

## **Integrated Digital Environment (IDE) and Technical Support Services for USMC Program Manager – Light Armored Vehicles (PM LAV)**

The U.S. Marine Corps “Program Manager – Light Armored Vehicles” (PM LAV) organization faced a significant challenge; with almost eight hundred LAVs in the Marine Corps inventory – all of them at least 20 years old, the need for a comprehensive, collaborative maintenance program was clear. At any given time, approximately 10 percent of the LAVs were lacking parts or under repair, and thus unavailable for duty, possibly putting Marine units who need them at risk. Compounding this challenging operational environment, the PM LAV organization, chartered to manage the LAV life-cycle, was increasingly becoming a decentralized global workforce with personnel constantly on travel and working from home or remote sites.

Portal Dynamics addressed these problems by designing, developing and deploying an Integrated Digital Environment (IDE) that enabled widely dispersed personnel to collaborate and coordinate on their work efforts. This has led to better support integration and communication of PM LAV efforts. Within the IDE, Portal Dynamics also developed the PM-LAV Configuration Management System (CMS) that has helped enhance the visibility of data, and the ability to perform trend analysis across the fleet of vehicles.

An additional and potentially an even greater contribution Portal Dynamics has made to the PM LAV lifecycle maintenance operation, is the Sense and Respond Logistics application, among the first of its kind, for advanced prescient logistics management of vehicles and equipment platforms. Using sensors mounted throughout the LAVs that signal and indicate problems in their incipient stages has led to just in time maintenance activities that have significantly curtailed the potential down time of this mission critical equipment.

Providing multiple integrated levels of inventory management, technical management, production management, and program management for the PM LAV program, the Sense and Respond application resulted in Portal Dynamics receiving the 2004 Defense Manufacturing Excellence Small Business Award.

The results of the PM LAV IDE and Life-Cycle Sustainment Web Portal have demonstrated the benefits of integrating logistics management and operational activities in a single automated office environment. The project overall has also been able to demonstrate considerable savings in process optimization and life cycle maintenance costs.