stringent aircraft requirements of the E-4B and E-6B platforms.												

UNCLASSIFIED

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 0303126K / <i>Long-Haul Communications</i> - DCS			Project (Number/Name) PC01 / <i>Presidential and National Voice Conferencing/</i>					
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2016	FY 2017	FY 2018		
<p>The funding for the Engineering Change Proposals (ECPs) to develop the airborne versions came in two increments: an FY15 reprogramming and in FY16 to complete the development.</p> <p>FY 2018 Plans: Continue to support PNVC integration and testing and fielding of expanded capability and upgrades at PNVC sites. This includes systems engineering and testing support to the various platforms receiving the capability. Fund Engineering change proposals for software as needed to respond to user feedback.</p> <p>The increase of +\$0.123 from FY 2017 to FY 2018 is attributed to increased requirements for engineering support during system testing and changes to software.</p>											
Accomplishments/Planned Programs Subtotals							28.122	3.072	3.195		
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
• Procurement, DW/PE 0303126K: <i>Procurement, Defense-Wide</i>	1.377	1.119	1.261	-	1.261	1.386	1.515	1.546	1.577	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
The audio equipment development activities are incorporated into the sole source DRSN sustainment contract. For the development of the BIG cryptographic device, NSA will perform an assisted acquisition for DISA using a competitively awarded fixed price contract. Engineering support for PNVC is provided by task orders competitively awarded on existing DoD contracts and Federally Funded Research and Development Contracts (FFRDC) support.											
E. Performance Metrics											
PNVC project metrics track the development status of program acquisition documents, as required by the component executive. These documents include: Project Execution Plan, Concept of Operations Acquisition Strategy, Capability Production Document, System Engineering Plan and other documents required by the DISA's Component Acquisition Executive. Additionally, for management and system engineering support vendors, monthly reports are critical to tracking overall programmatic and engineering progress and the percent of total deliverables received on time.											
For product development activities, effective progress is measured based upon the task order milestones in the form of development reviews and weekly progress meetings. As end items (hardware and software) become available for test, additional measures will be available. Specifically, the percentage of successfully verified requirements out of the number tested and the number of critical trouble reports outstanding longer than six months, will be tracked.											

UNCLASSIFIED

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 0303126K / <i>Long-Haul Communications</i> - DCS	Project (Number/Name) PC01 / <i>Presidential and National Voice Conferencing/</i>
<p>Performance Metrics:</p> <p>Project Support Deliverables received on time</p> <p>FY16 (actual result): 100% FY17 (expected result): 100% FY18 (expected result): 100%</p> <p>Product Deliverable Milestones completed on time</p> <p>FY16 (met): 100% FY16 (expected result): 100% FY17 (expected result): 100%</p> <p>Successfully Tested Requirements:</p> <p>FY16: N/A FY17 (expected result): 95% FY18 (expected result): 95%</p> <p>Critical Trouble Reports > 6 months old</p> <p>FY16 (met) 100% FY15 (expected result): ≤ 4 FY16 (expected result): ≤ 4</p>		

UNCLASSIFIED

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 0303126K / Long-Haul Communications - DCS				Project (Number/Name) T82 / DISN Systems Engineering 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
T82: DISN Systems Engineering Support	153.181	8.762	10.922	12.233	-	12.233	11.843	11.817	12.114	12.301	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The DISN Systems Engineering Support project encompasses four activities:

Next Generation Networking Technologies (formally known as Internet Protocol (IP) and Optical Transport Technology Refresh): Provides engineering technical expertise to support and integrate newer, more efficient technologies required to replace end of lifecycle equipment and to achieve more efficient Networking technologies. These new technologies provide protected and assured services for critical support to the warfighter as well as other DoD and federal customers.

Element Management System (EMS): Provides operational and network operating systems that instrument and automate the operations, administration, maintenance and provisioning functions creating a single DISN-wide view for network managers and operators. EMS is a component of the DISN Operational Support Systems (OSS).

Peripheral and Component Design (Secure Voice Switches): This equipment satisfies unique military requirements for multi-level security (i.e., extensive conferencing/ conference management capabilities and features, and gateway functions) that are not available in commercial products.

