Virtual Decoupling for IT/Business Alignment – Conceptual Foundations, Architecture Design and Implementation Example

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Abstract

IT/business alignment is one of the main topics of information systems research. If IT artifacts and business-related artifacts are coupled point-to-point, however, complex architectures become unmanageable over time. In computer science, concepts like the ANSI/SPARC three-level database architecture propose an architecture layer which decouples external views on data and the implementation view of data. In this paper, a similar approach for IT/business alignment is proposed. The proposed alignment architecture is populated by enterprise services as elementary artifacts. Enterprise services link software components and process activities. They are aggregated into applications and subsequently into domains for planning/design and communication purposes. Most design approaches for the construction of enterprise services, applications and domains are top-down, i. e. they decompose complex artifacts on a stepwise basis. As an alternative which takes into account coupling semantics, we propose a bottom-up approach which is demonstrated for the identification of domains. Our approach is evaluated using a telecommunications equipment case study.

Keywords

Integration – Decoupling – IT/business alignment

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