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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency **Date:** February 2016

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0303126K / <i>Long-Haul Communications - DCS</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	192.543	26.209	36.830	13.994	-	13.994	14.873	14.354	14.483	14.770	Continuing	Continuing
PC01: <i>Presidential and National Voice Conferencing/</i>	53.395	12.176	22.630	3.072	-	3.072	3.277	3.279	3.277	3.276	Continuing	Continuing
T82: <i>DISN Systems Engineering Support</i>	139.148	14.033	14.200	10.922	-	10.922	11.596	11.075	11.206	11.494	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 Internet Protocol 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; other activities in support of the DRSN communications capabilities.

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.

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B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	25.325	36.883	15.221	-	15.221
Current President's Budget	26.209	36.830	13.994	-	13.994
Total Adjustments	0.884	-0.053	-1.227	-	-1.227
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-0.053			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	0.884	-	-1.227	-	-1.227

Change Summary Explanation

The increase of \$0.884 in FY 2015 is due to increased testing and evaluation activities for DoD Mobility NIPRNet Suite insertion efforts.

The decrease of -\$0.053 in FY 2016 is the result of SIPRNet Access Migration (SAM).#

The decrease of -\$1.227 in FY 2017 is due to updated cost projections for certification and integration testing support for Mobility Mobile Device Manager (MDM) efforts.

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency										Date: February 2016		
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
PC01: <i>Presidential and National Voice Conferencing/</i>	53.395	12.176	22.630	3.072	-	3.072	3.277	3.279	3.277	3.276	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 2015	FY 2016	FY 2017
Title: Presidential and National Voice Conferencing (PNVC)	12.176	22.630	3.072
<p>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.</p> <p>FY 2015 Accomplishments: Continued activities to realize successful completion of audio conferencing equipment, Baseband Interface Group (BIG), and baseband kits component development. Initial PNVC Engineering Develop Models (EDMs) and DISA funded pre-production units were tested at various facilities by different organizations. The Joint Interoperability Test Command (JITC) in Ft. Huachuca, AZ secure voice test facility was used to test the audio baseband equipment with the DRSN Switch, and also to test the baseband kits. An Air Force Satellite Communications (SATCOM) testing facility in Colorado Springs, CO was used for air testing. NSA conducted testing of the BIG for cryptologic functions, and testing was completed at JITC in Ft. Huachuca, AZ for interoperability with the rest of the baseband audio equipment.</p> <p>FY 2016 Plans: Continue 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. Will also provide systems engineering and testing support to integrate baseband kits to military aircrafts (Air Force E-4B and Navy E-6B).</p>			

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

	FY 2015	FY 2016	FY 2017
<p>The increase of \$10.454 from FY 2015 to FY 2016 is due to development of airborne variants of the PNVC baseband equipment for Air Force and Navy platforms. New versions of the Multi-stream Summing Device and the Baseband Interface Group are being developed to meet airborne environmental requirements.</p> <p>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.</p> <p>The decrease of -\$19.558 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. 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>			
Accomplishments/Planned Programs Subtotals	12.176	22.630	3.072

C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• Procurement, DW/PE 0303126K: <i>Procurement, Defense-Wide</i>	2.301	1.377	1.119	-	1.119	1.261	1.386	1.515	1.546	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.

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<p>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.</p> <p>Performance Metrics:</p> <p>Project Support Deliverables received on time</p> <p>FY14 (actual result): 100% FY15 (expected result): 100% FY16 (expected result): 100%</p> <p>Product Deliverable Milestones completed on time</p> <p>FY14 (actual result): 100% FY15 (expected result): 100% FY16 (expected result): 100%</p> <p>Successfully Tested Requirements:</p> <p>FY14 (actual result): N/a FY15 (expected result): 95% FY16 (expected result): 95%</p> <p>Critical Trouble Reports > 6 months old</p> <p>FY14 (actual result): N/a FY15 (expected result): ≤ 4 FY16 (expected result): ≤ 4</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency **Date:** February 2016