DoD Mobility: The Mobility Program will lead the development of an Enterprise Solution to support Controlled Unclassified Information (CUI) and leverage commercial carrier infrastructure to provide entry points for both classified and unclassified wireless capabilities. Continued evolution and expansion, within the Department, of the DoD Mobility program will allow for increased mobile services in direct support of the warfighter and the COCOMs.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2016	FY 2017	FY 2018
Title: Next Generation Networking Technologies (formally known as Internet Protocol (IP) and Optical Transport Technology Refresh.	2.899	3.162	5.400
FY 2016 Accomplishments: Purchased and tested commercially available components to replace end of life/obsolete equipment deployed on the DISN. Focus was be on optical and IP routers, switches and Communications Security (COMSEC) equipment. Also continued functionality testing of 100G-capable commercial components with a focus on streamlining the overall DISN architecture profile.			
FY 2017 Plans: The test and evaluation of technologies required to meet the needs of the evolving DISN.			

UNCLASSIFIED

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 0303126K / <i>Long-Haul Communications</i> - DCS		Project (Number/Name) T82 / <i>DISN Systems Engineering Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2016	FY 2017	FY 2018
The decrease of -\$0.227 from FY 2016 to FY 2017 is due to a reduction in technical evaluation activities.					
FY 2018 Plans: The increase +\$2.238 from FY 2017 to FY 2018 will support additional test and evaluation of networking components for efforts such as Automated Provisioning and Software Defined Networking for IP and Optical components.					
Title: DISN OSS FY 2016 Accomplishments: No planned accomplishments. FY 2017 Plans: Will develop web services in support of Information Sharing Services. The increase of +\$0.764 from FY 2016 to FY 2017 is due to an increase in web service development. FY 2018 Plans: No plans required. The decrease of -\$0.764 from FY 2017 to FY 2018 is due to the reduction in web services development requirements for operational and network operating systems within the DISN OSS.			0.000	0.764	0.000
Title: Peripheral and Component Design FY 2016 Accomplishments: Performed integration and testing of the production units of switch IP Media cards (developed in FY12-14) to ensure compatibility with Voice Over Internet Protocol (VoIP)/ Voice Over Secure Internet Protocol (VoSIP) capabilities. Continued Engineering Change Proposal (ECP) effort from FY2015 to modify software to support full capabilities in to improve reliability and performance supporting transition to IP trunking between switches. FY 2017 Plans: Support ECP for upgrades to National Conference Management capabilities to incorporate new software updates and changes driven by user feedback and improve performance. Also fund modifications needed to support line side IP services as part of time Division multiplexing (TDM) elimination efforts. The increase of +\$0.671 from FY 2016 to FY 2017 is due to increased ECP activities and increased contract requirements for ECPs. FY 2018 Plans:			1.694	2.565	2.413

UNCLASSIFIED

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 0303126K / <i>Long-Haul Communications</i> - DCS	Project (Number/Name) T82 / <i>DISN Systems Engineering Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017
Support upgrades to switch software for IA/Cybersecurity improvements and continued integration of IP trunking and IP line-side and gateway functions in evolving system to meet RMF and NC3 requirements.			
The decrease of -\$0.152 from FY 2017 to FY 2018 reflects a decrease in the amount of software development and testing efforts required in FY 2018.			
Title: Mobility		4.169	4.431
FY 2016 Accomplishments: Funds support tech insertion and deployment of two DMCC gateways which will include Top Secret (TS) and Secret capabilities in the remaining CONUS and OCONUS areas requiring gateways to ensure adequate load balancing of mobile device usage on the DoD Mobility Architecture. Will also support evaluation of tech insertion of classified and unclassified data at multiple sites both CONUS and OCONUS. DoD Mobility will evaluate and test the centralized mobility management components for the classified components. Funds will provide support for test and evaluation (T&E) of centralization of the mobile device hardware, software, middleware, and MDM associated capabilities integration efforts. Will provide for T&E of DoD Mobility NIPRNet & SIPRNet Suite insertion efforts to include mobile VPN and authentication, mobile devices, and mobile applications. Will provide for T&E of mobile devices including prototypes for next generation classified devices and additional commercial mobile devices to test their interoperability across the enterprise. Additionally, funds will support T&E of mobile applications to ensure Mobile Applications are verified and validated prior to hosting on the MAS. Will support testing of commercial mobile devices and certification and accreditation approval. Funds will support quarterly testing and evaluation of various mobile initiatives; follow up testing against the Mobile Device Management (MDM); verification and validation testing of devices used against the MDM; and requirements testing to ensure Mobility's requirements have been met. DoD Mobility will continue to evolve detailed Implementation Plans, Concept of Operations and Standard Operating Procedures for DMCC Capabilities.			4.420
FY 2017 Plans: DoD Mobility will continue to evaluate and test the centralized mobility management components for the classified components and support T&E of centralization of the mobile device hardware, software, middleware, and MDM capabilities. T&E of mobile devices includes prototypes for next generation classified devices and assured interoperability for new commercial mobile devices. T&E of mobile applications ensures mobile applications are verified and validated prior to hosting on the MAS. T&E of DoD Mobility NIPRNet & SIPRNet Suite insertion efforts includes mobile VPN and authentication, verification and validation testing of devices used against the MDM, and requirements testing to ensure Mobility's requirements have been met.			
The decrease of -\$4.486 from FY 2016 to FY 2017 is due to planned program reductions as a result of completing pre-fielding for TS and Secret, certification and testing requirements as the DMCC continues to mature. Testing and fielding certification			

