A Service Design Method

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Abstract
IT infrastructure providers are forced to evolve into IT service providers. As part of this evolution one of their goals is to provide a catalog containing all IT services customers can be offered. Therefore they have to know how to identify and describe a service, so that provider and customer have a common understanding about it. The Service Design Method was developed as an UML-based approach to support IT service providers in designing and describing their IT services. Figure 1 shows how the Service Design Method can be placed in an IT Service Management scenario.

Service Design Method
The Service Design Method was motivated by the fact, that there is often no common understanding between an IT service provider and its customers, which and how services are offered and under what conditions. As a consequence, those services are not delivered accordingly to a systematic process, making the task providing quality-based services complicated and inefficient. The goal was to develop a systematic process how to identify, define and describe services of any IT service provider.
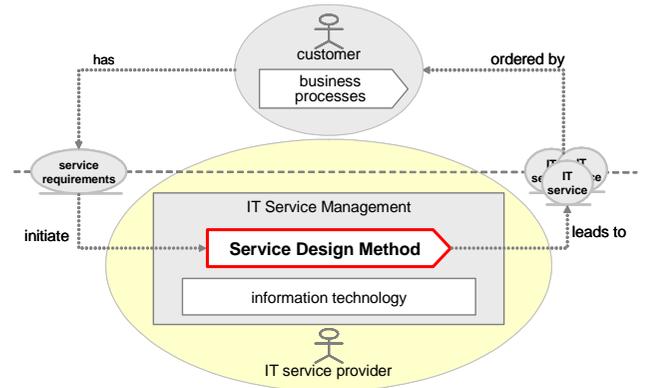

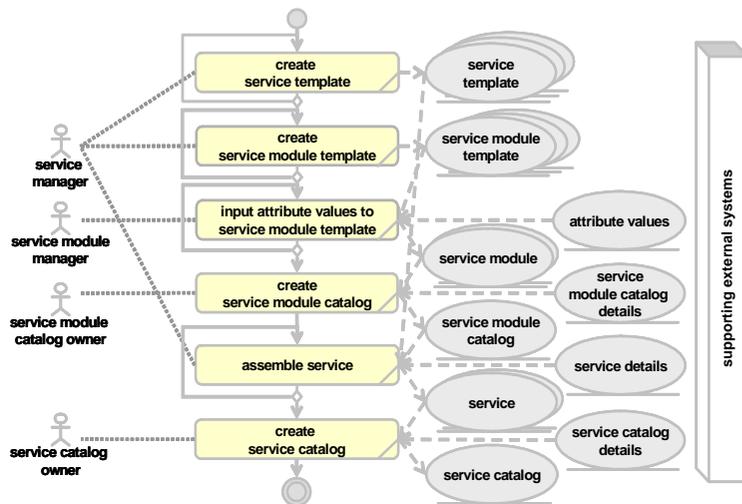**Figure 1: Service Design Method as a central part of IT Service Management**

Figure 2: Service Design Method described by an UML activity diagram

The Service Design Method defines an overall concept, which enables IT service providers to establish a service catalog. In order to use the Service Design Method, the following requirements have to be fulfilled:

(1) The design steps and terms used have to be defined clearly and communicated inside the organization of the IT service provider and to the customers.
(2) It must be obvious which roles are assigned to which design step.
(3) The Service Design Method should be supported by tools.

If so, the Service Design Method covers the following steps:
(1) It is initiated by the service manager creating a service template. The service manager's main focus is to provide all necessary attributes, which will hold all the information the customer needs to identify the service he is looking for. As shown in figure 2, the service manager can continue by working on another service template or move on creating service module templates.
(2) A service is based on service modules, so the service module templates have to define at least the same attributes as used in the service template.
(3) The service module manager fills the templates with information and hands them over to the service module catalog owner.

(4) The service module catalog owner collects the service modules and arranges them in the service module catalog. He adds information about the service module catalog as for example its name, version, etc.
(5) The service manager accesses the finished service module catalog and builds services based on the service modules. He has to meet the customer's demands using available service modules.
(6) Finally the services are arranged by the service catalog owner in the service catalog, which will be presented to the customers. He adds some information like the name of the service catalog, its version and so on.

Future Work
Prototypes of ITSM systems to support the Service Design Method have been developed. Taking a step forward, a fitting conceptual framework for orchestrating processes and systems according to ITSM's processes including the Service Design Method has to be found. Service Oriented Architectures as the latest innovation of software architecture focus on a loosely coupled integration. Research has to be done to determine whether a Service Oriented Architecture (fig. 3 shows an approach) will meet the needs of the integration challenge in ITSM or not.
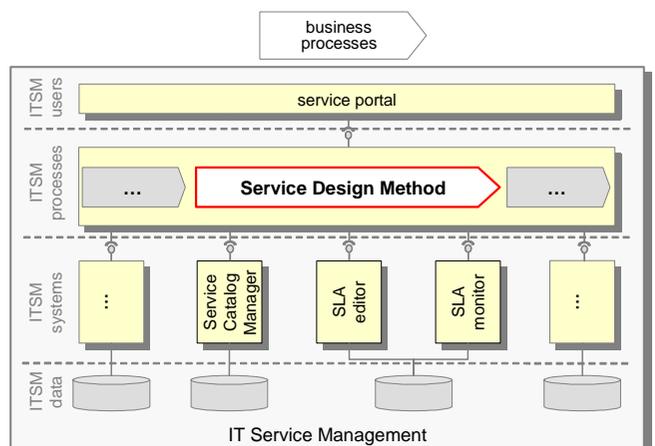

Figure 3: Future Work - IT Service Management and Service Oriented Architectures