

NSRP

National Shipbuilding Research Program

NSPR ATIP Workshop Final Input

BP/IT Major Initiative

February 24, 2017



Project Ideas

- **Cloud Technology**

- We are interested in projects that identify secure cloud technologies and develop deployment plans and strategies to incorporate cloud technologies into shipyard infrastructure. This interest is driven from the Navy directive “Navy Cloud First Policy” to utilize cloud technologies and depart from data center technologies. This provides a collaborative environment for digital data that is mobile in nature, and also provides a high availability environment for digital data and reduces overall IT costs.



Project Ideas

- **Data Management**

- We are interested in projects that address methodologies and technologies that establish standards and practices that align internal and external data to common formats for interoperability across the digital thread and emphasizes authoritative sources and configuration control at the item level to support automation opportunities, data analytics, and real time decision-making.
- Emphasis will be placed on projects that promote a Model Based Enterprise (MBE).



Project Ideas

- **Mobility**

- We are interested in projects that enable secure data exchange between networks and a broad spectrum of remote devices and equipment via wireless technologies.
- Develop applications (apps) that support standards-based real-time data exchange and integrated with processes that reduce costs for the shipyard and Navy
- An Emphasis will be placed on projects that consider the entire environment (security, cloud technologies, data management and collaboration) and utilize industry best practices, methodologies, and technologies.



Project Ideas

- **IT Organizational Management/Cybersecurity/Information Assurance**
 - We are interested in projects that identify organizational models and best practices for corporate management of software developed through the use of scripting languages, macros, and application programming interfaces at the user level.
 - We are interested in projects that identify cybersecurity /information assurance best practices in the design and management of software and their data interfaces.
 - An emphasis will be placed on projects that integrate these organizational models and best practices into a training curriculum that can be disseminated throughout a company and industry.



Project Ideas

- **Rules-Based Automation/Optimization**
 - We are interested in projects that introduce solutions for the phased automation of design, planning, material management, and manufacturing processes through user-defined rules. Utilizing these rules, the developed application or engine would analyze, modify, or communicate a better design, plan, or manufacturing outcome.
 - An emphasis will be placed on solutions that integrate with existing shipyard systems, leverage existing data, and allow for custom definition of rule-sets.



Project Ideas

- **Material Management**

- We are interested in projects that provide solutions to track material throughout its lifecycle inside of the shipbuilding yard. The lifecycle includes processes from delivery through installation and test onboard the ship. Process attributes to be tracked include status of the items, location, owner, when they were installed, and installation/test signoff, etc.
- An Emphasis will be placed on projects that consider the entire environment (security, cloud technologies, data management and collaboration) and utilize industry best practices, methodologies, and technologies.



Project Ideas

- **Digital Twin/Augmented Reality/Virtual Reality**
 - We are interested in projects that leverage the digital data developed by a shipyard for a vessel (digital twin) and utilize the information to promote better collaboration between supplier and customer (internal and external).
 - Emphasis will be placed on projects that promote the phased introduction of existing technologies such as 3D model viewers and emerging technologies such as augmented/virtual reality to improve design review, manufacturing, training, and shipboard repair/operations.
 - Emphasis will also be placed on projects that consider the entire environment (including cybersecurity, data management, and information assurance) and utilize industry best practices, methodologies, and technologies.

