Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Army											Date: February 2016	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*							
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	-	82.957	99.242	89.716	-	89.716	101.538	102.831	104.105	107.950	Continuing	Continuing
DY3: *NIE Test & Evaluation*	-	4.440	12.215	65.844	-	65.844	67.311	67.899	68.478	71.719	Continuing	Continuing
DY4: *Network Integration Support*	-	16.382	14.131	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	30.513
DY5: *Production/Field Coordination for Capability Sets*	-	2.802	4.601	3.960	-	3.960	4.099	4.194	4.286	4.374	Continuing	Continuing
DY6: *Brigade and Platform Integration Support*	-	33.629	45.504	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	79.133
DY7: *Army Systems Engineering, Architecture & Analysis*	-	16.988	16.416	14.166	-	14.166	24.176	24.651	25.123	25.505	Continuing	Continuing
DZ6: *Army Integration Management & Coordination*	-	8.716	6.375	5.746	-	5.746	5.952	6.087	6.218	6.352	Continuing	Continuing

A. Mission Description and Budget Item Justification

The FY 2017 funding supports the Army conducting Network Integration Evaluation (NIE) and Army Warfighting Assessment (AWA) events, System of Systems Engineering and Architecture , Common Operating Environment (COE), Cyber Focal, Capability Set Synchronized Fielding, Integration and Management support. The specific evaluation requirements will support Mission Command Network 2020 and Force 2025 objectives and planned Focused End States.

Project DY3; NIE Test & Evaluation, in FY 2017, provides for the planning and conduct of detailed experiments (NIE and AWAs), tests and evaluation of potential Network, Software and Hardware systems for procurement and integration into the Army's Warfighter system. It includes all test support activities such as Blade time for Helicopters, Satellite time for the network, medical evacuation, and protection for the soldier.

Project DY4; Network Integration Support, in FY 2017 the mission requirements and the funding to support those requirements have been moved to DY3; NIE Test & Evaluation to increase transparency.

Project DY5; Production/Fielding Coordination for Capability Sets, in FY 2017, provides for the development and coordination of Programs to produce, integrate, and field the NIE evaluated Brigade improvements to the Brigade Combat Teams (BCTs). This effort does not fund the production, or integration, or fielding of the Capability Sets, but it does fund the coordination of requirements and integration along with scheduling of all activities for the Army through the supporting Program Executive Offices (PEOs), Program Managers (PMs) and Research, Development and Engineering Centers (RDECs).

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Army	Date: February 2016
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604798A *I Brigade Analysis, Integration and Evaluation*

Project DY6; Brigade and Platform Integration Support, in FY 2017 the mission requirements and the funding to support those requirements have been moved to DY3; NIE Test & Evaluation to increase transparency.

Project DY7; Army System Engineering, Architecture & Analysis, in FY 2017, provides System of System (SOS) engineering and analysis, Basis of Issue Plans (BOIP), and designs that feed planned Capability Sets and NIE plans. These efforts support Army Modernization Processes, the Common Operating Environment (COE), and Cyber planning and implementation.

Project DZ6; Army Integration Management & Coordination, in FY 2017, provides for all "shared" functions (Human resources, Budget development and executions, Acquisition, Operations, Program Coordination, Facilities management) and headquarters functions that supports the technical aspects of the Network integration, Platform integration, Brigade Integration and the Production Integration and coordination and synchronized fielding teams.

Execution of the above projects is in accordance with the Army Acquisition Executive's NIE and CS Business Execution Ground Rules dated August, 1, 2012

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	85.246	99.242	122.407	-	122.407
Current President's Budget	82.957	99.242	89.716	-	89.716
Total Adjustments	-2.289	0.000	-32.691	-	-32.691
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.289	-			
• Adjustments to Budget Years	-	-	-32.691	-	-32.691

Change Summary Explanation

The Army has determined the funding for this Program Element should remain at approximately $100M. The adjustment to FY 2017 aligns the funding requirements to execute two events (NIE & AWA).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY3 / *NIE Test & Evaluation*	

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
DY3: *NIE Test & Evaluation*	-	4.440	12.215	65.844	-	65.844	67.311	67.899	68.478	71.719	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project DY3; Network Integration Evaluation Test & Evaluation, in FY 2017 provides for synchronizing, integrating and managing System of Systems network capabilities evaluations in both a laboratory and operational Brigade Combat Team environments to assess network improvements, interoperability and operational readiness to inform Army Capability Set Fielding decisions. In FY17, the .2 NIE will focus on integrated assessments of Program of Record capabilities for Capability Set (CS) synchronized fielding of Network systems, whereas the .1 NIE/Army Warfighter Assessment (AWA) will focus on Force 2025 concepts, interoperability & Army Warfighting Challenges, and emerging capabilities. During the .1 NIE/AWA these funds only support integrated network requirements. These funds also support the four major efforts associated with integration; (1) Integration Planning: planning and coordination with all stakeholders to resource personnel, services, support, equipment, products, and other deliverables needed for platform integration; (2) Preparation: developing engineering design packages and network data products, procuring equipment and materials, performing installation and checkout, and validating the network; (3) Execution: technical support during soldier-led phases of the event, including test execution, (4) Close-out: Recovering platforms, de-installing equipment, returning platforms to their original configurations, updating documentation, and reporting. These funds provide Subject Matter Expertise to plan, coordinate, integrate and execute the risk reduction for the full System of Systems network/architecture designs in the NIE and AWA in controlled environments to minimize integration, configuration and interoperability risk in the events, execute diverse and independent portfolio of Network System of Systems performance analyses involving multiple-Program Executive Office (PEO) systems (Command, Control and Communications – Tactical (C3T), Intelligence and Electronic Warfare & Sensors (IEW&S), Soldier, Ground Combat Systems (GCS), Simulation, Training, and Instrumentation (STRI)) and their cross- PEO integration which enables key acquisition-level decisions, Mission Command Network (MCN) and Capability Portfolio Reviews (CPRs). It also enables capability set (CS) architecture product Courses of Action (COAs) development and validation and provides Army Acquisition Executives (AAEs) and Office of the Secretary of Defense (OSD) with independent evaluations of PEO/PM solutions and services, as the advanced collaboration and coordination with platforms and network system Product/Project/Program Managers (PMs) to ensure Capability Set (CS) fielding platform integration design decisions are based on CS Reference Architecture products for CS16-22 to be evaluated in Network Integration Evaluation (NIE) events.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: NIE Test and Evaluation Costs	2.708	7.451	-
Description: These funds provide for planning and conducting detailed experiments, tests and evaluations of potential Network, Software and Hardware systems for procurement and integration into the Army's Warfighter system.			
FY 2015 Accomplishments: For baselining events, completed test planning, coordination of requirements, assets planning, range planning, and soldier planning. Conducted test planning and management which included coordination of requirements with Army Evaluation Command (AEC), Operational Test Center (OTC), White Sands Missile Range (WSMR). This coordination included development and			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
procurement of modeling and simulation tools, instrumentation for data collection, facilities required to store and maintain equipment, facilities required to integrate capabilities, other test equipment, and REDFORCE systems. Conducted safety and operational assessments, data collection, data analysis and report development. Conducted experimentation, tests, and evaluation by coordinating and procuring range resources to include range time, range personnel, test engineering support, operators and subject matter experts on systems under evaluation. Included costs of management of the test/experiment and support all experiments and tests. Includes costs for distributed networking capability (i.e. Defense Research Engineering (DREN), I/ O Range, circuits, etc.) and other electronic infrastructure data transfer media between Aberdeen Proving Grounds (APG), Electronic Proving Grounds (EPG), FT Bliss and White Sands Missile Range. Conduct coordination with AEC on the development of System Evaluation Plans (SEP) and Operational Milestone Assessment Reports (OMAR) and maintain all data bases of evaluation analysis. Conduct Red/Blue Force Team Cyber assessments in the lab and in the field. ***FY 2016 Plans:*** Complete test planning, coordination of requirements, assets planning, range planning, and soldier planning. Conduct test planning and management which includes, conduct coordination of requirements with Army Evaluation Center (AEC), Operational Test Command (OTC), White Sands Missile Range (WSMR). This coordination includes development and procurement of modeling and simulation tools, instrumentation for data collection, facilities required to store and maintain equipment, facilities required to integrate capabilities, other test equipment, and REDFORCE systems. Conduct safety and operational assessments, data collection, data analysis and report development. Conduct experimentation, tests, and evaluation by coordinating and procuring range resources to include range time, range personnel, test engineering support, operators and subject matter experts on systems under evaluation. Includes costs of management of the test/experiment and support all experiments and tests. Includes costs for distributed networking capability (i.e. Defense Research Engineering (DREN), I/O Range, circuits, etc.) and other electronic infrastructure data transfer medias between Aberdeen Proving Ground (APG), Electronic Proving Ground (EPG), FT Bliss and White Sands Missile Range. Conduct coordination with AEC on the development of System Evaluation Plans (SEP) and Operational Milestone Assessment Reports (OMAR) and maintain all data bases of evaluation analysis. Conduct Red/Blue Force Team Cyber assessments in the lab and in the field.			
Title: Other Support Cost ***Description:*** Other Support Cost required for NIE Event. ***FY 2015 Accomplishments:*** Procured and managed satellite time, POL, security support, facilities, MEDEVAC support, blade time for helicopters, and others services, equipment and maintenance of facilities to ensure a successful evaluation/test. ***FY 2016 Plans:***	1.732	4.764	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Procure and manage satellite time, POL, security support, facilities, MEDEVAC support, blade time for helicopters, and others services, equipment and maintenance of facilities to ensure a successful evaluation/test.			
Title: Integrated Evaluations	-	-	64.959
Description: These funds provide for integration of network solutions onto Soldier and vehicle systems to enable operational evaluations and assessments of integrated networks established across the battlespace of a Brigade Combat Team. Network Integration Evaluations (NIEs) focus on operational evaluations of network Programs of Record; Army Warfighting Assessments (AWAs) provide the venue for operational assessments of advanced networked concepts and technologies. It supports all Capability Package Directorate (CPD) activities associated with integrating systems and ancillary equipment onto the tactical platforms associated with a Brigade Combat Team (BCT). The FY17 effort funds Government activities in Army Warfighting Assessment (AWA) 17.1, Network Integration Evaluation (NIE) 17.2, and AWA 18.1. These funds also support early integration planning activities for NIE 18.2. ***FY 2017 Plans:*** These funds provide for: - AWA 17.1 close-out. This support consists of: performing detailed analysis of up to 2000 SIF trouble tickets to identify System, and/or System of Systems, trends that manifested themselves during any given phase of the AWA, and publishing a formal report. - NIE 17.2 and AWA 18.1 planning and preparation. Support listed here is common to both events, unless otherwise noted, and will consist of: - For each event, providing technical input on platform Size Weight and Power (SWAP) constraints or restrictions that must be considered for placement of candidate systems in the Horse Blanket; participation in Bull Pen sessions to; finalize candidate system parameters and characteristics needed for platform/system engineering designs; verify accreditation status for all network systems; identify supporting hardware and software requirements; and finalize delivery schedules for the respective events; conduct planning and coordination for Tier 1 Integrated Master Schedule (IMS), as well as development of lower tier schedules for integration; complete the development of Engineering Design packages (drawings, diagrams, manuals) and Bills of Materials (BOMs) for integrating system A/B Kits on up to 250 tactical platforms, (This includes development of up to 50 Prototype (Golden) Vehicles (GV) and for NIE 17.2 only, engineering design packages also include instrumentation needed for System-Under-Test data collection); complete the development of Network Engineering designs, plans, and schedules for integrating and configuring on up to 3000 C4ISR systems, to include baseline and legacy systems, enabling these systems to join and operate on the network; complete the implementation of Configuration Management (CM) for up to 250 Tactical Platform architectural implementations, engineering designs, A-Kits, B-Kits, and the Integrated Master Schedules; procure up to 20,000 materials,			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
fasteners, cables, components, and other items needed for installing NIE/AWA systems on up to 250 tactical platforms; fabricate of up to 1,000 special cables and up to 1,000 metal plates, racks, and brackets, needed for system installation on up to 250 platforms; coordinate hardware and software system deliveries to the Integration Motor Pool (IMP) at Fort Bliss, TX; provide access control and badging for IMP and field operations for up to 5000 personnel; conduct planning and Coordination with BMC for developing and issuing Operational Orders (OPORDS), Fragmentary Orders (FRAGOS), and other directives, for 2/1 AD, and other Unit, support. - For NIE17.2 only, coordination with CS design teams for CS-19 equipment baseline implementation: To ensure equipment and network interface designs support the CS-19 architecture, CS-19 training support requirement, to establish the methods to be followed for informing the CS design teams on CS-19 issues and/or trends, to address Integrated Logistics System (ILS) requirements, and capture Lessons Learned in the form of After Action Reviews, Technical Reports, and Feedback on CS-19 systemic issues encountered during Integration, conduct field Based Risk Reduction testing for up to 4 complex platform builds, and preparation of up to 50 integrated platforms (25 for AWA 18.1) for safety release testing. - IMP operations for each event, including; Administrative support for up to 600 Program Managers (PMs), Original Equipment Manufacturers (OEMs), and Field Service Representatives (FSRs) Office space, Internet access, conferencing, etc., managing and coordinating technical support, during GV design, and during GV/Fleet Build for up to 500 FSRs and OEMs, packaging and shipping up to 200 packages of components and equipment and receiving up to 4000 packages of equipment, components and materials, warehousing up to 2,000 pieces of equipment and up to 20,000 components and materials, supporting inspection teams for up to 250 tactical platforms delivered for subsequent integration, managing up to 250 Tactical Platforms, including movement into IMP High Bays, security for the IMP and for technical field support bases, enforce safety standards, conduct hazardous waste management, support installation teams for up to 250 tactical platforms, conduct System of System Checkouts on over 400 platforms, to verify all installed systems and equipment interoperate with each other, as well as with legacy C4ISR/Vehicular Systems, conduct QA/QC checkouts for up to 250 integrated platforms. - For each event, coordinate New Equipment Training (NET) Quality Control and Scheduling, provide troubleshooting support for integration related issues/problems during the Validation and Communications Exercise phases (VALEX and Garrison COMMEX), Utilization of Single Interface to the Field (SIF) failure reporting and corrective action system (FRACAS), for generating trouble tickets and assigning technical support teams to resolve problems or issues reported during VALEX. - For NIE 17.2, Coordinating with System Owners, vendors, and Brigade Modernization Command (BMC), for NET Training Package development and delivery. Coordinating with BMC and with System owners/vendors for scheduling and providing NET for up to 1,000 soldiers. Perform detailed analysis of up to 2000 SIF trouble tickets to identify System, and/or System of Systems,			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
trends that manifested themselves during any given phase of the NIE, and publishing a formal report, develop and publish up to 20 formal technical reports for C4ISR systems integrated and installed as part of the NIE. - For AWA 18.1, NET support outlined above is only provided for Networked Systems. Non-Networked systems NET support is TRADOCs responsibility. - NIE17.2/AWA 18.1 Execution/Closeout: For each event, establishing field operations for Technical Support teams to operate from during Field COMMEX and Event Execution, provide field support will include a Higher Control (HICON) element, two Regional Support Teams (RSTs), and up to six Unit Support Teams (USTs), ensure that the HICON, RSTs, and USTs is strategically emplaced throughout the NIE footprint to enable technical support teams to respond to, and resolve, problems reported by soldiers in the field, ensure utilization of SIF FRACAS, managed at the HICON, for generating trouble tickets and assigning technical support teams to resolve problems or issues reported by the soldiers, and establishing logistics cells at the IMP and at strategic locations in the NIE footprint, enabling rapid response times for spare parts and components needed to repair and resolve NIE system issues while the Unit is in the field, de-modifying integrated C4ISR systems from up to 250 platforms and returning those platforms to their original configurations, oversee the updating and finalizing up to 50 engineering design drawings based on the outcomes of VALEX, Garrison COMMEX, Field COMMEX, and Event Execution. - After each event, recovery of up to 250 Tactical Platforms back to the CPD Integration Motor Pool (IMP), at Fort Bliss, Texas. - NIE 18.2 Early Planning: Provide technical input on platform SWAP constraints or restrictions that must be considered for placement of candidate systems in the Test Brigade Horse Blanket, participate in Bull Pen sessions to: finalize candidate system parameters and characteristics in order to support platform/system engineering designs; verify accreditation status for all network systems; identify supporting hardware and software requirements; and finalize delivery schedules for the respective events and conduct the planning and coordination for Tier 1 Integrated Master Schedule (IMS), as well as development of lower tier schedules for integration. - NIE Network Integration and Validation: Funds provide for loading, establishing, integrating, and validating that the Network Integration Evaluation / Army Warfighter Assessment (NIE/AWA) network is stable, and that NIE/AWA networked systems, are integrated on tactical platforms, and can join and operate on the NIE/AWA network. It supports all activities associated with planning, coordination, preparation, and execution of Network Validation Exercises (VALEX) for NIE 17.2 and AWA 18.1, as well as planning, coordination, and preparation for VALEX during AWA18.2. Once Platform Integration for NIE 17.2 and AWA 18.1 is complete, Capability Package Directorate (CPD) conducts VALEX to verify and demonstrate that integrated networked systems are properly configured and loaded to operate on the NIE network. At the same time CPD also verifies and validates the			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
overarching NIE/AWA network is stable and operating nominally, prior to being handed over to BMC and 2/1 AD for NIE/AWA execution. - For each event, Capability Package Directorate's Trail Boss teams (consisting of Government and Contractor personnel), along with Platform Integration engineers and technicians, and ILS personnel, perform intensive planning and coordination leading up to the VALEX: oversee the planning and coordinating for; the Integration Motor Pool (IMP) layout for Command Posts and for integrated and legacy platforms that will be involved in VALEX, working to identify and resolve security issues associated with running classified/Coalition networked operations at the IMP, Data Products needed to load, configure, and initialize NIE/AWA networked systems and the underlying network devices (routers, switches, drivers, etc.), securing Information Assurance Accreditations for all networked C4ISR systems, including baseline and legacy systems, conduct coordination with; Lab Based Risk Reduction representatives for development of priority technical mission threads that will be used to validate the NIE network, ensure the development of; the battle rhythm (VALEX activities, meetings, technical forums for problem identification and resolution, leadership updates, etc.) for VALEX teams to follow during actual VALEX execution. The development of Network and Interconnecting Diagrams that are critical for defining networked system configurations, routing schemes, and routing architectures for networked systems and devices and Spectrum Plan for allocating and de-conflicting operating frequencies for all radiating systems involved in the NIE/AWA, including all NIE/AWA systems and all legacy systems. - For NIE 17.2 only, planning and coordination with ATEC to verify installed instrumentation is properly configured for data collection. For each event, unless otherwise noted, execute and provide technical support for each of the VALEX major phases: - During the LOADEX phase, CPD Trail Boss teams, working with Program of Record (POR) representatives, Legacy System Field Service Representatives (FSRs), and Vendor FSRs, and other key stakeholders, perform the following functions: Install networked system's hard drives, operating system software, software applications, and firmware on up to 2500 systems, Set IP addresses and configure all network systems, and load and initialize Radio Mission Plans, System configuration files and system parameters on up to 400 platforms. For NIE 17.2 only, load software on up to 250 instrumentation packages and configure as required for data collection. Perform test/fix/test processes at the system and component levels. - During the ESTABLISH phase, CPD Trail Boss teams, working with vendor FSRs, Legacy FSRs, and POR technical representatives, and other key stakeholders, perform the following functions: Verify networked hardware and software performance at the platform level, troubleshoot issues associated with network system configurations, Verify each integrated platform can perform its mission while operating on the NIE network. These activities typically involve up to 400 ESTABLISH tasks.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- During the INTEGRATE phase, CPD trail boss teams, working with vendor FSRs, Legacy FSRs, and POR technical representatives, and other key stakeholders, perform the following functions: Verify networked hardware and software performance and networked communications at each echelon (i.e., between platforms and soldiers at the Platoon Level), as well as between echelons, all the way up to the Brigade level, and at echelons above Brigade, Troubleshoot any issues between units and at each echelon, and ensure tactical units information exchange enables units to support their intended missions. - For NIE 17.2 only, verify instrumentation is operational and is collecting and storing data as required. These activities typically involve up to 400 INTEGRATE tasks, and continue providing over-the-shoulder training for Soldiers who will be using the new BCT network during the NIE. During the VALIDATE phase, CPD trail boss teams, working with vendor FSRs, Legacy FSRs, and POR technical representatives, and other key stakeholders, execute up to 40 mission threads to: route messaging and information along specified critical nodes on the NIE/AWA Network, enabling operational missions to be executed by the soldiers, demonstrate the NIE/AWA Overarching Network's ability to enable the BCT commander to utilize key capabilities that rely on the network such as Networked Services (Server-Client Systems such as CPOF, Intel, VOIP conferencing, etc.) For NIE 17.2 only, ensure instrumentation is properly configured for capturing and logging data, enabling ATEC and TRADOC assessments and evaluations. - Lab Based Risk Reduction (LBRR) to support Integrated Evaluations: These funds provide SME to plan, coordinate, integrate and execute the risk reduction for the full System of Systems network/ architecture designs in the Network Integration Evaluation (NIE) and Army Warfighter Assessment (AWA) in controlled environments to minimize integration, configuration and interoperability risk in the events. LBRR efforts are used to: reduce risk in the Network Integration Evaluation (NIEs) 17.2 and the Army Warfighter Assessment (AWA) 18.1 and planning for 18.2, coordinate logistics and equipment delivery of resources planned for LBRR, build, integrate and configure the System of Systems network architecture in the lab using actual Program of Record hardware and COE software in preparation for risk reduction execution. Configuration also includes support for loading of the actual NIE/AWA data products for validation, lead and coordinate the NIE/AWA System of Systems testing between external sites participating in risk reduction, develop. The risk reduction plan includes: functional testing, routing, thread testing, as well as the design of the lab network in order to effectively represent the NIE/AWA architecture to provide for AWA and NIE executions. Provides SME during AWA and NIE execution to help design the network configuration and address any network issues. This is done in the lab and in the field. LBRR personal also interface with PORs to ensure their successful integration into the network. It also leverages network resources to conduct network analysis efforts to improve future Army networks, end states, in support of future AWAs and NIEs, executes blue teaming/red teaming and other cyber tasks to inform on early Network Cyber requirements, provides lab evaluations of POR and demonstration systems and reports on how they meet Network 2020 or Force 2025B			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
requirements and supports the management of trouble tickets and test incident reports for configuration management of testing issues to effectively report resolved and outstanding items as LBRR transitions into the Validation Exercise (VALEX). - Network Architecture &Thread Development to support Integrated Evaluations: These funds provide SME to coordinate the NIE/AWA 17.2, 18.1 and 18.2 architecture planning & development to meet all event test and evaluation objectives. Lead the documentation of the overall NIE/AWA network architecture and technical System of System threads. - These funds also provides for: collaboration with BMC, ATEC & G3/5/7 on the development of the detailed System of Systems Architecture to meet all evaluation and operational test requirements. Detailed development includes node by node systems planning, to build NIE/AWA Horse Blankets, lead Focused End States and other factors in forward planning and candidate assessments of the NIE/AWA Strategic Planning Review (SPR), Co-lead the NIE/AWA 17.2 and 18.1 Bullpen Sessions to ensure all architecture systems meet stakeholder evaluation requirements and finalize the NIE/AWA Horse Blanket, development of the detailed SoS Network Architecture in the form of the Transport View Diagrams and designing and maintaining the System of Systems Technical Threads of the NIE/AWA 17.2 and 18.1 in order to show operational use cases applied over the NIE/AWA. Development activities include leading the Critical Design Reviews of individual threads with both material/Program Manager (PM) and TRADOC stakeholders. It supports: LBRR during the thread risk reduction event and PM CP during the Validation Exercise (VALEX) during NIE/AWA 17.2 and 18.1 leading the coordination of individual thread validations to show SoS interoperability within the integrated architecture after all network integration and configuration have completed and it also supports maintaining the current custom scripts that enable data migration between the ARCADIE-derived Horse Blanket spreadsheet and the MagicDraw tool that is used to diagram the Transport View and Technical Threads deck. - System of Systems (SoS) Network Performance Analysis to support Integrated Evaluations: These funds provide the Subject Matter Expertise to execute diverse and independent portfolio of Network System of Systems performance analyses involving multiple-PEO systems (C3T, IEW&S, Soldier, GCS, STRI) and their cross-PEO integration which enables key acquisition-level decisions, Mission Command network (MCN) Capability portfolio reviews (CPRs), it also enables capability set (CS) architecture product Courses of Action COAs development and validation and provides Army Acquisition Executives (AAEs) and OSD with independent evaluations of PEO/PM solutions and services. - These funds also enable SMEs to conduct Transport Convergence of Intel/C2/Logistics/Medical performance analysis and network performance requirements development (all C4ISR/EW PEOs), Integrated Network Performance Assessments (INPA) of NIE 17.2 and AWA 18.1, and assessments of Current and Future Network Cyber vulnerabilities and provide recommendations for solutions and/or architectural changes to resolve and/or mitigate them. Enduring analytical capabilities that enable these analysis will also be strengthened and standardized, to include: Army real-time OSD-metrics-driven Big Data performance analytics and Mission Essential / Mission Enhanced (MEME) operational impact assessment methodology (aka from technical to operational).			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- NIE /AWA and Alternate Venue Planning (Module 1-3): These funds provide for strategic planning to solicit and synchronize candidates and objectives for NIE and AWA bi-annual events. It establishes initial objectives, solidifies the architecture baseline and will establish a viable candidate list for Network Integration Evaluation (NIE) and Army Warfighter Assessment (AWA). Addresses planning for operational assessments to occur at venues other than NIE or AWA. Complete test planning, coordination of requirements, assets planning, and soldier planning. It supports the compilations of potential solutions that could meet the Army's Mission Command gaps and the US Army Training and Doctrine Command (TRADOC) identified opportunities. It includes the coordinated efforts between System of Systems Integration (SOSE&I), ASA(ALT) Program Executive Offices, Deputy Chief of Staff G3/5/7, Brigade Modernization Command (BMC) Ft Bliss and the Army Test and Evaluation Command (ATEC). Project also includes the initial integration phase where Systems Under Test (SUT) and government/industry System Under Evaluation (SUE) hardware and software are integrated and initially evaluated for follow-on consideration for lab assessments. These funds provide for planning detailed experiments, tests and evaluations of potential Network, Software and Hardware systems for procurement and integration into the Army's Warfighter system. Effort to solicit and select capabilities for inclusion in the NIE and AWA bi-annual events supporting Army's Network 2020 Endstates and Objectives and Forces 2025 beyond. Effort includes correspondence to NIE and AWA Participants, consolidation, analysis and publishing post-event reports and findings, analyze and consolidate event findings and development of implementation plans and to develop and maintain NIE and AWA specific Integrated Master Schedule (IMS). Effort to finalize the architecture, requirements, and horseblanket for each NIE and AWA and maintains horseblanket and IMS under formal CM processes, incorporates analysis and architecture objectives to influence CS fielding, facilitating platform reviews. Customers include HQDA G-3/5/7, G-8. TRADOC, ASA(ALT) PEOs, CIO/G-6, ATEC, deploying units, industry partners. - These fund also provide for the following: stakeholder Synchronization, Gatekeeper Management, Horse Blanket Initial development and analysis, Gov/Industry Solicitation, participant proposal evaluation, participation coordination, consolidation of stakeholder reports, individual final report generation to participants, incorporation of AWA results into PoR initiatives (.1 feedback loop to .2), cross directorate analysis and reporting, Alternate Venue planning, TSARC outcomes analysis, Implementation Memoranda, and Strategic Planning Review event planning and execution, Bull Pen event planning and execution. - MCN2020 Focused End State Alignment: These funds provide SMEs to analyze and coordinate identified PoRs on the NIE roadmap to achieve Mission Command Network 2020 End States and Objectives. It provides the Army's leadership and materiel developers with the necessary Capability Set (CS) modernization planning, critical path analysis, risk analysis and mitigation planning, system of systems engineering (SOSE), technical analysis and architectural products to inform the Army's materiel portfolio (5 to 10 year plans). Lead and facilitate planning of long term Engineering & Architecture objectives across multiple PORs for support of MCN 2020 Objectives and Focused End States.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- System of Systems (SoS) Network Performance Analysis: These funds provide the Subject Matter Expertise to execute diverse and independent portfolio of Network System of Systems performance analyses involving multiple-PEO systems and their cross-PEO integration which enables key acquisition-level decisions, Mission Command network (MCN) Capability portfolio reviews (CPRs), it also enables capability set (CS) architecture product Courses of Action COAs development and validation and provides Army Acquisition Executives (AAEs) and OSD with independent evaluations of PEO/PM solutions and services. It also funds conducting: cross-PEO Network System of System (SoS) performance analysis which includes the following key tasks and activities, CS20-22 reference architecture (IBCT, ABCT) performance validation/prediction analysis, to include operational impact assessment of the proposed architectural COAs, and sustainment improvement analysis, assessments of Position, Navigation and Timing (PNT) solution performance. - Network Integration Evaluation Long-range Investment Requirements Analysis (LIRA): These funds provide SMEs to develop LIRA for NIEs and evolution to Capability Integration Evaluations after FY 2020. It provides the Army's leadership and materiel developers with the necessary Capability Set (CS) modernization planning, critical path analysis, risk analysis and mitigation planning, system of systems engineering (SOSE), technical analysis and architectural products to inform the Army's materiel portfolio (5 and 30 year plans). Short and long term planning for evaluation and evolution of Network and Capability Integration evaluations after FY 2020. - Cyber support to Integrated Evaluations: The funds are provided to manage the NIE cyber security project including the NIE Authority to Connect (ATC) process and risk analysis for the Operational Test Network (OTN). Establish and maintain cybersecurity policies for NIE including a complete refresh of the cybersecurity Smartbook. It also includes: continually tracking accreditations for Capability Sets, champion certification and accreditation (C&A) impacts to scheduling and coordinating all cybersecurity activities for NIE/AWA including red, blue, and green team activities; ensure activities are funded through NIE Gatekeepers, coordinate threat briefing to the AO and all assessment out-briefs. - Strategic support to Platform in Integration Evaluation (SsP-IE): These funds provide for the advance collaboration and coordination with platform and network system Product/Project/Program Managers (PMs) to ensure Capability Set (CS) fielding platform integration design decisions are based on CS Reference Architecture products for CS16-22 to be evaluated in Network Integration Evaluation (NIE) events. Develop the Unit-specific architecture. - SsP-IE: CS16 Products and Services: Close out of CS16 platform integration activities for the design of current and future Army network technologies in Army vehicle systems for evaluations at NIE 14.1 and 14.2 and finalize leveraging NIE technical data packages, network trend analysis,			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
architecture, vehicle designs, platform integration challenges, strategic planning, Validation Exercise (VALEX) and SharePoint data sharing. - SsP-IE: CS17 Products and Services: Direct the design and integration of current and future Army network technologies in Army vehicle systems for evaluations at NIE 15.1 and 15.2. Define platform integration requirements for CS17 baseline NIE 15.1 and 15.2 evaluations, leveraging NIE technical data packages, network trend analysis, architecture, vehicle designs, platform integration challenges, strategic planning, Validation Exercise (VALEX), and SharePoint data sharing. Evaluate, synchronize and monitor platform and network system integration risks and mitigation plans for CS17 Unit specific Architectures in collaboration and coordination with platform and network system PMs. Evaluate, synchronize and monitor platform and network system program acquisition schedules, integration costs, and system requirements across organizations for the development of production ready A&B-kit Interface Control Documents (ICDs) and Level II Technical Data Packages (TDPs) supporting CS17 Unit specific baseline evaluations in collaboration and coordination with platform and network system PMs. Evaluate, synchronize and monitor PM implementation of Vehicle Integration for Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR)/ Electronic Warfare (EW) Interoperability (VICTORY) standards in Unit specific Architecture products. - SsP-IE: CS18 Products and Services: Define platform integration requirements for CS18 baseline NIE evaluation; leveraging NIE technical data packages, network trend analysis, architecture, vehicle designs, platform integration challenges, strategic planning, VALEX, and SharePoint data sharing. Evaluate, synchronize and monitor platform and network system Size, Weight and Power (SWaP) assessment of CS18 Unit specific Architectures in collaboration and coordination with platform and network system PMs. Support platform Original Equipment Manufacturer (OEM) design and integration activities for NIE and CS baseline events. Evaluate, synchronize, and monitor PM implementation of VICTORY standards in Initial and CS18 Unit specific Architecture products. -SsP-IE: Products and Services: Direct the design and integration of current and future Army network technologies in Army vehicle systems for evaluations at NIE 16.2 and 17.1. Define platform integration requirements for CS19-22 baseline NIE evaluation; leveraging NIE technical data packages, network trend analysis, architecture, vehicle designs, platform integration challenges, strategic planning, VALEX, and SharePoint data sharing. Evaluate, synchronize and monitor the development of the final CS19-22 Reference Architectures products defined by NIE evaluation results in collaboration and coordination with SoSE&I Engineering and Integration (E&I) and the Synch Fielding (SF)-Engineering Division. Evaluate, synchronize and ensure platform integration requirements are embedded in the performance scope for SoSE&I managed SUE production RFPs In collaboration and coordination with platform PMs, network system PMs and the SoSE&I Integration Planning Division. Support platform OEM design and integration activities for NIE and CS baseline events.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- These funds also provide Subject Matter Expertise for contract and budget management support to NIE17.2 and NIE/Army Warfighter Assessment (AWA) 18.1.			
Title: Infrastructure and other support ***Description:*** Provides for setup, utilities, furniture, equipment and maintenance (of all equipment and facilities) used by SoSE&I in support of Integrated Evaluation. Includes lease and support maintenance contracts for Government Service Administration (GSA) vehicles that support the NIE/AWA mission at FBTX/WSMR. ***FY 2017 Plans:*** Provides for setup, utilities, furniture, equipment and maintenance (of all equipment and facilities) used by SoSE&I in support of Integrated Evaluation. Includes lease and support maintenance contracts for Government Service Administration (GSA) vehicles, IT equipment and support and facilities support closing-out NIE/AWA 16.1, planning, conducting and closing-out NIE17.2, planning and conducting NIE/AWA 18.1 and planning for NIE18.2 at FBTX/WSMR.	-	-	0.885
Accomplishments/Planned Programs Subtotals	4.440	12.215	65.844

