Big Data Analytic Solutions

Tapped Data Silos to Create Advanced Maritime Situational Awareness

Challenge: Develop an open, non-proprietary architecture that could access data relating to cargo, vessels, people and maritime infrastructure and automate anomalies to enhance Maritime Domain Awareness and provide actionable intelligence to the military, IC, law enforcement and allied nations.

Analysis: The U.S. government had a treasure trove of valuable data housed in silos across the Federal government, IC, law enforcement and regulatory entities. All source intelligence production was performed by small teams of human analysts who had access to only certain data sets throughout the government enterprise. These teams were typically reliant on "tippers" from sources to explore anomalies and very few subject matter experts. The teams, although diligent and highly qualified, were often unable to provide actionable intelligence in time for leaders to act decisively. Further, U.S. government leadership wanted an unclassified system to enhance data sharing with allies.

Implementation: Developed a comprehensive analysis of all relevant data sets within the U.S. and allied government enterprises and commercial sources, deployed an open Services Oriented Architecture, worked with maritime domain experts to define baseline normalcies and sophisticated algorithms that would "hunt" for anomalies and alert analysts. Formed partnerships with the world's largest unclassified data providers.

Result: Created a system that provided 24/7 automated and unclassified alerts generated from over 40 Billion distinct data sets pertaining to cargo, vessels, people and infrastructure in the global maritime domain. The prototype was a key element in a partnership between General Dynamics and BAE Systems in its winning proposal to enhance the U.S. Navy's Distributed Common Ground Station.

Cyber BDA Team Experience: Team members have the rare combination of service at the highest levels of government, IC, military and industry bringing decades of proven success implementing break-through solutions addressed at solving highly challenging problems.