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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BIG Development Preparation	MIPR	NSA : Various	19.975	6.000	Feb 2015	-		-		-		-	Continuing	Continuing	N/A
MSD-III Development	C/T&M	Raytheon : Largo, FL	11.479	-		-		-		-		-	Continuing	Continuing	N/A
PNVC Baseband Equipment	TBD	Various : Various	3.200	3.017	Apr 2015	-		-		-		-	Continuing	Continuing	N/A
Systems Engineering	FFRDC	Mitre : McLean, VA	0.423	-		-		-		-		-	Continuing	Continuing	N/A
PNVC Baseband Airborne variant ECP	C/CPFF	Raytheon : Largo, FL	11.880	-		20.396	Nov 2015	-		-		-	Continuing	Continuing	N/A
Systems Engineering	C/CPFF	Booz, Allen, Hamilton : McLean, VA	1.200	-		-		-		-		-	0	1.200	1.200
Subtotal			48.157	9.017		20.396		-		-		-	-	-	-

Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Systems Engineering	C/CPFF	Booz Allen Hamilton : McLean, VA	2.039	2.334	Jan 2015	1.034	Nov 2015	1.109	Nov 2016	-		1.109	Continuing	Continuing	N/A
Systems Engineering	FFRDC	Mitre : McLean, VA	0.450	0.450	Jan 2015	0.450	Nov 2015	0.450	Nov 2016	-		0.450	Continuing	Continuing	N/A
Subtotal			2.489	2.784		1.484		1.559		-		1.559	-	-	-

Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Certification Testing	MIPR	Various : Various	1.624	-		-		0.763	Feb 2017	-		0.763	Continuing	Continuing	Continuing
Subtotal			1.624	-		-		0.763		-		0.763	-	-	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
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	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
<i>PNVC/DRSN Specification Development</i>																												
Baseband Enclosure																												
<i>PNVC/DRSN Interface Equip Dev</i>																												
Conference Mgt Software																												
<i>PNVC System Testing</i>																												
PNVC System																												
<i>N/A</i>																												
PNVC System Engineering and Management Support																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>PNVC/DRSN Specification Development</i>				
Baseband Enclosure	2	2015	2	2016
<i>PNVC/DRSN Interface Equip Dev</i>				
Conference Mgt Software	3	2015	4	2016
<i>PNVC System Testing</i>				
PNVC System	1	2015	4	2019
<i>N/A</i>				
PNVC System Engineering and Management Support	1	2017	2	2021

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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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
T82: DISN Systems Engineering Support	139.148	14.033	14.200	10.922	-	10.922	11.596	11.075	11.206	11.494	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The DISN Systems Engineering Support project encompasses four activities:

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 IP and optical technologies. These new technologies provide protected and assured services for mobility and 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 2015	FY 2016	FY 2017
Title: IP & Optical Transport (a component of Tech Refresh)	0.000	3.389	3.162
FY 2015 Accomplishments: No planned accomplishment.			
FY 2016 Plans: Purchase and test commercially available components to replace end of life/obsolete equipment deployed on the DISN. Focus will be on optical and IP routers, switches and Communications Security (COMSEC) equipment. Will also continue functionality testing of 100G-capable commercial components with a focus on streamlining the overall DISN architecture profile.			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2015	FY 2016	FY 2017
The increase of +\$3.389 from FY 2015 to FY 2016 results from increased requirements to evaluate Optical Network Solutions. FY 2017 Plans: The test and evaluation of technologies required to meet the needs of the evolving DISN. The decrease of -\$0.227 from FY 2016 to FY 2017 is due to a reduction in technical evaluation activities.				
Title: DISN OSS FY 2015 Accomplishments: No planned accomplishment. FY 2016 Plans: No planned accomplishment. 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.		0.000	0.000	0.764
Title: Peripheral and Component Design FY 2015 Accomplishments: Continued to support regular design and development of upgrades and replacements for various components of Defense Red Switch Network (DRSN) Multi-Level Secure Voice Systems to deal with changing user requirements and technology end of life issues for components and peripherals. One switch circuit card and one peripheral were addressed in FY 2015. FY 2016 Plans: Perform 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. Continue 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. The increase of +\$0.603 from FY 2015 to FY 2016 is due to integration and testing of IP Media cards. 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.		1.291	1.894	2.565