UNCLASSIFIED

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 0303126K / Long-Haul Communications - DCS			Project (Number/Name) T82 / DISN Systems Engineering Support				
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2016	FY 2017	FY 2018		
<p>reductions are tied to the fielding of mobile device hardware, software, middleware, and MDM associated capabilities integration efforts.</p> <p>FY 2018 Plans: DoD Mobility will continue to evaluate and test the centralized mobility management components for the top secret capabilities as well as newly deployed mobile device hardware, software, middleware that will be integrated into the existing infrastructure. T&E of next generation prototype devices, assured interoperability and application integration for new commercial mobile devices will continue through the FYDP.</p> <p>The decrease of -\$0.011 from FY 2017 to FY 2018 is due to decreased testing and integration of the DMCC-S proxy server.</p>											
Accomplishments/Planned Programs Subtotals							8.762	10.922	12.233		
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/PE0303126K: <i>Operation & Maintenance, Defense-Wide</i>	61.246	35.685	39.040	-	39.040	37.426	37.522	38.259	-	Continuing	Continuing
• Procurement/PE0303126K: <i>Procurement, Defense-Wide</i>	139.921	99.928	115.194	-	115.194	116.958	117.993	117.993	-	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
<p>Products acquired for EMS requirements are professional services, network management software, supporting hardware, and development tools. Professional services will be procured through existing contracts available to DISA. The DISA Computing Services will be used for hardware and software leased managed services, as well as the NASA enterprise equipment contracting vehicle when necessary and applicable.</p> <p>The Internet Protocol (IP) enabling of the DRSN DSS-2A switch, Secure voice conference management improvements, HEMP Phone and related DRSN components will use an existing Air Force Command and Control Switching Systems (CCSS) Depot Support contract with the Secure Voice Switch systems manufacturer (Raytheon) to perform the development and modification work, system integration and testing support.</p> <p>The Mobility initiative supports systems engineering and development of a DoD Mobility solution. The focus is on acquisitions to support the program across the DoD to include scheduling, delivery approach, and risk management. This also includes the vision and phased approach to unified capabilities for classified and unclassified wireless capabilities to meet DoD needs.</p>											

