

Conceptual modelling of transportation and IT services for configuration systems

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Background

Mass Customization (MC) is one of the predominant strategies that manufacturers, such as BMW, Lego, and Adidas, apply to meet the changing customer needs while maintaining a high level of efficiency. To achieve MC, configurable products need to be in place, where predefined parts and elements can be arranged to fit the customer’s needs. This is realized through IT-based configuration systems. However, MC and configuration systems for services are widely unexplored in the existing literature. To contribute to literature on service configuration, this project will focus on transportation services, such as route planning, and its enabling IT services, such as route planning software together with the processes to build, run, and maintain it. The transportation sector with its 10 million employees within the European Union was chosen to examine whether the application of the principle of MC through service configuration might have the same impact as product configuration for manufacturing companies?

Research Question (RQs)

- RQ 1: How can transportation and IT services be described and classified?
- RQ 2: How should one scope a configurator for transportation and IT services?
- RQ 3: How should one model transportation and IT services for configuration?
- RQ 4: What are the potential benefits of using a service configurator within an organization?

Research Design

To provide an answer on the applicability of Mass Customization through service configuration, the research will follow a mixed methods approach and will be guided by four research questions: RQ 1 will be answered through a structured Literature Review to classify IT services according to their different natures; RQ 2/3 will use Design Science Research to create an IT artefact (i.e. framework, software prototype); RQ 4 will use case research as it allows deeper understanding of the potential benefits of a service configurator and its impact in a real-world setting.

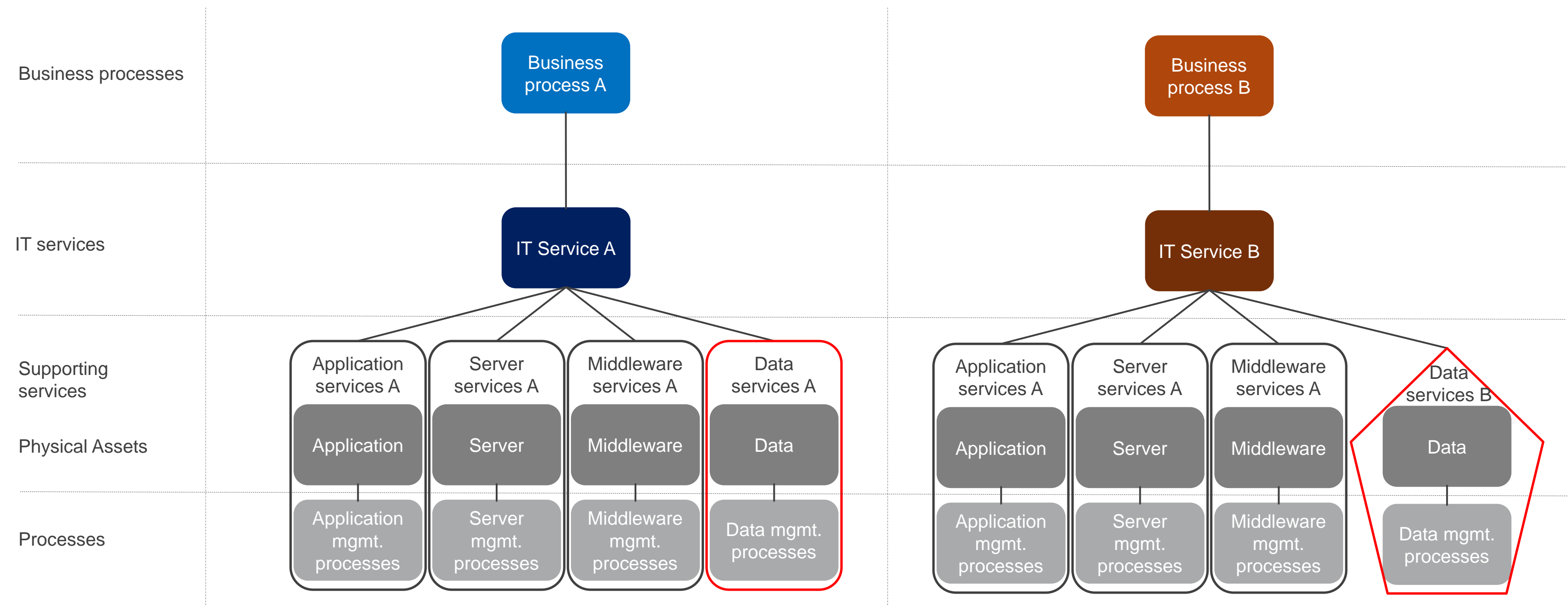


Figure 1: Configurable standard elements to achieve mass customization of transportation and IT services



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Funded by:
Innovationsfonden – Industrial PhD
DSV A/S

Start and completion date:
1 March 2018 to 28 February 2021

Keywords
IT Service Management (ITSM)
IT service catalog
Configuration systems
Service configuration
Mass customization
Service modelling
Service Level Agreements (SLAs)