Department of the Navy SBIR/STTR Transition Program

Statement A: Approved for public release, distribution is unlimited. (24 November 2015)

Topic # N123-159

Highly Scalable and Autonomous NetOps Analytics (SANA) system for Navy tactical networks

Intelligent Automation, Inc.

WHO

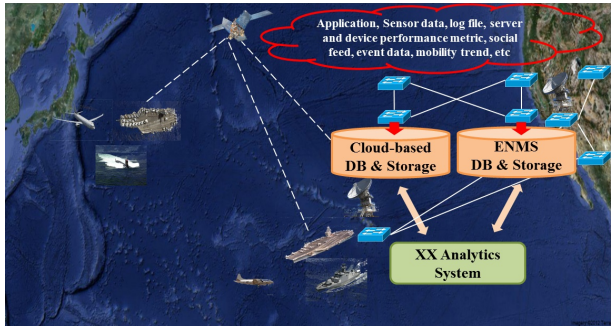
SYSCOM: SPAWAR

Sponsoring Program: Shore and Expeditionary Integration Program Office (PEO C4I PMW 790)

Transition Target: Navy Cyber Situational Awareness (NCSA)

TPOC:
(619) 221-7931

Other transition opportunities: Shore Tactical Assured Command and Control (STACC) ENMS, CANES



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Notes: Scalable and Autonomous NetOps Analytics (SANA) System OV-1, heterogeneous and geographically dispersed Navy network operation. The SANA system leverages diverse aspects of ontology, data mining, semantic analysis, tagging and distributed indexing to provide highly efficient and accurate data analysis to users for better understanding on cyber Situational Awareness and NetOps Management.

WHAT

Operational Need and Improvement: Today's naval networking environment is primarily composed of several tactical and enterprise computing and communications environments, which can be characterized as large scale heterogeneous network environments. Due to the inherited complex and heterogeneous nature of networks, it is quite challenging to provide a synchronized view of data, autonomous analytics from geographically dispersed environments. The Navy needs an operational prototype of a NetOps Analytics system that enables both Cyber and Maritime domain operators to proactively assess the impact of NetOps incidents and its impact on the mission.

Specifications Required: The proposed effort will comply with NCSA requirements, which include: assuring the delivery of accurate, relevant, trusted NetOps information derived from authoritative data sources to the warfighter operating at 'the tip of the spear' and being able to manage large amounts of disparate data geographically dispersed across the globe over many networks, servers and devices is key to this effort.

Technology Developed: Intelligent Automation, Inc (IAI) developed the SANA system, which identifies and captures abnormalities in information and network behaviors to generate alerts if any abnormalities are detected. SANA leverages open architecture/protocols and current trends in cloud-based data management and analytics which is consistent with Navy's Big Data effort.

Warfighter Value: The SANA system will build networking and sharing of knowledge assets to ensure shared and synchronized situational awareness and mission success.

WHEN

Contract Number: N00039-15-C-0012 **Ending on:** March 20, 2016

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Interim prototype demonstration	Med	Successful NetOps analysis visualization	4	March 2016
Initial system integration	Med	Successful data intake and output visualization	5	October 2016
Initial performance validation	Med	Successful analysis against preconfigured data set	6	February 2017

HOW

Projected Business Model: IAI's principal corporate mission is to develop innovative technologies through state of the art multi-disciplinary collaborative R&D and to aggressively transition these technologies into products, licenses, and/or productized services. We plan for technology transition to a Navy program of record, licensing core technology to other commercial/governement customers, and commercailize the software tool

Company Objectives: We plan to develop and license the technology to prime contractors and/or transition to government programs.

Potential Commercial Applications: Cloud-based network management and analysis software tools are potential commercial applications. The probable commercial customers are companies that possess massive data. The likely candidates are Google, Amazon, Ebay, Facebook, Linkedin and Twitter. However, we see a trend in many other mid and small size companies exploiting the elasticity of the cloud. Our system will provide not only efficient cloud computing capabilities but also semantic search and intelligence analysis. We will aggressively pursue any opportunity that calls for analysis and management of Big Data.

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