UNCLASSIFIED

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 0303126K / <i>Long-Haul Communications</i> - DCS	Project (Number/Name) T82 / <i>DISN Systems Engineering Support</i>
<p>Products acquired for EMS requirements are professional services, network management software, supporting hardware, and development tools. Professional services will be procured through existing contracts available to DISA. The DISA Computing Services will be used for hardware and software leased managed services, as well as the NASA enterprise equipment contracting vehicle when necessary and applicable.</p> <p>The Internet Protocol (IP) enabling of the DRSN DSS-2A switch, Secure voice conference management improvements, HEMP Phone and related DRSN components will use an existing Air Force Command and Control Switching Systems (CCSS) Depot Support contract with the Secure Voice Switch systems manufacturer (Raytheon) to perform the development and modification work, system integration and testing support.</p> <p>The Mobility initiative supports systems engineering and development of a DoD Mobility solution. The focus is on acquisitions to support the program across the DoD to include scheduling, delivery approach, and risk management. This also includes the vision and phased approach to unified capabilities for classified and unclassified wireless capabilities to meet DoD needs.</p> <p>E. Performance Metrics</p> <p>Funds support tech insertion and deployment of two DMCC gateways which will include Top Secret (TS) and Secret capabilities in the remaining CONUS and OCONUS areas requiring gateways to ensure adequate load balancing of mobile device usage on the DoD Mobility Architecture. Will also support evaluation of tech insertion of classified and unclassified data at multiple sites both CONUS and OCONUS. DoD Mobility will evaluate and test the centralized mobility management components for the classified components. Funds will provide support for test and evaluation (T&E) of centralization of the mobile device hardware, software, middleware, and MDM associated capabilities integration efforts. Will provide for T&E of DoD Mobility NIPRNet & SIPRNet Suite insertion efforts to include mobile VPN and authentication, mobile devices, and mobile applications. Will provide for T&E of mobile devices including prototypes for next generation classified devices and additional commercial mobile devices to test their interoperability across the enterprise. Additionally, funds will support T&E of mobile applications to ensure mobile applications are verified and validated prior to hosting on the MAS. Will support testing of commercial mobile devices and certification and accreditation approval. Funds will support quarterly testing and evaluation of various Mobile Initiatives; follow up testing against the Mobile Device Management (MDM); verification and validation testing of devices used against the MDM; and requirements testing to ensure Mobility's requirements have been met. DoD Mobility will continue to evolve detailed Implementation Plans, Concept of Operations and Standard Operating Procedures for DMCC Capabilities.</p> <p>FY 2016 (Actual): 100% successful developmental and production testing by the PMO of new-model commercial mobile devices authenticated against the Mobile Device Manager. Successful security, interoperability, and functional evaluation of 85% of mobile applications requested to be approved and made available in the hosted Mobile Application Store. 100% successful integration testing of the enterprise security ecosystem into existing Mobility infrastructure and development and production testing of infrastructure components, including additional gateway instances supporting unclassified, secret, and top secret domains, and Mobile Device Management for the top secret domain, with successful deployment within the DoD Mobility architecture.</p> <p>FY 2017 (Estimated): 100% successful developmental and production testing of new-model commercial mobile devices per product baseline, per carrier, per platform authenticated against the Mobile Device Manager. Successful security, interoperability, and functional evaluation of at least of 85% of mobile applications requested to be approved and available in the hosted Mobile Application Store. 100% successful production testing of the applications development framework and integration testing for infrastructure components, including additional gateway instances supporting secret and top secret domains as well as any COTS component technology refresh requirements against the end-to-end architecture.</p>		

UNCLASSIFIED

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 0303126K / <i>Long-Haul Communications</i> - DCS	Project (Number/Name) T82 / <i>DISN Systems Engineering Support</i>
<p>FY 2018 (Estimated): 100% successful developmental and production testing of new-model commercial mobile devices per product baseline, per carrier, per platform authenticated against the Mobile Device Manager. Successful security, interoperability, and functional evaluation of at least of 85% of mobile applications requested to be approved and available in the hosted Mobile Application Store. 100% successful production testing of the applications development framework and integration testing for infrastructure components, including additional gateway instances supporting secret and top secret domains as well as any COTS component technology refresh requirements against the end-to-end architecture.</p>		

