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Mission Architecture: The Key to Successful Pre-Milestone A Systems Engineering

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Abstract

Well done mission architecture provides an understanding of the military task, how it is performed and the current capabilities. The mission architecture lays the foundational work in describing the question/problem to be addressed and the environment in which the solution must live. This provides the definition of the problem to be solved as well as the justification of the needs. The mission architecture is the foundation of the mission analysis that defines the measures of effectiveness required. These measures provide the basis for the DOTMLPF (doctrine, organization, training, materiel, leadership and education, personnel and facilities) analysis, the capability gap analysis and the evaluation of solution candidates. This brief will explore the definition of mission architecture, the key elements of the architecture, and the benefits of those elements and how they support the acquisition development. This provides the connectivity between the enterprise, the systems of systems, and systems architecture.

Biography

Michael Stokes is a senior principal engineer at the Raytheon Company. He has a Master's of Science Degree in Systems Engineering from California State University – Northridge. He is also a former military officer in the U.S Army Signal Corp. Mr. Stokes has 25 years experience in the defense industry including 10 years at Naval Air Warfare Center, China Lake, CA and 12 years with Raytheon Missile Systems. He has worked in mission analysis for the majority of that time. He has worked in the area of Early Development for a majority of his career. He currently is the Operations Manager for Mission Systems Solution Directorate at Raytheon Missile Systems.