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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Office of the Secretary Of Defense **Date:** February 2019

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605027D8Z I OUSD(C) IT Development Initiative
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COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	56.134	21.312	9.568	15.653	-	15.653	14.274	14.555	14.893	15.266	Continuing	Continuing
927: <i>Next Generation Resource Management System</i>	39.984	0.000	8.068	8.134	-	8.134	8.181	8.279	8.429	8.608	Continuing	Continuing
930: <i>Defense Repository for Common Enterprise Data</i>	16.150	21.312	1.500	7.519	-	7.519	6.093	6.276	6.464	6.658	Continuing	Continuing

Note
BUDGET REQUEST JUSTIFICATION: +\$15.653 million is required to support the following efforts:

+ \$8.134 million is required to support Next Generation Resource Management Systems.

+ \$7.519 million is required to support Defense Repository for Common Enterprise Data.

FY18 funding of \$21.312 was in 927 instead of 930.

A. Mission Description and Budget Item Justification

As the Department of Defense strategic, operational, and tactical plans and objectives transform the war fighter with new capabilities and doctrine, the budgeting and accountability of funds used to pursue the Department objectives will become more complicated and detailed for senior leaders to make decisions with supporting rationale for the taxpayer. Incorporating information technology toward current and emerging business processes manifesting into a state-of-the-art system of systems will result in increasing efficiencies, timely diagnostics, and reducing lifecycle costs to maintain, sustain and repair.

This initiative exploits emerging technology, processes, trends, capabilities, and techniques to incorporate state-of-the-art information technology enabling the ability, agility, and level of fidelity to collect, process, administrate and report resource management data and to automate business processes within a more robust analytical environment within the Office of the Under Secretary of Defense (Comptroller) OUSD(C).

NEXT GENERATION RESOURCE MANAGEMENT SYSTEM:

The Office of the Under Secretary of Defense (Comptroller) (OUSD(C)) is responsible for advising the Secretary of Defense on all Defense budgetary and fiscal matters, for Defense budget development and execution, and for overseeing financial management across the Department. The OUSD(C) has a broad set of responsibilities in supporting the Planning, Programing, Budget and Execution (PPBE) process. The Office of the Director, Cost Assessment and Program Evaluation (CAPE), provides independent analytic advice to the Secretary of Defense on all aspects of the Defense program, including alternative weapon systems and force structures, the development and evaluation of program and defense program alternatives, and the cost-effectiveness of defense systems.

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<p>There is a critical need for the development of a state-of-the-art information technology system to modernize and replace multiple, antiquated legacy systems and processes used to formulate, justify, present and defend the entire Department of Defense Budget in the Office of the Under Secretary of Defense (Comptroller) (OUSD(C)) to meet Title 10 and Title 31 mission and reporting requirements. The Comptroller's plan for mitigating the deficiencies and capability gaps associated with current systems is development of the Next Generation Resource Management System.</p> <p>OUSD(C) and CAPE use multiple systems to formulate, justify, distribute, and execute DoD budgets. The information managed by the budget formulation and programming systems is redundant, and reconciliation of information is difficult and inefficient. These systems require extensive manpower investments to give executives the information they need to make key financial decisions in a timely manner.</p> <p>The OUSD(C) and CAPE require a more efficient, effective Defense budget environment that optimizes the budget cycle to ensure users are processing and reporting efficiently and DoD Senior Leadership has the information to make informed, critical decisions.</p> <p>The OUSD(C) requires capabilities that shall provide for the effective formulation, and justification of the Defense budget. The requirement is for:</p> <ul style="list-style-type: none">• Automated exchange and reconciliation of budget data• Improved efficiency through the utilization of a unified budgetary model• Instantaneous ability to generate data for management reviews and decisions• Capability to accommodate emerging business practices <p>Moving forward, the new "to be" system shall be designed as a single system with a unified data source for OUSD(C) and CAPE. The new system shall provide a single, integrated system that employs the latest technologies to fulfill the Department's financial management responsibilities in an effective and efficient manner. The new system shall provide twenty-first century information technology that shall allow users to view information from multiple fully integrated modules simultaneously, e.g., current year budget submission, decision documents from previous years, and budget execution information.</p> <p>DEFENSE REPOSITORY FOR COMMON ENTERPRISE DATA:</p> <p>Defense Repository for Common Enterprise data (DRCED) support financial audit, cost management, performance management, and readiness.</p> <p>The DoD DRCED requires:</p> <ul style="list-style-type: none">• All supporting Department data that rolls up to the DoD financial statement (detailed accounting data reconciled to the financial statement)• Proof of the completeness of all transactional data reported within the UoT (detailed accounting data reconciled to business events)• Ability to extract subset populations• Ability to secure and protect the data within the UoT <p>The failure to meet these requirements will result in the Department unable to successfully conduct and pass an audit.</p>		

