Department of the Navy SBIR/STTR Transition Program

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Topic # N204-A02 HealthNet Digital Logistics Consensus Networks

WHO

SYSCOM: ONR

Sponsoring Program: ONR

Transition Target: Defense Health Agency

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Other Transition Opportunities: Commercial healthcare logistics and healthcare information technology markets

Notes: HealthNet improves currently manual medical inventory processes in the DoD.



US Navy Photo, https://www.navy.mil/Resources/Photo-Gallery/igphoto/2002863255/

WHAT

Operational Need and Improvement: Recent logistical challenges worldwide have highlighted the need to improve and shore up medical logistics technology. Military forces are in an ongoing dynamic and distributed status. Logistics technology must grow to fit this ever changing role. From on-shore medical facilities to forward deployed units, automated and predictive inventory management would greatly improve readiness. The HealthNet project set out to create an end-to-end medical logistics solution fusing the supply chain from product to patient.

Specifications Required: Some medical supplies may have a short shelf life or require extensive traceability and trackability, such as biologics and controlled substances. The medical care providers should have secure access to the patient's medical records. By seamlessly fusing medical supply chain, manufacturing, and patient care, an integrated data environment permits the prediction and delivery of optimal support and care. The DON needs to provide dynamic, reliable, robust, and secure medical support and care to forward deployed personnel.

Technology Developed: HealthNet is an end-to-end logistics solution designed to integrate with existing logistics systems, real-time data from warfighters, and external systems like Electronic Health Records (EHRs) to facilitate just in time delivery and tracking of medical supplies. By bringing real-time analytics and tracking to medical supply management we can better predict demand, deliver essential supplies, and save lives.

Key Features:

Automated and real-time inventory monitoring, temperature and other biologics monitoring, live data and biometric integration, demand forecasting, and electronic health record integration. IoT loadout device for tracking in the far forward environment

Warfighter Value: Medical units across the services as well as integrated combat support from the DHA would benefit from an integrated solution to help link disparate systems as well as provide improved combat care coordination to deployed forces.

WHEN Contract Number: N68335-21-C-0288 **Ending on:** Jan 31, 2023

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Completion of Phase I	High	Demonstrated basic medical inventory management system and Electronic Health Record (EHR) Integration	4	1st QTR FY21
Designed IoT Loadout Device	High	Designed, developed, and demonstrated a loadout IoT device capable of assisting in automated inventory tracking and monitoring	5	4th QTR FY21
Completion of Phase II Base	Medium	Demonstrated inventory predictive analytics and full EHR integration for large data sets	6	3rd QTR FY22
IoT Data Delivery in decentralized environment	Low	Demonstrate IoT loadout device capability to deliver medical information to and from units in data constrained environments	6	1st QTR FY23
Operational Demonstration	Low	Successful demonstration of HealthNet capabilities in an operational environment	7	2nd QTR FY23

HOW

Projected Business Model: License of software technology and hardware to Program Offices or Prime Vendors. HealthNet is capable of integrating with existing systems so could license to existing vendors and systems to add HealthNet's functionality.

Company Objectives: We are looking for interested program offices or prime vendors: 1) Program Offices working towards advancing logistics and healthcare systems. 2) Prime Vendors looking to expand current logistics capabilities, pursuing new contracting opportunities, or adding additional features to a contract would be ideal partners.

HealthNet can improve existing systems in logistics and medical information because it is able to connect disparate systems giving new functionalities to legacy systems. This interoperability and connectivity can lessen adoption costs and improve implementation. For example, HealthNet can provide logistics information to EHRs and vice versa.

Potential Commercial Applications: Commercial Healthcare systems also deal with significant inventory wastage and lack of visibility into supply chains. HealthNet is currently being demonstrated to commercial healthcare systems to bring the product to market in commercial markets as well.

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