SYSTEM-OF-SYSTEMS SOFTWARE
ARCHITECTURE EVALUATION

Software-intensive systems often suffer severe integration and operational/behavioral problems due to a lack of consistency between the system and software architectures in addressing system quality attributes. These problems often result in rearchitecting and redesigning efforts and operational failures, which significantly affect system cost, schedule, and mission effectiveness. These problems are further exacerbated in a system of systems (SoS) context.

In conjunction with the Mission Thread Workshop (MTW), the SoS Architecture Evaluation Method provides an initial identification of SoS architectural risks and quality attribute inconsistencies across the constituent systems. An SoS architecture evaluation

- uses outputs of the MTWs, including augmented mission threads and SoS architecture challenges
- incorporates the expertise of a trained evaluation team and SoS stakeholders, including the SoS and system architects
- probes architecture at the areas where the systems interact to identify risks
- organizes the individual risks into risk themes that can be comprehended (and mitigated later) by program management
- assesses the sufficiency of architecture documentation
- identifies potentially problematic systems for focused follow-on evaluations using the specific augmented mission threads

The SoS Architecture Evaluation Method is ready to be piloted. If you are interested, contact us.

Contact Us
Software Engineering Institute
4500 Fifth Avenue, Pittsburgh, PA 15213-2612
Phone: 412/268.5800 | 888.201.4479
Web: www.sei.cmu.edu | www.cert.org
Email: info@sei.cmu.edu