

SOA Maturity Assessment Exercise

The Oracle Level 5 SOA Maturity Model is designed to help organizations realize the extent of their SOA capabilities, identify appropriate projects to undertake, and understand what benefits to expect. Incorporated into the model are multiple capability dimensions of SOA (e.g. governance, infrastructure, and organizations). Assessing the maturity of an organization requires evaluating its capabilities in each of these dimensions. Oracle provides a cheatsheet to help with this task that describes the attributes of each dimension at every level. To practice making SOA maturity assessments, Oracle also provides sample case studies such as this one.

This case study exercise describes a fictitious company in need of an SOA assessment. Read the case study, and using the Oracle Level 5 SOA Maturity Model cheatsheet assess the company's SOA capabilities. To find the Oracle Level 5 SOA Maturity Model cheatsheet, go to www.oracle.com/soa and access the Oracle SOA Resource Center.

Guidelines

1. Assess the SOA maturity level of the company described in this case study. You should refer to the Oracle Level 5 SOA Maturity Model cheatsheet to do this.
2. It's a good idea to start at Level 1 for each dimension, review the criteria at that level and work your way up.
3. Assign a level for each SOA capability dimension (Architecture, Infrastructure, Organization, etc.) found in the Oracle Level 5 SOA Maturity Model. You may assign a partial score (e.g. 2+) if you feel the company deserves partial credit for a particular level of capability, e.g. you could assign 1+ for Architecture if you feel that company has some, but not all the capabilities for Level 2 Architecture.
4. Note the minimum level of maturity you can assign for any capability dimension is 1.
5. The maturity level for each capability dimension is more important and relevant to the organization than the overall, aggregate maturity level across all dimensions. The former provides a more specific gap analysis of where an organization should focus to improve.
6. Note that similar to most organizations today, our case studies do not reflect companies at extremely high levels of SOA maturity.
7. Consider what you would do if you were an enterprise architect who is tasked with helping this particular company.

Streamlined Loans (SL)

SL is a provider of financial services to consumers within the United States who either choose not to, or do not have access to, mainstream credit facilities. Their business model includes extending credit to consumers who have been declined by other credit providers. Loan applications originate from major banks that for some reason, decline them. These declines are transmitted directly to SL, which evaluates the applications, and issues loan offers to a proportion of the declines. Doing so is obviously a risk, but it's also the differentiator on which SL's business is built. SL's goal was to increase business volumes while maintaining the level of risk exposure. Their existing systems were inflexible since business logic – rules, processes and interactions – were all embedded in client server applications that were hard to change.

One of the senior developers at SL had been looking at SOA and started to champion SOA as a means to solving SL's business problem with help from one of the architects. The two quickly realized that their solution lay in leveraging the existing business logic in a new service-oriented application that would become the main conduit for loan processing. On the architects' recommendations, the line of business IT group engaged with the governance committee. A decision was made to do some pilot projects with SOA. The IT group engaged the services of a systems integrator who had previous SOA experience and worked very closely with them. The group consisting of representatives from the integrator, architects and senior developers engaged in a planning exercise – talking to key business, partner and IT stakeholders at SL to understand the evolving business requirements. The enterprise architect and the systems integrator put together some guidelines on technologies and standards to be used. Armed with this knowledge, and taking into account their existing project portfolio, they worked together to plan out small projects, build their service portfolio and execute on their SOA strategy and SOA roadmap. Their SOA Roadmap included a list of key projects to be executed using SOA principles and tools and a timed set of capabilities that need to be put into place as their service portfolios developed. Their focus was on delivering on current needs to automate paper-based loan processing and the evolving need to enable better visibility into risk. Armed with the service portfolio plan they aligned internal and external development resources on key deliverables – with some people assigned to building and maintaining technical and data services, others on business services, and the remainder on business processes and user interfaces (on which they worked with business analysts). They chose a Web services orchestration solution, a business rules engine and a business activity monitoring solution ensuring that they supported the key standards that would make it easy to integrate them and leverage them in their existing IT environment. These formed the basis for the Enterprise SOA Platform.

The IT group planned 3 quick projects to jointly deliver the required solution – they had already had approval for this from the governance committee. They automated the paper-based business process with BPEL service orchestration, using human workflows to manage exceptions. This first project was implemented in record time using rapid application development techniques. They layered a monitoring solution to enable them to monitor their loan pipelines in real-time to alter loan acceptance criterion dynamically to minimize risk while meeting SLA. Leading on from this, they took some of the business rules, e.g. for assessing risk, that were embedded in their client-server application and implemented those rules using a business rules engine. The rules engine enabled them to make changes, in real-time, to the risk criteria for approving each loan. They realize that to get reuse from the services that were implemented in these projects, they would need to have some way of governing the lifecycle of services, which they enabled through policies and a service registry.

Since completing these projects, SL has experienced 195% increase in revenues! Having had 3 successful SOA pilots, the governance committee endorsed a plan for driving SOA adoption enterprise-wide.