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
The increase of +\$0.671 from FY 2016 to FY 2017 is due to increased ECP activities and increased contract requirements for ECPs.			
<p>Title: Mobility</p> <p>FY 2015 Accomplishments: DoD Mobility efforts included tech insertion and deployment of two Device Mobile Classified Capability (DMCC) gateways OCONUS which included Top Secret (TS) and Secret capabilities in the Pacific and Southwest Asia. In addition, tech insertion of TS data at two CONUS sites, St. Louis, MO and San Antonio, TX were completed. DoD Mobility evaluated and tested the centralized mobility management components for the Classified Components. Efforts to be tested and evaluated included centralization of the mobile device hardware, software, and middleware, and the Mobile Device Management (MDM) capabilities integration efforts realizing efficiencies across the DoD Mobile Enterprise. Testing and Evaluation of DoD Mobility NIPRNet Suite insertion efforts included mobile VPN and authentication, mobile devices and mobile applications. Testing and Evaluation of mobile devices included prototypes for next generation classified devices and additional commercial mobile devices to test their interoperability across the enterprise. Additionally, mobile applications were tested and evaluated after purchase to ensure mobile applications are verified and validated prior to hosting on the Enterprise Mobile Application Store (MAS).</p> <p>FY 2016 Plans: 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>	12.742	8.917	4.431

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<p>The decrease of -\$3.825 from FY 2015 to FY 2016 represents the planned program reduction attributed to decreased gateway/thin client, service certification assurance requirements, and testing requirements as the DoD Mobility Unclassified Capability (DMUC) continues to mature post Initial Operating Capability (IOC).</p> <p>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.</p> <p>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 reductions are tied to the fielding of mobile device hardware, software, middleware, and MDM associated capabilities integration efforts.</p>			
Accomplishments/Planned Programs Subtotals	14.033	14.200	10.922

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• O&M/PE0303126K: <i>Operation & Maintenance, Defense-Wide</i>	56.055	61.246	35.685	-	35.685	39.040	37.426	37.522	38.259	Continuing	Continuing
• Procurement/PE0303126K: <i>Procurement, Defense-Wide</i>	72.429	139.921	99.928	-	99.928	115.194	116.958	117.993	117.993	Continuing	Continuing

Remarks

D. Acquisition Strategy

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.

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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.

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.

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.

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.

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.

E. Performance Metrics

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.

FY 2015 (Actual): 100% successful test of new mobile devices authenticated against the Mobile Device Management, as well as, all mobile applications that are approved and available for hosting in the Mobile Application Store and interoperable across the DoD Mobility architecture. 100% successful test of technology insertion and infrastructure components with successful deployment within the DoD Mobility Architecture.

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303126K / <i>Long-Haul Communications - DCS</i>	Project (Number/Name) T82 / <i>DISN Systems Engineering Support</i>
<p>FY 2016 (Estimated): 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>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency												Date: February 2016			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
0400 / 7				PE 0303126K / Long-Haul Communications - DCS				T82 / DISN Systems Engineering Support							
Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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	8.744	1.291	Mar 2015	1.894	Feb 2016	2.565	Feb 2017	-		2.565	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

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency **Date:** February 2016