UNCLASSIFIED

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 0303126K / Long-Haul Communications - DCS				Project (Number/Name) T82 / DISN Systems Engineering Support					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering for DSRN Components & Peripherals	Various	Raytheon : Florida	10.035	1.194	Feb 2016	2.565	Feb 2017	0.983	Mar 2018	-		0.983	Continuing	Continuing	Continuing
Systems Engineering for IP Enabling DSS-2A Secure Voice Switch	C/T&M	Raytheon : Florida	21.440	-		-		-		-		-	Continuing	Continuing	Continuing
Engineering &Technical Services for Information Sharing Services for Voice	C/T&M	SAIC : VA	2.774	-		-		-		-		-	Continuing	Continuing	Continuing
Engineering & Technical Services for Network Mgmt Solutions for New DISN Element Technologies	C/T&M	Various : VA	2.026	-		-		-		-		-	Continuing	Continuing	Continuing
Single Sign On	C/T&M	SAIC : Various	1.397	-		-		-		-		-	Continuing	Continuing	Continuing
System Engineering for VoSIP	C/T&M	Various : Various	1.218	-		-		-		-		-	Continuing	Continuing	Continuing
Space Vehicle Upload	SS/CPFF	Iridium : McLean, VA	12.635	-		-		-		-		-	Continuing	Continuing	Continuing
Gateway Improvement	SS/CPFF	Iridium : McLean, VA	13.565	-		-		-		-		-	Continuing	Continuing	Continuing
Field Application Tool	MIPR	NSWC : Dahlgren	6.635	-		-		-		-		-	Continuing	Continuing	Continuing
DTCS Handset	SS/CPFF	Iridium : McLean, VA	5.850	-		-		-		-		-	Continuing	Continuing	Continuing
Command and Control Handset	SS/CPFF	Iridium : McLean, VA	7.275	-		-		-		-		-	Continuing	Continuing	Continuing
Alt. Supplier Development	MIPR	NSWC : Dahlgren, VA	3.450	-		-		-		-		-	Continuing	Continuing	Continuing
Radio Only Interface	MIPR	NSWC : Dahlgren, VA	2.525	-		-		-		-		-	Continuing	Continuing	Continuing
Remote Control Unit	SS/CPFF	Iridium : McLean, VA	2.100	-		-		-		-		-	Continuing	Continuing	Continuing
Type 1 Security	SS/CPFF	Iridium : McLean, VA	6.455	-		-		-		-		-	Continuing	Continuing	Continuing
Vehicle Integration	MIPR	NSWC : Dahlgren, VA	3.185	-		-		-		-		-	Continuing	Continuing	Continuing

UNCLASSIFIED

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 0303126K / Long-Haul Communications - DCS				Project (Number/Name) T82 / DISN Systems Engineering Support					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering for IP and Optical Technology Refresh	Various	DITCO : Various	8.717	-		-		-		-		-	Continuing	Continuing	-
Engineering & Technical Services for Web Based Mediation	C/T&M	Apptis : VA	1.168	-		-		-		-		-	-	-	-
System Engineering and Technical Services for ISOM	Various	DITCO : Various	2.915	-		-		-		-		-	-	-	-
Serialized Asset Management - OSS	C/T&M	SAIC : VA	0.822	-		-		-		-		-	-	-	-
Gateways - Mobility	TBD	TBD : TBD	7.107	-		-		-		-		-	-	-	-
Thin Client Solution - Mobility	TBD	TBD : TBD	1.550	0.604		-		-		-		-	-	-	-
New Field Communications	C/FFP	TBD : TBD	0.550	-		-		-		-		-	-	-	-
National Conference Management	MIPR	USAF : Ratheon	4.514	-		-		-		-		-	-	-	-
IP Enable DRSN	MIPR	USAF : Ratheon	1.562	-		-		1.408	Feb 2018	-		1.408	-	-	-
HEMP Phone Development	TBD	Raytheon : TBD	0.869	-		-		-		-		-	-	-	-
100G Optical	TBD	TBD : TBD	0.337	-		-		-		-		-	-	-	-
Defense Production Act III Optical Networking	TBD	TBD : TBD	-	2.666		-		-		-		-	Continuing	Continuing	-
DoD Mobility Capability Service Assurance	C/FFP	TBD : TBD	1.416	0.900		-		-		-		-	-	-	-
TBD	TBD	TBD : TBD	-	-		-		-		-		-	Continuing	Continuing	-
TBD	TBD	*** PERFORMING ACTIVITY *** : *** LOCATION ***	-	-		-		2.420	Feb 2018	-		2.420	Continuing	Continuing	-
System Engineering Support DMCC/DMUC	C/FFP	JHU-APL : NAVSEA	-	-		-		-		-		-	Continuing	Continuing	-

