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Final Copy of Case Study

Status:
Laureate

Year:
2013

Organization Name:
U.S. Army, Communications-Electronics Research, Development and Engineering Center (CERDEC), Space and Terrestrial Communications Directorate (S&TCD)

Organization URL:
http://www.cerdec.army.mil/directorates/stcd.aspProject Name:

Project name:
Soldier Radio Waveform (SRW) Reference Implementation Laboratory (RIL)

Please select the category in which you are submitting your entry:
World Good

Please provide an overview of the nominated project. Describe the problem it was intended to solve, the technology or approach used, how it was innovative and any technical or other challenges that had to be overcome for successful implementation and adoption. (In 300 words or less.)

The Joint Tactical Radio System (JTRS) program was initiated more than a decade ago, under the auspices of the United States Department of Defense (DoD), to build a next-generation radio system for use by all services. The concept behind JTRS was a family of interoperable radios that could be utilized by the Department of Defense and would ensure the ability to communicate throughout the Joint Services. Key capabilities of system included frequency flexibility to adapt to and operate in geographies around the world, the ability to function in the presence of interference from other radio signals, and waveforms that are independent of the hardware platform and provide Internet Protocol routing to enhance the network capability. As a software-defined radio, there are unique interoperability issues; any difference in a waveform, the hardware, or the integration of each can affect one radio's ability to communicate with other radios. In an attempt to mitigate this issue, the Joint Program Executive Office (JPEO) JTRS, which has been changed to the Joint Tactical Networking Center (JTNC), established a series of

Reference Implementation Laboratories (RIL), each specializing in a waveform or network management element. The Soldier Radio Waveform (SRW) RIL tests and validates the integration of the SRW waveform, either separately or on a given radio platform. The lab is a vital part of the JTRS Software Communications Architecture (SCA) conformance testing strategy necessary to obtain JTRS approval. The SRW RIL also provides laboratory verification for SRW radio platforms in conjunction with Government acquisition processes.

When was this project implemented or last updated? (Please specify month and year.) Has it incorporated new technologies and/or other innovations since its initial deployment? (In 300 words or less.)

The SRW RIL was established in April 2012. The implementation of the RIL strategy, as a means of testing and sustaining tactical radio systems to ensure continued interoperability among the Joint Services, constitutes an innovative shift in DoD's acquisition process. Implementation of the RIL strategy enables the Government to foster more competition in the tactical radio market and eliminates the need to have a single vendor develop, improve, and sustain the radio. This competitive, multi-vendor approach offers improved interoperability, timelier implementation, and cost savings for the Government going forward.

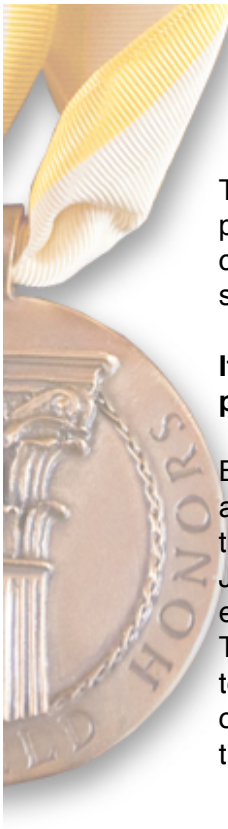
Is implementation of the project complete? If no, please describe the project's phases and which phase the project is now in. (In 300 words or less.)

The SRW RIL will continue to conduct testing and verification of the Soldier Radio Waveform and associated platforms as required by Department of Defense. In the future, the SRW RIL will be able to facilitate the entry of new commercial vendors into the Government tactical radio market.

Please provide at least one example of how the technology project has benefited a specific individual or organization. Feel free to include personal quotes from individuals who have directly benefited from the work. (In 300 words or less.)

The U.S. Army is a clear beneficiary of the implementation of the SRW RIL. The initial approach to build a modular radio system was failing. The original program was taking much too long to materialize, and in the interim, radio technology was making major strides (witness the evolution of the cell phone over the last decade), few of which would be included in the final product. And, despite these shortcomings, costs continued to mount. This new approach embodied by the SRW RIL, to specify, certify, then purchase, will result in a competitively bid, affordable, and interoperable implementation, built using up-to-date technology, and tailored to meet the needs of the modern-day soldier. An expandable, affordable, and flexible radio system will make Army forces more effective as they engage in the War on Terror around the globe, and progress in the War on Terror will make the world a safer place for mankind.

Would this project be considered an innovation, a best practice or other notable advancement that could be adopted by or tailored for other organizations and uses? If yes, please describe that here. (In 300 words or less.)



This project is an illustration of a best practice which, when successful, can be used as a practical example for other large federal programs. An initiative like this, especially when coupled with a rapid prototyping effort to produce solid requirements and detailed specifications, can streamline the sometimes cumbersome federal acquisition process.

If there are any other details that the judges should know about this project, please note them here. (In 300 words or less.)

Booz Allen Hamilton worked closely with the Joint Tactical Networking Center (JTNC) and CERDEC S&TCD for several years. When the JTNC made the decision to establish the SRW RIL at Aberdeen Proving Ground in Maryland, Booz Allen worked with both JTNC and S&TCD to quickly identify and supply staff with the necessary skills and experience to get the SRW RIL up and running in support of this critical Army mission. This partnership is a prime example of federal/commercial cooperation in an evolving, technologically complex environment where results have a major impact on all aspects of the acquisition process, and ultimately, on modern-day soldiers and the population they serve.