

E-BANKING ISSUES INVOLVES THROUGH SERVICE ORIENTED ARCHITECTURE

SYED NADEEM JUMAN SHAH¹, ALLAH RAKHIO JUNEJO² & ABDUL REHMAN BALOCH³

¹Institute of Commerce, University of Sindh, Jamshoro, Pakistan

^{2,3}Information and Communication Technology, University of Sindh, Jamshoro, Pakistan

ABSTRACT

SOA (Service Oriented Architecture) is suitable progressively more essential nowadays. Service Oriented Architecture (SOA) supports the strategy for goal of the business. Standard of web services along with their implementations are the Key for Service Oriented Architecture (SOA). Successful implementations are growing for these technologies. Therefore solving wider business issues involves SOA designing at high quality at the premature period. Within the article there is a motivation on behalf of SMM (Service Modeling Method) for handling wider designs with Unified Modeling Language (UML) analysis for service models and focused problems.

KEYWORDS: Service Oriented Architecture (SOA); Business Issues; Unified Modeling Language (UML)

1. INTRODUCTION

Prior research has shown how consumer perception, when risk is an important factor, may affect the adoption and the usage of E-payment service. Given this general knowledge, this research looks into the more specific issues of the mix of design attributes to drive consumer choice in using E-payment services. Using six design attributes defined by a group of practitioners and E-payment service users using the Delphi Method, an online conjoint experiment is conducted. We find out how these design attributes may impact consumer choice under risk, and the rank order of the magnitudes of their effects. (Grady Booch, 2004) declared to facilitate "the fundamentals of engineering like good abstractions, good separation of concerns never go out of style", although his critical statement is that "there are real opportunities to raise the level of abstraction again" (Arsanjani, 2004). While designing wider enterprise applications abstraction level should be there or raised up for domains of business. Company uses the entire IT software with the services. Software that is business aligned organized as SOA reside to increase the level of the abstraction. While this approach that is SOA based approach enforces the hiding of the information and numerous theme related to EADI(Enterprises Applications Development and Integration) along with modularization. Services consist of service repositories and enterprise service bus.SOA increases the flexibility and response to the business environments. As SOA is modularized so it can change on demand. It consists reusability of the service through well defined plus publish interface. So Service Oriented Architecture (SOA) have the mechanisms in support of integration of agile applications without the language or other platform. The implementation of service provider in SOA may be replaced without affecting the consumer. Implementations are encapsulated to the side of the provider.

2. LITERATURE REVIEW

The model of SOA system has been handles by several other authors. Barasi et al (Wada, 2006) has given a model of SOA using UML to represent the concepts of SOA and rules for transformation graphs. He used the UML as the model abstract methods for SOA architectures. These architectures based upon clients service, providers and service discovering

agents. Zhang (Wada, 2006) et al started work on SOA modeling. They design the models in which service is top rank model's essentials. In that work he defined contracts of services and the role specified into a service after identifications for pre as well as post condition. Wada (Johnston, 2005) et al a solution to Unified Modeling Language (UML). <u>They focus on the non-functional</u> requirements plus aspects and define service, message and connector as top rank available essentials. These representations are important when to automate the development process.

The Unified Modeling Language outline in support of Service Oriented Architecture (SOA) modeling. They makes the principle for web-services for which defined five different profile that are resources, services, messages, policies and the agents. These projects are real time close upto the implementations of SOA services but not suitable for generic SOA systems. The Unified Modeling Language 2.0 profiles are designed by IBM and it is closest project to the content that has been described earlier. It is generic model and SOA paradigm is presented in it.

3. SOA BUSINESS MODELS THROUGH SERVICE MODELING

We have defined the output and input of the service at this point and now what is in between these inputs and outputs? An algorithm of perspective modeling is required to answer the following question. How to design service abstraction that is good from wide business requirements and business process models .The more question are also arise that what are the good services for required problem as solutions? What is granularity of the right service .While answering to these above questions Enterprise Application Development and Integration has to start form the requirements; it is documented business process as high level use case model are designed or created by the business analysts. It is defined as informally or semi informally sometimes. Eventually formal service is to be designed.

From modeling point of view in results the challenges are designed how well service, how service abstraction is meaningful for business point of view. The resulting challenges are as follows for any problem and for solution:-

- In SOA, how services are defined and described?
- While developing SOA and services what is the process that is required?
- What are development approaches for SOA and services?
- How process models realized to SOA and services?
- How systems and applications be used as the services?