UNCLASSIFIED

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 0303126K / Long-Haul Communications - DCS				Project (Number/Name) T82 / DISN Systems Engineering Support					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering Support DMCC/DMUC	C/FFP	BAH : TBD	-	-		-		2.000	Feb 2018	-		2.000	Continuing	Continuing	-
Subtotal			134.092	5.364		2.565		6.811		-		6.811	-	-	-
Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
IT Support - Mobility	C/FFP	Arieds, LLC : Ft. Meade	2.300	-		-		-		-		-	-	-	-
NS2 SE Support - Mobility	C/FFP	APPTIS : Ft. Meade	0.311	-		-		-		-		-	-	-	-
IT Support - Mobility	Various	TBD : TBD	3.000	-		-		-		-		-	-	-	-
Subtotal			5.611	-		-		-		-		-	-	-	-
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Certification Testing	Various	JITC : Various	5.554	1.095	Oct 2015	1.593	Oct 2016	-		-		-	Continuing	Continuing	Continuing
Test & Evaluation Support - Mobility	Various	JITC : Ft. Meade	3.710	1.300	Oct 2015	0.897	Oct 2016	-		-		-	-	-	-
Integration, Test ann Modification - Mobility	Various	TBD : TBD	4.214	1.003	Nov 2015	1.941	Nov 2016	-		-		-	-	-	-
Tech Refresh/Functionality Testing	MIPR	Multiple : Various	-	-		-		-		-		-	Continuing	Continuing	Continuing
Tech Refresh/Functionality Testing	MIPR	Naval Observatory : MA	-	-		-		-		-		-	-	-	Continuing
OSS/Functionality-Configuration	MIPR	Multiple : Various	-	-		-		-		-		-	Continuing	Continuing	Continuing
DISN Tech Refresh	TBD	TBD : TBD	-	-		3.926	Jan 2017	0.000		-		0.000	-	-	-

UNCLASSIFIED

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 0303126K / Long-Haul Communications - DCS				Project (Number/Name) T82 / DISN Systems Engineering Support				

Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Various	TBD	TBD : TBD	-	-		-		5.422	Jan 2018	-		5.422	Continuing	Continuing	-
Subtotal			13.478	3.398		8.357		5.422		-		5.422	-	-	-

	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	153.181	8.762		10.922		12.233		-		12.233	-	-	-

Remarks

UNCLASSIFIED

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 0303126K / Long-Haul Communications - DCS					Project (Number/Name) T82 / DISN Systems Engineering Support			

	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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
DRSN																												
DRSN																												
OSS																												
OSS																												
Technology Refresh																												
Technology Refresh																												
DISN Tech Refresh																												
Mobility																												
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)																												
DoD Mobility Gateways - Architecture Support																												
NIPR Enclave (MDM, MAS)																												
SIPR Enclave (MDM, MAS)																												
TS Enclave (MDM, MAS)																												
MDM & MAS Operational Testing																												

	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	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
DRSN																												
DRSN																												
OSS																												
OSS																												
Technology Refresh																												
Technology Refresh																												

UNCLASSIFIED

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 0303126K / Long-Haul Communications - DCS								Project (Number/Name) T82 / DISN Systems Engineering Support																			
										FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
										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
DISN Tech Refresh																																					
Mobility																																					
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)																																					
DoD Mobility Gateways - Architecture Support																																					
NIPR Enclave (MDM, MAS)																																					
SIPR Enclave (MDM, MAS)																																					
TS Enclave (MDM, MAS)																																					
MDM & MAS Operational Testing																																					

UNCLASSIFIED

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 0303126K / <i>Long-Haul Communications</i> - DCS	Project (Number/Name) T82 / <i>DISN Systems Engineering Support</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
DRSN				
DRSN	1	2015	4	2021
OSS				
OSS	1	2015	4	2016
Technology Refresh				
Technology Refresh	1	2015	4	2021
DISN Tech Refresh	1	2017	4	2022
Mobility				
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)	1	2015	4	2017
DoD Mobility Gateways - Architecture Support	1	2015	4	2022
NIPR Enclave (MDM, MAS)	1	2015	4	2017
SIPR Enclave (MDM, MAS)	1	2016	4	2018
TS Enclave (MDM, MAS)	1	2016	4	2020
MDM & MAS Operational Testing	1	2015	4	2022