IC3K 2010

# Defining the Semantics of IT Service Management Models Using OWL and SWRL


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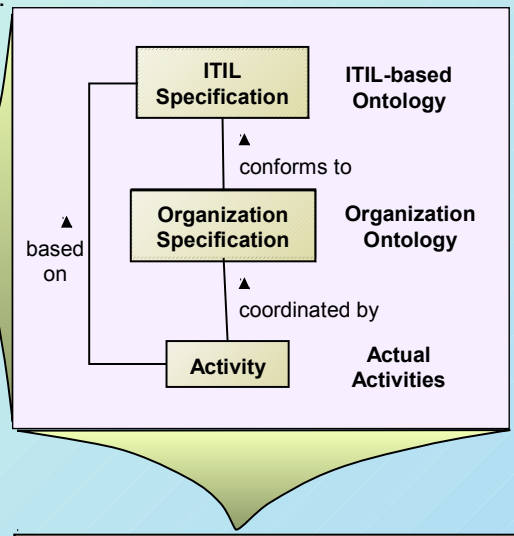
Service management is a set of specialized organizational capabilities that provide value to customers in the form of services. Many organizations are aware of the need to adopt best practices in order to create an effective *IT Service Management* (ITSM) for enabling business and IT integration. However, the reuse and interchange of service models is still quite limited in the area of IT service support due to the problems in connecting with natural language. This poster shows the ITIL-based Service Management Model aimed at capturing ITSM best practices by means of a formal ontology. This ontology will precisely define the semantics associated to IT service management models, enabling different tools to interchange them without ambiguities.

Onto-ITIL principles

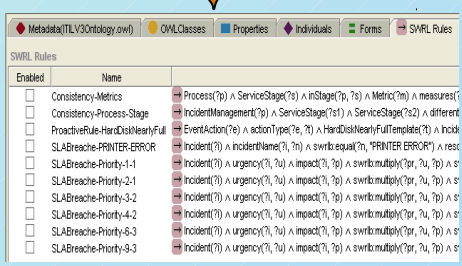


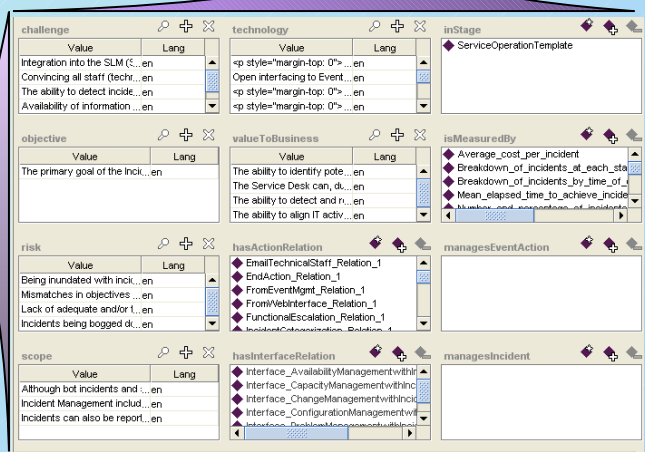

Our approach allows IT service providers:

- to catalogue the best practices in ITSM,
- to provide a common shared domain conceptualization of ITSM,
- to formally define the elements of the ITIL Service Lifecycle and their interactions in a machine-processable way,
- to focus in a specific process in order to implement it,
- to enable the separation of the meaning from the processing and
- to obtain a high-level requirements model.

Different instances of ontology classes are created according to the ITIL specification

Rules defined in SWRL are combined with an OWL ontology providing all the relevant aspects of the ITIL specification :




EMF

**Onto-ITIL plug-in**

Onto-ITIL enables the formal creation of models, which can be processed and transformed by means of the Eclipse Modelling Framework (EMF) in order to obtain high-level requirement models.