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
• DY4: *DY4 Network Integration Support*	16.382	14.131	-	-	-	-	-	-	-	Continuing	Continuing
• DY5: *DY5 Production/Fielding Coordination for Capability Sets*	2.802	4.601	3.960	-	3.960	4.099	4.194	4.286	4.374	Continuing	Continuing
• DY6: *DY6 Brigade and Platform Integration Support*	33.629	45.504	-	-	-	-	-	-	-	Continuing	Continuing
• DY7: *DY7 Army Systems Engineering, Architecture and Analysis*	16.988	16.416	14.166	-	14.166	24.176	24.651	25.123	25.505	Continuing	Continuing
• DZ6: *DZ6 Army Integration & Coordination Management*	8.716	6.375	5.746	-	5.746	5.952	6.087	6.218	6.352	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

D. Acquisition Strategy

This project includes Army Test Evaluation Center competitive contracts for test support services. Additional competitive contracts are awarded by Defense Information Systems Agency (DISA) for satellite support.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY3 / *NIE Test & Evaluation*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Evaluation	TBD	Various See Note #1 : Various	0.000	-		-		64.959	Nov 2016	-		64.959	0	64.959	0
		Subtotal	0.000	-		-		64.959		-		64.959	0.000	64.959	0.000

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed, Aberdeen Proving Grounds (MD), FT Bliss (TX), White Sands Missile Range (NM).
- Includes support services from DISA (for satellite time) and other governments agencies

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Support Costs	TBD	Various Note:1 : TBD	5.653	1.732	Nov 2014	4.764		-		-		-	0	12.149	0
Infrastructure and other support	TBD	Various see note #1 : Various	0.000	-		-		0.885	Nov 2016	-		0.885	0	0.885	0
		Subtotal	5.653	1.732		4.764		0.885		-		0.885	0.000	13.034	0.000

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed, Aberdeen Proving Grounds (MD), FT Bliss (TX), White Sands Missile Range (NM).
- Includes support services from DISA (for satellite time) and other governments agencies

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NIE ATEC Test and Evaluation Costs	TBD	Various Note:1 : TBD	8.841	2.708	Nov 2014	7.451		-		-		-	0	19.000	0
		Subtotal	8.841	2.708		7.451		-		-		-	0.000	19.000	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY3 / *NIE Test & Evaluation*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks Note: 1 - All funding executed from SoSE&I (Warren MI) - Program Activities performed at Aberdeen Proving Ground (MD), Electronic Proving Grounds (AZ), FT Bliss (TX), White Sands Missile Range (NM). - Program Test support through ATEC															

	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	14.494	4.440		12.215		65.844		-		65.844	0.000	96.993	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

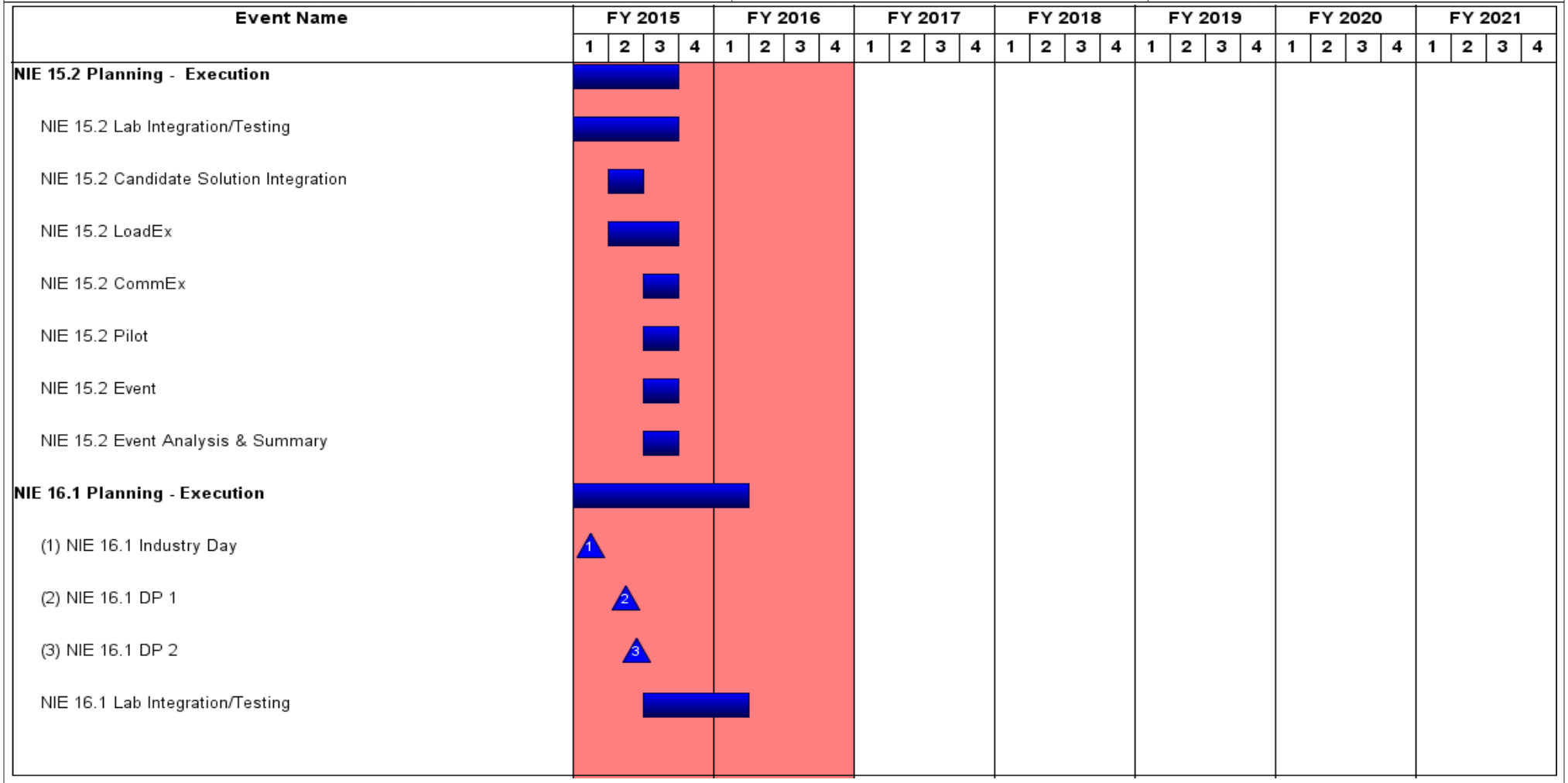

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

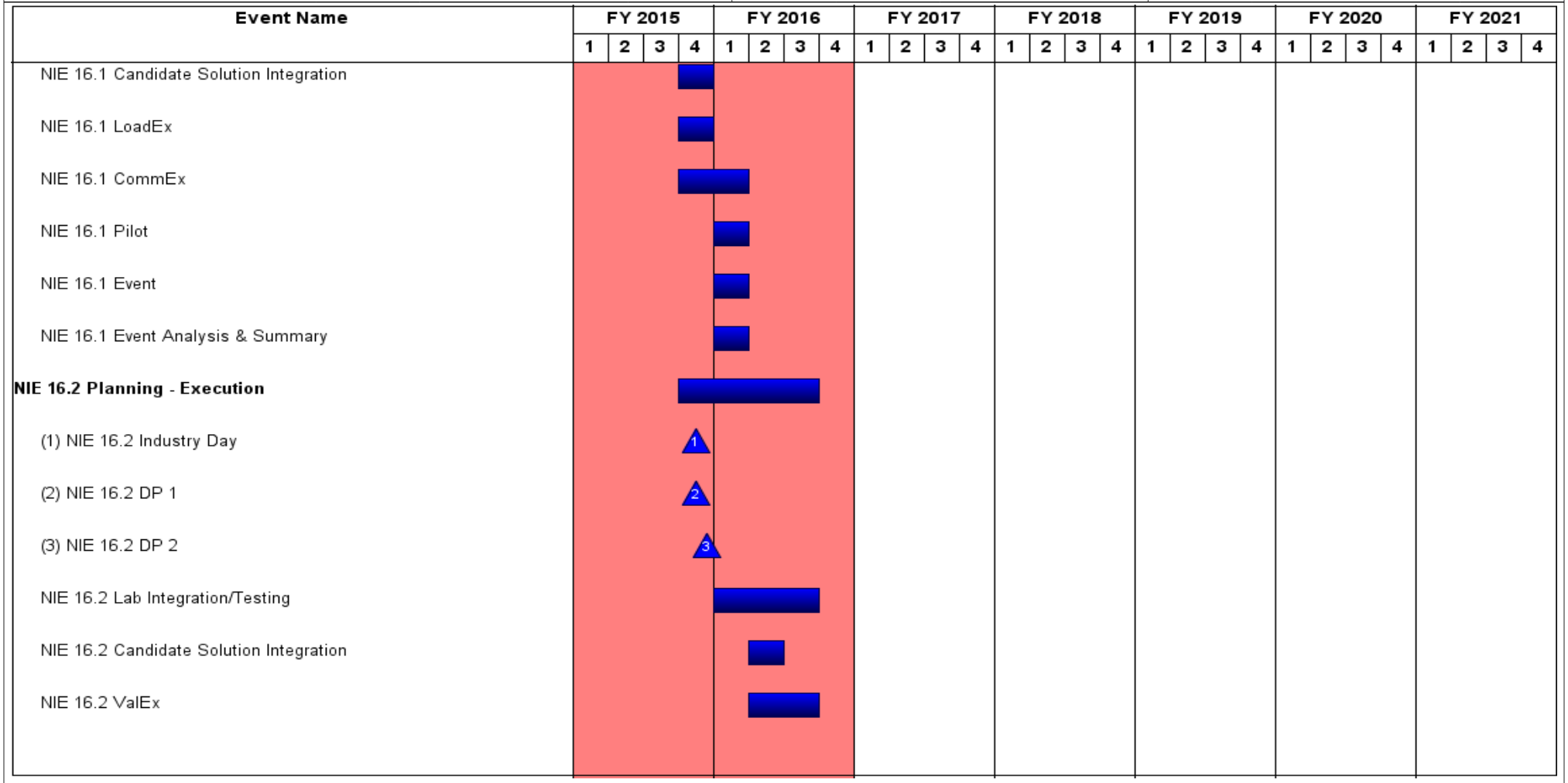

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

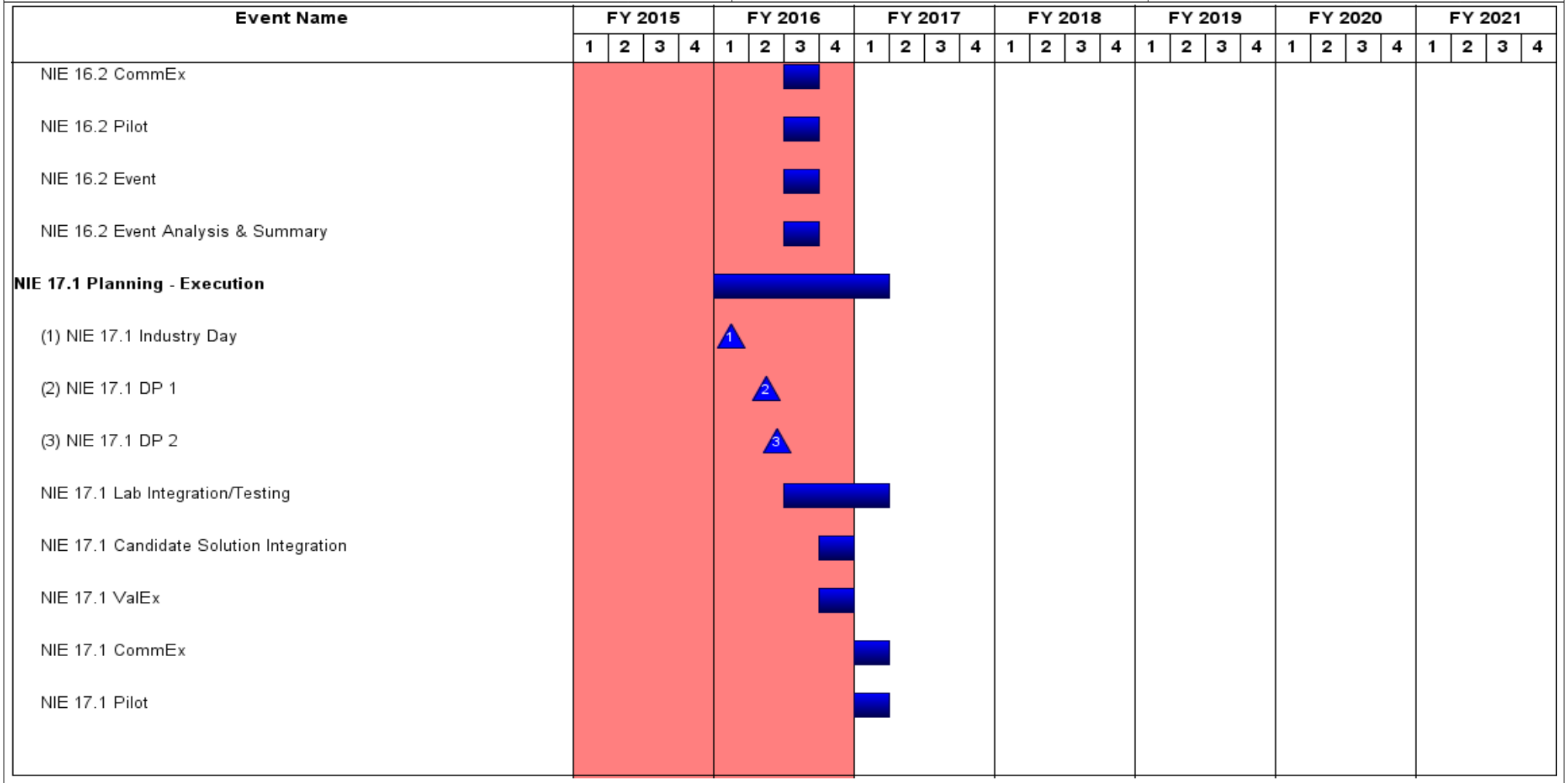

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

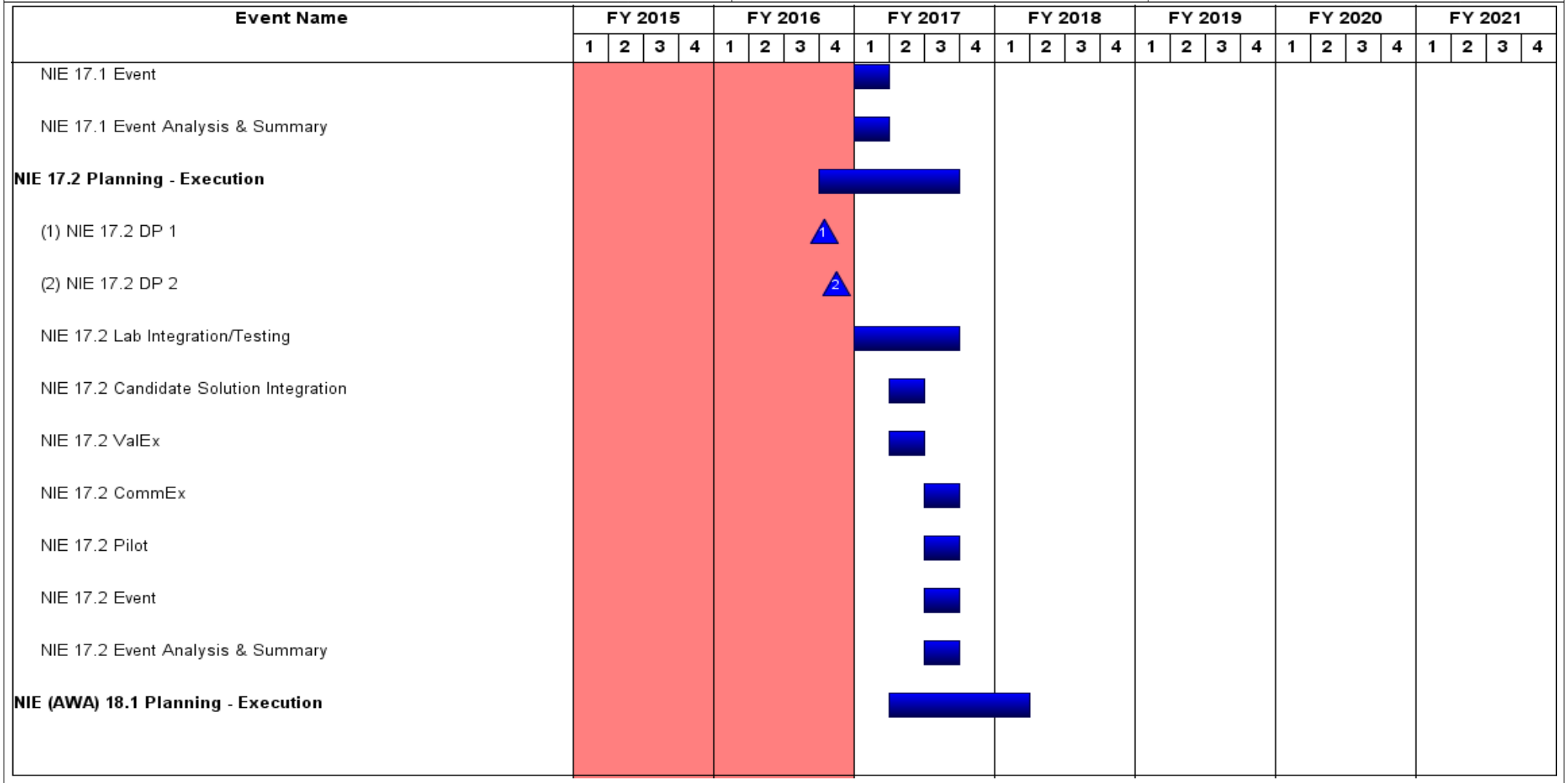

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

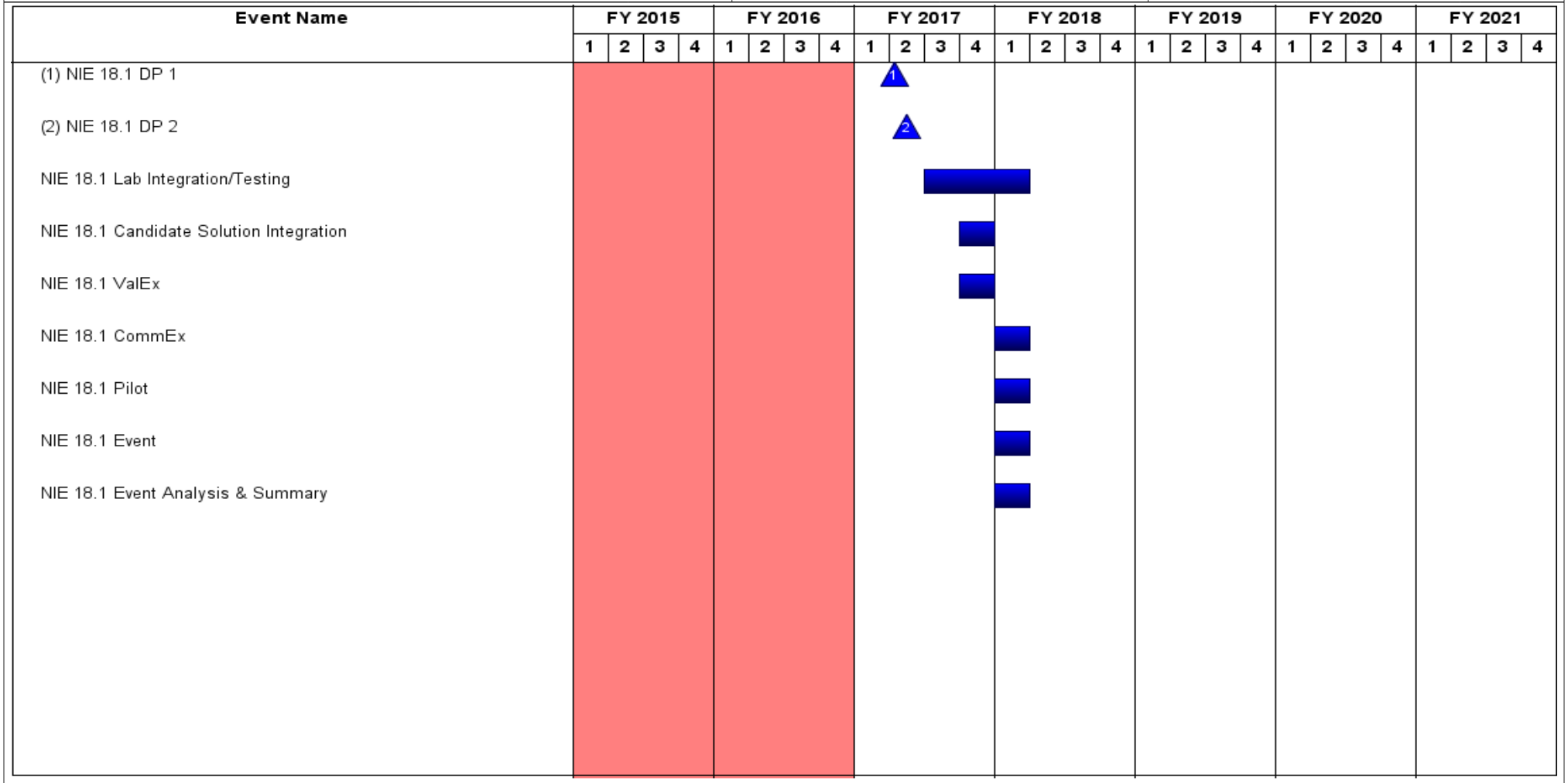

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 15.2 Planning - Execution	2	2014	3	2015
NIE 15.2 Lab Integration/Testing	1	2015	3	2015
NIE 15.2 Candidate Solution Integration	2	2015	2	2015
NIE 15.2 LoadEx	2	2015	3	2015
NIE 15.2 CommEx	3	2015	3	2015
NIE 15.2 Pilot	3	2015	3	2015
NIE 15.2 Event	3	2015	3	2015
NIE 15.2 Event Analysis & Summary	3	2015	3	2015
NIE 16.1 Planning - Execution	3	2014	1	2016
NIE 16.1 Industry Day	1	2015	1	2015
NIE 16.1 DP 1	2	2015	2	2015
NIE 16.1 DP 2	2	2015	2	2015
NIE 16.1 Lab Integration/Testing	3	2015	1	2016
NIE 16.1 Candidate Solution Integration	4	2015	4	2015
NIE 16.1 LoadEx	4	2015	4	2015
NIE 16.1 CommEx	4	2015	1	2016
NIE 16.1 Pilot	1	2016	1	2016
NIE 16.1 Event	1	2016	1	2016
NIE 16.1 Event Analysis & Summary	1	2016	1	2016
NIE 16.2 Planning - Execution	4	2015	3	2016
NIE 16.2 Industry Day	4	2015	4	2015
NIE 16.2 DP 1	4	2015	4	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 16.2 DP 2	4	2015	4	2015
NIE 16.2 Lab Integration/Testing	1	2016	3	2016
NIE 16.2 Candidate Solution Integration	2	2016	2	2016
NIE 16.2 ValEx	2	2016	3	2016
NIE 16.2 CommEx	3	2016	3	2016
NIE 16.2 Pilot	3	2016	3	2016
NIE 16.2 Event	3	2016	3	2016
NIE 16.2 Event Analysis & Summary	3	2016	3	2016
NIE 17.1 Planning - Execution	1	2016	1	2017
NIE 17.1 Industry Day	1	2016	1	2016
NIE 17.1 DP 1	2	2016	2	2016
NIE 17.1 DP 2	2	2016	2	2016
NIE 17.1 Lab Integration/Testing	3	2016	1	2017
NIE 17.1 Candidate Solution Integration	4	2016	4	2016
NIE 17.1 ValEx	4	2016	4	2016
NIE 17.1 CommEx	1	2017	1	2017
NIE 17.1 Pilot	1	2017	1	2017
NIE 17.1 Event	1	2017	1	2017
NIE 17.1 Event Analysis & Summary	1	2017	1	2017
NIE 17.2 Planning - Execution	4	2016	3	2017
NIE 17.2 DP 1	4	2016	4	2016
NIE 17.2 DP 2	4	2016	4	2016
NIE 17.2 Lab Integration/Testing	1	2017	3	2017
NIE 17.2 Candidate Solution Integration	2	2017	2	2017
NIE 17.2 ValEx	2	2017	2	2017

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 17.2 CommEx	3	2017	3	2017
NIE 17.2 Pilot	3	2017	3	2017
NIE 17.2 Event	3	2017	3	2017
NIE 17.2 Event Analysis & Summary	3	2017	3	2017
NIE (AWA) 18.1 Planning - Execution	2	2017	1	2018
NIE 18.1 DP 1	2	2017	2	2017
NIE 18.1 DP 2	2	2017	2	2017
NIE 18.1 Lab Integration/Testing	3	2017	1	2018
NIE 18.1 Candidate Solution Integration	4	2017	4	2017
NIE 18.1 ValEx	4	2017	4	2017
NIE 18.1 CommEx	1	2018	1	2018
NIE 18.1 Pilot	1	2018	1	2018
NIE 18.1 Event	1	2018	1	2018
NIE 18.1 Event Analysis & Summary	1	2018	1	2018

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY4 / *Network Integration 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
DY4: *Network Integration Support*	-	16.382	14.131	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	30.513
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Beginning in FY 2017 the mission requirements and the funding to support them have been moved to DY3; NIE Test & Evaluation to increase transparency.

A. Mission Description and Budget Item Justification

This project supports Phases I through IV of the Army's Agile process. Phase I solicits potential solutions from existing Army programs, tech base programs, and industry to deliver capabilities that achieve the Army's Network 2020 Endstates and Objectives and Forces 2025 beyond. It establishes initial objectives, solidifies the architecture baseline and will establish a viable candidate list for Network Integration Evaluation (NIE). During Phase II, the project supports the compilations of potential solutions that could meet the Army's Mission Command gaps and the US Army Training and Doctrine Command (TRADOC) identified gaps which supports the development of integration and testing concepts for the NIE. Phase III includes the coordinated efforts between System of Systems Integration (SOSE&I), Brigade Modernization Command (BMC) at Ft Bliss and the Army Test and Evaluation Command (ATEC) to finalize the brigade architecture "horseblanket", integration and test planning, training requirements and combat mission evaluations. Phase III also includes the initial integration phase where Systems Under Test (SUT) and government/ industry System Under Evaluation (SUE) hardware and software are integrated and initially evaluated for follow-on consideration at Aberdeen Proving Ground's (APG) Communications Electronics Research, Development and Engineering Center (CERDEC) labs through the Lab Based Risk Reduction (LBRR) process. This project provides for Network Integration of all SUTs and SUEs (industry and/or government) Hardware/Software into existing CERDEC System Integration Laboratories at APG to risk reduce evaluation architectures, network configurations and identify integration issues prior to NIE. This effort continues into Phase IV as the network matures and becomes functional in the Lab. The results of this detailed lab based testing/evaluations will determine which SUTs and industry/government SUEs will continue in the NIE (Phases IV/V of the Army's Agile Network Integration process) and establishes the initial Network configuration that will be used in NIE. LBRR also reduces risk to NIE execution by testing the Network in the lab, resolving issues found in the Network lab test and optimizing the Networks performance. This is done in a lab environment that facilitates very efficient, cost effective determination of problems, and their subsequent corrections.

