Objectivity
Innovate with Confidence

Network Centric Collaborative Targeting Systems

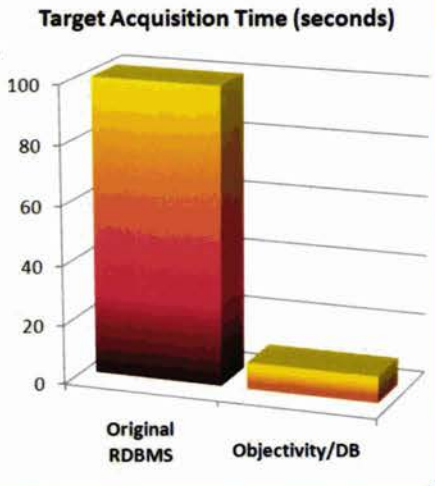
Network-Centric Warfare System

The U.S. Air Force's NCCT is an open network-centric architecture and software design that horizontally integrates airborne and ground assets to detect, locate, track and target ground targets. Through machine-to-machine exchanges, NCCT supports time-sensitive and prioritized targeting operations more efficiently, accurately and quickly. CEC is the U.S. Navy's premier network-centric warfare system, which shares radar data between participants to precisely track airborne targets, providing combat identification on airborne tracks and engagement-quality information to all participants. CEC is fielded on several E-2 aircraft, cruisers, destroyers, amphibious ships and aircraft carriers.

Reducing Target Acquisition Time by 90%

The Objectivity/DB is at the heart of the NCCT Fusion Engine (NFE) supporting the NCCT application. Objectivity/DB is storing and managing vast amounts of disparate information performing data fusion from geospatial and sensor data from the NCCT sensor network. Objectivity/DB provides a reliable, scalable repository for the wide range of complex data types found in this type of mission-critical application. The Objectivity platform is highly optimized for performance and throughput in systems that handle highly interconnected data. Objectivity/DB's distributed processing system architecture, with no single point of failure, provides the robustness necessary for this application. Objectivity/DB handles all aspects of interoperability, including language, operating system, file system, networking and hardware dependencies.

The Objectivity/DB platform reduces the time it takes to accurately locate targets by more than 90%



As part of the NCCT concept, all participating platforms and ground stations can not only exchange data, they can also collaborate to coherently collect and create new information that would otherwise go unreported by traditional "stove piped" platforms that do not easily share and disseminate information."By efficiently netting and synchronizing sensors in real-time and combining detections, it is possible to increase the probability of detecting and identifying a target, while also reducing the time it takes to accurately locate targets by more than 90%," according to Gary Davis, director of the NCCT program for L-3 ComCept. "This refined information updates a common, shared network Objectivity database so that the problem of multiple reports on a single target is dramatically reduced."

CASE STUDY

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OBJECTIVITY SOLUTION UNIQUELY ENABLES INTEGRATION PROGRAM BETWEEN U.S. AIR FORCE AND NAVY

L3 Integrates US Navy's Cooperative Engagement Capability (CEC) and the US Air Force's Network Centric Collaborative Targeting (NCCT) Systems

Objectivity/DB is the integration platform that L-3 is using for the U.S. Air Force's Network Centric Collaborative Targeting (NCCT) system and the U.S. Navy's Cooperative Engagement Capability (CEC) system.

Objectivity/DB is the real-time and scalable "data fusion" repository that monitors, analyzes, responds and reports on all platforms and assets such as aircraft, etc., uniquely satisfying the real time data management requirements for the NCCT system. This integration program is part of the U.S. Navy's Trident Warrior exercise series, involving an Expeditionary Strike Group, U.S. Air Force and U.S. Army aircraft, as well as coalition aircraft.

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