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To achieve these requirements, the Office of the Under Secretary of Defense (Comptroller) is creating a tool called the Defense Repository for Common Enterprise Data (DRCED). This tool has the potential to significantly improve DoD’s capability and capacity to handle large volumes of standard and non-standard business and readiness data. Both an application and analytical platform, the DRCED leverages an open-source software framework for storing data and running applications to deliver a complete DRCED.

The first phase of DRCED implementation is a proof of concept with the U.S. Special Operations Command (USSOCOM) systems to develop a baseline application and configuration. When the first phase has been successfully completed, the second phase will integrate into the full solution any remaining accounting and business feeder systems that execute TI-97 funds and be the solution for DATA Act. The proof of concept was successful and the program moved to an operations phase in FY18.

DRCED is a joint effort between Office of the Deputy Chief Financial Officer (ODCFO), Office of the Chief Management Officer (ODCMO), Office of the Chief Information Officer (OCIO), USSOCOM, and the Defense Finance and Accounting Service (DFAS).

FY19 develops and implements a SIPR environment for Cost Accounting Framework to meet Operations Security (OPSEC) and Information Security (INFOSEC) requirements

FY20 continues the development of a common enterprise data repository to aggregate and fuse multiple data sources to make business and analytical decisions, find data inconsistencies and improve financial audits across the DoD.

B. Program Change Summary (\$ in Millions)	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020 Base</u>	<u>FY 2020 OCO</u>	<u>FY 2020 Total</u>
Previous President's Budget	21.312	9.590	15.653	-	15.653
Current President's Budget	21.312	9.568	15.653	-	15.653
Total Adjustments	0.000	-0.022	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-0.022			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

Change Summary Explanation

FY 2020 BUDGET REQUEST JUSTIFICATION: +\$8.134 million is required to support Next Generation Resource Management System (NGRMS).and \$7.519 million is required to support Defense Repository for Common Enterprise Data.

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Office of the Secretary Of Defense										Date: February 2019		
Appropriation/Budget Activity 0400 / 5					R-1 Program Element (Number/Name) PE 0605027D8Z / OUSD(C) IT Development Initiative				Project (Number/Name) 927 / Next Generation Resource Management System			
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
927: Next Generation Resource Management System	39.984	0.000	8.068	8.134	-	8.134	8.181	8.279	8.429	8.608	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Office of the Under Secretary of Defense (Comptroller) (OUSD(C)) is responsible for advising the Secretary of Defense on all Defense budgetary and fiscal matters, for Defense budget development and execution, and for overseeing financial management across the Department. The OUSD(C) has a broad set of responsibilities in supporting the Planning, Programming, Budget and Execution (PPBE) process. The Office of the Director, Cost Assessment and Program Evaluation (CAPE), provides independent analytic advice to the Secretary of Defense on all aspects of the Defense program, including alternative weapon systems and force structures, the development and evaluation of programs and defense program alternatives, and the cost-effectiveness of defense systems.