Additionally this project will integrate the Network at the CERDEC labs facilitate participation by small businesses and interfaces and integrate with Government Programs of Record with unique military secure interfaces and protocols. Purchase of any additional hardware and support above and beyond the proposed or available support if required for Lab Based Risk Reduction is also funded within this project. For Government SUEs, this project funds integration support at the CERDEC Labs. If the NIE program requires additional prototypes above and beyond the Program of Record for the Lab based Risk Reduction, it will also purchase this equipment. This project also funds keeping the Network baseline up to date so that integration is always into the current baseline network.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: NIE Network Integration and Lab Based Risk Reduction	9.662	8.335	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Description: These funds provide for the following: Network Integration of all industry and government SUEs, SUTs, and baseline Hardware/Software into existing CERDEC System Integration Laboratories at Aberdeen Proving Grounds (APG) to simulate the Brigade Network for NIE and determine if SUE's capabilities successfully resolve known gaps. ***FY 2015 Accomplishments:*** The funding provided for the Lab Based Network Analysis and evaluations for NIE 15.2 and NIE 16.1 Brigade Network. In the CERDEC labs, engineers created a representative NIE network architecture incorporating radios, satellite-based systems, handheld devices, mission command applications, routers, software, cables and other network components. Through a combination of actual and emulated hardware and software they modeled the end-to-end NIE network, allowing industry and government organizations the ability to "plug" their systems into the NIE architecture for early assessment and integration risk mitigation. This effort planed and conducted detailed Network experiments. The lab activity validated the NIE network as well as the BoldQuest risk reduction objectives as an integrated architecture product and network configuration using a joint/multinational scale network consisting of a mixture of live and virtualized hardware and software. Products included; plans/execution/reports of the following: system level specification verification, instrumentation verification, pre-event analysis, Network Integration Requirements Levels, Measures of Performance, communication load plan, automated performance assessment of technical, configuration control, transport and software basis of issue, instrumentation plan, field troubleshooting and reach back support during event execution, routing design for NIE, and technical input to the reports to industry of system performance and issues. ***FY 2016 Plans:*** The funding provides for the Lab Based Network Analysis and evaluations for NIE 16.2 and 17.1 Brigade Network. In the CERDEC labs, engineers create a representative NIE network architecture incorporating radios, satellite-based systems, handheld devices, mission command applications, routers, software, cables and other network components. Through a combination of actual and emulated hardware and software they model the end-to-end NIE network, allowing industry and government organizations the ability to "plug" their systems into the NIE architecture for early assessment and integration risk mitigation. This effort plans and conducts detailed Network assessments in support of the Army's 2020 and Force 2025 Network goals. The lab activity validates the NIE network architecture products and network configurations using a Brigade-scale network consisting of a mixture of live and virtualized hardware and software. Products include; plans/execution/reports of the following: system level specification verification, instrumentation verification, pre-event analysis, Network Integration Requirements Levels, Measures of Performance, communication load plan, automated performance assessment of technical, configuration control, transport and software basis of issue, instrumentation plan, field troubleshooting and reach back support during event execution, routing design for NIE, and technical input to the reports to industry of system performance and issues.			
Title: NIE and LBRR Requirements Definition Support	4.605	3.973	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Description: These funds provide for all government and contract personnel and equipment which work with TRADOC and Army G-3/5/7 to finalize the architecture, requirements, and horseblanket for each NIE. ***FY 2015 Accomplishments:*** Completed initial scope objectives to develop an ASA(ALT) Integrated Master Schedule to capture Tier 1 schedule milestones from key Programs of Record required to support network modernization objectives through evaluation (NIE, AWA or alternate venue) and fielding. Worked with G-3/5/7, TRADOC and ASA(ALT) PEOs to finalize Mission Command Network 2020 Focused Endstates (FES) objectives and tasks through participation in FES Working Groups. This led to the planning and execution of the first three Strategic Planning Reviews to synchronize ASA(ALT) Programs of Record required to support modernization objectives and capture risks, issues and mitigation options. This led to the development of strategic planning products in support of Network Modernization objectives: Network Assessment Storyboard, Capability and VICTORY Roadmaps, Capability Readiness Log, Network Strategic Roadmap. Developed a NIE15.2 and NIE/AWA 16.1 Sources Sought to industry and the NIE 15.2, NIE/AWA 16.1 and NIE 16.2 Government Technology Call for Mature Solutions to solicit specific capabilities for participation in those evaluation events. This also includes the development of evaluation and down-selection criteria and evaluation of proposals against that criteria that resulting in recommended participants. This effort included management of the system list, development and delivery of the final implementation horseblanket architecture and design for each NIE. It also included all program, information, security, business, schedule, personnel management, network integration, evaluation, and reporting efforts required to support phases 1-3 of the NIE process. This effort also included the management and implementation of phase VI system recommendations across the ASA(ALT) PEO communities. ***FY 2016 Plans:*** This effort includes working with TRADOC and G-3/5/7 directorates and ASA(ALT) PEOs to finalize the operational gaps and develop either sources sought, or government technical call to select industry and government SUEs to participate in NIE 16.2 and NIE 17.1. This also includes the development, evaluation and down-select criteria and evaluation of sources sought, government technical calls proposals.. This effort includes management of the down-selections for each event, development and delivery of the final implementation horseblanket architecture and design for each NIE. It also includes all program information, security, business, schedule, personnel management, network integration, evaluation, and reporting efforts required to support phases I-III of the Agile process. This effort also includes the management and implementation of phase VI system recommendations across the ASA(ALT) PEO communities.			
Title: NIE SUE Hardware/Software for Lab & FSR Support for Network Integration	1.430	1.233	-
Description: The effort includes procurement of Hardware and Software required by the Lab to fully simulate the Brigade Network it includes the FSR Support from Contractors to fully integrate their systems into the Network.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
FY 2015 Accomplishments: Provided funding to support NIE at the CERDEC Lab at APG. This supported network integration of industry and government technologies which were selected as Systems Under Evaluation (SUE) for participation into the Army's Network Integration Evaluations (NIE) 15.2 & 16.1. These funds covered the selected SUEs participation in the lab integration event. This included contractor's costs for travel, and shipment of equipment, Contractor Field Service Representatives (CFSRs) required to support Network integration activities, and the purchase of additional prototypes required for the CERDEC Lab when needed to effectively complete detailed evaluations of the complete brigade network architecture. ***FY 2016 Plans:*** Provides funding to support Network integration and evaluation at the CERDEC Lab at APG. This supports semi-annual Network Integration of industry and/or government technologies which are being selected as Systems Under Evaluation (SUE) for participation into the Army's Network Integration Evaluations (NIE) 16.2 & 17.1. These funds cover the selected SUE's participation in the lab integration event. This includes contractor's costs for travel, and shipment of equipment, Contractor Field Service Representatives (CFSRs) required to support Network integration activities, and the purchase of additional prototypes required for the CERDEC Lab when needed to effectively complete detailed evaluations of the complete brigade network architecture.			
Title: Facilities and IT Support ***Description:*** Provides funding for infrastructure/facilities and IT support. ***FY 2015 Accomplishments:*** Provided funding for infrastructure/facilities. In addition it included the cost for IT support from Network connectivity for purchasing/leasing hardware, software, computers, communications equipment and services for the government staff. ***FY 2016 Plans:*** Provides funding for infrastructure/facilities. In addition it includes the cost for IT support from Network connectivity for purchasing/ leasing hardware, software, computers, communications equipment and services for the government staff.	0.685	0.590	-
Accomplishments/Planned Programs Subtotals	16.382	14.131	-

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
• DY3: *DY3 NIE Test & Evaluation*	4.440	12.215	65.844	-	65.844	67.311	67.899	68.478	71.719	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*	

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
• DY5: *DY5 Production/Fielding Coordination for Capability Sets*	2.802	4.601	3.960	-	3.960	4.099	4.194	4.286	4.374	Continuing	Continuing
• DY6: *DY6 Brigade and Platform Integration Support*	33.629	45.504	-	-	-	-	-	-	-	Continuing	Continuing
• DY7: *DY7 Army Systems Engineering, Architecture and Analysis*	16.988	16.416	14.166	-	14.166	24.176	24.651	25.123	25.505	Continuing	Continuing
• DZ6: *DZ6 Army Integration & Coordination Management*	8.716	6.375	5.746	-	5.746	5.952	6.087	6.218	6.352	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project does not have any requirement for direct procurement of hardware or software.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY4 / *Network Integration Support*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NIE Network Integration and Lab Based Risk Reduction	TBD	Various Note: 1 : TBD	5.596	9.662	Nov 2014	8.335		-		-		-	0	23.593	0
		Subtotal	5.596	9.662		8.335		-		-		-	0.000	23.593	0.000

Remarks

Note:1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at Aberdeen Proving Ground (MD), TACOM (Warren MI), Taylor Bldg, (Crystal City, VA), FT Bliss (TX), .
- Program Integration support through various PMs, PEOs, RDECOM, and a multitude of small support and industry contractors.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NIE and LBRR Requirements Definition Support	TBD	Various Note: 1 : TBD	1.827	4.605	Nov 2014	3.973		-		-		-	0	10.405	0
NIE SUE Hardware/ Software for Lab & FSR Support for Network Integration	TBD	Various Note: 1 : TBD	2.698	1.430	Nov 2014	1.233		-		-		-	0	5.361	0
Facilities and IT Support	TBD	Various Note: 1 : TBD	0.493	0.685	Nov 2014	0.590		-		-		-	0	1.768	0
		Subtotal	5.018	6.720		5.796		-		-		-	0.000	17.534	0.000

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at Aberdeen Proving Ground (MD), TACOM (Warren MI), Taylor Bldg, (Crystal City, VA)

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY4 / *Network Integration 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	10.614	16.382		14.131		-		-		-	0.000	41.127	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

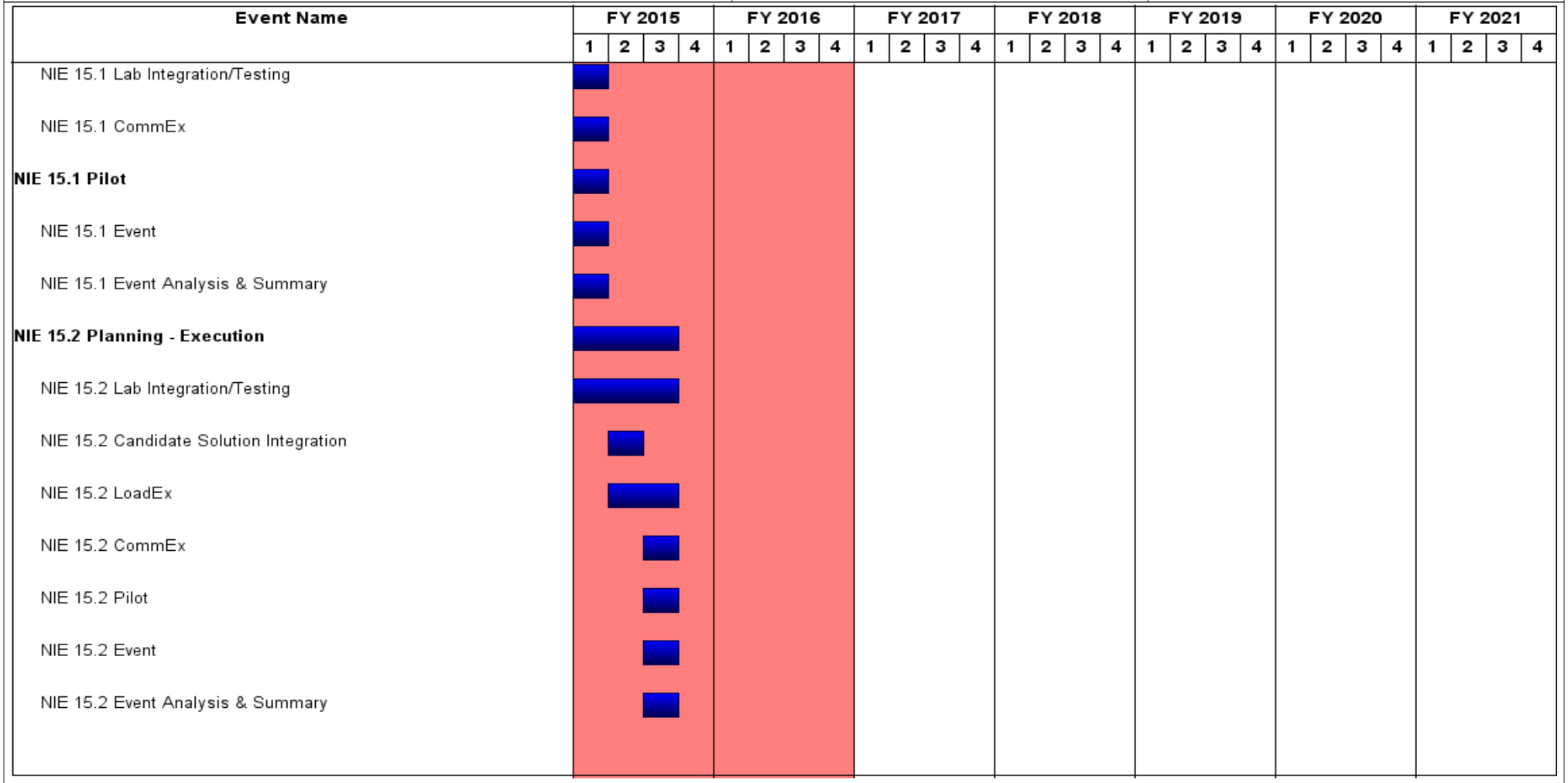

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

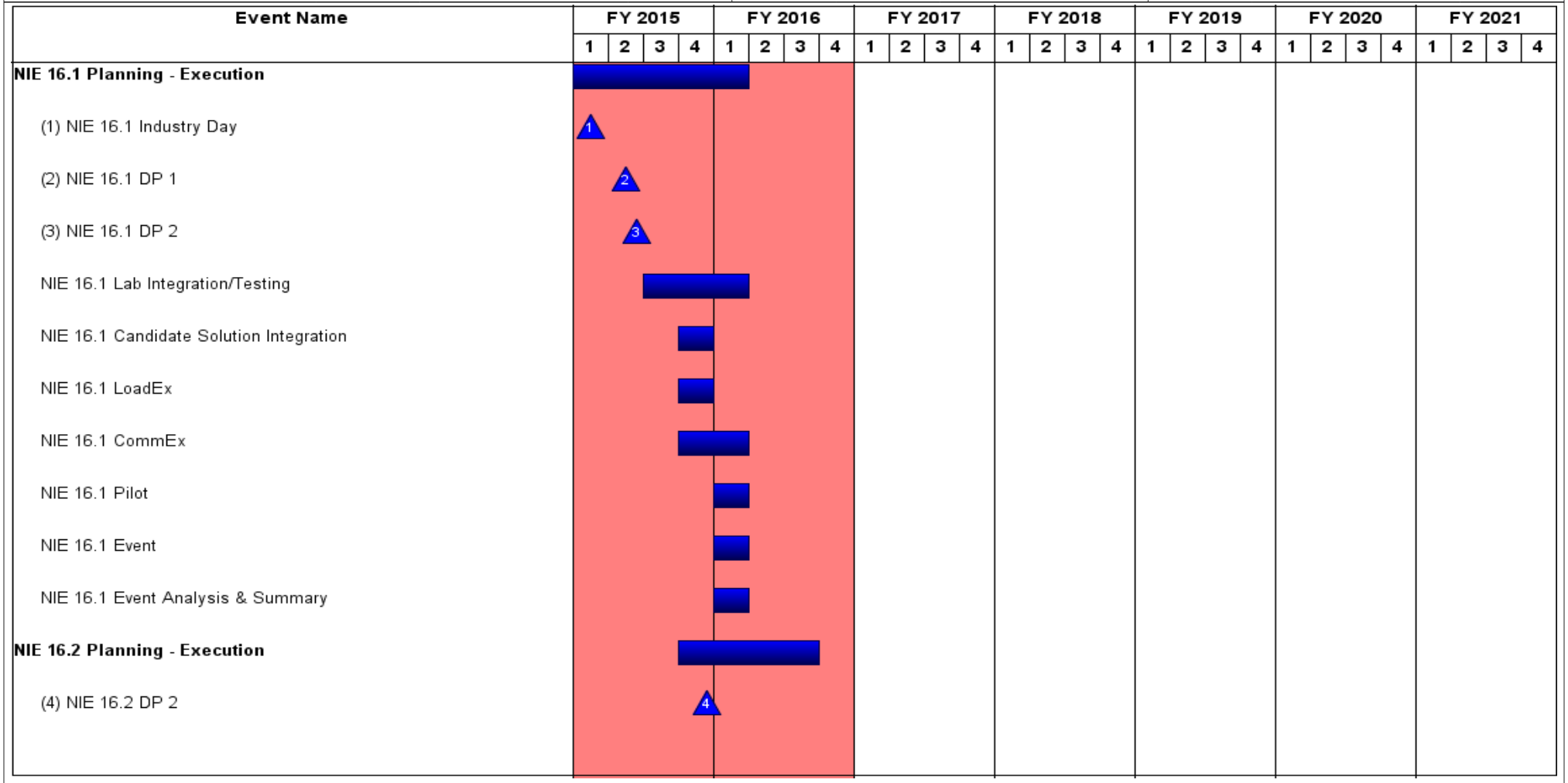

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

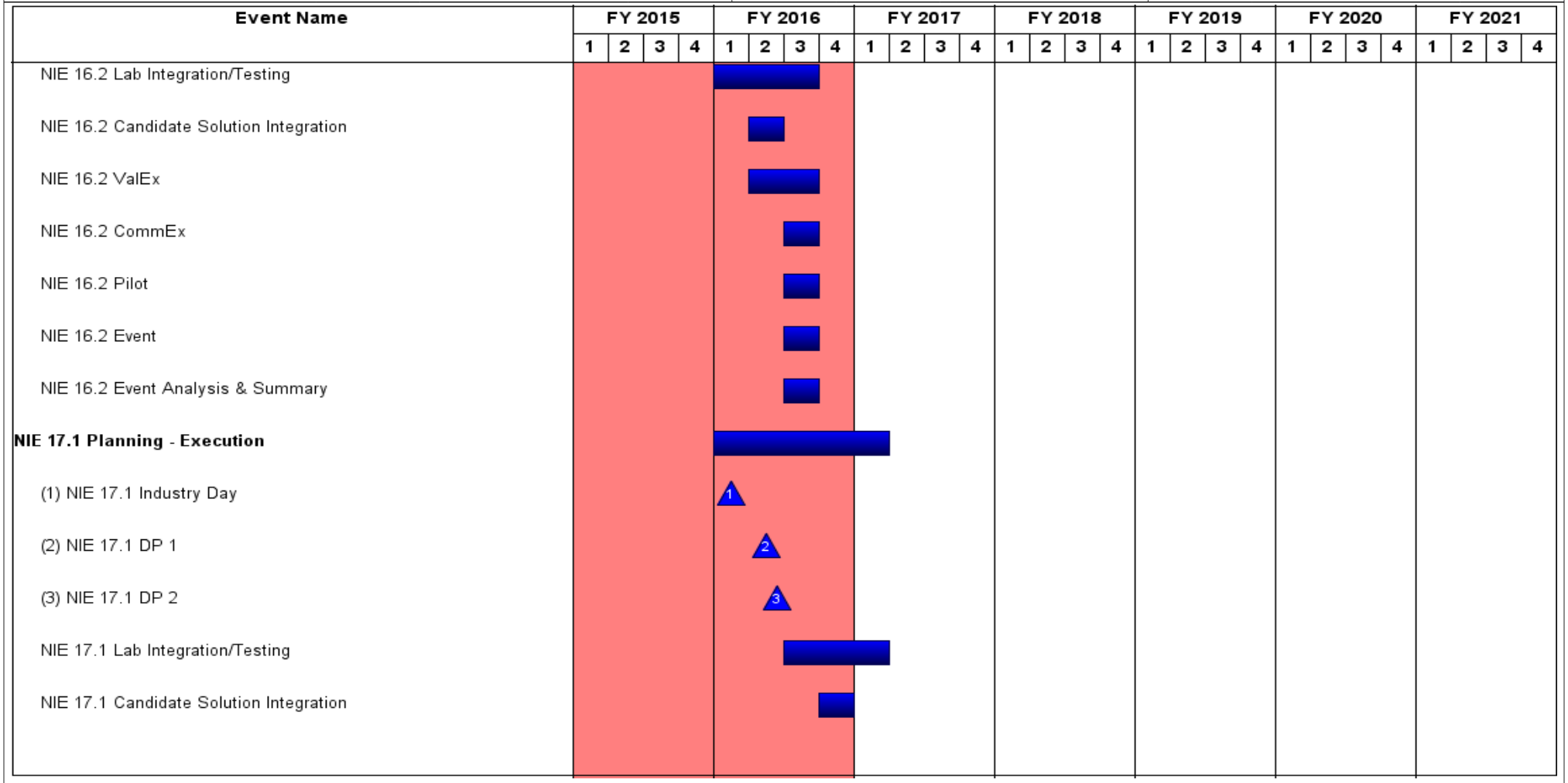

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

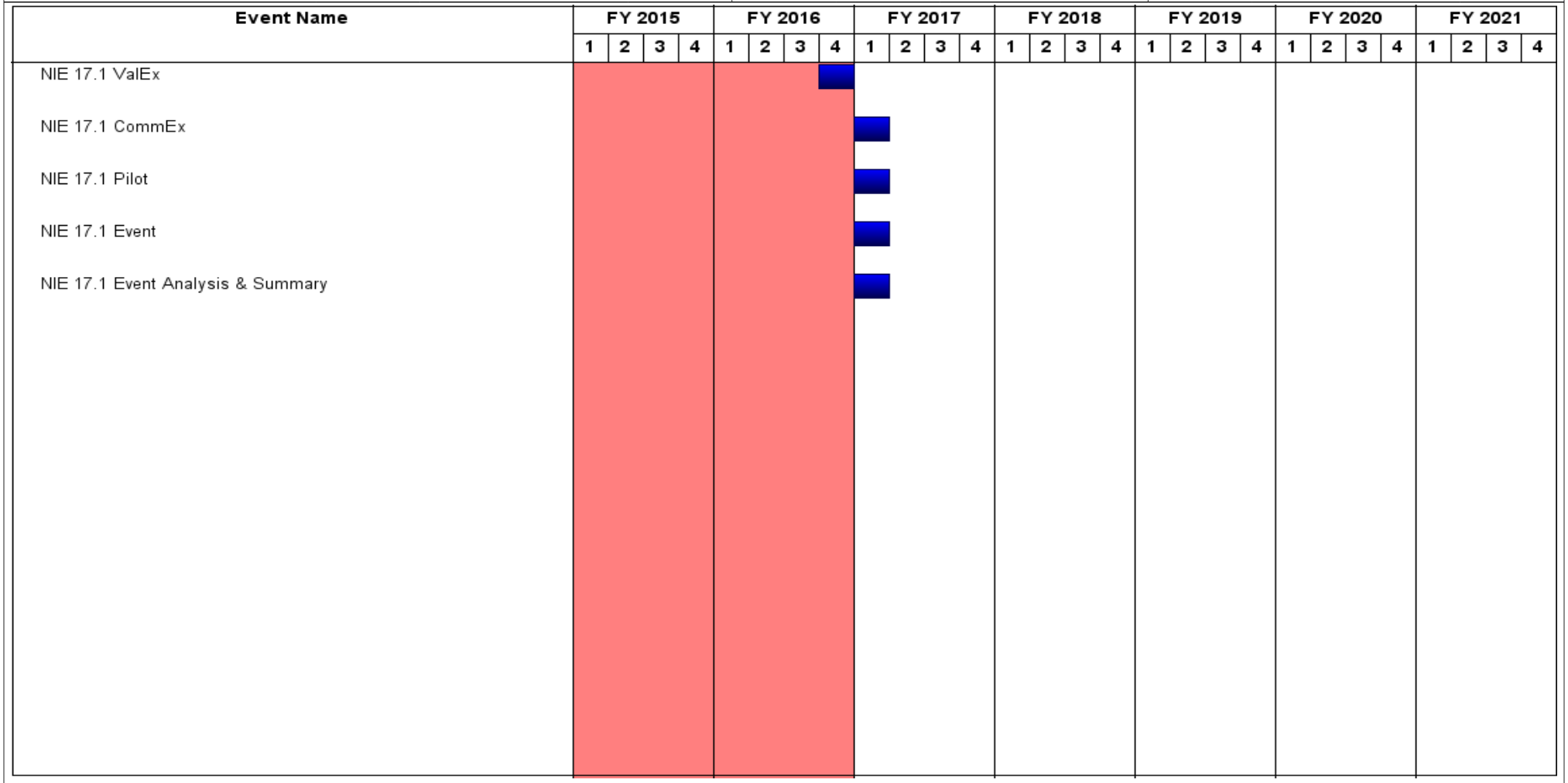

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 15.1 Lab Integration/Testing	3	2014	1	2015
NIE 15.1 CommEx	4	2014	1	2015
NIE 15.1 Pilot	1	2015	1	2015
NIE 15.1 Event	1	2015	1	2015
NIE 15.1 Event Analysis & Summary	1	2015	1	2015
NIE 15.2 Planning - Execution	2	2014	3	2015
NIE 15.2 Lab Integration/Testing	1	2015	3	2015
NIE 15.2 Candidate Solution Integration	2	2015	2	2015
NIE 15.2 LoadEx	2	2015	3	2015
NIE 15.2 CommEx	3	2015	3	2015
NIE 15.2 Pilot	3	2015	3	2015
NIE 15.2 Event	3	2015	3	2015
NIE 15.2 Event Analysis & Summary	3	2015	3	2015
NIE 16.1 Planning - Execution	3	2014	1	2016
NIE 16.1 Industry Day	1	2015	1	2015
NIE 16.1 DP 1	2	2015	2	2015
NIE 16.1 DP 2	2	2015	2	2015
NIE 16.1 Lab Integration/Testing	3	2015	1	2016
NIE 16.1 Candidate Solution Integration	4	2015	4	2015
NIE 16.1 LoadEx	4	2015	4	2015
NIE 16.1 CommEx	4	2015	1	2016
NIE 16.1 Pilot	1	2016	1	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 16.1 Event	1	2016	1	2016
NIE 16.1 Event Analysis & Summary	1	2016	1	2016
NIE 16.2 Planning - Execution	4	2015	3	2016
NIE 16.2 DP 2	4	2015	4	2015
NIE 16.2 Lab Integration/Testing	1	2016	3	2016
NIE 16.2 Candidate Solution Integration	2	2016	2	2016
NIE 16.2 ValEx	2	2016	3	2016
NIE 16.2 CommEx	3	2016	3	2016
NIE 16.2 Pilot	3	2016	3	2016
NIE 16.2 Event	3	2016	3	2016
NIE 16.2 Event Analysis & Summary	3	2016	3	2016
NIE 17.1 Planning - Execution	1	2016	1	2017
NIE 17.1 Industry Day	1	2016	1	2016
NIE 17.1 DP 1	2	2016	2	2016
NIE 17.1 DP 2	2	2016	2	2016
NIE 17.1 Lab Integration/Testing	3	2016	1	2017
NIE 17.1 Candidate Solution Integration	4	2016	4	2016
NIE 17.1 ValEx	4	2016	4	2016
NIE 17.1 CommEx	1	2017	1	2017
NIE 17.1 Pilot	1	2017	1	2017
NIE 17.1 Event	1	2017	1	2017
NIE 17.1 Event Analysis & Summary	1	2017	1	2017

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY5 / *Production/Field Coordination for Capability Sets*	

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
DY5: *Production/Field Coordination for Capability Sets*	-	2.802	4.601	3.960	-	3.960	4.099	4.194	4.286	4.374	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for the development of a coordinated plan for the Production (Integrating components onto vehicle systems) and Fielding (logistics and training) of those Brigade components (both hardware/software in A and/or B Kits) and Division/Corps components (used primarily on the Command Post computing environment) that successfully passed the Network Integration Evaluation (NIE) and have been certified as interoperable for fielding through Army Interoperability Certification events and were approved by the Army's Leadership to be incorporated in subsequent Capability Sets (CS). This project request funds for the coordination of the required activity plan with the applicable Program of Records (PEOs/PMs). This project does not fund the actual production, integration, nor fielding costs associated with the Tactical Capability Set. This project includes government and contractor efforts to integrate and validate that the Army is fielding platforms, components and software that are integrated together to provide increased capabilities for the soldier that are supportable and trainable.

This project includes the following efforts: Provides oversight and direct coordination between participating Program Executive Offices (PEOs), Program Managers (PMs), Research, Development and Engineering Commands (RDECOMs) and the Army's Brigade Combat Teams (BCT) receiving the Tactical Capability Set package, throughout all phases of the Vehicle Integration and Synchronized Fielding process. This begins with an assembly of multiple programs of record (PORs) integrated into the Army Network to achieve enhanced network performance IAW the requirements validation, content and execution priorities received from the Army G-3/5/7 Department of the Army, Military Operations, LandWarNet/ Mission Command Directorate (DAMO LM). The Capability Set process development is structured by working with the PORs to define materiel systems Integrated Basis of Issue (IBOI)/ Architecture by type of Brigade Combat Team (BCT). Capability Set products that have been Materiel Released/Type Classified, have production funding and production are aligned by a single Integrated Master Schedule for design integration, testing, production, kitting, platform integration, training and fielding. This project also includes the direct support during each of the unit's "New Equipment Training" and "New Equipment Fielding", along with the preparation for the BCT's rotation through one of the Army's Combat Training Centers, (Joint Readiness Training Center (JRTC) or National Training Center (NTC)). Upon completion of the Combat Training Center (CTC) rotation the support teams provide oversight to ensure that all training assets are reset and moved to the follow-on BCT and that all After Action activities are closed out. This project also includes coordination with Department of the Army (DA) staff for synchronization of Network Integration Evaluation (NIE) with Integration and Interoperability events leading to a coordinated mission command Army Interoperability Certification (AIC) baseline to support fielding.

