

Service Portfolio Measurement

- A Framework for Evaluating the Financial Consequences of Out-tasking Decisions

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ABSTRACT

Topical developments in software-engineering facilitate the establishment of new design patterns for information systems. In Service-Oriented Architectures (SOA), processes of an information system can be extracted and “out-tasked” to service providers. KEEN/MCDONALD highlight the changes that are brought about by such an architecture with their statement „Out-tasking [...] breaks a company into a portfolio of process-centered operations rather than interlocking departments or functions.” [30]. Examples of technologies that have been developed for this purpose are COM+, CORBA und RMI [55]. With the initiative of Enterprise Application Integration (EAI), web-services turn out in practice to enable a widely spread realization of SOA.

With these technological achievements, new management tasks are arising in information systems science. As information systems are increasingly interlinked with other systems by various service providers, it is important to choose the appropriate composition of a corporate service portfolio. For this purpose, the long-term economic consequences of out-tasking decisions have to be taken into account. In this paper, we suggest a methodological framework for efficiency calculations that intends to suit for a proper evaluation of these consequences.

Due to the long-term consequences of information systems design, methods of capital budgeting are applied in the framework. Using Financial Plans (VOFI) [18], all payments driven by a decision can be taken into account, including various conditions for funding and loaning as well as taxes. We apply this method by analyzing typical in- and out-payments driven by out-tasking decisions that have to be taken into account throughout the life-cycle of service-oriented information systems. For evaluation purposes, efficiency measures need to be calculated.

These measures indicate which composition of the service portfolio is most profitable in a certain corporate situation.

In this paper, we demonstrate how to calculate the Total Cost of Ownership (TCO) as well as the Return on Investment (ROI) of a Service Portfolio on the basis of capital budgeting. Finally, perspectives are discussed for applying and extending the framework for Service Portfolio Measurement.