OUSD(C) and CAPE use multiple systems to formulate, justify, distribute, and execute DoD budgets. The information managed by the budget formulation and programming systems is redundant, and reconciliation of information is difficult and inefficient. These systems require extensive manpower investments to give executives the information they need to make key financial decisions in a timely manner.

The OUSD(C) and CAPE require a more efficient, effective Defense budget environment that optimizes the budget cycle to ensure users are processing and reporting efficiently and DoD Senior Leadership has the information to make informed, critical decisions.

The OUSD(C) requires capabilities that shall provide for the effective formulation, and justification of the Defense budget. The requirement is for:

- Automated exchange and reconciliation of budget data
- Improved efficiency through the utilization of a unified budgetary model
- Instantaneous ability to generate data for management reviews and decisions
- Capability to accommodate emerging business practices

Moving forward, the new “to be” system shall be designed as a single system with a unified data source for OUSD(C) and CAPE. The new system shall provide a single, integrated system that employs the latest technologies to fulfill the Department’s financial management responsibilities in an effective and efficient manner. The new system shall provide twenty-first century information technology that shall allow users to view information from multiple fully integrated modules simultaneously, e.g., current year budget submission, decision documents from previous years, and budget execution information.

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

	FY 2018	FY 2019	FY 2020
Title: Next Generation Resource Management System	0.000	8.068	8.134

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Office of the Secretary Of Defense	Date: February 2019
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Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605027D8Z / OUSD(C) IT <i>Development Initiative</i>	Project (Number/Name) 927 / Next Generation Resource <i>Management System</i>
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2018	FY 2019	FY 2020
<p>Description: Plan, develop, test and evaluate the system components (i.e. unified database, expert system, cross domain security, enterprise service bus, applications, services) and supportability requirements in modernizing the budget formulation, programming execution and reporting capabilities for the Department of Defense. Activities will include, but not be limited to, the preparation of all documentation required for Clinger-Cohen Compliance and acquisition regulations, developing requests for proposals, and oversight and management of contracts and deliverables.</p> <p>FY 2019 Plans: FY 2019 planned development will include the build out of MilCloud Development environment, development of business processes for single submission of budget data, and the design and development of a single submission interface that provides a standardized Data Collection Form to populate a standardized Database Structure.</p> <p>FY 2020 Plans: FY 2020 planned development will include the development, Developmental and operational test, and deployment of the production interfaces. Development and developmental test of reporting/analytic tool will also be completed in FY 2020.</p> <p>FY 2019 to FY 2020 Increase/Decrease Statement: The increase was due to the changes in the scope of NGRMS requirements.</p>			
Accomplishments/Planned Programs Subtotals	0.000	8.068	8.134

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

Remarks

D. Acquisition Strategy
Spiral development on a smaller scale to replace legacy mission system by leveraging existing resources..

