

Carnegie Mellon University Software Engineering Institute (SEI)

Lunch and Learn Series Session 3 of 12

Wed July 20, 2022 12:00 – 1:30 PM EDT **Philip Bianco** Carnegie Mellon University

Practical and Proven Software Architecture Analysis and Evaluation Fundamentals

INCOSE

A FREE Virtual Event – Registration Required

Abstract. Architecture is critical for business success. A solid architecture helps prevent defects and system failures. It helps a development effort save money and get quality products to the market faster. Most software-reliant systems are required to be modifiable and reliable. They may also need to be secure, interoperable, and portable. Manv organizations are struggling with the results of making poor architectural choices and inadequately managing architectural decisions. How do you know whether your software architecture is suitable or at risk relative to its target system qualities? This session covers practical and proven architecture analysis and evaluation fundamentals that should be incorporated into any software architecture evaluation process. We will demonstrate these principles that identify risks early in the development lifecycle using fundamentals and techniques from the Architecture Tradeoff Analysis Method (ATAM), a tested process that has been used in many evaluations over the past 20 years.

Phil Bianco is a senior member of the technical staff at Mellon Universitv (CMU) the Carnegie Software Engineering Institute (SEI). He holds an MS in Software Engineering from CMU and a BS with Honors in Computer Science from the University of Pittsburgh. Currently, he provides direct support for DoD and DHS in the area of software architecture as part of the Software Solutions Division at the SEI. Past research topics included tools to assist architects (ArchE), service-oriented architecture (SOA), and architectural reconstruction. Prior to joining the SEI in 2000, his work experience included the development of information systems and database administration.



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Flyer v1, 14July2022, J. Stein



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