The FY 2017 funding is supporting the CS fielding in CY 2017 and also conducting the planning for CS 18. During FY 2017, the Army's current plan is to conduct four (4) IBCT Tactical Capability Set-Sync Fielding (CS-SF), one (1) TAA SBCT Tactical Capability Set Fielding and one (1) Division Headquarter utilizing five CS-SF teams.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Production/Fielding Coordination for Capability Sets	2.614	4.292	3.960

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Description: These funds provide for the following: Development, coordination and execution of the CS Fielding Plan to take the results of previous NIEs and produce, integrate, and field these Brigade improvements to the BCTs. This effort does not fund the production, or integration, or fielding of the capability set, but it does fund the coordination of this activity for the Army through the supporting Program Managers (PMs), Program Executive Officers (PEOs), and Research, Development, Engineering Command (RDECOMs). ***FY 2015 Accomplishments:*** Synchronized, integrated and coordinated Capability Set Fielding for CS-16 and detailed planning for CS-17 and high level planning for CS18/19. • Synchronized integration of BCT Reference architectures consisting of multiple network systems, on multiple configurations of STRYKER, MRAPS, HMMWV and Heavy Armor vehicle platforms, at multiple locations; • Integrated designs by platform, by role, by echelon, and by BCT for CS16 including LTI. • Began to finalize CS-16 requirements and develop and coordinated the Integrated Master Schedule (IMS) for CS-16; • Coordinated A-Kit design, development and production and B-Kit's Integration Kit (IK) design, between system and platforms PEOs and PMs for CS16. • Coordinated and delivered prototype and production builds for CS16 • Exercised Configuration Management (CM) of Platform Architectural implementations, designs, A-Kits, B-Kits, and the IMS for CS16. • Coordinated fielding integration of Program of Record assets in accordance with the defined BCT Reference architecture consisting of multiple systems, on multiple configurations of STRYKER, MRAPS, HMMWV and Heavy Armor vehicle platforms, at several different locations, integrated into multiple gaining Army Units. • Coordinated a synchronized New Equipment Training /New Equipment Fielding (NET/NEF) Integrated Master Schedule (IMS) for fielding of CS-16 to all gaining units. • Completing NET by platforms, by role, by echelon, and by BCT. • Begin CS-17 NET/NEF requirements definition finalization and development of the NET/NEF integrated master schedule. This includes logically scheduling Program of Record unique NET, System of Systems NET (Capability Set holistic classes), and property accountability handoffs as an integrated process to enhance efficiency of the brigade modernization events. • Provided integrated system identification documents to the gaining unit for ease of property transfer in PBUSE. • Provided integrated management of facilities across all fielding activities to efficiently manage facilities requirements linked to the Integrated Master Schedule for all PMs with garrison support activities. • Coordinated standard transfer processes for all PMs to reduce the complexity and administrative burden on the gaining units. Synchronize fielding planning to include synchronized production deliveries, NET, fielding and support (with sponsoring PMs) to execute within the specified ARFORGEN windows.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Synchronized, integrated and coordinated execution of Lower Tactical Internet (LTI) on 700+ platforms for each of four (4) BCTs. Coordinates the set up and execution of the 3ea production lines for each LTI installation including coordination of the unit for platforms to maintain efficient through put of systems. Completed the 1st of 4 LTI Fieldings. • Coordinated funding requirements and delivery/production schedules to ensure production schedules are met to field selected systems. • Completed funding coordination with DA and prioritized requirements at Weapons Systems Reviews (WSR). • Aligned funding requirements for PMs to make updates to their PORs as a result of integrating concepts that affect engineering architecture data products, training packages, logistics packages, etc.			
FY 2016 Plans: Synchronize, integrate and coordinate Tactical Capability Set Fielding for CS-16 and detailed planning for CS-17 and high level planning for CS18/19. • Synchronized integration of BCT Reference architectures consisting of multiple network systems, on multiple configurations of STRYKER, MRAPS, HMMWV and Heavy Armor vehicle platforms, at multiple locations; • Integrate designs by platform, by role, by echelon, and by BCT for CS16 including LTI. • Begin to finalize CS-16 requirements and develop and coordinate the Integrated Master Schedule (IMS) for CS-16; • Coordinate A-Kit design, development and production and B-Kit's Integration Kit (IK) design, between system and platforms PEOs and PMs for CS16. • Coordinate and deliver prototype and production builds for CS16 • Configuration Management (CM) of Platform Architectural implementations, designs, A-Kits, B-Kits, and the IMS for CS16. • Coordinate fielding integration of Program of Record assets in accordance with the defined BCT Reference architecture consisting of multiple systems, on multiple configurations of STRYKER, MRAPS, HMMWV and Heavy Armor vehicle platforms, at several different locations, integrated into multiple gaining Army Units. • Coordinate a synchronized New Equipment Training /New Equipment Fielding (NET/NEF) Integrated Master Schedule (IMS) for fielding of CS-16 to all gaining units. • Complete NET by platforms, by role, by echelon, and by BCT. • Begin CS-17 NET/NEF requirements definition finalization and development of the NET/NEF integrated master schedule. This includes logically scheduling Program of Record unique NET, System of Systems NET (Capability Set holistic classes), and property accountability handoffs as an integrated process to enhance efficiency of the brigade modernization events. • Provides integrated system identification documents to the gaining unit for ease of property transfer in PBUSE. • Provides integrated management of facilities across all fielding activities to efficiently manage facilities requirements linked to the Integrated Master Schedule for all PMs with garrison support activities. • Coordinate standard transfer processes for all PMs to reduce the complexity and administrative burden on the gaining units.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Synchronize fielding planning to include synchronized production deliveries, NET, fielding and support (with sponsoring PMs) to execute within the specified ARFORGEN windows. • Synchronizes, integrates and coordinates execution of Lower Tactical Internet (LTI) on 700+ platforms for each of four (4) BCTs. Coordinates the set up and execution of the 3ea production lines for each LTI installation including coordination of the unit for platforms to maintain efficient through put of systems. • Coordinate funding requirements and delivery/production schedules to ensure production schedules are met to field selected systems. • Complete funding coordination with DA and prioritized requirements at Weapons Systems Reviews (WSR). • Align funding requirements for PMs to make updates to their PORs as a result of integrating concepts that affect engineering architecture data products, training packages, logistics packages, etc. ***FY 2017 Plans:*** These funds provide for the following: - Production/Fielding Coordination for Capability Sets (P/FC-CS): Development, coordination and execution of the CS Fielding plan to take the results of previous NIEs and produce, integrate, and field these Brigade improvements to the BCTs and synchronize, integrate and coordinate Capability Set Fielding for CS16 closeout, CS-17 execution, detailed planning for CS-18 and high level planning for CS19/20. This effort does not fund the production, or integration, or fielding of the capability set, but it does fund the coordination of this activity for the Army through the supporting Program Managers (PMs), Program Executive Officers (PEOs), and Research, Development, Engineering Command (RDECOMs). - P/FC-CS: CS16 Products and Services: Final close out of Materiel Fielding documentation and After Action Reports (AARs) for (1) Total Army Analysis (TAA) Infantry Brigade Combat Team (IBCT) with Lower Tactical Internet (LTI), (3) TAA IBCTs and (1) Division (DIV) Headquarters (HQ). - P/FC-CS: CS17 Products and Services: Synchronize integration of Brigade Combat Team (BCT) consisting of multiple network systems, on multiple configurations of Stryker, Mine Resistant Ambush Protected (MRAPs), High Mobility, Multipurpose Wheeled Vehicle (HMMWV) and Heavy Armor vehicle platforms, at multiple locations; complete synchronization, integration and coordination execution of Capability Set fielding for the following CS17 Units ((45) Total): (2) Total Army Analysis (TAA) 2020 IBCTs with Lower Tactical Internets (LTIs), (1) TAA IBCT, (1) Division Headquarters (HQ) and (1) TAA Stryker Brigade Combat Team (SBCT). Coordinate the integrated designs by platform, by role, by echelon, and by BCT for CS17 including LTI; finalize CS-17 fielding requirements and execute the Integrated Master Schedule (IMS) for CS-17; coordinate A-Kit design, development and production and B-Kit's Integration Kit (IK) design,			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
between system and platforms Program Executive Offices (PEOs) and Program Managers (PMs) for CS17; coordinate and deliver prototype and production builds for CS17; support Configuration Management (CM) of platform configuration implementations, designs, A-Kits, B-Kits, and the IMS for CS17; coordinate fielding integration of Program of Record (POR) assets in accordance with the defined BCT Reference architecture consisting of multiple systems, on multiple configurations of Stryker, MRAPS, HMMWV and Heavy Armor vehicle platforms, at several different locations; integrated into multiple gaining Army Units; and coordinate and publish a synchronized New Equipment Training /New Equipment Fielding (NET/NEF) Integrated Master Schedule (IMS) for fielding of CS-17 to all gaining units. - P/FC-CS: Provides integrated system identification documents to the gaining unit for ease of property transfer in Property Book Unit Supply Enhanced (PBUSE): provides integrated coordination of facilities across all fielding activities to efficiently synchronize facility requirements linked to the IMS for all PMs with garrison support activities; coordinate standard transfer processes for all PMs to reduce the complexity and administrative burden on the gaining units; synchronize fielding planning to include synchronized production deliveries, NET, fielding and support (with sponsoring PMs) to execute within the specified Army Force Generation (ARFORGEN) windows. Synchronizes, integrates and coordinates the execution of LTI on 700+ platforms for each of two (2) IBCTs in FY17: coordinates the set up and execution of the 2 each production lines for each LTI installation including coordination of the unit for platforms to maintain efficient throughput of systems; plan synchronization, integration and coordination of Capability Set fielding for the following CS18 Units ((7) Total): (1) IBCT with JBC-P (Army National Guard (ARNG)), (1) ARNG Division HQ, (2) IBCT Division HQ and (3) TAA IBCTs; coordinate and publish a synchronized New Equipment Training /New Equipment Fielding (NET/NEF) Materiel Fielding Plan (MFP) for fielding of CS-18 to all gaining units; plan a synchronized New Equipment Training /New Equipment Fielding (NET/NEF) Integrated Master Schedule (IMS) for fielding of CS-18 to all gaining units. - P/FC-CS: Provides strategic guidance and priorities, establish organizational goals, develop plan to achieve strategic Army BCT network modernization goals and management of Fielding Integration and Engineering Integration Divisions, CS Scheduler, and Trail Boss team; coordinate and synchronize funding between PEOs that affect engineering architecture data products, training packages, and logistics packages to meet System of Systems integration requirements; provide strategic guidance for fielding integration support teams, in coordination with over 35 PMs and various Army stakeholders, to enable a successful network through Capability Set (CS) fielding as well as modernization of the Army BCT formation network systems into a fully-integrated network; synchronization and execution of all new equipment training and fielding integration activities to include Lower Tactical Internet integration, CS Synchronization meetings, New Materiel Introductory Briefings and Rehearsal of Concepts drills; conduct coordination, development, integration, synchronization and execution of the New Equipment Training, New Equipment Fielding (NET/NEF) and LTI comprehensive schedule that puts the unit on a glide path to successfully train and operate a more robust Network Capability; overall Conduct coordination, synchronization and execution of the New Equipment Training comprehensive schedule; and start planning for fielding to (1) Army National Guard IBCT and (1) Army National Guard Division in FY18-19.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- P/FC-CS: CS18 Products and Services: Conduct synchronization, and coordination of Capability Set fielding for the following CS18 Units ((7) Total): (1) IBCT with LTI (Army National Guard (ARNG)), (1) ARNG Division HQ, (2) IBCT Division HQ and (3) TAA IBCTs; execute a synchronized New Equipment Training /New Equipment Fielding (NET/NEF) Integrated Master Schedule (IMS) for fielding of CS-18 to all gaining units; begin CS-18 NET/NEF requirements definition finalization and development of the NET/NEF integrated master schedule. This includes logically scheduling Program of Record unique NET, System of Systems NET (Capability Set holistic classes), and property accountability handoffs as an integrated process to enhance efficiency of the brigade modernization events. - Integration Engineering Planning and Execution of Capability Sets: (IEP&E-CS) These funds provide for the advance collaboration and coordination with platform and network system Program Managers (PMs) to ensure Capability Set (CS) fielding platform integration design decisions are based on CS Reference Architecture products for CS16-22 to be evaluated in Network Integration Evaluation (NIE) events: develop the Unit-specific architecture (e.g., Integrated Network Basis of Issue (IBOI), Unit Transport Design (TD), etc.) for CS fieldings. Develop, synchronize, integrate and coordinate CS architecture design and test for CS-16 closeout, CS-17, detailed planning for CS-18 and high level planning for CS19-21; engineering coordination with platform and equipment integrators to ensure component through platform level integrated design meets requirements established in the Unit IBOIP; ensure the integrated architecture design is verified and functional. Develop the unit integration design and configuration for CS-16 closeout, CS-17, detailed planning for CS-18 and high level planning for CS19-21. Update and transition architecture products to stakeholders by utilizing Unit specific IBOIPs based on property book/ maintenance analysis and physical inventory comparisons of Forces Command (FORSCOM) assets; assess, synchronize and status production and installation CS Engineering products and processes for platform integration and installation at integration facilities meet delivery schedules; and document and continuously improve engineering activities and process flows for efficiencies. - IEP&E-CS: CS17 Products and Services: Synchronize and monitor platform and network system Size, Weight and Power (SWaP) assessment of Unit specific Architectures in collaboration and coordination with platform and network system PMs; coordinate NRE funding requirements and delivery/ production schedules with the Synch Fielding – Fielding team to ensure production schedules are met to field selected systems; develop, update and finalize the unit specific IBOIP, perform site inventory and analysis, develop CS vehicle/equipment configurations, develop the CS Non-Recurring Engineering (NRE) integration configurations for design (based on NIE Original Equipment Manufacturer involvement). Provide integration status of equipment designs by platform, role, echelon and by BCT for the following CS17 Units ((5) Total): (2) Total Army Analysis (TAA) 2020 IBCTs with Lower Tactical Internets (LTIs), (1) TAA IBCT, (1) Division Headquarters (HQ) and (1) TAA SBCT. Develop, coordinate, document and assess the updated and final LTI integration activities on 700+ platforms and evaluate the integration flow of multiple production lines of numerous platform			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
types; develop, update and finalize the Unit specific IBOIPs (one for each Unit touched) are vetted with vehicle and equipment PMs, TRADOC Capability Managers (TCMs), Program Executive Offices (PEOs), G3/5/7,FORSCOM, Unit personnel and other stakeholders; perform Property Book Unit Supply Enhanced (PBUSE) and Standard Army Maintenance System (SAMS) unit analyses to determine the serial and bumper numbers that are used to align vehicle roles by echelon (based on the Modified Table of Organization and Equipment (MTOE) and Objective Table of Organization and Equipment (OTOE)); perform Unit Inventories to confirm vehicle and legacy equipment configurations, confirm vehicle roles and identify/coordinate in lieu of vehicles for shortages; develop NRE designs for vehicle and equipment (legacy and CS) configurations that will be required for Safety Release/Confirmation (SR/SC) testing; coordinate with platform PMs the NRE configurations that are combined to develop a CS Golden vehicle design candidate list to minimize SR/SC costs; monitor and assess the development of the A-kit design and ensure technical documents will produce a repeatable and consistent integration process using installation manuals and technical data packages. - IEP&E-CS: Monitor and coordinate the production and delivery of all CS A and B kits at the integration facility to assess production risk (technical, schedule and cost); and assess the ability of supporting PMs to produce (or acquire) and integrate CS equipment onto vehicle platforms. Provide technical direction in the establishment of effective manufacturing/integration processes, procedures and facilities; ensure plans for production resources (manpower, material, tooling & test equipment, etc.) are in-place and capable of supporting mission requirements; conduct reviews and assessments at key program decision points to ascertain the level of manufacturing / production readiness to proceed forward in the integration cycle and to ensure Integrated Master Schedule (IMS) event dates are met; monitor and report the status of integration of CS equipment onto platforms (and completed integrated platforms) and assess schedule slippages. - IEP&E-CS: Develop engineering and integration process flows to implement lean six sigma concepts and techniques for process improvements; coordinate with the Synch Fielding (SF) – Fielding team for planning and execution of unit meetings, site inventories, A/B kit deliveries, chalk vehicle block schedules, assessment of Fully Mission Capable condition and integration of vehicle schedules (both component and complete vehicle installations); provide production design and integration strategic guidance, goals and priorities and develop plans to achieve goals; identify and resolve highly complex network problems that cross organizational boundaries and promulgate solutions; assess political, fiscal, and other factors affecting stakeholder needs; work with stakeholders at management levels to resolve problems such as conflicting requirements, funding and priorities; seek innovative solutions to efficiently accomplish multiple efforts within allocated resources; develop capability set engineering products to include processes, schedule, established technical baselines through Technical Exchange Meetings (TEMs) and synchronization across stakeholder organizations. Prepare, review, and approve major engineering communications for internal and external distribution; to include personnel and programmatic documents are properly prepared, approved, routed and archived; perform Risk Management by working with stakeholders to proactively identify technical risks and develop mitigation plans for project execution; assess impacts of risk to			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
performance, cost and schedule; plan, coordinate, lead and conduct the CS Architecture TEMs; document TEM action items and track to closure during Capability Set Management Board (CSMB) action officer working group meetings; and plan, coordinate, lead and conduct weekly CSMB WG meetings to level set all stakeholders concerning current issues, discussion topics and schedule changes. - IEP&E-CS: CS18 Products and Services: Evaluate, synchronize and monitor platform and network system program acquisition schedules, integration costs, and system requirements across organizations for the development of production ready A&B-kit Interface Control Documents (ICDs) and Level II Technical Data Packages (TDPs) supporting CS18 Unit specific baseline evaluations in collaboration and coordination with platform and network system PMs; synchronize CS program schedules through coordination and communication with System of Systems Engineering and Integration (SoSE&I) Engineering and Integration (E&I) and other organizations within and outside of SoSE&I; coordinate with associated SoSE&I Directorates for the integration, forecasting, procurement, testing and delivery of platform integrated Network equipment for CS baseline evaluations (e.g. Business Team, Contracting, SoSE&I Integration Planning, PD Capability Package, SF-Engineering, SF-Fielding, SoSE&I E&I, etc); and vet IBOIPs with vehicle and equipment PMs, TCMs, PEOs, G3/5/7, Unit personnel and other stakeholders. - IEP&E-CS: CS19-22 Products and Services: Evaluate, synchronize and monitor platform and network system SWaP assessment of CS17 Unit specific Architectures in collaboration and coordination with platform and network system PMs; evaluate, synchronize and monitor platform and network system integration risks and mitigation plans for IBOIP identified in the Initial and CS19-22 Reference Architectures in collaboration and coordination with platform and network system PMs; evaluate, synchronize and monitor platform and network system program acquisition schedules, integration costs, and system requirements across organizations for the development of production ready A&B-kit ICDs and Level II TDPs supporting CS19-22 baseline evaluations in collaboration and coordination with platform and network system PMs; adjudicate and resolve operational, technical and programmatic issues for Initial and Reference Architecture Products in collaboration and coordination with SoSE&I-E&I, platform PMs, network system PMs and TCMs; synchronize CS program schedules through coordination and communication with SoSE&I-E&I and other organizations within and outside of SoSE&I; coordinate with associated SoSE&I Directorates for the management, integration, forecasting, procurement, testing and delivery of platform integrated Network equipment for CS baseline evaluations (e.g. Business Team, Contracting, SoSE&I Integration Planning, PD Capability Package, Synch Fielding (SF)-Engineering, SF-Fielding, SoSE&I E&I, etc); support PMs and PEOs in resolution of tasks associated with Network integration; evaluate, synchronize and monitor PM implementation of Vehicular Integration for (C4ISR) Command, Control, Communication, Computers, Intelligence, Surveillance, Reconnaissance /(EW) Electronic Warfare (EW) Interoperability (VICTORY) standards in Initial and CS19-22 Reference			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Architecture products; and begin the planning for CS-19-22 Unit specific IBOIP requirements and develop and coordinate the IMS with all stakeholders.			
Title: Facilities and IT Support ***Description:*** Provides funding for infrastructure/facilities and IT support. ***FY 2015 Accomplishments:*** Provided funding for infrastructure/facilities. In addition it included the cost for IT support from Network connectivity for purchasing/leasing hardware, software, computers, communications equipment and services for the government staff. ***FY 2016 Plans:*** Provides funding for infrastructure/facilities. In addition it includes the cost for IT support from Network connectivity for purchasing/leasing hardware, software, computers, communications equipment and services for the government staff.	0.188	0.309	-
Accomplishments/Planned Programs Subtotals	2.802	4.601	3.960

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
• DY3: *DY3 NIE Test & Evaluation*	4.440	12.215	65.844	-	65.844	67.311	67.899	68.478	71.719	Continuing	Continuing
• DY4: *DY4 Network Integration Support*	16.382	14.131	-	-	-	-	-	-	-	Continuing	Continuing
• DY6: *DY6 Brigade and Platform Integration Support*	33.629	45.504	-	-	-	-	-	-	-	Continuing	Continuing
• DY7: *DY7 Army Systems Engineering, Architecture and Analysis*	16.988	16.416	14.166	-	14.166	24.176	24.651	25.123	25.505	Continuing	Continuing
• DZ6: *DZ6 Army Integration & Coordination Management*	8.716	6.375	5.746	-	5.746	5.952	6.087	6.218	6.352	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project does not have any requirement for direct procurement of hardware or software.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY5 / *Production/Field Coordination for Capability Sets*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Production/Fielding Coordination for Capability Sets	TBD	Various Note: 1 : TBD	3.787	2.614	Nov 2014	4.292		3.960	Nov 2016	-		3.960	0	14.653	0
		Subtotal	3.787	2.614		4.292		3.960		-		3.960	0.000	14.653	0.000

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at, TACOM (Warren MI).
- Program Integration support through various PMs, PEOs, RDECOM.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Facilities and IT Support	TBD	Various Note:1 : TBD	0.272	0.188	Nov 2014	0.309		-		-		-	0	0.769	0
		Subtotal	0.272	0.188		0.309		-		-		-	0.000	0.769	0.000

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at, TACOM (Warren MI).

	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	4.059	2.802		4.601		3.960		-		3.960	0.000	15.422	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

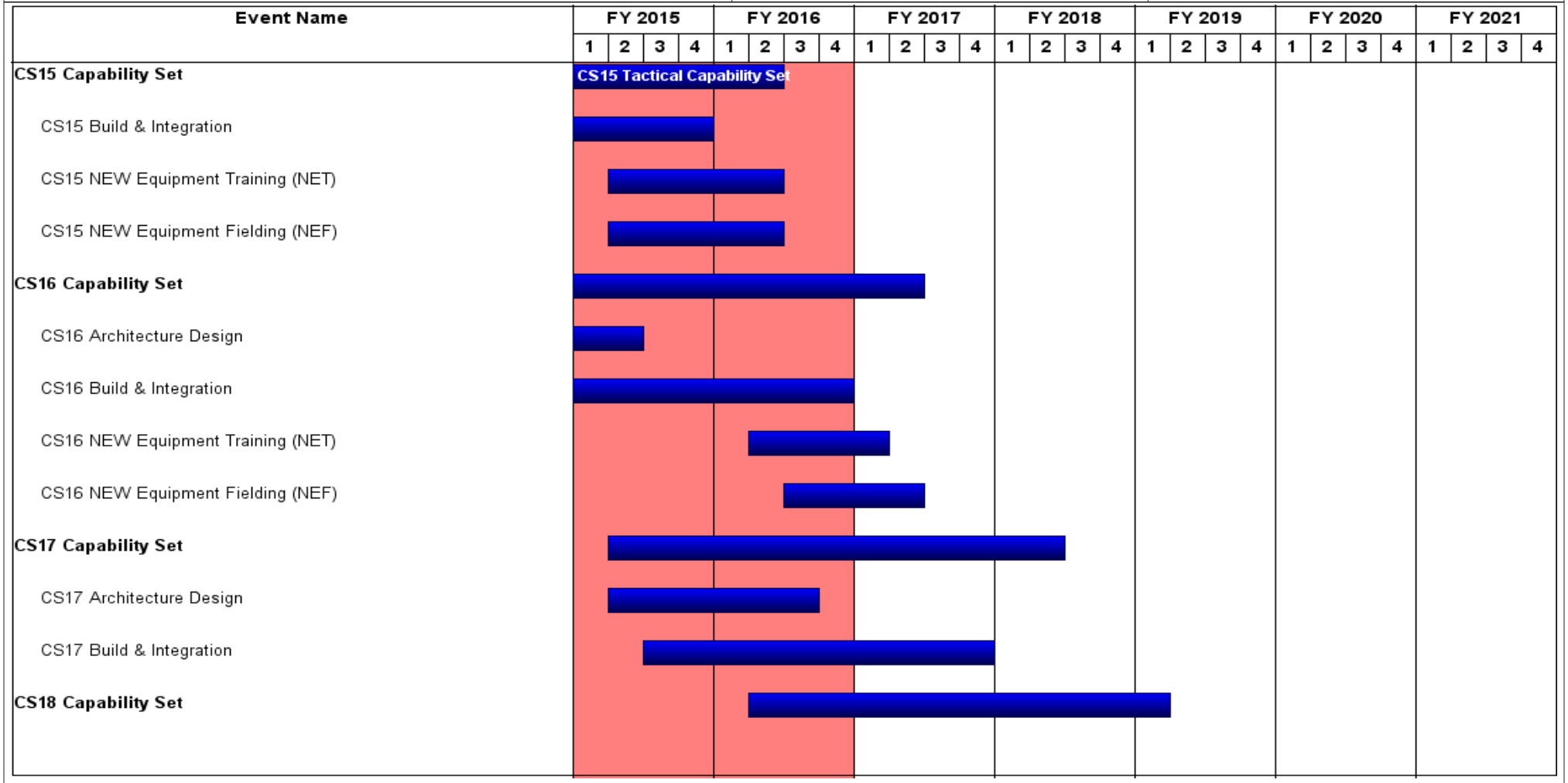

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

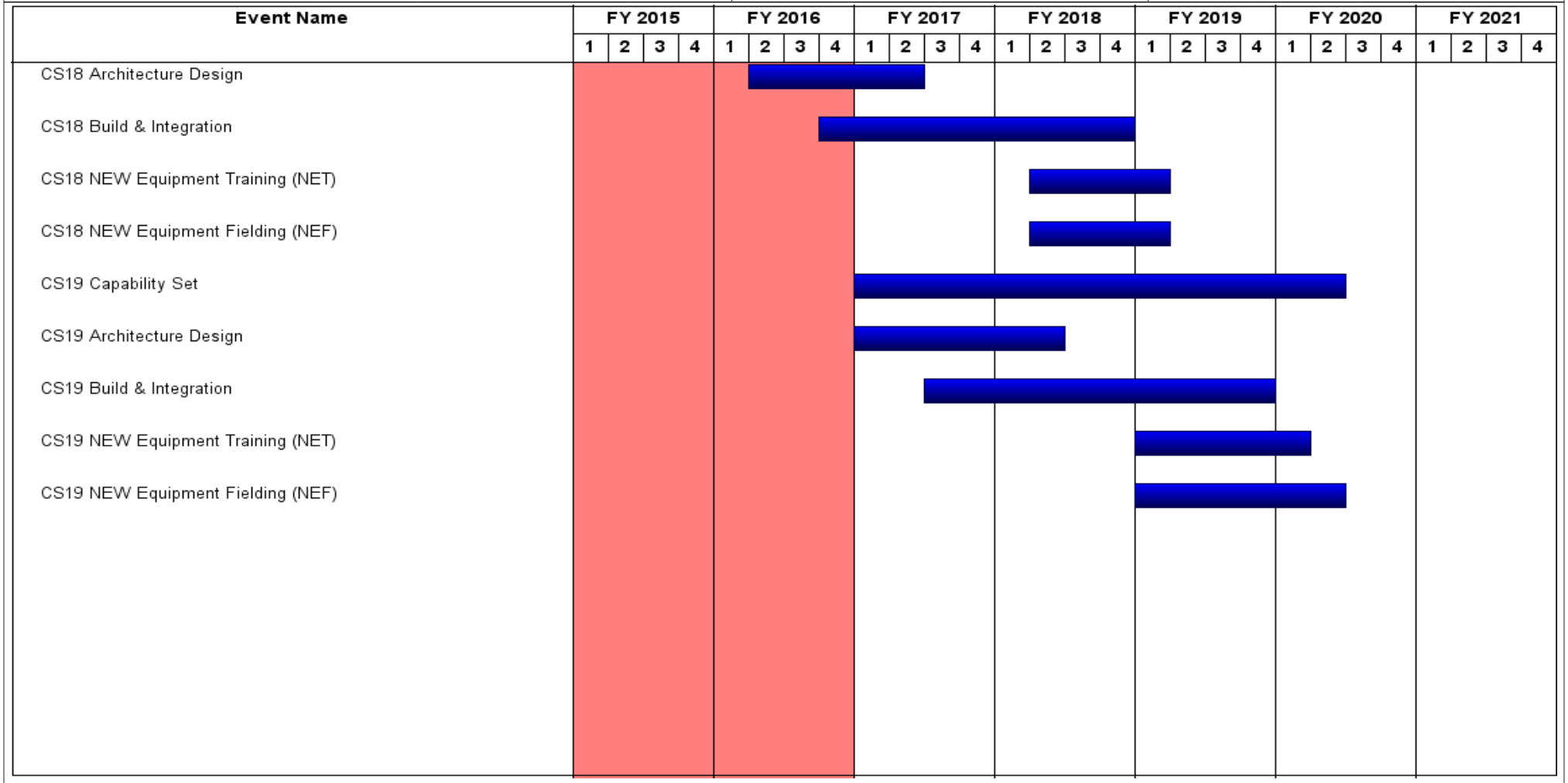

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
CS15 Capability Set	3	2013	2	2016
CS15 Build & Integration	4	2013	4	2015
CS15 NEW Equipment Training (NET)	2	2015	2	2016
CS15 NEW Equipment Fielding (NEF)	2	2015	2	2016
CS16 Capability Set	4	2014	2	2017
CS16 Architecture Design	4	2014	2	2015
CS16 Build & Integration	1	2015	4	2016
CS16 NEW Equipment Training (NET)	2	2016	1	2017
CS16 NEW Equipment Fielding (NEF)	3	2016	2	2017
CS17 Capability Set	2	2015	2	2018
CS17 Architecture Design	2	2015	3	2016
CS17 Build & Integration	3	2015	4	2017
CS18 Capability Set	2	2016	1	2019
CS18 Architecture Design	2	2016	2	2017
CS18 Build & Integration	4	2016	4	2018
CS18 NEW Equipment Training (NET)	2	2018	1	2019
CS18 NEW Equipment Fielding (NEF)	2	2018	1	2019
CS19 Capability Set	1	2017	2	2020
CS19 Architecture Design	1	2017	2	2018
CS19 Build & Integration	3	2017	4	2019
CS19 NEW Equipment Training (NET)	1	2019	1	2020
CS19 NEW Equipment Fielding (NEF)	1	2019	2	2020

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY6 / *Brigade and Platform Integration 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
DY6: *Brigade and Platform Integration Support*	-	33.629	45.504	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	79.133
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Beginning in FY 2017 the funding and mission requirements for this project have been moved to DY3; NIE Test & Evaluation (under this Program Element) to increase transparency.

A. Mission Description and Budget Item Justification

This project supports Phase IV through Phase VI of the Army's Agile Acquisition Process and provides management and oversight for the coordinated Army effort to deliver and maintain Mission Command Baselines as interoperable System of Systems (SoS) capabilities through the synchronization, coordination and facilitation of system deliveries to interoperability certification events.