E. Performance Metrics
N/A

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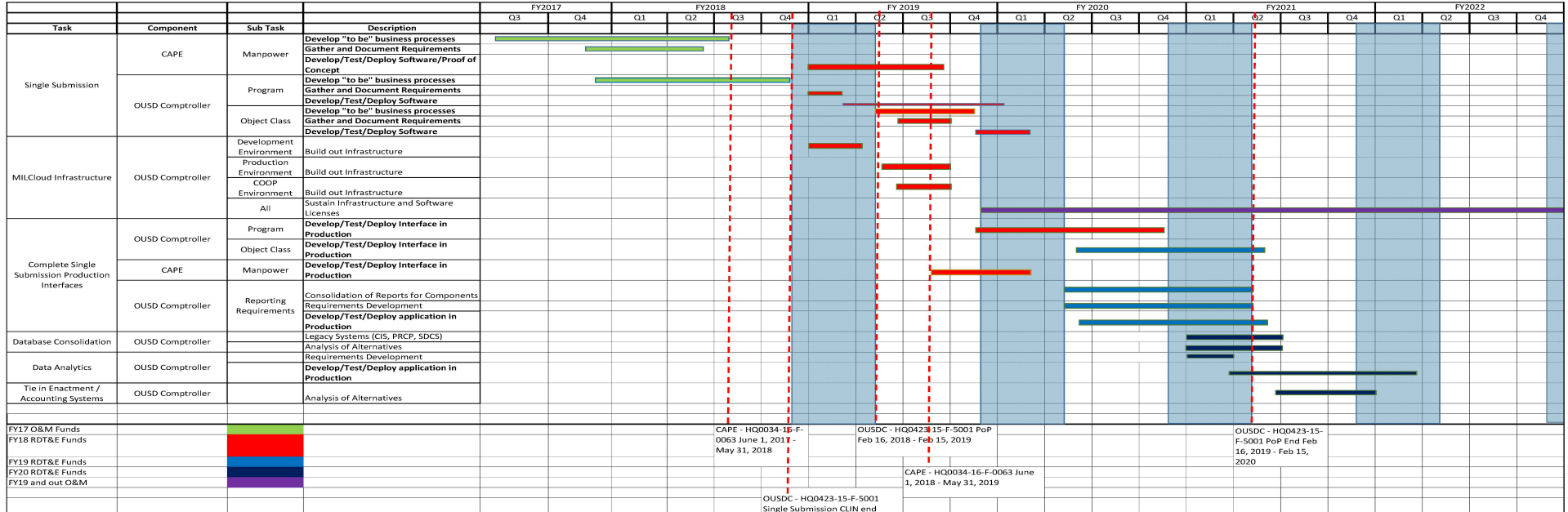
Exhibit R-4, RDT&E Schedule Profile: PB 2020 Office of the Secretary Of Defense **Date:** February 2019

Appropriation/Budget Activity
0400 / 5

R-1 Program Element (Number/Name)
PE 0605027D8Z / OUSD(C) IT
Development Initiative

Project (Number/Name)
927 / Next Generation Resource
Management System

NGRMS NOTIONAL PROJECT PLAN
PROCUREMENT SENSITIVE



PROCUREMENT SENSITIVE

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Office of the Secretary Of Defense **Date:** February 2019

Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605027D8Z / OUSD(C) IT <i>Development Initiative</i>	Project (Number/Name) 927 / Next Generation Resource <i>Management System</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
NGRMS Prototype				
Development	4	2018	3	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Office of the Secretary Of Defense										Date: February 2019		
Appropriation/Budget Activity 0400 / 5					R-1 Program Element (Number/Name) PE 0605027D8Z / OUSD(C) IT Development Initiative				Project (Number/Name) 930 / Defense Repository for Common Enterprise Data			
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
930: Defense Repository for Common Enterprise Data	16.150	21.312	1.500	7.519	-	7.519	6.093	6.276	6.464	6.658	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

FY18 funding was inr 927 instead of 930

A. Mission Description and Budget Item Justification

Without a single DRCED to support the TI97 General Fund for the 4th Estate the Department will be incapable of asserting readiness for an independent audit of the consolidated financial statements. All DoD organizations are pursuing the current statutory goal of achieving the state of audit that supports entry into a full financial statement of audit in FY 2018 with an initial opinion rendered in mid-FY 2019. Without an automated capability to provide a transactional universe for sampling and evidentiary proof the department will not be in compliance with public law.

The requested funds will be used to buy “Big Data” software and hardware infrastructure and required contractor services to implement the technology to meet the UoT requirement.

This funds include subject matter expertise costs for DCFO and funds to be placed on a contract for hardware, software, and labor. This will not result in hiring additional government personnel.

The UoT will have the capability to:

- Ingest data from multiple accounting and financial feeder systems
- Normalize data from multiple sources providing a common data architecture
- Reconcile transactional details to summary financial data
- Provide auditor’s the ability to sample TI-97 detailed transactions
- Business Analytics/Reporting
- DATA Act which is a statutory requirement to be completed by May 2017
- Provide NIPR and SIPR capability for non-sensitive and sensitive data

This effort will expand in scope to support other enterprise analytics efforts like cost management, performance management, and readiness. The scope is to bring in data from an estimated 50 systems and demonstrate existence and completeness of business and accounting transaction data, which are capabilities required for audit readiness and other analytical use cases.

