Topic: N07-108

Beacon Interactive Systems

Prognostics and Health Management (PHM) for Afloat Information Technology (IT) and Network Services
Beacon's Innovation Lifecycle Management software utilizes shipboard operational data to create a more complete picture of lifecycle needs. Shipboard and shore-based decision-making and action-taking become more informed and precise, improving Mission Readiness & Assurance. Beacon, a WOSB, is a software company that utilizes data analytics and digitization of human activity to streamline the performance of industrial and knowledge-based workers. By integrating digital environments and humans, Beacon is making the Industrial Internet of Things work for the US Navy. The Company is targeting defense applications such as shipboard data management, maintenance, energy management, and safety and compliance. The first versions of the technology are in test, having been built using aggregate shipboard operational data. Beacon is seeking strategic and equity partners for growth.

Technology Category Alignment:
Human Computer Interfaces (HCI) for Decision Making
Information Collection/Management
Synthesis/Analytics/Decision Tools
Maintainability/Sustainability
Power and Energy

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SYSCOM: NAVSEA
Contract: N00024-16-C-4533

Corporate Brochure: https://navystp.com/vtm/open_file?type=brochure&id=N00024-16-C-4533

Department of the Navy SBIR/STTR Transition Program
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NAVSEA #17-588

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WHO

SYSCOM: NAVSEA

Sponsoring Program: PEO IWS 1.0

Transition Target: US Navy Ships

TPOC:
(202)781-4420

Other transition opportunities: Connex is Information Life Cycle Management (ILM) software that addresses the needs of organizations and programs utilizing operational data for decision making. Connex creates an integrated and collaborative capability that offers users a way to make decisions around investment and operations that is data-driven. Transition opportunities for the technology include S&T Planning, Condition-Based Maintenance, Operational Energy Management, Mission Planning, Manufacturing, Innovation Lifecycle Management, Ideation, and Product Lifecycle Management.

WHAT

Operational Need and Improvement: Connex is an Innovation Lifecycle Management platform that uses operational data to assess Science & Technology investment decisions. It uses actual operations and impacts to support data-driven Research and Development. Connex creates a fully collaborative discovery, research, and development capability. It provides Navy S&T programs the ability to move from using historic and rough estimates of need and stove piped R&D processes to an integrated, collaborative, and data-driven capability in order to positively impact operational and workforce cost, budgeting, and ship and equipment design. The system will enhance transition and commercialization efforts by 1) providing integrated program visibility into technology performance and impacts and 2) integrating data and processes throughout the technology development lifecycle and the ships lifecycle to inform S&T decision processes and end results.

Specifications Required: Increase R&D impact on the warfighter.

Technology Developed: The technology being developed combines a collaborative platform with data capture and analytics. Integrating to a wide variety of data sources on-board ship creates datasets that can be analyzed in order to find anomalies and areas of need. From the results of analysis, users are able to create in-depth findings that support decision making for S&T investment direction. Users correlate between discovered needs and the technology projects initiated to solve for these needs. It is a web-based capability that can be made available in the Cloud.

Warfighter Value: Transition of Connex will provide a well-integrated system for ensuring that S&T processes and efforts more fully support the future technology needs of the warfighter. The tool will benefit the entire S&T community by enabling operationally-informed R&D efforts, leading to more targeted S&T solutions. Enhancing program management efficiencies, collaboration, and decision-making capabilities will lead to cost effective processes, bringing more S&T investments to bear on increasing capability. It will provide greater insight to operational needs and share knowledge along the entire R&D and commercialization pipeline in order to increase successful outcomes.

WHEN

Contract Number: N00024-16-C-4533 **Ending on:** August 25, 2018

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Requirements & Architecture	Low	User story development success	6	May 2017
Data model development	Low	Successful data integration between multiple systems	6	August 2017
End user environment development	Low	End user test acceptance	6	June 2018
System testing	Low	Successful integration test complete	6	July 2018
Final Delivery	Low	End user acceptance	6	August 2018

HOW

Projected Business Model: Beacon will offer Connex as a cloud-based solution that combines software with a monthly services arrangement. Organizations that wish to use the platform will get a series of functions that come out of the box. Depending upon data sources, integration efforts will be required. Over time, the managed services will drive advanced analytics that focus on specific operating conditions.

Company Objectives: Beacon's objectives with the Navy Forum for SBIR/STTR Transition is to explore strategic and equity partners for growing business for both private sector and governmental markets. Innovation Lifecycle Management is a critical capability in many different markets and Beacon is seeking to expand its footprint by offering Connex as a management platform.

Potential Commercial Applications: Connex is a software platform that builds upon the Industrial Internet of Things ecosystem to enable industrial companies to make better operational decisions. Applications for enhancing organizational performance include manufacturing innovation lifecycle management, data visualization, project management, portfolio management, and maritime operations.

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