Based on developed baseline Brigade level architectures, SoS Engineering & Integration (SoSE&I) will assess against approved Department of the Army (DA) objectives and baseline Brigade Combat Team (BCT) architectures to plan for and integrate approved network hardware and software systems onto the Soldier and vehicle systems that comprise the integrated BCT network. Work encompasses design and engineering of hardware and cable interfaces (e.g., A-kits) that enable integration of network hardware onto vehicle platforms; development of network data products required to support evaluations of the network; verification of integrated BCT network performance in garrison and field environments; field support to network hardware and software systems that deploy to the field and participate in operational evaluations conducted throughout the BCT battlespace; and, following the operational evaluation, restoration of selected platforms to their baseline configurations. This project includes government and contractor efforts to validate that the Army is properly integrating and fielding trainable, maintainable, interoperable, and sustainable network systems and components that will provide increased warfighting capabilities for the Soldier. This project includes:

• Integration of lab-developed network solutions onto Soldier and vehicle systems;
• Design, and fabrication of mounting brackets, cables, and kits required to enable vehicle platforms to employ new network hardware and software systems;
• Installation and checkout of network hardware and software systems prior to turning the equipment over to the soldiers who will employ these systems during the Network Integration Evaluation (NIE);
• Funding for Field Service Representative (FSR) support for selected Systems Under Evaluation (SUEs) participating in Phase V of the Army's Agile Process;
• Validation of critical operational threads that demonstrate the stability and continuity of the tactical network exercised during the NIE;
• Planning, coordination, and execution of hardware and software system support during the operational phase of the NIE;
• De-modification of vehicles at completion of the event;
• Documentation of interface kits, performance trends, and Integrated Logistics Support (ILS) data to facilitate hand-off of high-payoff systems to designated Programs of Record (POR);
• Feedback to industry on the performance of their technologies, systems, and concept relative to known operational gaps;
• Maintenance of the infrastructure needed by SOSI to support NIE operations at Ft Bliss, TX and White Sands Missile Range, NM.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

• System of Systems (SoS) and specialty engineering support needed to build upon NIE-provided documentation and execute design integration, production plan and testing of Capability Sets (CSs) which consolidate high-payoff capabilities in integrated fielding packages; and, planning, management, and execution of CS design requirements to synchronize manufacturing development, production, and synchronized fielding to design a BCTs.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Platform Integration Support	12.512	16.929	-
Description: These funds provide for integration of network solutions onto Soldier and vehicle systems to enable an integrated network across the brigade battlespace. ***FY 2015 Accomplishments:*** This effort supported all activities associated with vehicle and platform integration. The work began with the selection of network hardware and software systems at Decision Point (DP) 2 of the Army's Agile Process and included execution of CS-14 synchronized fielding; execution of NIE 15.2 and 16.1 activities that supported future (CS-16 and CS-17) requirements; and detailed planning for CS-16 activities. • Coordination and planning of hardware and software system deliveries to SOSI activities at Fort Bliss, TX; • Vehicle Integration (VI) planning and scheduling for 21 Golden Vehicles and integrated and networked platforms during NIE 15.2 and 25 Golden Vehicles and 267 fleet vehicles for AWA 16.1; • VI execution; • Network validation; • Field support; • Recovery from NIE field operations; • Developed and delivered CS-15 Implementation Architecture; • Documentation and handoff of critical information to support implementation of CS-15 efforts; • CS-16 planning and design analysis; • Synchronized fielding of CS-15 systems. Vehicle integration: Leveraging the work performed during FY2014 and using brigade architectures that represent an evolving network modernization strategy: • Developed Basis of Issue Plans (BOIPs) for each participating network hardware and software system; • Identified the type (or types) of vehicle platforms that will host each network system; • Identified and documented vehicle size, weight, power, and electromagnetic constraints • Given vehicle size, weight, power, and electromagnetic constraints, developed engineering designs for the complete hardware kits (e.g., the brackets, mounting trays, cables, and other components that comprise an "A-Kit") needed to integrate each unique network hardware system onto each type of host platform that will participate in the NIE; • Fabricated unique hardware components needed to support vehicle integration efforts;			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Integrated and verified the performance of each unique network system (e.g., B-kit) on its host vehicle - as specified by the BOIP; Support installation and integration of instrumentation kits needed to collect data from designated network systems and verify that the instrumentation does not impact the performance of the network system; • Supported the conduct of safety certification and release efforts for each unique vehicle configuration; • Performed SoS checkouts to ensure all SOSI-installed network hardware and software systems operate with each other, legacy systems, and other POR systems participating in the NIE; • Provided troubleshooting support for network validation exercises and selected network systems during the operational phase of the NIE; • De-installed selected systems following each NIE; • Documentation and transfer of interface designs, training support requirements, performance trends, ILS requirements, and lessons learned to CS systems engineering teams; • Systems Engineering (SE) to mature the network interface designs developed during the NIE and enable expedited CS fielding; • Synchronized integration of a BCT Reference architecture consisting of multiple network systems, on multiple configurations of STRYKER, MRAPS, HMMWV and Heavy Armor vehicle platforms, at multiple locations; • Coordinated a synchronized Integrated Master Schedule (IMS) for fielding of CS-14 to all gaining units. • Integrated designs by platform, by role, by echelon, and by BCT. • Began to finalize CS-16 requirements and develop and IMS for CS-16; • Coordinated A-Kit design, development and production and B-Kit's Integration Kit (IK) design, between system and platforms PEOs and PMs. • Coordinated and delivered prototype and production builds • Configuration Management (CM) of Platform Architectural implementations, designs, A-Kits, B-Kits, and the IMS. • Systems Engineering (SE) to include: design maturation, decomposition of reference architecture into platform specific implementations network architecture, prototype/production build, integrated testing, configuration of integrated baseline and an integrated schedule for component management • Synchronize acquisition strategy and planning to include: synchronized production deliveries, fielding and support (with sponsoring PMs) to maintain the ARFORGEN Cycle.			
FY 2016 Plans: This effort supports all activities associated with vehicle and platform integration. The work begins with the selection of network hardware and software systems at Decision Point (DP) 2 of the Army's Agile Process and includes execution of CS-14 synchronized fielding; execution of NIE 15.2 and 16.1 activities that support future (CS-16 and CS-17) requirements; and implementation architecture for CS-16 activities. • Coordination and planning of hardware and software system deliveries to SoSE&I activities at Fort Bliss, TX; • Vehicle Integration (VI) planning and scheduling;			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• VI execution; • Network validation; • Field support; • Recovery from NIE field operations; • Develop and deliver CS-15 Implementation Architecture; • Documentation and handoff of critical information to support implementation of CS-15 efforts; • CS-16 planning and design analysis; • Synchronized fielding of CS-15 systems. Vehicle integration: Leveraging the work performed during FY2014 and using brigade architectures that represent an evolving network modernization strategy: • Develop Basis of Issue Plans (BOIPs) for each participating network hardware and software system; • Identify the type (or types) of vehicle platforms that will host each network system; • Identify and document vehicle size, weight, power, and electromagnetic constraints • Given vehicle size, weight, power, and electromagnetic constraints, develop engineering designs for the complete hardware kits (e.g., the brackets, mounting trays, cables, and other components that comprise an "A-Kit") needed to integrate each unique network hardware system onto each type of host platform that will participate in the NIE; • Fabricate unique hardware components needed to support vehicle integration efforts; • Integrate and verify the performance of each unique network system (e.g., B-kit) on its host vehicle - as specified by the BOIP; • Support installation and integration of instrumentation kits needed to collect data from designated network systems and verify that the instrumentation does not impact the performance of the network system; • Support the conduct of safety certification and release efforts for each unique vehicle configuration; • Perform SoS checkouts to ensure all SoSE&I-installed network hardware and software systems operate with each other, legacy systems, and other POR systems participating in the NIE; • Provide troubleshooting support for network validation exercises and selected network systems during the operational phase of the NIE; • De-installation of selected systems following each NIE; • Documentation and transfer of interface designs, training support requirements, performance trends, ILS requirements, and lessons learned to CS systems engineering teams; • Systems Engineering (SE) to mature the network interface designs developed during the NIE and enable expedited CS fielding; • Synchronized integration of a BCT Reference architecture consisting of multiple network systems, on multiple configurations of STRYKER, MRAPS, HMMWV and Heavy Armor vehicle platforms, at multiple locations; • Coordinate a synchronized Integrated Master Schedule (IMS) for fielding of CS-14 to all gaining units. • Integrate designs by platform, by role, by echelon, and by BCT. • Begin to finalize CS-16 requirements and develop and IMS for CS-16;			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Coordinate A-Kit design, development and production and B-Kit's Integration Kit (IK) design, between system and platforms PEOs and PMs. • Coordinate and deliver prototype and production builds • Configuration Management (CM) of Platform Architectural implementations, designs, A-Kits, B-Kits, and the IMS. • Systems Engineering (SE) to include: design maturation, decomposition of reference architecture into platform specific implementations network architecture, prototype/production build, integrated testing, configuration of integrated baseline and an integrated schedule for component management • Synchronize acquisition strategy and planning to include: synchronized production deliveries, fielding and support (with sponsoring PMs) to maintain the ARFORGEN Cycle.			
Title: Brigade Integration Support	9.123	12.345	-
Description: These funds provide for the testing and verification of network components integrated with the BCT's vehicle and soldier systems that participate in NIEs. ***FY 2015 Accomplishments:*** Integration: Once VI for NIE 15.2 and 16.1 was completed, SoSE&I conducted a Network Validation Exercise (VALEX) to demonstrate network stability, connectivity, and performance in controlled conditions. VALEX consisted of four phases: Load, Established, Integrate and Validate Threads. • During the Load phase, network systems and SoSE&I engineers installed network software, firmware, and Operating Systems (OSs), set Internal Protocol (IP) addresses and configured all network systems on all NIE-unique platforms (Note: Program of Record (POR) and Legacy engineers and FSRs performed the same tasks on any of their platforms that participated in the NIE; PORs were NOT funded by SoSE&I to perform these functions). Once all software and data products were loaded, SoSE&I and supporting network engineers and FSRs performed test/fix/test processes at the network system and component level. • During the Establish phase, this effort resourced SoSE&I engineers and FSRs to work with Legacy and POR network support personnel to verify network hardware and software performance at the platform level. This effort worked through all issues associated with network system configurations and ensured that each NIE platform had the ability to perform its role within the tactical network. • In the Integrate phase, this project enabled SoSE&I engineers and FSRs to work with Legacy and POR network personnel to verify network hardware and software performance at the SoS platform level – from the small unit (e.g., company, troop, or battery) up to the brigade. This effort worked through all issues associated with network SoS configurations and ensured that each networked tactical units interact with each other as expected. Activities during the Integrate Phase included training the Soldiers who will be using the new BCT network during the NIE. The Validate phase executed operational threads designed to demonstrate the BCT network's ability to provide specific capabilities to the BCT commander. Throughout VALEX planning and execution, SoSE&I coordinated with the Army Test and Evaluation Command (ATEC) and Brigade Modernization Command			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
(BMC) to ensure network instrumentation, training, and operational requirements were Synchronized and executed according to plan ***FY 2016 Plans:*** Brigade Integration: Once Vehicle Integration (VI) for NIE 16.2 and 17.1 is complete; SOSE&I will conduct a Network Validation Exercise (VALEX) to demonstrate network stability, connectivity, and performance in controlled conditions. VALEX consists of four phases: Load, Established, Integrate and Validate Threads. • During the Load phase, network systems and SoS engineers install network software, firmware, and Operating Systems (OSs), set Internal Protocol (IP) addresses and configure all network systems on all NIE-unique platforms (Note: Program of Record (POR) and Legacy engineers and FSRs perform the same tasks on any of their platforms that will participate in an NIE; PORs are NOT funded by SOSE&I to perform these functions). Once all software and data products are loaded, SOSE&I and supporting network engineers and FSRs perform test/fix/test processes at the network system and component level. • During the Establish phase, this effort resources SOSE&I engineers and FSRs to work with Legacy and POR network support personnel to verify network hardware and software performance at the platform level. This work troubleshoots any issues associated with network system configurations and ensures that each NIE platform has the ability to perform its role within the tactical network. • In the Integrate phase, this project enables SOSE&I engineers and FSRs to work with Legacy and POR network personnel to verify network hardware and software performance at the SoS platform level – from the small unit (e.g., company, troop, or battery) up to the brigade. This work troubleshoots any issues associated with network SoS configurations and ensures that each networked tactical units interact with each other as expected. Activities during the Integrate Phase include training of the Soldiers who will be using the new BCT network during the NIE • The Validate phase executes operational threads designed to demonstrate the BCT network's ability to provide specific capabilities to the BCT commander. Throughout VALEX planning and execution, SOSE&I coordinates with the Army Test and Evaluation Command (ATEC) and Brigade Modernization Command (BMC) to ensure network instrumentation, training, and operational requirements are coordinated.			
Title: Network Integration Support ***Description:*** These funds provide for the field setup, validation, verification and correction of the network for the NIE. ***FY 2015 Accomplishments:*** Network Integration funds Data Product builds for all transport layer communication devices. This effort included: • Development of the NIE network's Lightweight Data Interchange Format (LDIF) file; All NETOPS synchronization and coordination activities;	4.403	5.957	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Government Subject Matter Experts (SME) who assisted in the integration of specialized communication hardware in BCT Command and Control (C2) centers; • Contractor FSRs and network Subject Matter Experts (SMEs) who helped SoSE&I ensure the network is operational during VALEX, BCT Communications Exercises (COMMEXs), NIE Pilot Testing, and NIE execution. ***FY 2016 Plans:*** Network Integration funds Data Product builds for all transport layer communication devices. This effort includes: • Development of the NIE network's Lightweight Data Interchange Format (LDIF) file; • All NETOPS synchronization and coordination activities; • Government Subject Matter Experts (SME) who assist in the integration of specialized communication hardware in BCT Command and Control (C2) centers; • Contractor FSRs and network Subject Matter Experts (SMEs) who help SOSI ensure the network is operational during VALEX, BCT Communications Exercises (COMMEXs), NIE Pilot Testing, and NIE execution.			
Title: NIE Infrastructure ***Description:*** Provides for Infrastructure (facilities) at FT Bliss TX and WSMR. ***FY 2015 Accomplishments:*** Provided for setup, utilities, furniture, equipment and maintenance (of all equipment and facilities) used by SoSE&I at Fort Bliss TX, (FBTX) during the planning and execution of NIE 15.2 and 16.1. Included lease and support maintenance contracts for Government Service Administration (GSA) vehicles that supported the NIE mission at FBTX/WSMR; it did not include funding of any facilities at WSMR. ***FY 2016 Plans:*** Provides for setup, utilities, furniture, equipment and maintenance (of all equipment and facilities) used by SoSE&I at Fort Bliss TX, (FBTX during the planning and execution of NIE 16.2 and 17.1. Includes lease and support maintenance contracts for Government Service Administration (GSA) vehicles that support the NIE mission at FBTX/WSMR; it does not include funding of any facilities at WSMR.	0.864	1.169	-
Title: Network Integration Evaluation SUE support (NIE) ***Description:*** These funds provide for selected SUEs participation in NIE during Phase V of the Army's Agile process. ***FY 2015 Accomplishments:*** Provided funding to support integration and evaluation of industry and government technologies which are being selected as SUEs for participation in NIE 15.2 & 16.1 which supported two semi-annual events. These funds covered the NIE participant's (Existing technologies, and contractors) costs for travel, and shipment of equipment, Contractor Field Service Representatives	0.774	1.048	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
(CFSRs) integration A-kit development, and the purchase of additional prototypes which were needed to effectively accomplish the detailed evaluations of the complete network architecture. Included costs for development of integration hardware and software (A-KIT design support). In preparation for the NIE, the selected units that participated in the NIE VALEX at FBTX. After hand-off of vehicles, the participating test units deployed to the tactical training/evaluation areas on FBTX and WSMR and completed the NIE event (4 weeks). This effort also met all of the unique SUE support requirements (such as escort and transport personnel and provided facility work areas during the events). ***FY 2016 Plans:*** Provides funding to support integration and evaluation, to support semi-annual events of industry and/or government technologies which are being selected as SUEs for participation in NIE 16.2 & 17.1 to achieve Army's Network 2020 and Force 2025 goals. These funds cover the NIE participant's (Emerging and existing technologies, and contractors) costs for travel, and shipment of equipment, Contractor Field Service Representatives (CFSRs) integration A-kit development, and the purchase of additional prototypes when needed to effectively complete detailed evaluations of the complete network architecture. Includes costs for development of integration hardware and software (A-KIT design support). In preparation for the NIE, the selected units participate in the NIE VALEX at FBTX. After hand-off of vehicles, the participating test units deploy to the tactical training/ evaluation areas on FBTX and WSMR to complete the NIE event (4 weeks). This effort also supports any unique SUE support requirements (such as escort personnel, transportation, or facilities).			
Title: Platform/BDE Integration Management Support ***Description:*** These funds provide for all SoSE&I government and contractor personnel providing direct management, systems engineering, and specialty engineering support to the Platform and Brigade Integration efforts at Ft Bliss in support of the NIE. ***FY 2015 Accomplishments:*** This effort included all program, information, security, business, and personnel management efforts required to support the Network Integration teams. It includes: • Program management • Schedule development and management; • Contracting and financial management; • Cost analysis; • Personnel management; • Operations; • Security management; • NIE event management; • Information Assurance; • Information management;	5.953	8.056	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Database and IT support; • Facilities and infrastructure management; and, • Knowledge management. In addition to people, costs included all IT support for Network connectivity i.e., purchasing/leasing hardware,software, computers, communications equipment and services.			
FY 2016 Plans: This effort includes all program, information, security, business, and personnel management efforts required to support the Network Integration teams. It includes: • Program management • Schedule development and management; • Contracting and financial management; • Cost analysis; • Personnel management; • Operations; • Security management; • NIE event management; • Information Assurance; • Information management; • Database and IT support; • Facilities and infrastructure management; and, • Knowledge management. In addition to people, costs include all IT support for Network connectivity i.e., purchasing/leasing hardware, software, computers, communications equipment and services.			
Accomplishments/Planned Programs Subtotals	33.629	45.504	-

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
• DY3: *DY3 NIE Test & Evaluation*	4.440	12.215	65.844	-	65.844	67.311	67.899	68.478	71.119	Continuing	Continuing
• DY4: *DY4 Network Integration Support*	16.382	14.131	-	-	-	-	-	-	-	Continuing	Continuing
• DY5: *DY5 Production/Fielding Coordination for Capability Sets*	2.802	4.601	3.960	-	3.960	4.099	4.194	4.286	4.374	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

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
• DY7: *DY7 Army Systems Engineering, Architecture and Analysis*	16.988	16.416	14.166	-	14.166	24.176	24.651	25.123	25.505	Continuing	Continuing
• DZ6: *DZ6 Army Integration & Coordination Management*	8.716	6.375	5.746	-	5.746	5.952	6.087	6.218	6.352	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project does not have any requirement for direct procurement of hardware or software.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY6 / *Brigade and Platform Integration Support*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Platform Integration Support	TBD	Various Note: 1 : TBD	8.990	12.512	Nov 2014	16.929		-		-		-	0	38.431	0
Brigade Integration Support	TBD	Various Note: 1 : TBD	8.349	9.123	Nov 2014	12.345		-		-		-	0	29.817	0
Network Integration Support	TBD	Various Note: 1 : TBD	8.185	4.403	Nov 2014	5.958		-		-		-	0	18.546	0
Network Integration Evaluation SUE support (NIE)	TBD	Various Note: 1 : TBD	11.531	0.774	Nov 2014	1.882		-		-		-	0	14.187	0
Platform/BDE Integration Management Support	TBD	Various Note: 1 : TBD	1.658	5.953	Nov 2014	5.134		-		-		-	0	12.745	0
		Subtotal	38.713	32.765		42.248		-		-		-	0.000	113.726	0.000

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at TACOM (Warren MI), FT Bliss (TX), White Sands Missile Range (NM).
- Program Integration support through various PMs, PEOs, RDECOM, and a multitude of small support and industry contractors.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Infrastructure Support	TBD	Various Note: 1 : TBD	2.335	0.864	Nov 2014	3.256		-		-		-	0	6.455	0
		Subtotal	2.335	0.864		3.256		-		-		-	0.000	6.455	0.000

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at FT Bliss (TX), White Sands Missile Range (NM).
- Program Integration support through various PMs, PEOs, RDECOM, and a multitude of small support and industry contractors.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY6 / *Brigade and Platform Integration 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	41.048	33.629		45.504		-		-		-	0.000	120.181	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

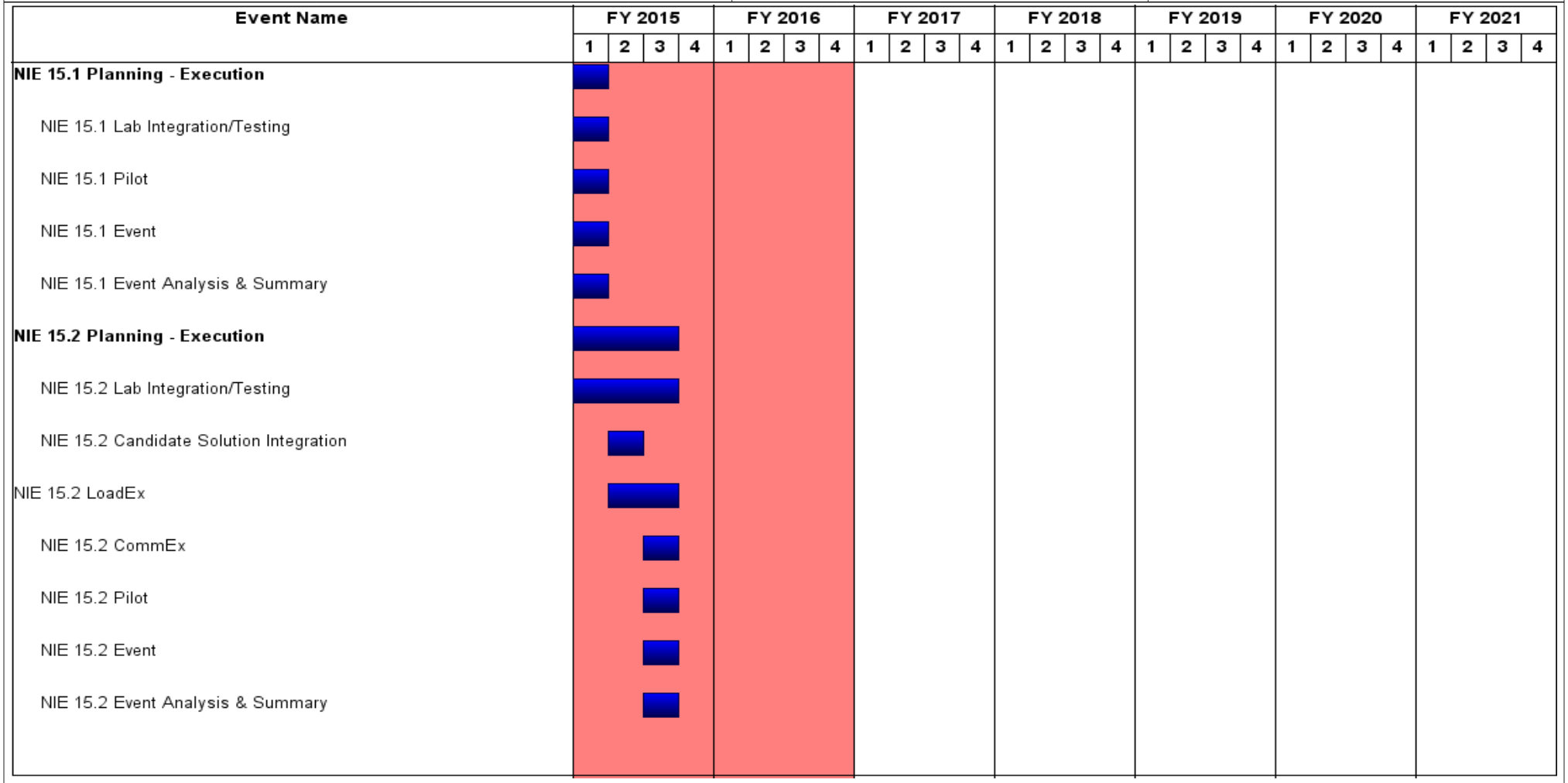

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

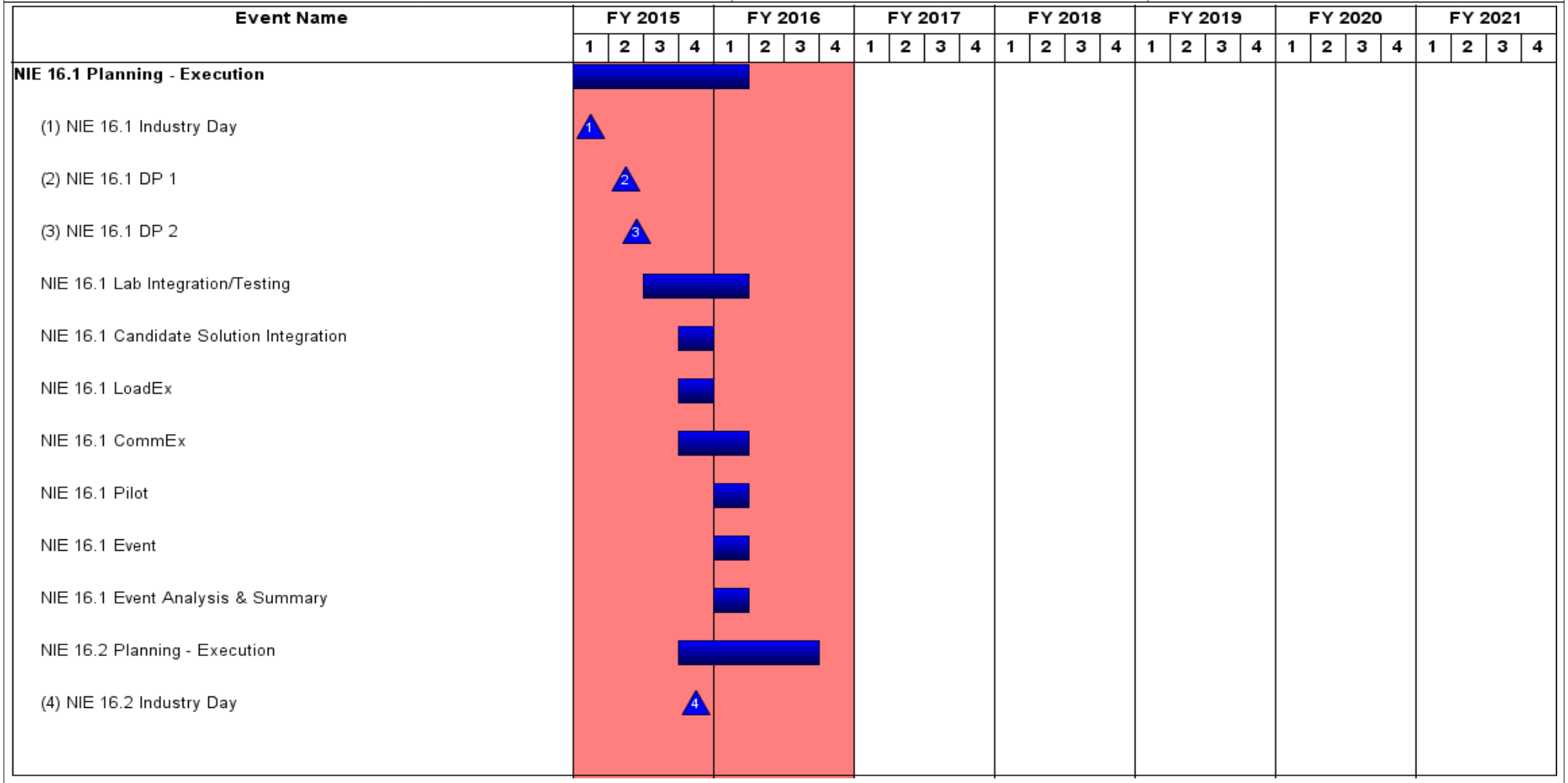

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

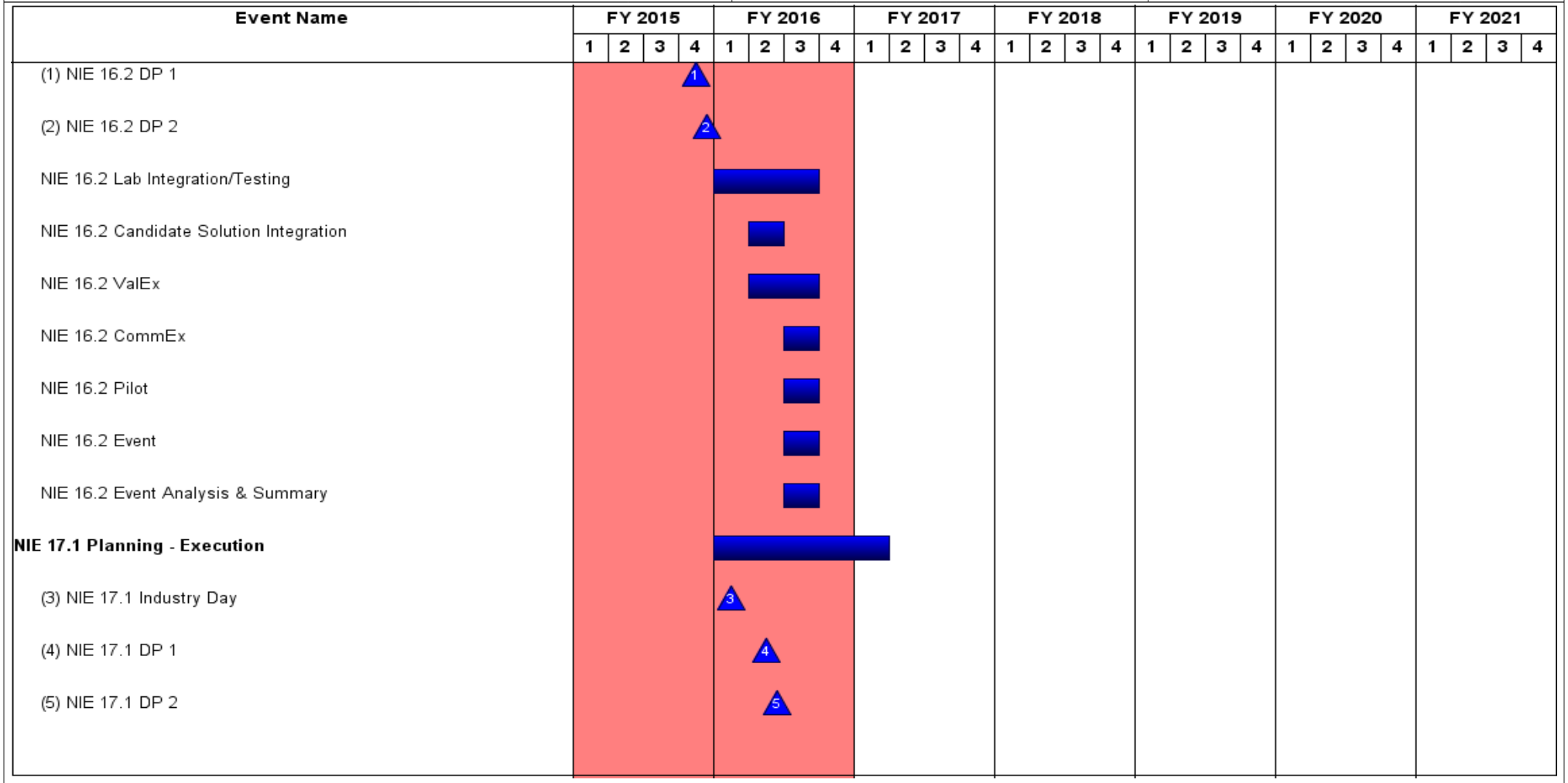

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

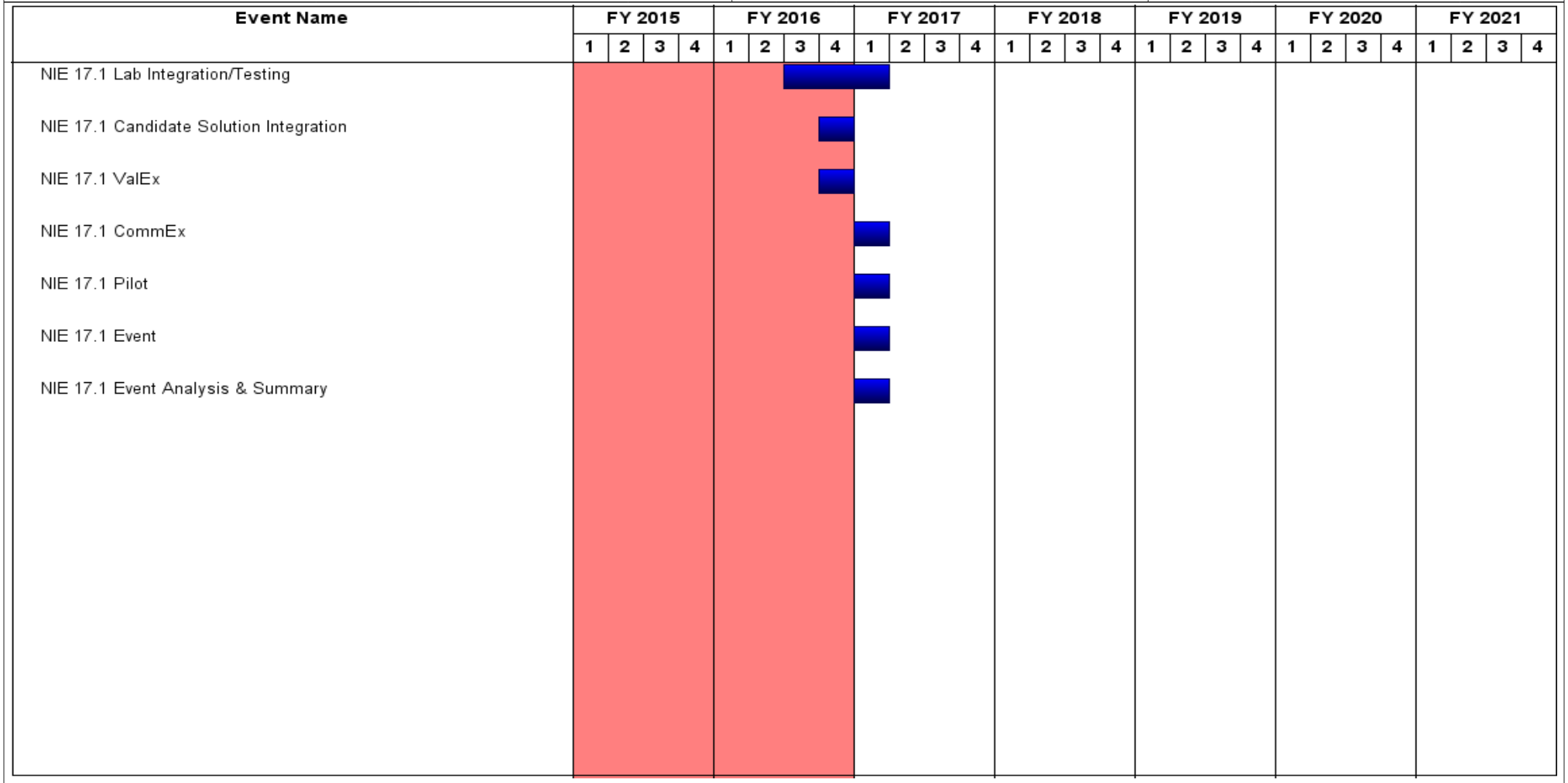

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 15.1 Planning - Execution	3	2013	1	2015
NIE 15.1 Lab Integration/Testing	3	2014	1	2015
NIE 15.1 Pilot	1	2015	1	2015
NIE 15.1 Event	1	2015	1	2015
NIE 15.1 Event Analysis & Summary	1	2015	1	2015
NIE 15.2 Planning - Execution	2	2014	3	2015
NIE 15.2 Lab Integration/Testing	1	2015	3	2015
NIE 15.2 Candidate Solution Integration	2	2015	2	2015
NIE 15.2 LoadEx	2	2015	3	2015
NIE 15.2 CommEx	3	2015	3	2015
NIE 15.2 Pilot	3	2015	3	2015
NIE 15.2 Event	3	2015	3	2015
NIE 15.2 Event Analysis & Summary	3	2015	3	2015
NIE 16.1 Planning - Execution	3	2014	1	2016
NIE 16.1 Industry Day	1	2015	1	2015
NIE 16.1 DP 1	2	2015	2	2015
NIE 16.1 DP 2	2	2015	2	2015
NIE 16.1 Lab Integration/Testing	3	2015	1	2016
NIE 16.1 Candidate Solution Integration	4	2015	4	2015
NIE 16.1 LoadEx	4	2015	4	2015
NIE 16.1 CommEx	4	2015	1	2016
NIE 16.1 Pilot	1	2016	1	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 16.1 Event	1	2016	1	2016
NIE 16.1 Event Analysis & Summary	1	2016	1	2016
NIE 16.2 Planning - Execution	4	2015	3	2016
NIE 16.2 Industry Day	4	2015	4	2015
NIE 16.2 DP 1	4	2015	4	2015
NIE 16.2 DP 2	4	2015	4	2015
NIE 16.2 Lab Integration/Testing	1	2016	3	2016
NIE 16.2 Candidate Solution Integration	2	2016	2	2016
NIE 16.2 ValEx	2	2016	3	2016
NIE 16.2 CommEx	3	2016	3	2016
NIE 16.2 Pilot	3	2016	3	2016
NIE 16.2 Event	3	2016	3	2016
NIE 16.2 Event Analysis & Summary	3	2016	3	2016
NIE 17.1 Planning - Execution	1	2016	1	2017
NIE 17.1 Industry Day	1	2016	1	2016
NIE 17.1 DP 1	2	2016	2	2016
NIE 17.1 DP 2	2	2016	2	2016
NIE 17.1 Lab Integration/Testing	3	2016	1	2017
NIE 17.1 Candidate Solution Integration	4	2016	4	2016
NIE 17.1 ValEx	4	2016	4	2016
NIE 17.1 CommEx	1	2017	1	2017
NIE 17.1 Pilot	1	2017	1	2017
NIE 17.1 Event	1	2017	1	2017
NIE 17.1 Event Analysis & Summary	1	2017	1	2017

