Designing and Transforming Enterprise-Technical System Architectures for Flexibility and Adaptability

Research Challenge

• Understanding how to design and manage stable yet flexible and adaptable enterprise-technical systems

Hypotheses:
1. Layered hierarchies enable increased flexibility and adaptability
2. Technical system architectures and enterprise architectures exhibit bi-directional causality in architectural evolution

Practitioner Needs

• Practical tools and concepts for design and management of dynamically fit enterprises and technical systems
• Enterprise architecting knowledge to enhance probability of success

Cases:
1. Do we see increased flexibility in architectures as laterality increases?
2. What were the social and technical driving forces for architectural changes?

Combat Air Operations Architecture

Sonar System and Program Architecture

Research Goals and Products

• Practical insights for enterprise design and transformation efforts
• Method and metrics for managerial assessment of enterprise and technical system architectures
• Model for understanding performance potential of enterprise architectures
• Ph.D. Thesis, appropriate journal articles, working papers.

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