TOPIC NUMBER: N102-147, OSD05-SP1, A07-094, A03-207, N05-053, N05-099

SBIR INVESTMENT: $7,157,829.06

PHASE III FUNDING: $21,950,294.03

MODELING THE IMPACT OF TECHNOLOGY TRANSITION ON SHIP OPERATIONAL CAPABILITIES

SimVentions' Informedb™ Enterprise enables the Navy to develop program models of heterogeneous information elements to deliver ship operational capabilities, enabling a datacentric approach in one environment.

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THE CHALLENGE

System of systems engineering is complicated, especially across multiple program offices. Traditional methods of communication and coordination using document-centric approaches including project files, spreadsheets, and presentations were insufficient. PEO Integrated Warfare Systems (IWS) sought technology-based improvements within its multitasked and multi-disciplined ecosystem to deliver capability to the fleet more effectively.

THE TECHNOLOGY

SimVentions developed Informedb™ Enterprise to enable collaboration, coordination, and consistency within a program office to share and consolidate plans across the PEO. Informedb™ enables web-based distributed integration of a data lake to coordinate deployment schedules and planning of emerging capabilities across the fleet supplemented by automated reporting and roadmap visualization of system of systems integration timelines.

THE TRANSITION

Leveraging SBIR funding from different topics, SimVentions designed and implemented Informedb™ Enterprise. Naval Sea Systems Command (NAVSEA) awarded an SBIR Phase III contract to SimVentions in 2015. Since the initial SBIR award, Informedb™ Enterprise has been deployed on multiple government servers with over 15 production implementations. Informedb™ has been implemented for a wide variety of DoD customers beyond PEO IWS.

All Navy Surface Warfare Centers and Naval Undersea Warfare Centers are using Informedb™ as the foundation for Technology Investment Planning and Execution Reporting System (TIPERS) for project investment coordination and reporting. With MARVL, Informedb™ supports the Marine Corps' effort of collection and reporting of manpower, personnel, and training data.

THE NAVAL BENEFIT

Informedb™ enables the rapid creation of data-centric decision tools on government-deployed production environments. Informedb™ technology has been key in helping to deploy capability by design. It provides a level of transparency, coordination, and rigor to see what is being developed for the fleet: Informedb's™ enablement of data-based decision-making and transparency has streamlined PEO IWS' customer engagements and improved its acquisition planning, cross-organization alignment, and fielding execution. Informedb™ reduces program risk and cost by improving the quality of planning and coordination efforts across the enterprise.

THE FUTURE

Informedb™ continues to expand its benefit to the Navy and beyond. New capabilities, including the application of artificial intelligence and machine learning, predictive analytics, and automated relationship discovery, as well as the integration of new data visualization tools and techniques, have been added. SimVentions is continuously improving adoption of development, security and operations (DevSecOps), and the development pipeline, and is currently working back-end modernization with emerging technical libraries and usability features for future expansion and innovation.

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