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army										Date: February 2016		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*				Project (Number/Name) DY7 / *Army Systems Engineering, Architecture & Analysis*			
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**
DY7: *Army Systems Engineering, Architecture & Analysis*	-	16.988	16.416	14.166	-	14.166	24.176	24.651	25.123	25.505	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides the Army's leadership and materiel developers with the necessary Capability Set (CS) modernization planning, critical path analysis, risk analysis and mitigation planning, system of systems engineering (SOSE), technical analysis and architectural products to inform the Army's materiel portfolio (5 and 30 year plans). This project explicitly includes critical Common Operating Environment (COE) and Cyber Security engineering, architecture and governance development tasks necessary to develop effective, affordable and secure network capabilities to meet Network 2020 and Force 2025 initiatives. This project captures and manages at the CS level, senior stakeholder guidance (i.e. Training and Doctrine Command (TRADOC), G3/5/7, G2, and Chief Information Officer (CIO)/G6) to shape future Network Capability Sets (i.e. enterprise scope), Operational Capability Sets (OCS) and Institutional Capability Sets (ICS) (per the approved CIO/G6 LandWarNet (LWN) 2020 and beyond strategy) and corresponding post/camp/station modernization and integrated base defense (IBD) requirements. This project defines and executes its mission in the context of a SoS Engineering Management Plan (SoSEMP), that provides comprehensive engineering, analysis and architecture processes across early CS requirements and roadmap development; engineering and analysis tasks; lab and field risk reduction efforts; Network Integration Evaluation (NIE) system of systems (SoS) scope CS evaluation; and unit-specific architectural planning support to boots-on-the-ground synchronized fielding execution. These SoSEMP processes deliver authoritative products at a CS/SoS and platform level that informs and captures senior leadership decisions, supporting critical path execution of CS modernization efforts, including Force 2025 initiatives. This project includes support to other Department of Defense (DOD) and international agencies for joint programs and collaboration efforts with NIE and Force Basing/Tactical Capability Set portfolio integration. The Government effort includes costs for salaries, travel, overtime, training, supplies, facilities, and Information Technology (IT) support.

This project establishes the capability to develop and deliver authoritative system of system engineering, analysis and architecture products, through focused analysis & trades, against defined and managed CS goals and roadmap. These products provide timely and relevant information to inform decision makers in the Army's modernization prioritization challenges. These products are unique in that they encompass a cross-Program Executive Office (PEO), cross-portfolio perspective of modernization initiatives, affording analysis activities at senior leadership levels for informing Weapon System Review (WSR)/POM priorities, as well as more strategic challenges such as Force 2025 objectives. The products focus on critical path SoS dependencies necessary to define, evaluate and field CS capabilities, per ARFORGEN. These products are developed in tight coordination with a wide spectrum of stakeholder organizations, from G3 and TRADOC, to PEO/Program Management Office (PMO) leadership, to gaining units during synchronized fielding. The primary level of effort in this project is in the validation of its products with stakeholder SME, to assure they are relevant, validated and authoritative for supporting CS design and decision challenges. To aid senior leadership and engineering activities in comprehending the complexities of the cross-PEO/cross-portfolio/POM scope modernization planning challenges, this project provides for Formation-level Reference Architectures (Operational Views ((OV)-1's), with included NCS SoS Specification and all Army formations, that form the basis for representing and communicating the Army's programmed plan to Headquarters, Department of the Army (HQDA) customers and Program Executive Officers/Program Managers (PEOs/PMs). The LWN NCS SoS Reference Architecture is composed of the NCS Institutional Capability Set SoS Reference Architecture and the NCS Operational Capability

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

Set SoS Reference Architecture. The Institutional Capability Set is composed of the Enterprise Component and Installation Component. Communications and computing for Base Camps and Brigade Combat Teams are also included in the NCS Operational Capability Set. It enables analyses and trades that use the reference architecture design data to inform implementation architectures and support informed systems acquisition decisions across the life cycle. These products are derived directly from an Integrated Basis of Issue Feeder Data (IBOIFD) product that aggregates Program of Record (POR) Basis of Issue (BOI) feeder data, and becomes the managed fielding baseline plan for network procurement decisions, directly feeding unit-specific Table of Organization and Equipment (TOE)/Modified TOE (MTOE) fielding baselines. This data provides for single authority within Assistant Secretary of the Army (Acquisition, Logistics and Technology (ASA(ALT)) for System of Systems Implementation Architecture oversight to inform and manage governance and approvals of emerging SoS designs, defining necessary compliance guidance for SoS scope initiatives and concerns (i.e. Common Operating Environment (COE) and Cyber).

This project explicitly addresses the orchestration, management, and oversight Common Operation Environment (COE), an Army Priority 1 initiative. It includes development of vision, strategy, and plans for migrating solutions to a common infrastructure; increase the Army's cyber security posture; decrease life cycle costs; improve and simplify interoperability and integration; and leverage industry and government developed solutions.

This project provides ASA(ALT) Cyber Focal for all Cyber requirements. Synchronization and analysis of integrated capabilities, resources and requirements to enhance cyber security and resiliency across the materiel development and cyber operational communities. Lead ASA(ALT) implementation of Cyber requirements through analysis and decomposition of requirements, alignment with the appropriate programs, and synchronization of an integrated execution/acquisition approach. Provides governance and standards to enable the advancement of decisive cyber operations. Leads cross-portfolio resource planning and facilitates the materiel development and cyber operational communities through agile acquisition strategies. Manages ASA(ALT) mission assurance and compliance; Governance; Cyber Security; Cyber Architecture; and Defense Industrial Base (DIB) Cyber Security Office.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Army System of System Engineering and Analysis	12.010	9.553	8.393
Description: Provide coordinated system of systems engineering, architectures, and analysis products of required and current capabilities for various generating force units (e.g. materiel developers, TCM, ARCIC, etc.) to deliver integrated solutions to objective, base, and modified military formations (MTOE & TDA units). ***FY 2015 Accomplishments:*** These funds provided the following: The synchronization of ongoing System of System (SoS) engineering, analysis, and architecture which developed and distributed the following products to PEOs, PORs, PMs, and Science & Technology (S&T) organizations in order for them to design, develop, evaluate and field integrated and interoperable Tactical Capability Sets (TCS), including support products for developing WSR packages for WSR 18-22: - CS23: Refined requirements. Identified gaps and PORs. - CS22: Refined gaps and identified objectives. Supported the development of the Sources Sought (SS) and Tech Call (TC) memo; BOI, Platform Interconnect Diagrams (PIDs), and Transport View (TV) for NIE 19.1 (Experimental Event)			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- CS21: Based upon NIE18.1 Horse Blanket, refined gaps and created specifications, which will support the development of the tech evaluation criteria, and Scope of Work (SoW) for competitive Request for Proposal (RFP) and TC memo for NIE 19.2 - CS20: Refined BOI and associated architecture products (i.e. PIDs and TD) for the development of NIE 18.2. (Baseline Event) - CS19: Finalized BOI and associated architecture products (i.e. PIDs and TD) for production funding for the TCS 19, Synchronizing ongoing SoS engineering, analysis, and architecture to develop and distribute the following products to HQDA customers, PEOs, PORs, PMs, and S&T organizations: - LWN Network Capability Set (NCS) SoS Reference Architecture (RA) (with included NCS SoS Specification) - LWN NCS ICS SoS RA - LWN NCS OCS SoS RA. - Enterprise Component of the LWN NCS ICS SoS RA - Installation Component of the LWN NCS ICS SoS RA Synchronizing ongoing SoS engineering, analysis, and architecture to develop and distribute the following products to HQDA customers, PEOs, PORs, PMs, and S&T organizations in order for them to develop their program plans, including support products for Integrated Weapon Systems Review (I-WSR) FY18-22: SoS engineering, analysis, and architecture to develop and distribute the following products to ASA(ALT) System of System Integration (SoSI) for the execution of NIEs and the fielding of TCSs to the Warfighter: - SV-1 SoS Overviews for CS15-21 - SV-1 Transport Overlay for CS15-21 - Integrated stakeholder strategies and roadmaps. Identified acquisition modernization priorities that support engineering design of RA for each POM year CS. - Supported of the Army Campaign Plan material solutions strategy. - Analyses that shaped evolving Army portfolio priorities. Synchronized, developed and published across Army's PEOs analytical community FY15 integrated network analysis plan, concentrating on cross-PEO network integration and performance issues analysis. Executed this plan to deliver several strategic ASA(ALT) whitepapers on key Army's future technologies affecting network 2020 and Network 2025 acquisition-level decisions. These included topics of Aerial Tier extension. Transport convergence, future Narrow Band communications. Developed key Analyses in the areas of technical requirements and performance related to Army's transport convergence initiative for INTEL operations, Army spectral assignment risk mitigation strategy.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
In response to GAO guidance, baselined Integrated Network capability set CS15/16 performance in NIE 15.1 event using Army DAE-approved Key technical indicators (KTIs). Using ATEC instrumented NIE 15.1, analyzed and evaluated 5 KTIs from key SoS performance metrics and another 10 key survey-driven SoS technical factors. Taking together, these 15 top measurements have produced Army's first integrated SoS technical performance baseline. When measurements are repeated in future NIEs, important trends associated with network SoS objective performance will be developed and reported to AEE and DAE. Developed Army's first real-time analytical capability of Network SoS performance data against DAE-approved Key technical indicators (KTIs) and metrics. Capability has been deployed on Army's High Performance Computing (HPC) facility and integrated into army's Communications Systems Integration Laboratory (CSIL). Capability allows for the first time real-time feedback on vital network performance characteristics from live test ranges, to include NIEs, lab-based experiments, risk -reduction and integration events. Capability has been successfully validated and utilized to produce Integrated Network Performance Analysis (INPA) reports and deliverables. ***FY 2016 Plans:*** These funds provide the following: - Develop the acquisition Capability Set Modernization Matrix (CMM) for capturing, validating and managing CS2020 and CS2025 acquisition and stakeholder modernization objectives and goals, as an authoritative CS acquisition baseline document for informing CS prioritization, evaluation and fielding decisions. Integrate CMM data in the ASA(ALT) IMS. - Develop CS roadmaps, integral to ASA(ALT) IMS data, capturing critical path analysis to identify analysis/design, decision and POR delivery and fielding requirements for risk reduction, evaluation and fielding CS baselines per ARFORGEN. Provide specific and integrated roadmap products to manage co-evolution, programmatic coordination, integration and evaluation (i.e. NIE) of critical Network, COE, Cyber and evolving F2025 requirements supporting CS modernization. Develop and manage risk mitigation plans as identified as necessary to assure critical path execution. -Coordinate with PEO/POR, ARSTAFF, TRADOC stakeholders to capture and maintain an Integrated CS BOI Feeder Data (IBOIFD) baseline for all xBCT CS baselines in ARFORGEN, to define and analyze CS configuration baselines for planning and executing analysis tasks, decision challenges, evaluation (i.e. LBRR/NIE) and synchronized fielding requirements, and for informing WSR decisions. - Identify and perform necessary analysis and design tasks (e.g. NCR, AMF studies) to inform CS design, decisions and evaluation guidance. Publish analysis in CS design guidance books as authoritative guidance to POR's for achieving CS SoS cross-PEO modernization objectives (e.g. Assured Position-Navigation-Timing, Tactical PKI). - Deliver senior leader level reference CS architecture products for communicating SoS acquisition objectives (i.e. Network, COE, Cyber, F2025), and informing decision activities driving CS modernization activities, for all relevant BCT types per ARFORGEN and evolving F2025 objectives, including dependencies on S&T, JIIM, generating force and enterprise scope IT/IS network assets.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Develop engineering-level formation/SoS, platform, COE and Cyber architectures to support analysis, T&E and Synchronized Fielding planning and execution activities, derived from and informing authoritative IBOIFD. Integrate architecture and IBOIFD data within authoritative TRADOC ARCADIE environment for assuring baseline product releases are managed in support of stakeholder needs.			
FY 2017 Plans: Army Formation Reference Architecture products: These funds provide for Subject Matter Expertise to develop and maintain System of Systems (SoS) architecture and integration products for all Army Combat Formations (Corps & below). These products are used to design Objective, Base, & Modified Table of Organization & Equipment (TOE), capabilities sets (CS), and demonstration/test environments (e.g. NIE, Operational Test, and Army Interoperability Certification). This effort also supports working groups such as the Network Synchronization Working Group (NSWG), and formal Army decision forums such as the SoS General Officer Steering Committee (SoS GOSC) and the Army's Land War Net GOSC (LWN GOSC). The four core reoccurring products are: - Integrated Basis of Issue Plan (IBOIP): detailed database and spreadsheets describing the objective, basic, and modified TOE, TRADOC required BOI system placements, etc. - System of Systems View (SoS) Diagram: Visual reference document diagramming all Soldier and platform roles, and their network connectivity and waveform assignments to each other as dictated by the IBOIP. - Vehicle Interconnectivity Diagram (VID): Visual reference document diagramming software (operating systems, applications, etc), hardware (radios, computers, antennae's, routers/switches, etc.), internal/external networks (protocols, ports, gateways, etc.), and waveforms (frequency bands) are connected for individual platforms. - System of System (SoS) Thread: Visual reference diagram documenting technical use cases of the SoS architecture and the data/message flows throughout Brigade and below based on Army universal task lists, Army Interoperability Certification, and Joint Common System Function List. - Head Quarters Department of the Army (HQDA) Architecture inquiries: These funds provide for SMEs which respond to HQDA inquiries and it provides for developing and/or updating Army documents (e.g. regulations, exercise orders, directives, policies, etc.). Coordination with PEOs, ARSTAFF, FORSCOM units, and TRADOC stakeholders to synchronize the development, maintenance and configuration management of capability sets for all Army formation types. This includes design information for COE, Cyber, and PNT.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Data/Configuration Management: These funds provide for maintaining consistency of architecture products that are leveraged by the Army community to develop capability gaps, operational exercises, and PoR development and integration activities. This includes the resourcing, planning, and IT systems to facilitate configuration management activities. - CS17 Products and Services: Engineering design and analysis of Infantry formations networks to verify operational capabilities, cost, and schedule can be met. Delivery of modified TOE architecture products to all units fielded during FY-17 to facilitate new equipment fielding of current formations CS17 Units 6 total: 2xInfantry Brigade Combat Teams (IBCTs) with lower tactical internet, 1xDIV HQ, 1xIBCT only dismounted radios, and 2xIBCT without lower tactical internet. - CS18 Products and Services: Engineering design and analysis of Infantry formations networks to verify operational capabilities, cost, and schedule can be met. Delivery of modified TOE architecture products to all units fielded during FY-17 to facilitate new equipment fielding of current formations CS18 Units 6 total: 1xIBCT with lower tactical internet, 1xANG Division HQ, 1xIBCT Division HQ, 1xIBCT only dismounted radios, and 2xIBCT without lower tactical internet. - Architecture Planning Analysis, Integration and Coordination: These funds provides the Army's leadership and materiel developers with the necessary Capability Set (CS) modernization planning, technical and risk analysis, mitigation planning, and system of systems engineering (SoSE). This project explicitly includes critical Common Operating Environment COE, Cyber, PNT as well as Division & Corps echelons as it pertains to architecture development to meet network 2020 and 2025 initiatives. - Engineering Support & Design: These funds provide SME support to the Army's Network Modernization Strategy (NMS) at both the tactical and enterprise levels. FY17 Network Modernization engineering will include support for Position Navigation & Timing (PNT) integration into the overall Capability Set design, Multinational/Mission Partner Environments architecture development, Army defensive and offensive cyber capabilities integrated at both the tactical and enterprise levels, network modernization risks and gaps for Corps level units and below, Army spectrum strategy, and COEv3+ modernization risks and gaps. - Portfolio Analysis: These funds provide the Subject Matter Expertise to conduct Portfolio analysis across the entire Army portfolio of programs of record (PORs) and systems with an intent of maximizing Warfighter utility and effectiveness under cost, schedule and technology readiness constraints. Analysis in this area provides Army leadership with options to make sound analyses-driven investment			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
decisions that optimize the overall acquisition portfolio warfighting function. Activity also standardizes the programs' data sets elements based on which program-level decisions can be made, as well as improves the overall methodology of the Army's portfolio analysis. - ASA(ALT) Integrated Master Schedule (IMS): These funds provide SME to maintain a reliable IMS that synchronizes Engineering, Architecture, Programs of Record (POR), Network Evaluation, and Capability Set (CS) fielding scheduled aligned to the POM and the Army's ARFORGEN cycles. Efforts to include implementation of networked IMS tools for POR input. Efforts to analyze Platform and MCN 2020 network components schedules to identify issues and opportunities. - SoSE&I Integrated Master Schedule: These funds provide SMEs to develop and maintain an Integrated Master Schedule (IMS) for internal deliverables supporting Capability Set Fielding, COE, Cyber, Architecture, Engineering Analysis and Risk Reduction, aligned to CS schedules and evaluation event activities. - Integration Risk Identification, Mitigation, Plans and Reports: These funds provide SME to conduct Integrated Risk Management enabled by ASA(ALT) IMS and MCN 2020 Focused End State objectives and tasks. It provides analysis of MCN 2020 FES objectives and tasks against ASA(ALT) IMS to identify risks to the delivery of Mission Command Network. Develop mitigation plans and coordinate and synchronize with PoRs to reduce risk. Identify opportunities to bring in capabilities early to formal Capability Set configurations through analysis of PEO portfolios and IMS, to include: Capability Risk Matrix, Mitigation Plans for MCN 2020 delivery, and tracking and statusing FES changes. - Strategic Process and Planning: These funds provide SME to incorporate ASA(ALT) network objectives into strategic planning for achievement of MCN 2020 focused end states and Force 2025B emerging solutions, to include: Strategic Planning Review events, Road map to MCN 2020 validation, Agile Process Standard Operating Procedure rewrite, Network Synchronization Working Group outcomes analysis, Proponent IPT, and Database development and improvements to track and report progress. - Future Capability Sets Planning Integration and Engineering: These funds provide for the advancement of collaboration and coordination between platforms, network systems, and enterprise services as part of the planning efforts required to complete a CS fielding. CS reference architecture products are the result of this collaboration. CS reference architecture products enable CS fielding platform integration design decisions. They provide a synchronized and holistic description of how the Army network integrates into and functions for the FORSCOM units designated to receive a CS fielding.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- CS16 Products and Services: Final close out of unit specific IBOIP, SoS View diagrams, VIDs, SoS Threads, Network Verification (NETVer), Non-Recurring Engineering (NRE), and configuration management for 1xIBCT with Lower Tactical Internet, 1xDIV HQ, and 3xIBCT without lower tactical internet. - CS17 Products and Services: Coordinate and communicate with PMs, TCMs, PEOs, ASA(ALT), G3/5/7, SoSE&I E&I, and other organizations within and outside of SoSE&I to ensure synchronization of CS baseline evaluation product program schedules. In collaboration with platform and network system PMs, document network system design, identify integration risks, and assist in the development of mitigation plans to help ensure schedule of CS fielding is executable. These funds also support the effort to: Evaluate, synchronize and ensure platform integration requirements are embedded in the performance scope for SoSE&I managed System Under Evaluation (SUE) production RFPs in collaboration and coordination with platform PMs, network system PMs, and the SoSE&I Engineering Planning and System Integration (EPSI) Division. Adjudicate and resolve operational, technical, and programmatic issues for initial and RA products in collaboration and coordination with SoSE&I E&I, platform PMs, network system PMs, and TRADOC Capability Managers (TCMs). Evaluate, synchronize, and monitor the development of the CS 17 unit specific architecture products, as defined by NIE evaluation results, in collaboration and coordination with SoSE&I E&I and the SoSE&I Capability Package (CP) Synchronized Fielding (SF) - Engineering Division (ED). Evaluate the development of RA products required for SF tasks/mission accomplishments utilizing architecture inputs (e.g., TVs, Mission Threads, Validation Exercise, etc.) from NIEs. Develop, update, and finalize the CS 17 unit specific SoS view architecture, from Brigade Headquarters to dismounted soldier, and the detailed engineering VIDs, details how CS and legacy equipment will be connected within the vehicle from the CS aggregated network vehicle (golden vehicle) list produced by the Production Design and Integration team. Plan, coordinate, and assess Safety Release/Safety Confirmation (SR/SC) testing for CS Golden Vehicle designs. Coordinate with SF fielding team for planning and execution of SR/SC and materiel release planning to support CS unit fielding. Coordinate with associated SoSE&I Directorates for the management, engineering, integration, testing, and delivery of platforms with integrated network equipment for CS evaluation, testing, and fielding. Incorporate the CS 17 unit specific architecture product schedules into the IMS. Develop the CS NRE configurations for reference and unit specific IBOIP architectures consisting of multiple network systems on multiple configurations of Mine Resistant Ambush Protected (MRAP) vehicles, the family of High			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Mobility, Multipurpose Wheeled Vehicles (HMMWVs), as well as other ground combat, combat support, and combat service support platforms for multiple roles in across an IBCT. Perform and document Configuration Management (CM) of unit specific vehicle network architecture designs, (e.g. IBOIPs, SoS views, VIDs, Threads, etc). Develop, coordinate, and assess test mission threads from NIE and CS to exercise data flows within the network and vehicles to verify network requirements and message functionality. Plan, coordinate, and participate in CS NETVer events to verify CS designs and ensure the functionality of CS production equipment. - CS18-22 Products and Services: Coordinate and communicate with PMs, TCMs, PEOs, ASA(ALT), G3/5/7, SoSE&I E&I, and other organizations within and outside of SoSE&I to ensure synchronization of CS baseline evaluation product program schedules. In collaboration with platform and network system PMs, document network system design, identify integration risks, and assist in the development of mitigation plans to help ensure schedule of CS fielding is executable. Coordinate with associated SoSE&I Directorates for the management, engineering, integration, testing, and delivery of platforms with integrated network equipment for CS evaluation, testing, and fielding. Analyze Objective Table of Organization and Equipment (OTOE), network system PMs' equipment fielding plans, and platform PMs' engineering and modernization schedules in order to develop, update, and finalize a CS reference INBOIP, SoS view architecture, and VIDs and incorporate these architecture products into the IMS. Develop the CS NRE configurations for reference IBOIP architectures consisting of multiple network systems on multiple configurations of Mine Resistant Abrams, Bradley, Stryker, Armored Multi-Purpose Vehicle (AMPV), Ambush Protected (MRAP) vehicles, the family of High Mobility, Multipurpose Wheeled Vehicles (HMMWVs), as well as other ground combat, combat support, and combat service support platforms for multiple roles in across an IBCT, Stryker Brigade Combat Team (SBCT), and Armored Brigade Combat Team (ABCT). Effort to develop and maintain Capability Set and Sync Fielding specific IMS: These funds provide SME to develop and maintain an Integrated Master Schedule for the Army's Capability Set – Synchronized Fielding efforts. Close out the IMS for FY16, maintain the IMS for FY17 and develop initial IMSs for FYs, 18, 19 and 20. Collect and analyze sub-schedule performance against the baseline IMS to identify schedule risks for the Army's Capability Set – Synchronized Fielding (CS-SF) efforts. Validate that established integration points are achievable and, if not, identify the schedule risk. Analyze schedule performance against schedule baseline, identify variances and their causes, and identify risks and/or impacts to critical path. Perform "what if" schedule analysis of alternative program courses of action to determine impact on schedule critical path. Update and post Schedules on SharePoint for visibility and increased collaboration across ASA(ALT). Participate in After Action Reviews, Lessons Learned, Synchronized Fielding Technical Exchange Meetings (TEMs). Provide			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
scheduling reports and briefings to meet the needs of the CS-SF community. It also includes: Capability Sync Fielding IMS and briefings and reports from IMS analysis. To synchronize, develop and publish across Army's PEOs analytical community FY17 integrated network analysis plan, concentrating on cross-PEO network integration and performance issues analysis. Execute this plan to deliver several strategic ASA(ALT) whitepapers on key Army's future technologies affecting network 2020 and Network 2025 acquisition-level decisions. Develop and execute key Analyses in the areas of technical requirements and performance related to Army's transport convergence initiative for Logistical and medical data and Intel-related operations, Army spectral assignment risk mitigation strategy. In response to GAO guidance, to further baseline and trend Integrated Network capability set CS18/19 performance in NIE 17.1/17.2 events using Army DAE-approved Key technical indicators (KTIs). Using ATEC instrumented NIE 17.1/17.2 analyzed and evaluated KTIs from key SoS performance metrics and another key survey-driven SoS technical factors. Taking together, these multiple key indicator measurements will show integrated network SoS technical performance trends against the baseline. When these standardized measurements are repeated at NIEs, important trends associated with network SoS objective performance and operational capability are observed and reported to AEE and DAE.			
Title: Common Operating Environment (COE)	3.680	3.072	3.154
Description: Provide Engineering Synchronization Oversight and Governance for the Army SoS Common Operating Environment (COE); provide integrated, cross-portfolio system engineering, architecture products and cost benefit analysis and synchronized acquisition planning for COE crossing multiple PEOs and Computing Environments (CEs); provide SoS requirements decomposition; conduct COE related Verification & Validation (V&V) planning and assessment; and serve as the DA Staff advocate for COE and Cross Cutting Capabilities (CCCs). Serve as the Trail Boss for ASA (ALT) I2E. ***FY 2015 Accomplishments:*** The funds provided: Technical support to oversee the execution of the COE Implementation plan, COE Synchronization, Governance, Cross-Cutting Capabilities Definition, Implementation Plan Updates, Software Build (SWB)/COE Configuration Control Board (CCB) and assessment Support transition, including the COE Integration and Certification Strategy with CIO/G-6 and ATEC, Integrated Master Schedule, Government oversight of the Army's Strategic Software Improvement Program (ASSIP), Coordination with Army Staff, Technical Reference Model, Metrics for assessing compliance, Technical Advisory Board (TAB), Chief Engineer compliance, COE assessment criteria, Assessed systems during the System Under Evaluation (SUE) Technical Interface Meeting (TIM), System software configuration baseline data collection, System software configuration baseline updates, Control Point/Interface Definition and Agreements, Afghan Mission Network, Ops/			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Intel Convergence, Transport Convergence, Network Synchronization Working Group , Joint Interoperability & Mission Thread Architecture Office of Secretary Defense (OSD) Director Defense Research and Engineering (DDR&E), Integrated Base Defense, Basing and Basing Computing/Communications Analysis, Host Based Security System (HBSS), Global Network Enterprise Construct (GNEC) Implementation Plan, Radio Procurement Requests, SoS Engineering Construct for the Network, Organizing the SoS Engineering trade space for Platforms, Standards for the Platforms (VICTORY & FACE), Size Weight and Power (SWAP) working group, Software Blocking (SW), NIE Gaps, Candidate Assessment for NIEs 15.2 and 16.1, and Technologies assessment, Systems Engineering Plan (SEP) policy, Program Protection Plan (PPP) reviews, Reliability policy technical support, Standards & Speciation adoption across ASA(ALT), (OSD/Joint), Development Planning model, IBD, Basing Pilot). It also provides for the development and execution of COE integration policies and procedures. It also funded the development and implementation of backwards compatibility assessment, integration checklists and their verification, test hardware development and implementation support, the development and effective utilization of emulator and integration tools. Provided for COE/CE architecture validation, design baseline validation, and the verification of COE reference architecture compliance. The verification of COE critical enabler implementation, conducting risk assessments and analysis, accreditation and certification process refinement, and verification of technical test harness and tool development.			
FY 2016 Plans: The funds provide the following: --Orchestration and COE Governance Execution: The funds provide Implementation Management, development and maintenance of the COE Integrated Master Schedule, oversight of Computing Environment (CE) Working Groups conducting cross-Computing Environment coordination and conflict resolution efforts, and ASA (ALT) support for the Army Staff Network Synchronization efforts. The funds support COE STRATCOM development and industry engagement, including business case development and COE Contracting strategies. The funds support authoring the annual AAE Systems of Systems directive which guides the evolution the Army SW Baseline, reliability policy technical support, and Standards & Specification adoption across ASA(ALT), (OSD/Joint), Development Planning model. The funds guide COE/CE architecture validation management, engineering plan review, design baseline validation, and the verification of COE reference architecture compliance. --Requirements and Engineering: The funds provide COE Technical Baseline Development that provides a Technical Roadmap to the Programs of Record (POR) for future capability development and software integration within the COE. Funds provide development of COE Engineering Change Proposals and vetting. Funds provide Systems of Systems engineering and analysis to synchronize POR migration to COE, oversee COE Common Software Foundation Development, Cross-Cutting Capabilities engineering and prioritization, Implementation Plan Updates, building and publishing the COE Technical Reference Model, compliance assessment metrics development, Technical Advisory Board (TAB) management, Resource Working Group (RWG) management and cross-CE and PEO Systems of Systems engineering support, Transport Convergence, and SoS COE Architecture and Data Models.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
-- Technical Management: The funds provide technical support to oversee the execution of the COE Implementation Plan and DA COE EXORD compliance and execution, including cost analysis, tasking management, Modular Open System Architecture Guidance development and implementation, verification of COE critical enabler implementation, and risk assessments and analysis. Funds provide COE CBA to support the JCIDS process. --Testing, Certification and Fielding Preparation: The funds support for integration, validation, and verification of PORs in preparation for certification testing. Funds provide support to multi-level COE Baseline testing, System software configuration baseline data collection, System software configuration baseline updates, Control Point/Interface Definition and Agreements, and COE assessment criteria development and implementation. Funds provide SoS COE Standards for the Platforms (VICTORY & FACE), support for the Size Weight and Power (SWAP) working group, Software Blocking (SW), Software Version COE Configuration Control Board (CCB), Test Support transition and NIE Gaps and Technologies assessment. The funds provide accreditation and certification process refinement, verification of technical test harness and tool development, and accreditation, certification, and refinement of test plans and events. It also provides for the development and execution of COE integration policies and procedures, infrastructure qualification, the development and implementation of backwards capability testing, integration checklists and their verification, test hardware development and control point testing implementation support, and the development and effective utilization of emulator and integration tools.			
FY 2017 Plans: Common Operating Environment Synchronization, Governance, Resource Planning and Implementation Oversight: These funds provide Engineering, Orchestration, Oversight and Governance for the Army COE on behalf of the Army Acquisition Executive under the direction of the Executive Director System of Systems Engineering and Integration COE Synchronization, Governance, Resource Planning and Implementation functions: Synchronize the activities of 6 Computing Environment (CE) Working Groups, 11 Program Executive Offices, and 163 Programs of Record (PORs) to deliver the COE materiel solution necessary for the Army to field the Tactical Network envisioned in Mission Command 2020 and Mission Command 2025 guidance documents. Lead Policy Planning and Coordination with the Land/War/Net Mission Command Directorate of the G3/5/7 regarding the COE Execution Order (EXORD) and the Army Focused End-States initiative. Advise the Executive Director System of Systems Engineering and Integration and the Army Acquisition Executive on COE matters, provide assessments and reports, and prepares information to support Decision-making. Coordinates with Research Development and Engineering Centers by providing planning input for technical enabler development by COE version (v3, v4, and v5). Lead the System of Systems Engineering product development—the standards, architecture, specifications, certification guidance, and priorities guidance necessary to build the COE. Provide analysis and planning information to inform the Long Range Analysis. Process, including schedules, funding assessments, and decision support analysis. Manage COE participation in Weapons System Reviews (WSR) by developing yearly 'business process guidance" that structures how Program Managers allocate resources to inform WSR decisions and leads the COE Resource Management Working Group. Develop strategic communications to inform the Army Staff, the Acquisition. Develop Community, Industry and Government regarding the COE long term strategy.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Common Operating Environment System of Systems Engineering: These funds provides integrated, cross-portfolio system engineering, architecture products and cost benefit analysis and synchronized Acquisition planning for COE crossing multiple Program Executive Offices and Computing Environments (CEs). - The funds support COE System of System Engineering activities such as: Oversee and guide Computing Environment activities on behalf of the AAE by chairing the COE Technical Advisory Board (TAB) which is composed of the 6 CE Working Groups and 8 Program Executive Office Senior Engineers. Serve as the COE Technical Advisory Board Secretariat. Develop and schedule issues for decision. Authors and clears authoritative decision records. Develop the Annual System of Systems Directive for signature by the Army Acquisition Executive that provides program guidance to PORs. Develop Systems Engineering technical baseline guidance, standards, control point specifications, and templates for multiple COE versions in simultaneous development: COE v3, v4, and COE v5. All are currently in progress and at various stages of maturity. Manage COE Systems Migration Binning List which aligns systems against COE objectives. Identify, manage and vet engineering assessments and Engineering Change Proposals for Cross-Cutting Capabilities. Establishes CCC development priorities, monitors and reports on progress for 19 CCCs. Develop and update the COE Technical Reference Model —the basic logical system design for COE versions. Develop and update the COE Technical Roadmap, which provides guidance for the migration of Program of Record Systems to the COE. Coordinate systems engineering and architecture support to the development of the Integrated Systems-Capabilities Development Document and follow-ons. Develop and maintain, Control Point Specifications, the primary standard by which interoperability and backward compatibility will be maintained and assessed among COE versions. Conduct COE v3 Integration of the CEs to develop the COE v3 baseline. Lead COE Systems Management Planning: the identification of systems that will migrate to the COE infrastructure, by fielded in COE compatible versions, or divested. Monitors and reports on planning. Assesses support Systems Engineering Plans for systems that will migrate to COE. Lead Integrated Architecture Team by providing COE architecture development guidance to supporting architects in other organizations, integrating architecture contributions, and assessing products. Monitors and assesses Computing Environment Architectures developed by Program Executive Offices. Provides system of systems analysis and advice to TRADOC operational architects and CIO/G-6 technical standards developers. Develop and coordinate the COE Integrated Master Schedule that integrates 2680 lines of activities. Integrates CE WG schedules. Develop, coordinate, and published annual updates to the COE Integrated Systems, Engineering Plan and 14 annexes. Develop, codify, monitor and report COE Performance, Schedule, and Cost Metrics. Leads the COE Standards Working Group. - Common Operating Environment (COE) Technical Data Management: The funds provide cost benefit analysis, planning coordination with G3/5/7 and Training and Doctrine Command Battle-labs, Capability Development Document Coordination, Data Management, Operations and Tasking; Focused End-State 2 lead.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- The funding provides the following COE Technical Data Management functions: Lead the Focused Endstate 2 Working Group—the Army Staff planning and policy group for the Common Operating Environment. Provides analysis to support weekly Councils of Colonels meetings to regarding Focus Endstate objectives, measures of performance, and execution monitoring. Provide Data Management of COE policy, guidance, specifications, Engineering Change Proposals, architecture that together provide 6 Computing Environment stakeholder communities, 185 Program Managers, TRADOC Centers of Excellence, and Army Staff element the technical, resource, and guidance information needed to build COE compliant products. Provides configuration management documents including version control, discovery of current data, data archiving, and Meta data policy. Develops SharePoint pages and applications to provide collaboration services, library storage, database services, and community tailored access. Manages information access and oversees 6 Computing Environment sub-sites. Conduct COE cost analysis to support COE related decision bodies (SoS GOSC, LWN GOSC). Manage COE tasking affecting 8 PEOs, 6 Computing environments to allow COE to gather information and convey Army Acquisition Executive direction to the COE materiel development community. Manage the Better Buying Power 3.0 Modular Open System Architecture initiative, including contract support coordination, data management, data collection, analysis, weekly meetings, monthly meetings at the Service and Department Acquisition Executive level, and four major deliverables. Requires multi-Service coordination and Industry Outreach. Ensure coordination of Geospatial products: Requirements, Architecture, Engineering, Implementation, Integration, Assessment, and Certification activities associated with the Common Overlay Cross-Cutting Capability and Command Post Computing Environment application development. Provide analysis and information to the Mission Command Requirement Governance Team regarding COE level Capabilities Development Documents. Coordinate with and provides Systems of Systems Engineering Analysis products and recommendations to the TRADOC Battle Labs, especially COE materials to support Modeling and Simulation. - Common Operating Environment Certification: The funds provide for conducting COE certification planning and execution with 8 Program Executive Offices, 30 Program Manager (PM) /Product offices, Training and Doctrine Command (TRADOC), G-3/57, and Chief Information Officer (CIO)/G-6). Integration and Interoperability Event (I2E) lead for the Assistant Secretary of the Army for Acquisition, Logistics and Technology. To include: Monitor COE Integrated System Engineering Plan (ISEP)-required Phase 2 (Computing Environment) and Phase 3 (System of System COE) Software integration activities for COE versions 3 and 4; and provide COE Integration status to Land/War/Net Mission Command (LM) General Officer Steering Council (GOSC) and System of Systems GOSC with metrics and reports. Coordinate Title 10 software integration activities across eight Program Executive Officer (PEOs) and over 30 Program Manager (PM) /Product offices at CIO)/G-6 interoperability test control hub site (per DA PAM 25-1-1) for regulation-mandated Army Interoperability Certification (AIC) preparation, including managing synchronization of PEOs/PMs/CEs delivery of Hardware,			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Software and engineering support for System of Systems Integration. Co-chair Configuration Control board with G-3/5/7 to determine which systems, by software versions, are coming to biannual AIC events (through evaluation of operational and technical risk reduction impact) across multiple developmental and fielded tactical network baselines. Co-chair Executive Scoring Committee (with TRADOC and CIO/G-6) to adjudicate AIC test incident reports and monitor resolution to closure. Coordinate with CIO/G-6 for conduct of Certification Readiness Reviews for each AIC test event. Mediate between PEOs/PMs for adjudication of requirements Engineering Change Proposals (through a Program Change Request process) with TRADOC. Conduct daily hot-wash detailed engineering coordination sessions with integration engineers distributed across the Federation of Net-Centric sites an accredited network at six locations. Monitor and report IAVA and Configuration Management scan processes status at multiple integration sites for Cyber defense certification preparation. Validate test floor architecture and test case development for integration and testing at CIO/G-6-designated sites. Make recommendation through Executive Director SoSE&I to HQDA CIO/G-6 and G-3/5/7 when progress at I2E is sufficient to state that the baseline is ready to enter formal AIC test. Provide System of System engineering analysis to the Focused End-State 4 working group regarding Mission Command Network Interoperability with Joint, NATO and Coalition Networks. - Common Operating Environment Systems Engineering and Integration Support: The funds support system of systems engineering planning associated with the Operational Assessment and Test venues: Coordinates with 6 Common Environment (CE) Working Groups (WG)s and over 30 Programs of Record to align materiel development schedules, risk mitigation events, against operational assessment venues. Assesses Performance, Schedule, and Cost risks to support decisions associated with COE version baseline fielding and test planning by the G3/5/7 and CIO/G6. - Effort to develop and maintain COE specific IMS: These funds provide SMEs to develop and maintain an Integrated Master Schedules for SoSE&I's Common Operating Environment (COE) efforts. Close out the IMS for FY16, maintain the IMSs for FY17 and develop initial IMSs for FY18 and FY19. In support of COE efforts collect and analyze sub-schedule performance against the baseline Integrated Master Schedule to identify schedule risks. Validate that established integration points are achievable and, if not, identify the schedule risk. Analyze schedule performance against schedule baseline, identify variances and their causes, and identify risks and/or impacts to critical path. Perform "what if" schedule analysis of alternative program courses of action to determine impact on schedule critical path. Update and post Schedules on SharePoint for visibility and increased collaboration across ASA(ALT). Participate in COE working groups. Provide scheduling reports and briefings to meet the needs of the COE communities. It also includes: COE IMS and briefing and reports from IMS analysis. - Mission Command COE Architecture: These funds provides the Army's leadership and materiel developers with the necessary modernization planning, critical path analysis, risk analysis and mitigation planning, system of systems engineering (SOSE), technical analysis and architectural			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
products to support Common Operating Environment (COE) development. This project explicitly includes critical COE architecture and governance development tasks. Conduct Verification &Validation (V&V) of Common Element Integrated System Capability Development Document (CDD) Standard Views (SV) and Service View (SvcV) architecture products. It is ASA(ALT)'s responsibility to V&V the Joint Capabilities Integration Development System (JCIDS) Standard View (SV) and SvcV Department of Defense Architecture Framework (DoDAF) products for submission as a Capability Development Document (CDD). Perform; V&V on the COE v1.0/v1.10 Integrated Architecture/Basis of Issue/Capability Set level SVs and SvcVs architectures in preparation for AIC and operational testing, and V&V on the v3.0 COE Integrated Architecture. Positioning Navigation Timing (PNT) Command Control Communication (CCC) System of System architecture will be included. Align the CE-Level DoDAF Architecture Design in MagicDraw according to the guidance strategized out in the MC to avoid duplication in document development across ASA(ALT). This includes supporting the TRADOC Sun Setting Process for current requirements documents and the ASA (ALT) COE requirements convergence strategy, with a feed into COE and Capability Set Architecture. Detailed Tasks include: Build Trace for the COE requirements and their relations to other source and authoritative documents using the Army IRF. This includes the requirements for Position, Navigation, and Timing (PNT) CCC, Standard and Sharable Geospatial Foundation CCC, Common Overlay CCC, and Chat CCC. Develop and manage COE SoS Technical Requirements (Functional and Non Functional Requirements) including Requirements for Position, Navigation, and Timing (PNT) CCC, Standard and Sharable Geospatial Foundation CCC, Common Overlay CCC, and Chat CCC. Define and Build Trace between COE Technical Requirements and required COE/CE Architecture products. Provide guidance document, SOPs, training, IT support to the COE/CE users to develop the COE/CE requirements including Position, Navigation, and Timing (PNT) IPT. Conduct COE requirements convergence analysis using Army IRF to identify requirements duplications, commonalities, gaps, and define how current COE system requirements will be re-architected in terms of apps, widgets, and services to support the COE v3.0 and beyond-Provide and maintain the Army IRF Environment for the COE/CE community to develop COE/CEs/CCCs requirements. The environment currently has over 160 documents (35 Army Concepts Documents, 88 JCIDS Operational Requirements Documents, 35 Documents that identifies Army Gaps, 10 Authoritative and references documents needed for developing requirements and architecture products). Provide guidance and support to the current Army IRF Users in developing and managing SoS requirements for COE /CE/ CCCs requirements (PEO C3T, PM MC, PM APNT, SoSE&I, MC RGT, MC CoE) and new users. Use Case to generate the Unified System/Service DoDAF Product Design for COE Integrated Architecture v3.0. Assess the readiness of the Integrated Architecture against the Control Point Specifications for COE v3.0. Continue architecture product evolution in Magic Draw of the Unified System/Service DoDAF Product Design for COE Integrated Architecture for v4.0 and v5.0. Changes and updates will be vetted with the COE Architecture IPT at the appropriate time. Support Risk Assessment of emerging COE architectures for Cyber impacts.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- System of System Common Operating Environment Requirements Engineering: These funds provides SoSE&I, Program Managers and TRADOC with the necessary Subject Matter Expertise (SME) to develop, analyze, and manage the complexity of the Common Operating Environment (COE) Requirements, existing Program of Record (POR)/systems requirements, Cross-Cutting Capabilities (CCCs), the new Computing Environment (CE)-level documents and governance and coordination of the Federated Integration Environment (FIE). The FIE reduces risk by supporting integration and interim operability assessments throughout the product lifecycle using a Phases Integration approach.			
Title: ASA(ALT) Cyber Focal ***Description:*** These funds support critical ASA(ALT) Cyber Focal staff synchronization, analysis and integration of Cyber functions and products. ***FY 2016 Plans:*** These funds provide for the following: - Cyber Programs: Support Cyber materiel development processes by continually researching innovative acquisition process as well as utilizing science and technology resources to take advantage of the available technology. Streamlined and rapid Cyber materiel development processes support the Army Cyber mission forces as well as Army life-cycled managed systems and networks against emerging/evolving Cyber threats. - Mission Assurance and Compliance: Continue to improve the vulnerability management system, ensuring standardized compliance processes that provide flexibility to Program Managers and Commanders, allowing them to make decisions based on the vulnerability, risk and operational importance of the system or network; this provides Army Mission Assurance and Compliance processes and methodologies that are tailored to the system, network, and operations. - CIO Governance: Continue to manage the acquisition domain portfolio and business systems for ASA(ALT). Provide acquisition domain strategy, system binning requests, system assertions, system compliance reviews, problem statement review, CIO policy, system architecture, E2E process, policy and governance, data center consolidation, data management, CIO operations management, policy and governance and integration of Cyber and CIO resources. - Cyber security: Assist in the improvement of the system and network accreditation processes for life-cycle managed systems, that streamline the processes for quicker accreditation; this allows systems and networks to move through the development, testing and fielding processes, supporting rapid fielding of cyber capabilities and resilient systems to Warfighters.	-	2.782	2.086