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
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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
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	3.529	3.578	Jan 2015	-		-		-		-	-	-	-
Thin Client Solution - Mobility	TBD	TBD : TBD	1.300	0.250	Nov 2014	0.804		-		-		-	-	-	-
New Field Communications	C/FFP	TBD : TBD	0.550	0.000	Jan 2015	-		-		-		-	-	-	-
National Conference Management	MIPR	USAF : Ratheon	4.514	-		-		-		-		-	-	-	-
IP Enable DRSN	MIPR	USAF : Ratheon	1.562	-		-		-		-		-	-	-	-
HEMP Phone Development	TBD	Raytheon : TBD	0.869	-		-		-		-		-	-	-	-
100G Optical	TBD	TBD : TBD	0.337	-		-		-		-		-	-	-	-
Defense Production Act III Optical Networking	TBD	TBD : TBD	-	-		3.442		-		-		-	-	-	-
DoD Mobility Capability Service Assurance	C/FFP	TBD : TBD	-	1.416	Jan 2015	1.265		-		-		-	-	-	-
Subtotal			127.557	6.535		7.405		2.565		-		2.565	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency **Date:** February 2016

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
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Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
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	0.000	Jan 2015	-		-		-		-	-	-	-
Subtotal			5.611	0.000		-		-		-		-	-	-	-

Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Certification Testing	Various	JITC : Various	2.450	3.104		2.265	Oct 2015	1.593	Oct 2016	-		1.593	Continuing	Continuing	Continuing
Test & Evaluation Support - Mobility	Various	JITC : Ft. Meade	1.530	2.180	Oct 2014	1.932	Oct 2015	0.897	Oct 2016	-		0.897	-	-	-
Integration, Test ann Modification - Mobility	Various	TBD : TBD	2.000	2.214	Nov 2014	2.598	Nov 2015	1.941	Nov 2016	-		1.941	-	-	-
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	-		3.926	-	-	-
Subtotal			5.980	7.498		6.795		8.357		-		8.357	-	-	-

Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			-	-		-		-		-		-	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency								Date: February 2016					
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					
	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	139.148	14.033		14.200		10.922		-		10.922	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
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 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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																												
Unclassified Pilot -Phase1 Spiral 3 (1500 deployed devices)																												
Unclassified Pilot -Phase 2 (5000 deployed devices)																												
DoD Mobility Lab (Mirrors Operational Capability)																												
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)																												
CONUS Gateway Deployment																												
Operational Capability: DoD Mobility Gateways																												
OCONUS Gateway Deployment																												
Operational Capability: NIPR Enclave (MDM, MAS) (50,000 Deployed Devices Capability)																												
MDM Deployment for up to 50,000 users																												
MAS Deployment for up to 50,000 users																												
Operational Capability: SIPR Enclave (MDM, MAS) End State 5,000 Deployed Devices																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency **Date:** February 2016

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>
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	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
MDM Deployment for up to 5,000 users																												
MAS Deployment for up to 5,000 users																												
Operational Capability: TS Enclave (MDM, MAS) (End State: 1,000 Deployed Devices)																												
MDM Deployment for up to 1,000 users																												
MAS Deployment for up to 1,000 users																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
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

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	2017
Mobility				
Unclassified Pilot -Phase1 Spiral 3 (1500 deployed devices)	1	2015	4	2016
Unclassified Pilot -Phase 2 (5000 deployed devices)	2	2015	4	2016
DoD Mobility Lab (Mirrors Operational Capability)	1	2015	4	2016
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)	1	2015	4	2016
CONUS Gateway Deployment	1	2015	4	2016
Operational Capability: DoD Mobility Gateways	1	2015	4	2016
OCONUS Gateway Deployment	1	2015	4	2016
Operational Capability: NIPR Enclave (MDM, MAS) (50,000 Deployed Devices Capability)	1	2015	4	2016
MDM Deployment for up to 50,000 users	1	2015	1	2016
MAS Deployment for up to 50,000 users	1	2015	4	2016
Operational Capability: SIPR Enclave (MDM, MAS) End State 5,000 Deployed Devices	1	2015	4	2016
MDM Deployment for up to 5,000 users	1	2015	4	2016
MAS Deployment for up to 5,000 users	1	2015	4	2016

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency **Date:** February 2016

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>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Operational Capability: TS Enclave (MDM, MAS) (End State: 1,000 Deployed Devices)	1	2015	4	2016
MDM Deployment for up to 1,000 users	1	2015	4	2016
MAS Deployment for up to 1,000 users	1	2015	4	2016

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