JPEO JTRS SCA Candidate Release

SAN DIEGO - The Joint Program Executive Office for the Joint Tactical Radio System (JPEO JTRS) has released an SCA candidate specification and artifacts. The candidate specification is available for download from the JPEO JTRS Software Communications Architecture (SCA) website at http://sca.jpeojtrs.mil.

The SCA facilitates software development for software defined radios. It defines a common framework for the deployment, management, interconnection and intercommunication of waveforms components in embedded, multi-processor radios. The SCA separates the waveform from the radio's operating environment allowing waveform portability across various radio types. It also allows radio developers to interchange and upgrade existing radio services and hardware without major system revisions.

The SCA candidate release provides a refinement of the December 2010, SCA Next Draft Specification. SCA Next provided a more scalable, lightweight, and flexible revision of the SCA 2.2.2 specification. SCA Next was designed to be compatible with communications platforms ranging from small, single channel radios to prime-power, multi-channel sets.

SCA Next removed the Common Object Request Broker Architecture (CORBA) requirement, thus permitting radio-specific middleware similar to Android's Remote Procedure Call (RPC) for communication between software components and hardware devices, and redesigned the component registration process to incorporate a performance enhancing 'push' model strategy that reduces startup times. SCA Next also introduced new modeling constructs that can be leveraged to encourage reuse of development artifacts and consequently reduce the amount of time required to develop new products.

The SCA candidate release is an industry validated finalization of SCA Next. The specification was reorganized to enhance readability and added new components to provide SCA users with the ability to model their systems more precisely. The candidate release refines the Application Environment Profiles and introduces a new Ultra Lightweight CORBA Profile to expand the applicability of the SCA model to Digital Signal Processor (DSP) and Field Programmable Gate Array (FPGA) processors.

JPEO JTRS intends to hold a formal vote on the SCA specification on 28 February 2012 to determine whether the candidate specification will be adopted as the new SCA version. JPEO JTRS has implemented a clear strategy to refine and improve the candidate specification ensuring optimal results. JPEO JTRS will continue to accept and adjudicate comments from DoD, U.S commercial and international organizations.