

RESUME

Of the Master Thesis

Process and realization of SOA (Service Oriented Architecture) centralized system

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Key words: Methodologies and development cycle of Service Oriented Architecture centralized systems, prepare Component Business Model competencies, develop business processes, design SOA system by SOMA and develop SOA system

Master Thesis Annotation: The main objective of this master thesis is to illustrate the process and to demonstrate the realization of SOA centralized system and its methodology.

The first part of this M.Sc. thesis describes the concept of SOA systems. The SOA system allow fairly large chunks of functionality to be strung together to form ad-hoc applications which are built almost entirely from existing or new software services. This part also covers explanation how these services can be orchestrated. The next part describes two different methodologies that can be used in order to develop SOA project. The first one is developed from IBM. Its name is RUP (Rational Unified Process) for SOMA (Service Oriented Modeling and Architecture). The second one is known as Model-Driven development.

The next several sections covers IBM methods (Figure 1) for development of SOA centralized system:

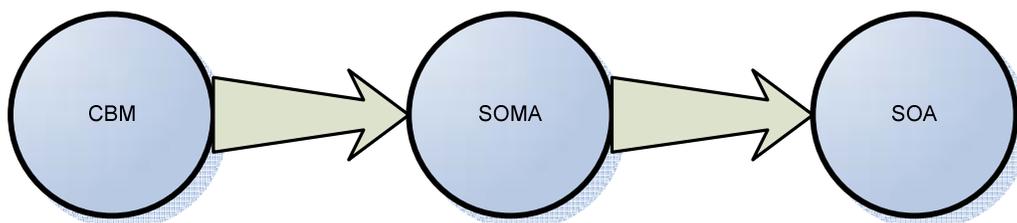


Figure 1 IBM SOA approach

On the top of every SOA project stay the business. CBM (component business model) give as understanding what is business strategy road map. It can be developed based on CBM map where internal and external business components are defined. When the CBM map is defines the process continue with business process development where all business processes are defined. Usually, these business processes covers business need for specific industry.

The next one is SOMA. It is well known as "*Merge business with IT*". This part describes mainly three steps based on defined CBM map and customer business processes:

- Service Identification
- Service Specification
- Service Realization

The next part is SOA where the master thesis use IBM SOA solution stack. It provides nine layers such as Operational Layer, Component Layer, Service Layer, Business Process Layer, Consumer Layer, Integration Layer, Quality of Service Layer, Information Architecture Layer and Governance Layer.

The next part describes IBM tool for implementation of SOA projects. All the tools that are described into M.Sc. thesis are separated into supporting tools for CBM SOMA and SOA.

The next part illustrates demonstration trough practical solution based on IBM method and tools that is described earlier. The final delivery package contains all source code, business processes, database and enterprise archives in order to deploy and run the practical solution.