These are the few problems issues related to the modeling of services or service oriented architectures.

4. SOMA (SERVICE ORIENTED MODELING AND ARCHITECTURE) AS SERVICE MODELING CANDIDATE ASSETS

SOMA (Rumbaugh, 2004) has been offered by the IBM which defines three steps of modeling to solve the problems and that are identification, specification and the realization. These three steps have several inner steps and that are defined in the following diagram.

E-Banking Issues Involves through Service Oriented Architecture



Figure 1: Services Identification, Specification and Realization in SOMA

The identification's step of SOMA starts form business model through the domain decomposition which have analysis of function area and process decomposition. Goal service modeling is a technique that attach to the business goals.

The SOMA model is an iterative and incremental process model. While in service specification the SOA is defined formally with related interfaces. These specifications designs a service model SOMA. Uses the services of SOMA are also supportive for larger Enterprise business application solutions.

5. UML ANALYSIS MODEL FOR SERVICES

For SOA modeling the key aspect is to layering of services (Rumbaugh, 2004), for example in SOMA the identifications steps are residing entrant service taking place this layer. Several other technique is used to achieve these purposes.

5.1 Business Level Service Types

There are several viewpoints on services that are exits on the business and technological stage. On the abstraction of business level, business feature is Service Oriented Architecture (SOA) services that are available to the customers and within organization. This view of the service is separate completely for technical aspect.

VCM (Value Chain Model) with the formation of BIS (Business Information System) (Zimmermann, 2005) form this different type of service is to be identified. Service differs by admiration to the values that they are given toward businesses. In value chain level services are offered higher value than services are at business process model.

5.2 Service Types for UML Model

Many businesses describe the business process model through UML (Baresi, 2003), as a modeling language. We can say safely that UML is standard notation for business or industry for software requirement specification and software specifications. There is a procedure that how's the identification for service to need within following specified analyze models for Unified Modified Language.

Unified Modeling Language studies a model that prove into specific Meta Models so that Service Oriented Architecture (SOA) service could be identify. With this meta-model when they are inline it will possible to design service model for businesses processing models plus usage cases models. Following shape describes the relationship and role of integrated model.





SOAs (Service oriented architectures) are the analysis of process with the aim of designs business domains for creation of SOA. In this level the above integrated model (diagram) tells us designing rules within three model views use case model, business process models and the service models.

The initial 02(Two) Uses cases models and businesses processing model is the Unified Modeling Language(UML) base model while third services models are fresh with (SOMA) which is (described the above). The above Meta model integrates different views as concepts from business process model and use case model have to map to service model. The above integrated analysis model in SOMA for identification step. It can be used also to derive or design services from any UML analysis model.

CONCLUSIONS

To achieve the successful modeling it is not so easy as it appears at first glance, much more business level process flow to IT understanding is required and also Service Oriented Architectures (SOA) decision also taken. Most of the trivial cases modeling approach are top down. Because of existing systems constraints modeling choices, for example ERP (Enterprise resource planning).Service modeling has adapted to client and project environment with combining elements and techniques is a valid option.UML modeling plays a key role for the analysis and design and also to help in understanding the overall SOA architecture. This paper outlined service model for the solutions to problem that are asked in form of question in above section. The candidate service model derived early existing UML analysis such as use case model and business process model.

REFERENCES

- 1. Arsanjani, A. (2004). Service-oriented modeling and architecture. IBM developer works , 1-15.
- Baresi, L. a. (2003). Modeling and validation of service-oriented architectures: application vs. style. 28, pp. 68--77. ACM SIGSOFT Software Engineering Notes.
- Johnston, S. (2005). UML 2.0 profile for software services. *IBM developerWorks* http://www.ibm.com/developerworks/rational/library/05/419_soa.
- 4. Rumbaugh, J. a. (2004). The Unified Modeling Language Reference Manual. Pearson Higher Education.

E-Banking Issues Involves through Service Oriented Architecture

- Wada, H. a. (2006). Modeling non-functional aspects in service oriented architecture. *Services Computing*, 2006. SCC'06 (pp. 222--229). IEEE.
- 6. Zimmermann, O. a. (2005). Analysis and Design Techniques for Service-Oriented Development and Integration. *GI Jahrestagung (2)*, (pp. 606--611).