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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Washington Headquarters Service **Date:** February 2018

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| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 6:</i> <i>RDT&E Management Support</i> | R-1 Program Element (Number/Name) PE 0606589D8W / <i>Defense Digital Service (DDS)</i> |
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| COST (\$ in Millions) | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | Cost To Complete | Total Cost |
|-----------------------|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| Total Program Element | - | 0.000 | 0.000 | 1.000 | - | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | Continuing | Continuing |
| 281: <i>DDS</i> | - | 0.000 | 0.000 | 1.000 | - | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | Continuing | Continuing |

Note

The Defense Digital Service (DDS) was launched in November 2015 and was formally chartered under DoD Directive 5105.87 in January 2017 in the Office of the Secretary of Defense (OSD) of the Department of Defense (DoD). Since that time, OSD has presented over 100 potential projects to DDS, some of which would benefit significantly from the enhanced prototyping capabilities of DDS. With appropriate funding, DDS leverage, its private sector expertise to fully support the build of a system prototype / proof-of-concept. RDT&E funding is required to support the DDS mission, which includes the ability to build software prototypes to prove out concepts for mission critical projects identified by the Department.

Ensuring that DDS has RDT&E capabilities will increase DoD's ability to leverage DDS's unique technical expertise to determine which private sector software development best practices and/or technology work best for the Department. Furthermore, the development and testing of DDS prototypes, and the insight gained, would significantly lower development costs and delivery times through traditional DoD methods.

A. Mission Description and Budget Item Justification

DDS was created to bring private sector software development best practices, talent, and technology to the Department's hardest software and technology problems. Since its launch in November 2015, DDS has project demands from OSD that have increased exponentially; some of those requests would benefit from robust prototyping / proof-of-concept capabilities by DDS teams. The former is dependent on RDT&E funding that supports the ability to acquire the most current technological solution and/or support from vendors well versed in the most advanced technological solutions.

The requested RDT&E funds will enable DDS to build prototypes and implement proof-of-concept tests for some key OSD projects. These projects will support missions in and out of theater, as well as long term goals of the department to modernize its offensive and defensive technological capabilities. DoD interest in leveraging DDS to operate in this area to solve hard and impossible problems is persistent. With appropriate funding, DDS can use the superior technical expertise of its staff, as well as ability to quickly deliver usable products to meet demand.

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| B. Program Change Summary (\$ in Millions) | <u>FY 2017</u> | <u>FY 2018</u> | <u>FY 2019 Base</u> | <u>FY 2019 OCO</u> | <u>FY 2019 Total</u> |
|---|-----------------------|-----------------------|----------------------------|---------------------------|-----------------------------|
| Previous President's Budget | 0.000 | 0.000 | 1.000 | - | 1.000 |
| Current President's Budget | 0.000 | 0.000 | 1.000 | - | 1.000 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | - | | | |
| • Congressional Directed Reductions | - | - | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | - | - | | | |
| • Congressional Directed Transfers | - | - | | | |
| • Reprogrammings | - | - | | | |
| • SBIR/STTR Transfer | - | - | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Washington Headquarters Service | | | | | | | | | | Date: February 2018 | | |
| Appropriation/Budget Activity 0400 / 6 | | | | | R-1 Program Element (Number/Name) PE 0606589D8W / <i>Defense Digital Service (DDS)</i> | | | | Project (Number/Name) 281 / <i>DDS</i> | | | |
| COST (\$ in Millions) | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | Cost To Complete | Total Cost |
| 281: <i>DDS</i> | - | 0.000 | 0.000 | 1.000 | - | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |

A. Mission Description and Budget Item Justification

Defense Digital Service (DDS) requests approximately \$1 million in Core RDT&E funding in FY2019 to build prototypes / proof-of-concepts for software and hardware development efforts. DDS will leverage its expertise in private industry best practices to develop prototypes that can be scaled to production to support the overall mission of DoD. This funding will help to ensure that DDS can capitalize on its unique ability to build, and/or advise customers on how to build, prototypes and proof-of-concepts using private sector best practices.

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

| | FY 2017 | FY 2018 | FY 2019 |
|---|----------------|----------------|----------------|
| Title: Defense Digital Service (DDS) | 0.000 | - | 1.000 |
| FY 2019 Plans: | | | |
| The U.S. Department of Defense needs on innovation to maintain our nation's ability to deter, and if need be, prevail in physical and technological conflict. With a team firmly rooted in the heart of the Pentagon, Defense Digital Service (DDS) serves as a nimble unit with the ability to quickly mobilize and tackle some the DoDs toughest technological challenges. DDS's approach leverages industry best practices to efficiently navigate policy, contracts, and tech blockers to reach working and scalable solutions to hardware and software problems. The ultimate goal of the team is to support DoD in finding and implementing relevant tech solutions to hard and/or impossible problems that when solved, increase the efficiency and effectiveness of the department in carrying out its mission to defend the United States and its domestic and overseas interests. Ultimately, the purpose and goal of the team is to ensure that solutions reach the hands of end users, including warfighters, in short timelines, so that compound problems from the existing problem sets do not persist. | | | |
| FY 2018 to FY 2019 Increase/Decrease Statement: | | | |
| Defense Digital Service Research and Development is one of the Secretary of Defense's top priorities with the intent of advancing and modernizing technology, especially software systems, critical to the successful implementation of a variety of department and warfighter missions. DDS requirements are driven by challenging technical problems identified by the Secretary of Defense where technology is failing the Department of Defense mission. These problems span across classified and unclassified problem spaces, and range from software development, piloting the use of commercial software as a replacement for antiquated government systems, and modernizing and refactoring broken systems. Some examples of current projects include: replacing the MEPCOM Integrated Resources System, reimagining the user interface and associated databases for the Defense Property System, devising a hard and software solution to counter Unmanned Aircraft Systems that attack warfighters in theater, and developing a novel and modern approach to network defense. Our team is comprised of digital experts with backgrounds in | | | |

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| B. Accomplishments/Planned Programs (\$ in Millions) | | FY 2017 | FY 2018 | FY 2019 |
| policy, contracts, design, and engineering who collectively use their private industry and federal government experience to identify solutions to problems and rapidly devise and implement solutions. | | | | |
| Accomplishments/Planned Programs Subtotals | | 0.000 | - | 1.000 |
| C. Other Program Funding Summary (\$ in Millions) | | | | |
| N/A | | | | |
| Remarks | | | | |
| Defense Digital Service will build, or manage the build, of prototypes and proof-of-concepts that will solve hard and impossible technological problems in DoD. | | | | |
| D. Acquisition Strategy | | | | |
| N/A | | | | |
| E. Performance Metrics | | | | |
| NA | | | | |