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Cyber Architecture: Provide cyber architecture subject matter expertise and cross PEO architecture integration, including systems engineering analysis and requirements decomposition of cyber requirements, and product support for Capability Set Fielding and Engineering and Integration architecture efforts. ***FY 2017 Plans:*** These funds support critical ASA(ALT) Cyber Focal SMEs for synchronization, analysis and integration of Cyber functions and products. - Cyber Programs: Provide oversight, synchronize and coordinate requirement development, decomposition and validation efforts for Requirements Definition Packages and Capability Drops based on validated Information Systems (IS) capability documents in support of efforts to provide cutting edge cyber capability to the warfighter. Oversee, synchronize and coordinate fielding of cyber capabilities utilizing the Cyber Acquisition Task Force. These capabilities include defensive cyberspace operation, situational awareness and department of defensive information network Socialize efforts with the Cyber stakeholders and key leadership. Manage the synchronization between program offices, HQDA, and the Army Cyber Command regarding efforts for the drafting, validation and execution of operational needs statements, office of primary responsibility, materiel development decisions. Co-chair the Cyber Acquisition, Requirements, and Resourcing Operational Planning Team. The CARR is responsible for recommending prioritization of validated Cyberspace requirements in view of operational imperatives, estimated costs, and available resources; approving an annual plan for cyberspace capability development that assists materiel and capability developers in forecasting resourcing requirements; measuring progress from the prior year's annual plan, in order to align future requirements and inform stakeholders of the accomplishments in attaining Cyberspace capabilities in meeting the above objectives; evaluating and providing recommendations on priorities for cyber-related special program requirements to ensure deconfliction, cross-functional review, and integration of special program issues, with sufficient participation of stakeholders. Develop integrated cyber acquisition strategies across multiple PoRs and Program Executive Offices. Participates in the Army Cyberspace Council; maintain the Army's Cyber Acquisition strategy/plan to reflect changes in technology and policy/ regulation and to address emerging cyber requirements. Continue to execute cyber innovation challenges by hosting meetings, conferences, conducting market research, working with the Army Contracting Command, Program Executive Office and the Army Cyber Command. Expand market research to include academia, Industry, International organizations, and specified cooperative security efforts in order to identify and utilize common cyber efforts. - Mission Assurance and Compliance: Conduct initial full baseline scoring of ASAALT systems using the existing criteria in the Operational Risk Decision Framework. Further refine the criteria for future scoring based on Army Cyber Command criteria weighting and available system documentation. Participated in the existing Insider Threat IPT Lines of Effort (LOE) to mitigate the risk of insider threat, ensure			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
cross PEO equities and resourcing requirements were identified to implement the findings in the IPT. Continue to improve the vulnerability management system by participating in the PEO C3T and NETCOM vulnerability management pilot and develop the plan for follow on activities to implement the lessons learned and Tactics, Techniques and Procedures across the ASAALT portfolio. Conduct cyber assessments using the Mission Assurance and Compliance processes and methodologies tailored to the system, network, and operations to ensure cyber is a part of the overall systems engineering assessments of Programs of Record. Continue to provide HQ staff support to the PEO Information Assurance Program Managers in the area of Command Cyber Readiness Inspections, Tactical Public Key Infrastructure, and Cyber Tool Implementation. Support to Other SoSE&I Directorates: Conduct requirements identification, decomposition, and engineering support to integrate cyber into the Common Operating Environment, including the development of the Tactical PKI Cross Cutting Capability, input to Implementation plans, integrated systems engineering plans, and integrated architecture. Conduct requirements identification, decomposition, and engineering support to develop a holistic approach to identity and access management and Public Key Infrastructure. Efforts include a Tactical PKI Exception Memorandum, Assessment of Tactical and Strategic PKI and IdAM based authentication, Enterprise Directory Services (EDS), and Enterprise Tactical Identity and Email Service (ETIES). Continue to develop the software vulnerability architecture to provide a system of system analysis tool to determine high risk systems to cyber vulnerabilities based on access to enterprise capabilities and location on the actual tactical network. Effort also includes the development of the FY 16 assessment plan for mission assurance analysis to be conducted through SOSEI Engineering and Analysis Risk Reduction yearly analysis plan. - Cyber Security: Lead ASA(ALT) Cybersecurity Program; accredit, validate, and oversee ASA(ALT) systems cybersecurity activities and manage cybersecurity workforce. Continue providing support to PEO Information Assurance Program Managers regarding cybersecurity including risk management framework, eMASS, MS4X and ISSP, FISMA compliance, and ACAS. Provide cybersecurity oversight for PM PNT, USAASC, and DASA-P information systems through consultation, policies, and Authorizing Official (AO) authority. Conduct Risk Management Framework (RMF) assess only activities for SoSE&I owned and sponsored systems, lead RMF tactical overlay development. Coordinate and assist with red and blue team efforts for ASA(ALT) portfolio, providing support to Mission Assurance/Resilience in their assessment activities, identifying vulnerabilities in ASA(ALT) information systems throughout the acquisition lifecycle. Perform cybersecurity engineering analysis support for SoSE&I owned and sponsored information systems, including architecture reviews to identify potential vulnerabilities and risk mitigation techniques. Support Cyber Collective Training initiative led by PEO STRI. - Support Engineering and Integration:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Lead the Lab Based Risk Reduction cybersecurity effort, coordinating blue team activities for LBRR, transitioning lessons learned from the lab into the field environment. Conduct compliance scans in preparation for the blue team assessment, identifying potential vulnerabilities and ensuring information system owners remediate or mitigate issues. Continue supporting NIE/AWA Strategic Planning Reviews (SPRs) and Bullpens as the TRIAD lead for cybersecurity for both efforts. Conduct architecture reviews and golden vehicle checkout, identifying potential vulnerabilities and risk mitigation techniques. Interface with appropriate agencies for certification issues and cross domain solutions support. - Engineering Support to the Cyber Focal teams and related Cyber engineering tasks where a Cyber Subject Matter Expert (SME) is required or valuable: These funds provide for Cyber SME support to Cyber Programs to decompose in coming requirements documents for the purpose of gap identification, redundant capability definition or requirement between multiple requirements documents, requirement definition in support of resourcing said requirement(s). Cyber SME assistance to Cybersecurity/Cyber Focal with red and blue team efforts for ASA(ALT) portfolio. Cyber SME support to Mission Assurance/Resilience with software vulnerability/protection architecture support and coordination between Cyber Mission Assurance / Resilience and E&I Architecture team. Support with the way forward for Public Key Infrustructure (PKI) and Identity and Access Management (IdAM). Provides support to other Directorates: Support to CIO Governance to integrate Army Acquisition Business Enterprise Architectures (ABBEA) and the Army-Business Enterprise Architecture (A-BEA), Engineering and Integration Team: support to E&I to include Focused End State mission essential and mission enhancing capabilities requirements language (along with G-3/5/7) and support to NIE 17.2 and red/blue teaming and Strategic Planning Reviews (SPRs). - Resourcing and Budget: Coordinate resourcing requirements for emerging threats, defensive/offensive cyberspace operation requirements, and mission assurance and compliance requirements with program offices, develop consolidated Army Cyber picture for iWSR/LIRS/POM, present resourcing requirements at WSR reviews. Develop responses to congressional inquiries. Manage and coordinate Cyber BRP efforts. These resourcing activities are imperative to ensure cyber capabilities are provided to the war fighter and Army systems are defendable against cyber threats. - Effort to develop and maintain Cyber specific IMS These funds provide for SMEs to develop and maintain an Integrated Master Schedules for SoSE&I's Cyber efforts. Close out the IMS for FY16, maintain the IMSs for FY17 and develop initial IMSs for FY18 and FY19. In support of Cyber efforts collect and analyze sub-schedule performance against the baseline Integrated Master Schedule to identify schedule risks. Validate that established integration points are achievable and, if not, identify the schedule risk. Analyze schedule performance against schedule baseline, identify variances and their causes, and identify risks and/or impacts to critical path. Perform "what if" schedule			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
analysis of alternative program courses of action to determine impact on schedule critical path. Update and post Schedules on SharePoint for visibility and increased collaboration across ASA(ALT). Participate in Cyber working groups. Provide scheduling reports and briefings to meet the needs of the Cyber communities. This includes: Cyber IMS and briefings and reports from IMS analysis.			
Title: Facilities and IT Support ***Description:*** Provides funding for infrastructure/facilities and IT support. ***FY 2015 Accomplishments:*** Provided funding for infrastructure/facilities. It included the cost for government IT support from Network connectivity to purchasing/leasing hardware, software, computers, communications equipment and services. ***FY 2016 Plans:*** Provides funding for infrastructure/facilities. It includes the cost for government IT support from Network connectivity to purchasing/leasing hardware, software, computers, communications equipment and services. ***FY 2017 Plans:*** Provides funding for infrastructure/facilities. It includes the cost for government IT support from Network connectivity to purchasing/leasing hardware, software, computers, communications equipment and services.	1.298	1.009	0.533
Accomplishments/Planned Programs Subtotals	16.988	16.416	14.166

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
• DY3: *DY3 NIE Test & Evaluation*	4.440	12.215	65.844	-	65.844	67.311	67.899	68.478	71.719	Continuing	Continuing
• DY4: *DY4 Network Integration Support*	16.382	14.131	-	-	-	-	-	-	-	Continuing	Continuing
• DY5: *DY5 Production/Fielding Coordination for Capability Sets*	2.802	4.601	3.960	-	3.960	4.099	4.192	4.286	4.374	Continuing	Continuing
• DY6: *DY6 Brigade and Platform Integration Support*	33.629	45.504	-	-	-	-	-	-	-	Continuing	Continuing
• DZ6: *DZ6 Army Integration & Coordination Management*	8.716	6.375	5.746	-	5.746	5.952	6.087	6.218	6.352	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

D. Acquisition Strategy

This project does not have any requirement for direct procurement of hardware or software.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY7 / *Army Systems Engineering, Architecture & Analysis*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Army System of System Engineering and Analysis	TBD	Various Note: 1 : TBD	10.368	12.010	Nov 2014	9.553		8.393	Nov 2016	-		8.393	0	40.324	0
Common Operating Environment (COE)	TBD	Various Note: 1 : TBD	3.177	3.681	Nov 2014	3.072		3.154	Nov 2016	-		3.154	0	13.084	0
ASA(ALT) Cyber	TBD	TBD : Various: Note 1	0.000	-		2.782		2.086	Nov 2016	-		2.086	0	4.868	0
		Subtotal	13.545	15.691		15.407		13.633		-		13.633	0.000	58.276	0.000

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at Aberdeen Proving Ground (MD), Taylor Bldg, (Crystal City, VA), Pentagon, (Washington DC), TACOM (Warren, MI)

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Facility and IT Support	TBD	Various: Note: 1 : TBD	1.119	1.297	Nov 2014	1.009		0.533	Dec 2016	-		0.533	0	3.958	0
		Subtotal	1.119	1.297		1.009		0.533		-		0.533	0.000	3.958	0.000

Remarks

Note:1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at Aberdeen Proving Ground (MD), Taylor Bldg, (Crystal City, VA), Pentagon, (Washington DC), TACOM (Warren, MI)

	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	14.664	16.988		16.416		14.166		-		14.166	0.000	62.234	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

