Applying TOGAF to Define and Govern a Service-oriented Architecture in a Large-scale Research Project

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The Service-oriented Architecture paradigm has become a widely adopted solution for enterprise application landscapes. SOA promises system integration improvement, business and IT alignment, applications reusability, and fast adaptability to changing requirements. Yet, the advantages that SOA offers lead to its main management challenges. An SOA consists not only of services. Business requirements, processes, models, rules, policies, and different stakeholders play also an important role. To manage this increased complexity and heterogeneity in SOA landscapes enterprises apply architecture frameworks and governance approaches. An essential enabler for SOA Governance is the traceable documentation of the service-oriented application landscape. This paper shows how the TOGAF Architecture Development Method was applied in a large-scale SOA-based research project to support the governance proposes in the context of a service marketplace. Supplementary templates were defined to guide the description of services, data models, and architectural components. Some of the models and decisions proposed by TOGAF were shifted to other phases to fit the innovative nature of research projects.