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

	FY 2018	FY 2019	FY 2020
Title: Defense Repository for Common Enterprise Data	21.312	1.500	7.519

UNCLASSIFIED

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2018	FY 2019	FY 2020
<p>Description: Plan, develop, test and evaluate the system components (i.e. unified database, cross domain security, applications, services) and supportability requirements in creating a universe of transactions for the Defense Wide General Fund Appropriation financial audit, cost management, performance management, and readiness.</p> <p>The funds will be used to support increments three, four, five, and six per the schedule.</p> <p>FY 2019 Plans: FY19 develops and implements a SIPR environment for Cost Accounting Framework to meet Operations Security (OPSEC) and Information Security (INFOSEC) requirements</p> <p>FY 2020 Plans: FY20 continues the development of a common enterprise data repository to aggregate and fuse multiple data sources to make business and analytical decisions, find data inconsistencies and improve financial audits across the DoD.</p> <p>FY 2019 to FY 2020 Increase/Decrease Statement: As we began planning the design of the long-term IT solution for the Cost Accounting Framework, we incorporated funding requirements into the Defense Repository for Common Enterprise Data FY18 budget to cover a NIPR solution. Since that budgeting exercise, it has become apparent that we will need funds in the FY19 budget for a SIPR environment to meet project Operations Security (OPSEC) and Information Security (INFOSEC) requirements. The FY19 funds are needed to support the additional scope of a SIPR implementation for the Cost Accounting Framework database and visualization application.</p>			
Accomplishments/Planned Programs Subtotals	21.312	1.500	7.519

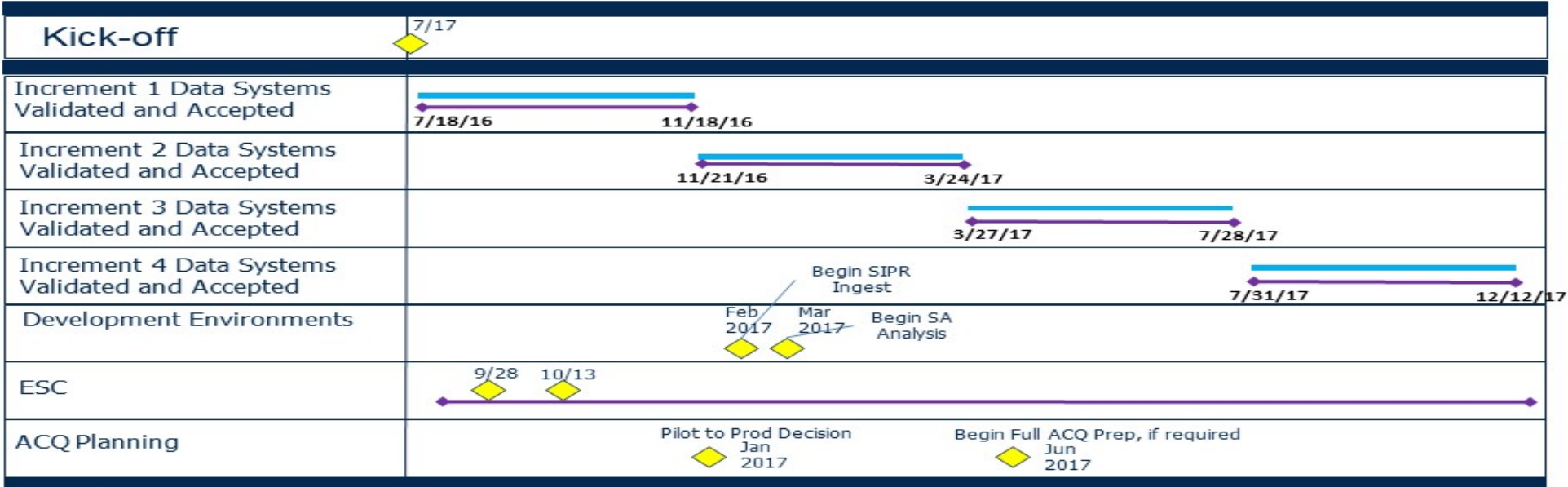
<p>C. Other Program Funding Summary (\$ in Millions) N/A</p> <p>Remarks</p> <p>D. Acquisition Strategy Leveraging existing contracts to develop and implement SIPR environment.</p> <p>E. Performance Metrics 97% of the Defense Agencies accounting systems reconcile to the unadjusted trial balance</p>
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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Office of the Secretary Of Defense		Date: February 2019
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DRCED Schedule Overview