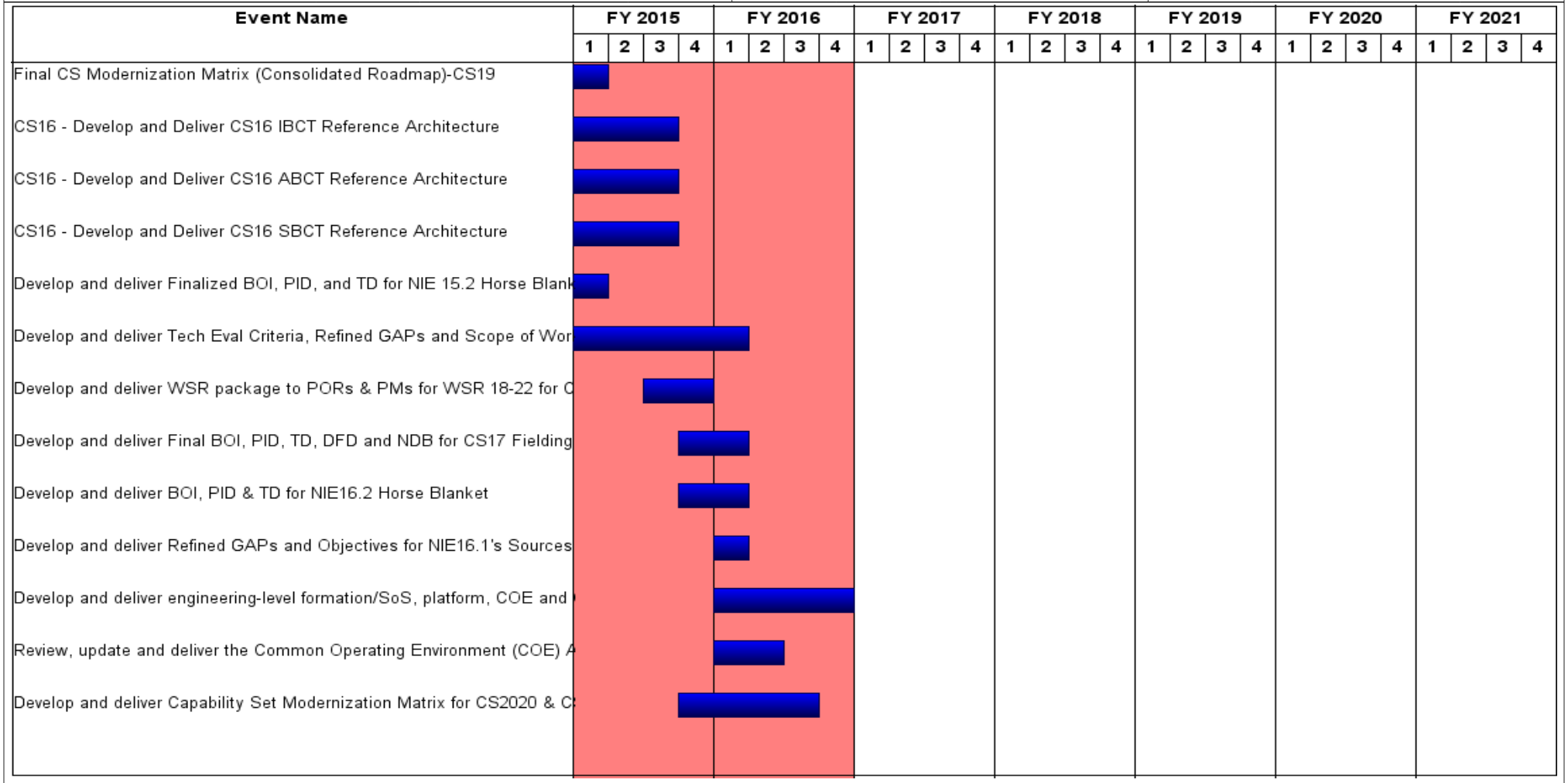

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

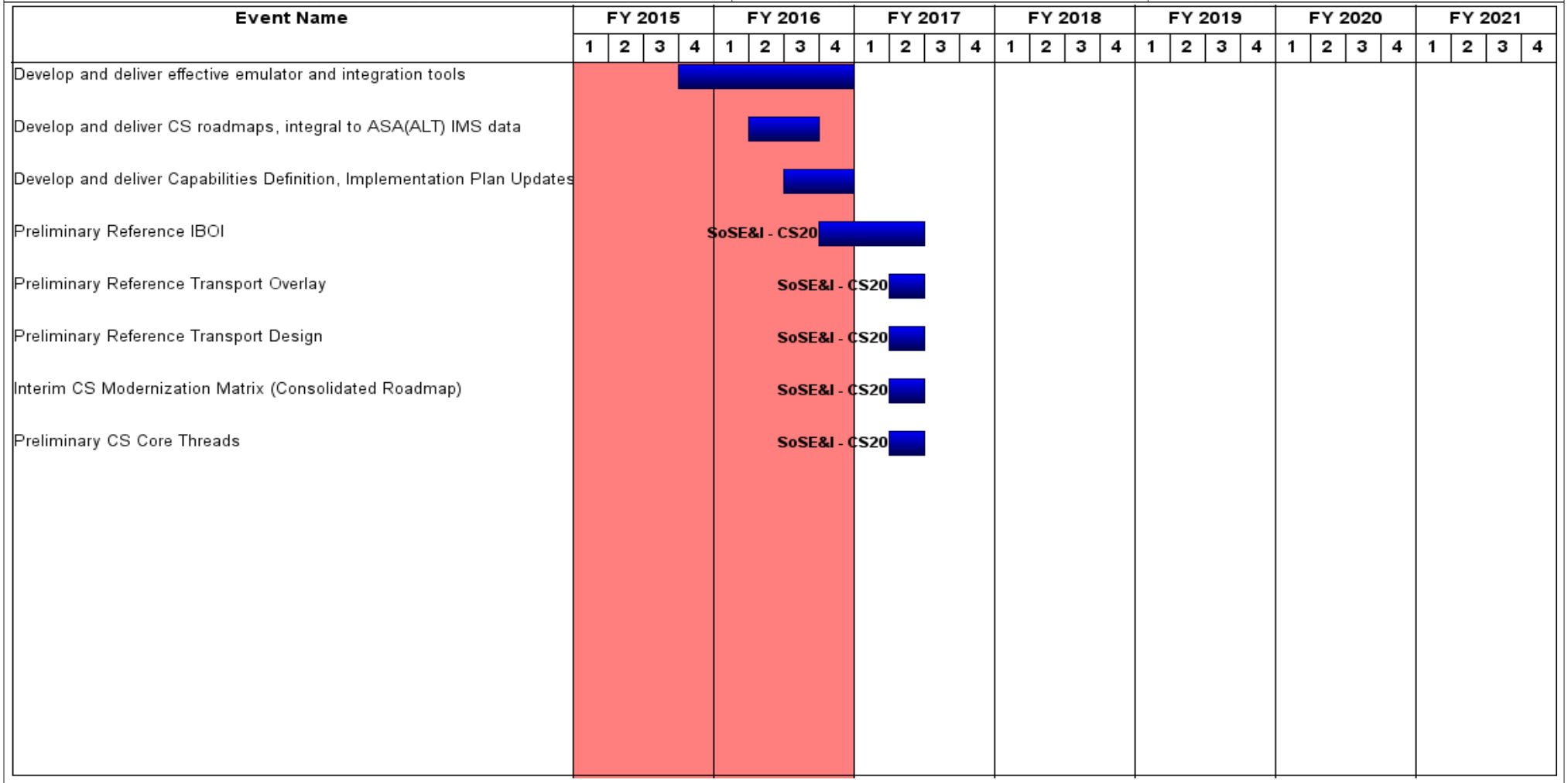

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Final CS Modernization Matrix (Consolidated Roadmap)-CS19	1	2013	1	2015
CS16 - Develop and Deliver CS16 IBCT Reference Architecture	3	2014	3	2015
CS16 - Develop and Deliver CS16 ABCT Reference Architecture	4	2014	3	2015
CS16 - Develop and Deliver CS16 SBCT Reference Architecture	4	2014	3	2015
Develop and deliver Finalized BOI, PID, and TD for NIE 15.2 Horse Blanket	4	2014	1	2015
Develop and deliver Tech Eval Criteria, Refined GAPs and Scope of Work for NIE16	4	2014	1	2016
Develop and deliver WSR package to PORs & PMs for WSR 18-22 for CS19-CS23	3	2015	4	2015
Develop and deliver Final BOI, PID, TD, DFD and NDB for CS17 Fielding	4	2015	1	2016
Develop and deliver BOI, PID & TD for NIE16.2 Horse Blanket	4	2015	1	2016
Develop and deliver Refined GAPs and Objectives for NIE16.1's Sources Sought	1	2016	1	2016
Develop and deliver engineering-level formation/SoS, platform, COE and Cyber arc	1	2016	4	2016
Review, update and deliver the Common Operating Environment (COE) Assessment Cri	1	2016	2	2016
Develop and deliver Capability Set Modernization Matrix for CS2020 & CS2025	4	2015	3	2016
Develop and deliver effective emulator and integration tools	4	2015	4	2016
Develop and deliver CS roadmaps, integral to ASA(ALT) IMS data	2	2016	3	2016
Develop and deliver Capabilities Definition, Implementation Plan Updates,	3	2016	4	2016
Preliminary Reference IBOI	4	2016	2	2017
Preliminary Reference Transport Overlay	2	2017	2	2017
Preliminary Reference Transport Design	2	2017	2	2017
Interim CS Modernization Matrix (Consolidated Roadmap)	2	2017	2	2017
Preliminary CS Core Threads	2	2017	2	2017

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

Note

KEY:

Integrated Base Defense (IBD) / Communication & Computing Infrastructure (CCI) / Infantry Brigade Combat Team (IBCT) Stryker Brigade Combat Team (SBCT) / Basis of Issue (BOI) / Platform Interconnect Diagram (PID) / Transport Design (TD) / Data Flow Diagram (DFD)/ Network Design Book (NDB)

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DZ6 / *Army Integration Management & Coordination*	

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
DZ6: *Army Integration Management & Coordination*	-	8.716	6.375	5.746	-	5.746	5.952	6.087	6.218	6.352	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project supports the management and coordination of Army System of System engineering and analysis architecture development for the Army. The project funds the "shared" resources that support the technical and management (i.e. headquarters, resource management, acquisition, affordability, human resources, operations, etc.) aspects of the Army's Network Integration process and coordination of Production Integration and Fielding of the Capability Sets (CS). Effectively utilizing "shared" resources reduces overall cost to the program. The personnel funded by this project provides direct support to four directorates under ASA(ALT) SoSE&I; Engineering and Integration (E&I), Common Operating Environment (COE), Cyber Focal, and Capability Package and one Project Office; Positioning Navigation and Timing (PNT).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: SoSE&I Program Management and Integration	7.610	5.566	5.138
Description: This effort funds for all "shared" resources that supports the Brigade Analysis, Integration and Evaluation program.			
FY 2015 Accomplishments: This effort included program, information, security, business, and personnel management efforts required to support the ASA(ALT) System of System Engineering and Integration Directorate (SoSE&I). This included; support of the system of system engineering process, the ASSALT integrated master schedule development and implementation, support of the Lab Based Risk Reduction and network integration effort, support of the NIE, and support of synchronized fielding, Cyber Focal operations, and Common Operating Environment oversight. It included the following types of activities: Program Management, contracting, financial management, cost analysis, personnel management, operations, security management, information management, facilities and infrastructure management, Pentagon liaison, and knowledge management.			
FY 2016 Plans: This effort includes program, information, security, business, and personnel management efforts required to support the ASA(ALT) System of System Engineering and Integration Directorate. This includes; support of the system of system engineering process, the ASSALT integrated master schedule development and implementation, support of the Lab Based Risk Reduction and network integration effort, support of the NIE, and support of synchronized fielding. It includes the following types of activities: Program management, contracting, financial management, cost analysis, personnel management, operations, security management, information management, facilities and infrastructure management, Pentagon liaison, knowledge management.			
FY 2017 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
This effort includes program, information, security, business, and personnel management efforts required to support the ASA(ALT) System of System Engineering and Integration (SoSE&I)Directorate. This includes; support of the system of system engineering process, the ASSALT integrated master schedule development and implementation, support of the Lab Based Risk Reduction and network integration effort, in support of closing-out AWA 17.1, planning, conducting/executing and closing-out NIE17.2, planning and conducting/executing AWA18.1 and planning for NIE18.2, along with closing out Capability Set Synchronized Fielding (CS) CS16, conducting CS17 and planning for CS18, it also includes support to Common Operating Environment (COE), Cyber Focal along with Positioning Navigation and Timing (PNT). It includes the following types of activities: Program management, contracting, financial management, cost analysis, personnel management, operations, security management, information management, facilities and infrastructure management, Pentagon liaison, knowledge management.			
Title: Facilities and IT Support ***Description:*** Provides funding for infrastructure/facilities and IT support. ***FY 2015 Accomplishments:*** Provided funding for infrastructure / facilities, and government personnel IT support from Network connectivity and the purchasing and/or leasing of hardware, software, computers, communications equipment and services. ***FY 2016 Plans:*** Provides funding for infrastructure / facilities, and government personnel IT support from Network connectivity to purchasing/ leasing hardware, software, computers, communications equipment and services. ***FY 2017 Plans:*** Provides funding for infrastructure / facilities, and government personnel IT support from Network connectivity to purchasing/ leasing hardware, software, computers, communications equipment and services.	1.106	0.809	0.608
Accomplishments/Planned Programs Subtotals	8.716	6.375	5.746

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
• DY3: *DY3 NIE Test & Evaluation*	4.440	12.215	65.844	-	65.844	67.311	67.899	68.478	71.719	Continuing	Continuing
• DY4: *DY4 Network Integration Support*	16.382	14.131	-	-	-	-	-	-	-	Continuing	Continuing
• DY5: *DY5 Production/Fielding Coordination for Capability Sets*	2.802	4.601	3.960	-	3.960	4.099	4.194	4.286	4.374	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*	

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
• DY6: *DY6 Brigade and Platform Integration Support*	33.629	45.504	-	-	-	-	-	-	-	Continuing	Continuing
• DY7: *DY7 Army Systems Engineering, Architecture and Analysis*	16.988	16.416	14.166	-	14.166	24.176	24.651	25.123	25.505	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project includes the purchase of IT hardware, software and service support; general office and operational supplies.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Army			Date: February 2016
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DZ6 / *Army Integration Management & Coordination*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SoSE&I Program Management and Integration	TBD	Various Note: 1 : TBD	5.717	7.610	Nov 2014	5.566		5.138	Nov 2016	-		5.138	0	24.031	0
		Subtotal	5.717	7.610		5.566		5.138		-		5.138	0.000	24.031	0.000

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at Aberdeen Proving Ground (MD), TACOM (Warren MI), Taylor Bldg, (Crystal City, VA), Pentagon, (Washington DC).

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Facilities and IT Support	TBD	Various Note: 1 : TBD	0.831	1.106	Nov 2014	0.809		0.608	Nov 2016	-		0.608	0	3.354	0
		Subtotal	0.831	1.106		0.809		0.608		-		0.608	0.000	3.354	0.000

Remarks

Note:1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at Aberdeen Proving Ground (MD), TACOM (Warren MI), Taylor Bldg, (Crystal City, VA), Pentagon, (Washington DC), FT Bliss (TX), White Sands Missile Range (NM).

	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	6.548	8.716		6.375		5.746		-		5.746	0.000	27.385	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

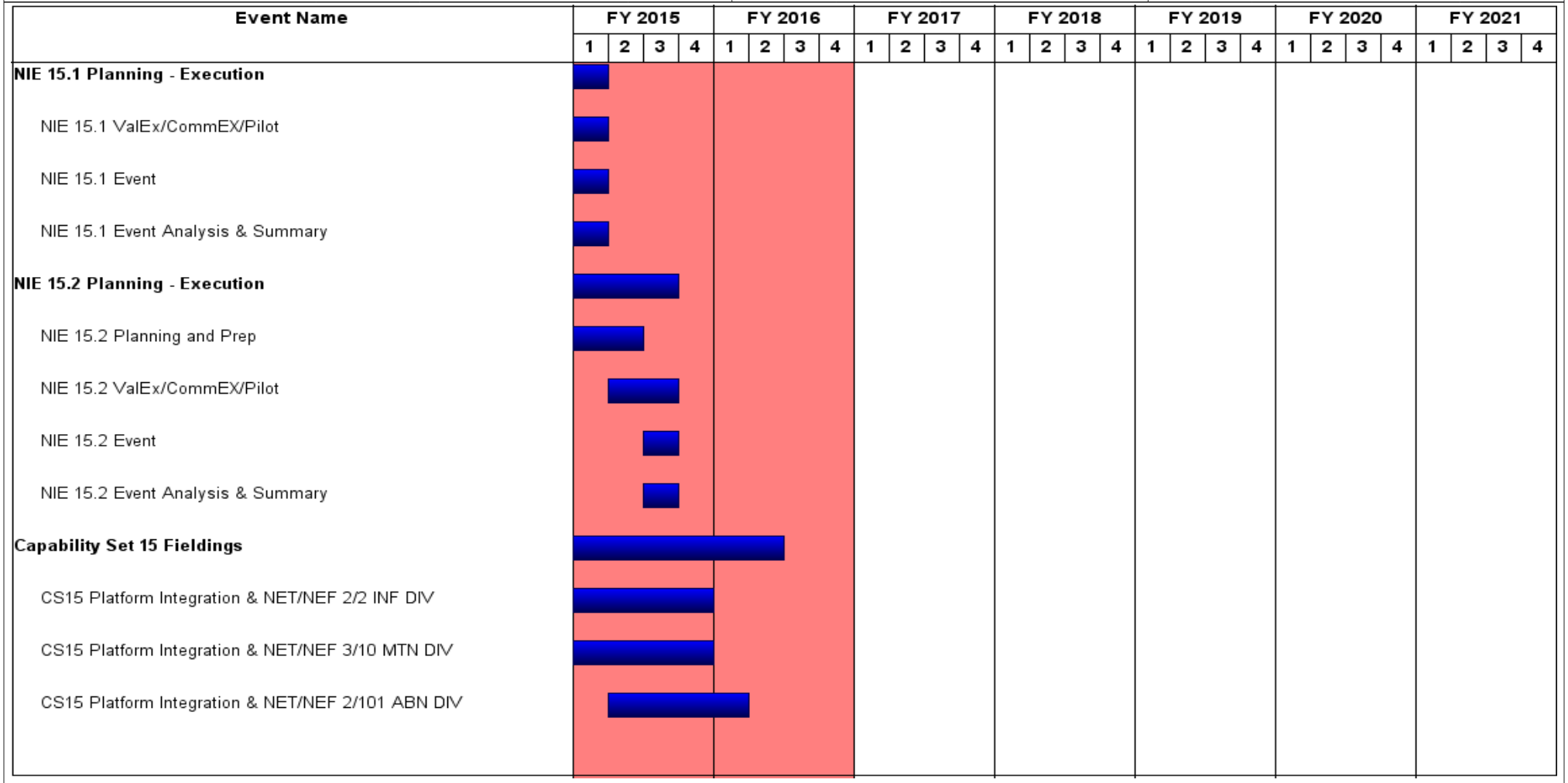

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

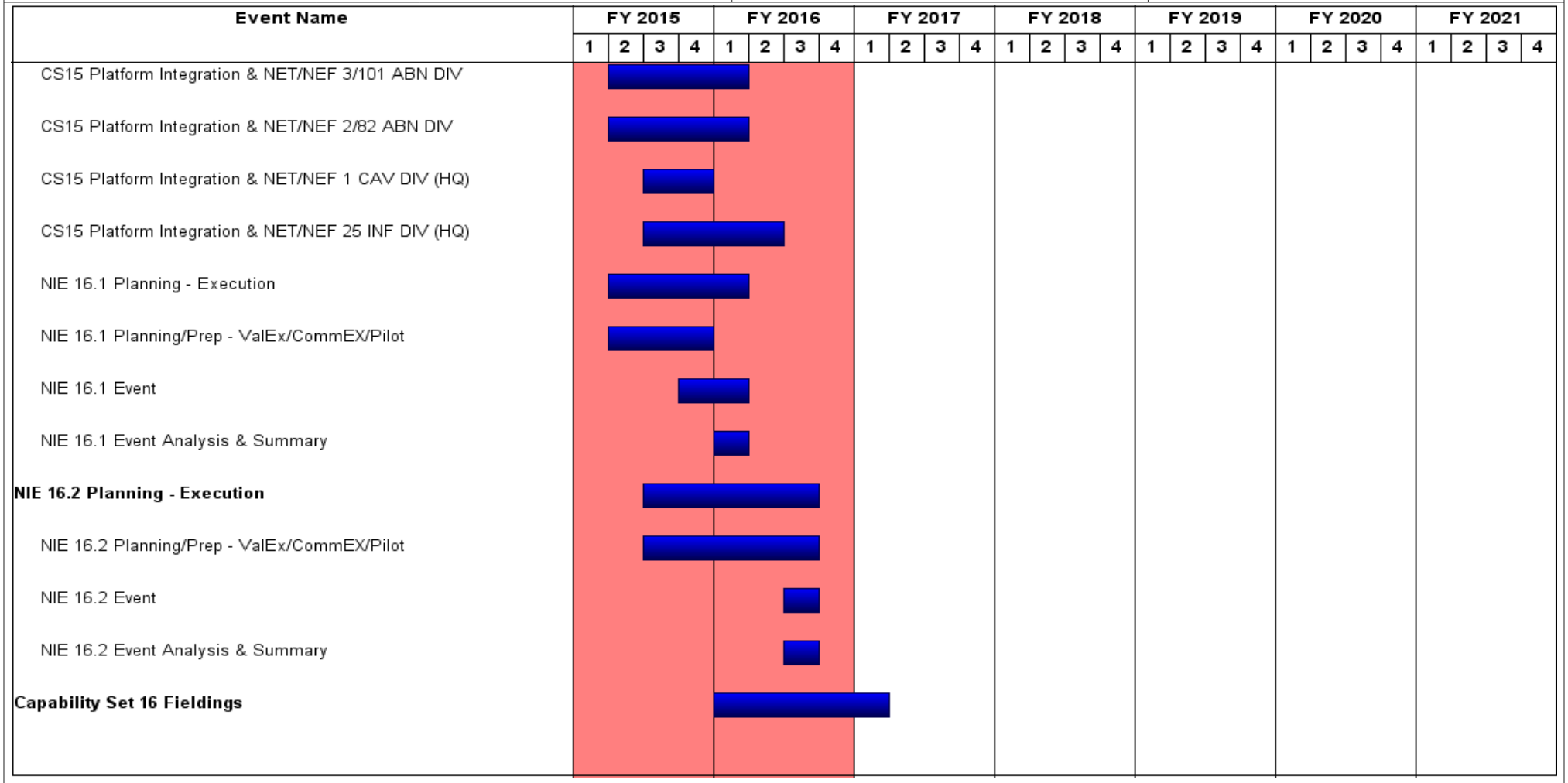

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

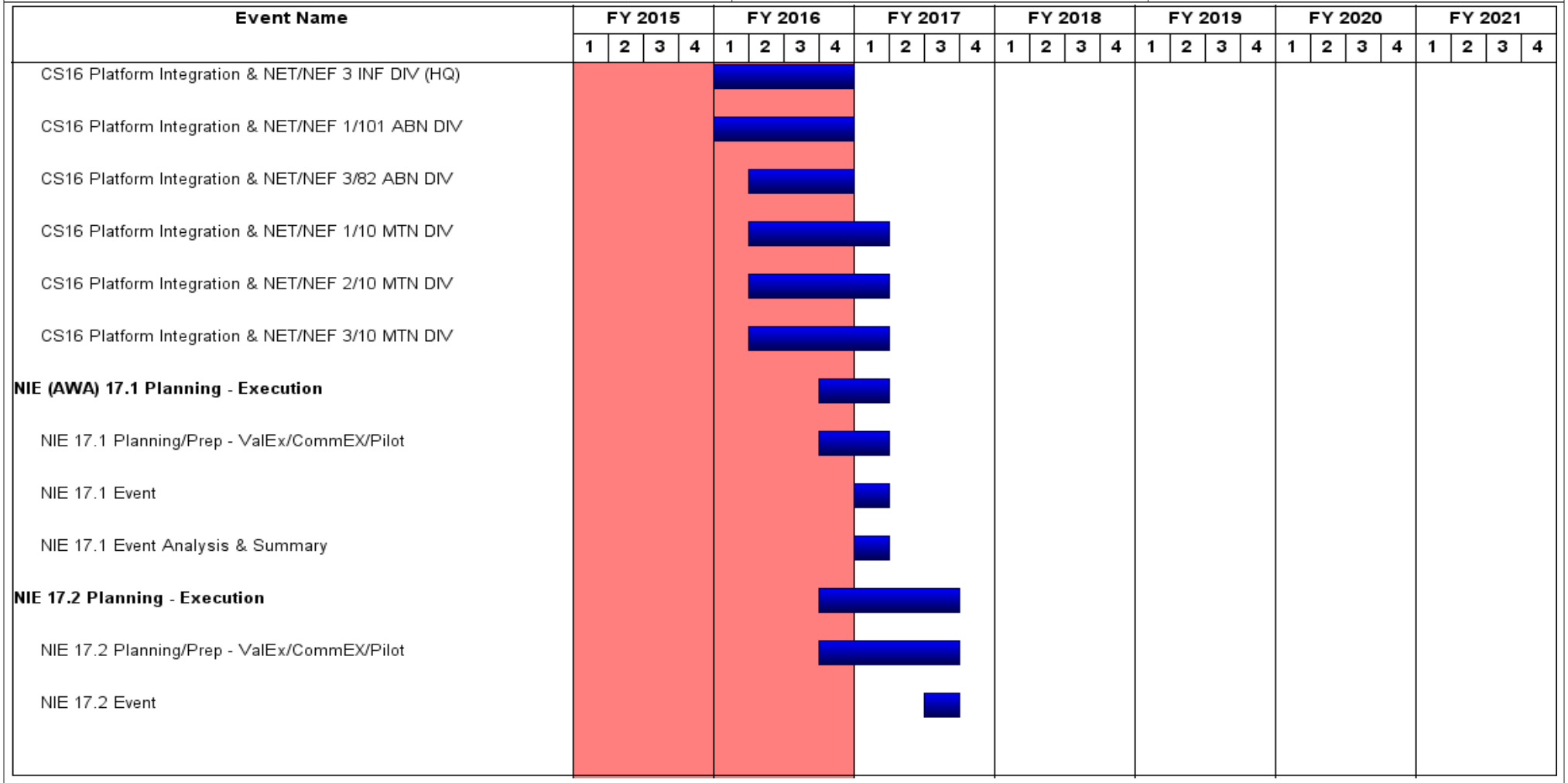

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

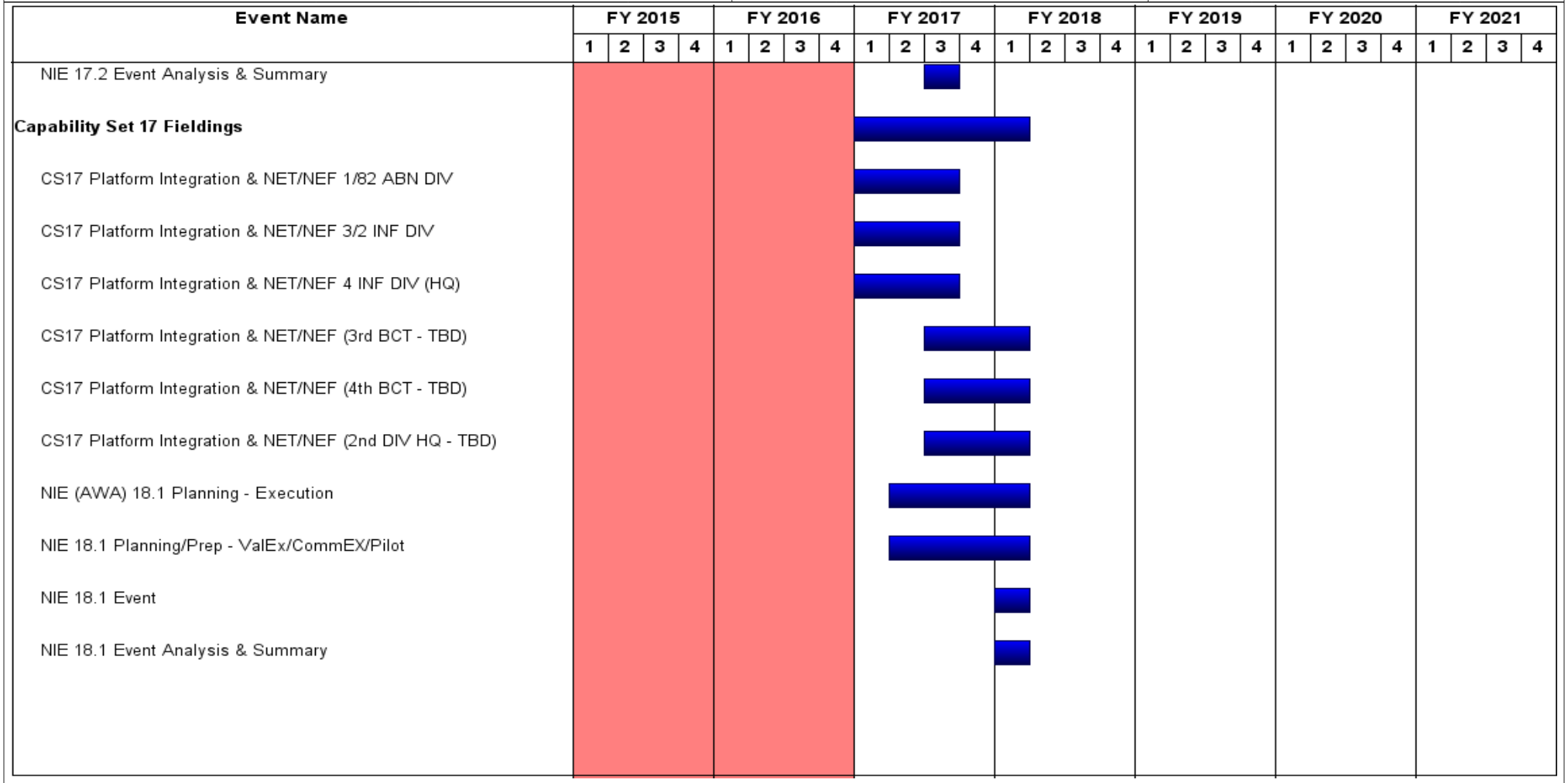

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 15.1 Planning - Execution	1	2014	1	2015
NIE 15.1 ValEx/CommEX/Pilot	4	2014	1	2015
NIE 15.1 Event	1	2015	1	2015
NIE 15.1 Event Analysis & Summary	1	2015	1	2015
NIE 15.2 Planning - Execution	2	2014	3	2015
NIE 15.2 Planning and Prep	2	2014	2	2015
NIE 15.2 ValEx/CommEX/Pilot	2	2015	3	2015
NIE 15.2 Event	3	2015	3	2015
NIE 15.2 Event Analysis & Summary	3	2015	3	2015
Capability Set 15 Fieldings	1	2015	2	2016
CS15 Platform Integration & NET/NEF 2/2 INF DIV	1	2015	4	2015
CS15 Platform Integration & NET/NEF 3/10 MTN DIV	1	2015	4	2015
CS15 Platform Integration & NET/NEF 2/101 ABN DIV	2	2015	1	2016
CS15 Platform Integration & NET/NEF 3/101 ABN DIV	2	2015	1	2016
CS15 Platform Integration & NET/NEF 2/82 ABN DIV	2	2015	1	2016
CS15 Platform Integration & NET/NEF 1 CAV DIV (HQ)	3	2015	4	2015
CS15 Platform Integration & NET/NEF 25 INF DIV (HQ)	3	2015	2	2016
NIE 16.1 Planning - Execution	2	2015	1	2016
NIE 16.1 Planning/Prep - ValEx/CommEX/Pilot	2	2015	4	2015
NIE 16.1 Event	4	2015	1	2016
NIE 16.1 Event Analysis & Summary	1	2016	1	2016
NIE 16.2 Planning - Execution	3	2015	3	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 16.2 Planning/Prep - ValEx/CommEX/Pilot	3	2015	3	2016
NIE 16.2 Event	3	2016	3	2016
NIE 16.2 Event Analysis & Summary	3	2016	3	2016
Capability Set 16 Fieldings	1	2016	1	2017
CS16 Platform Integration & NET/NEF 3 INF DIV (HQ)	1	2016	4	2016
CS16 Platform Integration & NET/NEF 1/101 ABN DIV	1	2016	4	2016
CS16 Platform Integration & NET/NEF 3/82 ABN DIV	2	2016	4	2016
CS16 Platform Integration & NET/NEF 1/10 MTN DIV	2	2016	1	2017
CS16 Platform Integration & NET/NEF 2/10 MTN DIV	2	2016	1	2017
CS16 Platform Integration & NET/NEF 3/10 MTN DIV	2	2016	1	2017
NIE (AWA) 17.1 Planning - Execution	4	2016	1	2017
NIE 17.1 Planning/Prep - ValEx/CommEX/Pilot	4	2016	1	2017
NIE 17.1 Event	1	2017	1	2017
NIE 17.1 Event Analysis & Summary	1	2017	1	2017
NIE 17.2 Planning - Execution	4	2016	3	2017
NIE 17.2 Planning/Prep - ValEx/CommEX/Pilot	4	2016	3	2017
NIE 17.2 Event	3	2017	3	2017
NIE 17.2 Event Analysis & Summary	3	2017	3	2017
Capability Set 17 Fieldings	1	2017	1	2018
CS17 Platform Integration & NET/NEF 1/82 ABN DIV	1	2017	3	2017
CS17 Platform Integration & NET/NEF 3/2 INF DIV	1	2017	3	2017
CS17 Platform Integration & NET/NEF 4 INF DIV (HQ)	1	2017	3	2017
CS17 Platform Integration & NET/NEF (3rd BCT - TBD)	3	2017	1	2018
CS17 Platform Integration & NET/NEF (4th BCT - TBD)	3	2017	1	2018
CS17 Platform Integration & NET/NEF (2nd DIV HQ - TBD)	3	2017	1	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE (AWA) 18.1 Planning - Execution	2	2017	1	2018
NIE 18.1 Planning/Prep - ValEx/CommEX/Pilot	2	2017	1	2018
NIE 18.1 Event	1	2018	1	2018
NIE 18.1 Event Analysis & Summary	1	2018	1	2018