

Department of the Navy SBIR/STTR Transition Program

STATEMENT A. Approved for public release; distribution is unlimited.

ONR Approval # 43-2203-16

Topic # N112-152

Information DiscovEry Assistant that Learns (IDEAL)

Knowledge Based Systems, Inc.

WHO

SYSCOM: ONR

Sponsoring Program: None

Transition Target: National Intelligence Community

TPOC:

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Other transition opportunities:

Office of Naval Intelligence, National Air & Space Intelligence Center (NASIC), the Joint Information Operations Warfare Center (JIOWC), and the China Lake Naval Air Warfare Center (NAWC).

Notes: Image Location -

http://www.navy.mil/gallery_search_results.asp?terms=analysis&page=2&r=4



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WHAT

Operational Need and Improvement: Operational Need: Intelligence analysts are overloaded with information. Existing keyword-based search tools do not provide adequate capabilities to find information to support analysis tasks in a timely manner. Limited or no support for quick information sharing, collaboration, and hand-offs between information analysts.

Operational Gap: Search techniques and technology have not kept up with the increased pace of information gathering activities. Inadequacy of current intelligence analysis capabilities to collaboratively find information to support warfighter intelligence requirements in a timely manner. Inadequate capabilities for intelligence analysts to connect the dots to support warfighter intelligence requirements in a timely manner.

Specifications Required: Not applicable

Technology Developed: The principal commercial technology that resulted from the IDEAL project is called JackalFish®. JackalFish® provides an advanced enterprise information search capability. Key distinguishing features include (i) example-based search, which enables searching based on meaning and intent: the search input text can be specified using an 'example' of what you are looking for; (ii) improved search results using domain ontologies, word lists or glossaries (an ontology is a computer-processible characterization of the terminology and concepts in a domain); (iii) search results are identified at the sentence or paragraph level within the returned results; (iv) teams and collaborating individuals can share the search results; and (v) a learning capability that allows JackalFish® to improve the quality of the search results and reduce risk by reducing the number of unrelated results.

Warfighter Value: Value to the Warfighter: Immediate increase in both precision and recall of searches performed by intelligence analysts, resulting in a significant reduction in the time required to discovered relevant information to support missions or tasks. Reduction in redundant time consuming search efforts. Significant increase in information sharing activities among analysts and the community. Improved information quality discovered by all collaborating analysts and information

WHEN

Contract Number: N68335-15-C-0300 **Ending on:** July 28, 2017

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Technology demonstration and briefing updated	Med	Phase II Plan Approved by COTR	4.5	June 2014
Technology demonstration and briefing updated	Low	Technology Demonstration with KBSI Test Data	5.5	August 2015
Technology demonstration and briefing achieved	Low	Technology Demonstration with Initial Customer Test Data	6	June 2016
Technology demonstration and briefing target	Low	Technology Demonstration with Customer Test Data in Relevant Operational Environment	7	June 2017

HOW

Projected Business Model: JackalFish® may be licensed and integrated as an advanced search capability into existing enterprise systems or provided as a customized stand-alone search capability.

Company Objectives: Meet potential Navy and DoD customers with an interest in capabilities to increase information and data search tasks accuracy and speed to actionable information or data. Candidate customers include agencies supporting intelligence and data gathering missions and tasks such as the Office of Naval Intelligence, National Air & Space Intelligence Center (NASIC), the Joint Information Operations Warfare Center (JIOWC), and the China Lake Naval Air Warfare Center (NAWC).

Potential Commercial Applications: Support for Collaborative Intelligence Analysis within the National Air & Space Intelligence Center (NASIC) Open Source Intelligence Group.

Semantic Search for Intelligence Product Generation - Joint Information Operations Warfare Center (JIOWC).

Library Knowledge Management for the NAWC archives of structured and unstructured data - China Lake Naval Air Warfare Center (NAWC).

Library and Archive Knowledge Management for Knowledge-Intensive Organizations.

Semantic Search and Discovery for Legal and Intellectual Property Management Applications.

Collaborative Information Analysis and Intelligent Search for Business Intelligence Applications.

Cyber Espionage and Cyber Attack Damage Assessment for Large Corporations.

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