Increments	1				2				3				4			
Sprints	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16



▬ Progress
▬ Current Plan

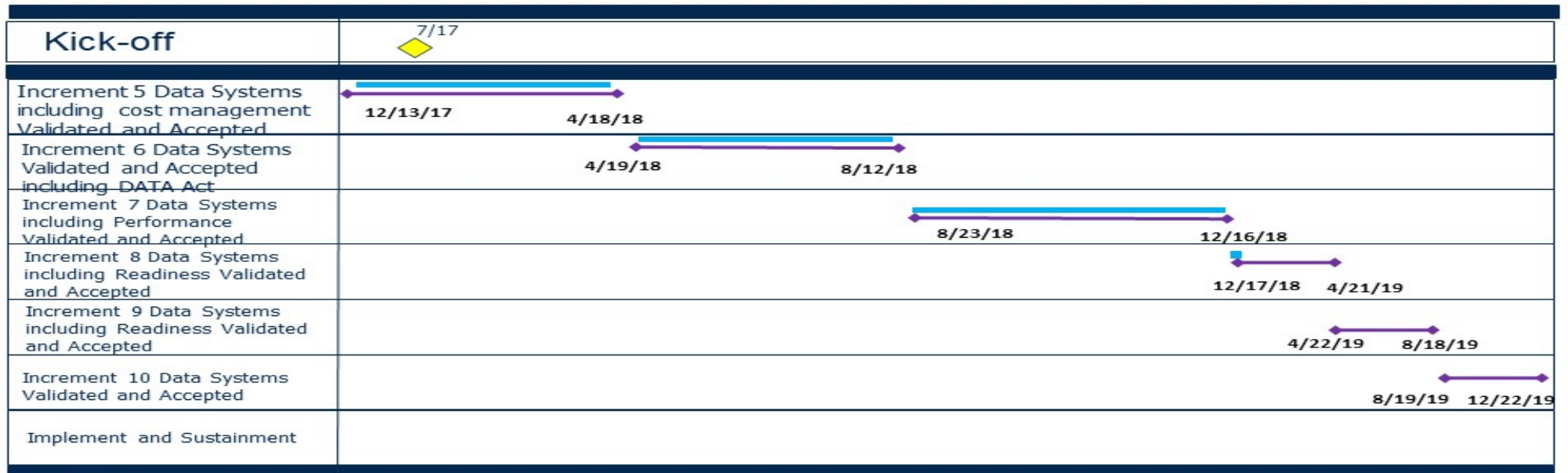
Slide: 1

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Office of the Secretary Of Defense		Date: February 2019
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DRCED Schedule Overview Cont.

Increments	5				6				7				8	9	10		
Sprints	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31 - 38	39 - 46	47 - 54



█ Progress
↔ Current Plan

Slide: 2

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Office of the Secretary Of Defense		Date: February 2019
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Acquisiiton Milestone</i>				
Cost management data in DRCED	1	2019	2	2019
Readiness pilot	2	2019	3	2019
Development of SIPR Environment for Cost Accounting Framework	3	2019	3	2020
Development and ingest further data	4	2019	3	2024