



SOA: Implementation Challenges

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Context

This presentation does cover:

- Real life challenges within Sanlam to implementing SOA from a common sense perspective

This presentation does not cover:

- Architecture
- Technology
- Theoretical how to approach SOA implementation
- Theoretical definition of SOA



Successes

Any presentation that tackles Implementation challenges is bound not to be optimistic. Let's understand our successes to contextualise the upcoming info.

- Large scale SOA, Java based Custom Development Contact Centre application to replace Siebel with TCS. This was a 2.5 year project.
- Medium scale Service, Java based custom development commission application
- +- 20 Small scale Service based implementations
- +- 100 Services exposed for consumption
- Very strong competency team consisting of System Analysts Specialists, Lead Developer Specialists, Architect specialists.
- Strong IT Application Development Head & Team to help drive the people critical mass internalisation of the solutions to solve our problems.
- Strong IT Infrastructure Head to help drive the internalisation of solutions within operations.
- Strong Business Change guidance to help IT with business insight to drive the solutions.
- High business executive buy-in to help to drive the implementation of solutions.



Implementation Challenge 1: What is the problem?

We know that it is difficult to build a Business Case for any of the New World concepts, approaches.

BUT still what is the Business problem we are trying to solve in simple English?



Sanlam

Sanlam consists of a number of federated companies:

- Topaz, Glacier, Liquid, SIM, Santam

Topaz IT portfolio consists of:

- 60 % Cobol & Assembler hosted on IMS based Mainframe
- 30% VB6, ASP on NT platform
- 10% Java based applications on AIX platform

- People skills reflect the IT Portfolio

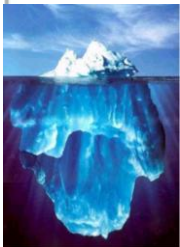
Problem to be solved:

- The skills base is ageing, new incoming skills (schools, universities, technikons) are based on the new languages thus we have a skills GAP
- The mainframe technology base is stagnating, is easy to manage but difficult to participate within the new world.
- Difficult to operationally manage transactions from the chaotic PC & Web based technologies to the Mainframe to ensure stable operational environment
- Renew the application portfolio gradually as the business requires and harvest the current investment
- Attempt to simplify the heterogeneous technologies towards a homogenous technology



Implementation Challenge 2: Is SOA too Expensive?

No	Problem	Industry “Solution”	Bundled answer
1	The skills base is ageing, new incoming skills (schools, universities, technicians) are based on the new languages thus we have a skills GAP	Decide on a Language Strategy: Java / Microsoft & the role of COBOL. Decide on productivity measures. Understand where the Business is going to determine incoming demand.	SOA
2	The mainframe technology base is stagnating, is easy to manage but difficult to participate within the new world.	Decide on the role of the Mainframe to guide further projects, BAU work. Security, Workflow, Portal, Services, Database, Operating System. Understand the future business architecture to determine if the mainframe is a limiting factor.	
3	Difficult to operationally manage transactions from the chaotic PC & Web based technologies to the Mainframe to ensure stable operational environment	Decide on Language strategy, Decide on SOA, Workflow, Portal & Distributed computing, Security. Understand the business architecture to gain insight into the future users and their requirements.	
4	Renew the application portfolio gradually as the business requires and harvest the current investment	Decide on Language Strategy, Decide on formalised Application Portfolio Management, Decide on SOA. Understand the Business architecture to gain insight which applications can be renewed.	
5	Attempt to simplify the heterogeneous technologies towards a homogenous technology	Decide on technology renewal strategy.	



By not really understanding SOA, we unfortunately bundled all the solutions into a single box called “SOA”. This created a monster problem because all the costs of the Language adoption (technology, people, processes), Security, Mainframe unwrapping, Portal, Information Management Standardisation were added together as SOA costs.

At Sanlam, we have started unbundling the costs into the relevant areas.

Implementation Challenge 3

Does anyone really understand WHAT are the pre-requisites to implement SOA cheaply?

You must decide on your Mainframe Strategy?

1. Are you going to unwrap your applications so that it can be called from outside the mainframe?
2. What is your Non Mainframe security strategy and how will it align with the mainframe security?
3. Have you budgeted for increase in Mainframe costs to deal with increased throughput?
4. How does your Mainframe feature in your future roadmap and what is your position on your Mainframe Language?

You must decide on your Distributed Systems Strategy?

1. What is your future language adoption going to be? Microsoft / Java
2. Which Applications are going to be renewed?
3. What is your Web strategy? Single Sign-on, UI
4. What is your distributed systems strategy in terms of transaction management?

You must decide on your Business Architecture Strategy?

1. How are the future processes going to look?
2. How are the future clients going to look?

The above will help you determine what is the business appetite to accommodate the IT change. This will help to determine how much money you should invest in SOA.

At Sanlam we are starting to embark on the above answers.



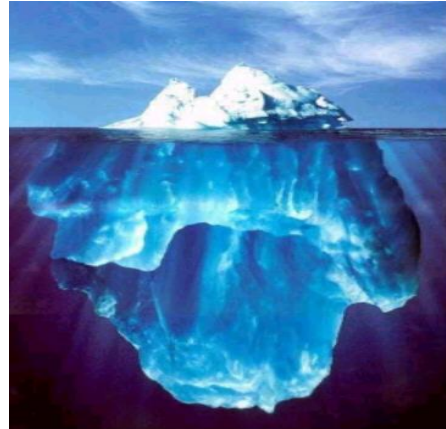
Implementation Challenge

Understanding SOA in simple terms

Does anyone really understand **WHAT** is SOA and what it is not to ensure appropriate investment?

Does anyone really understand **HOW MUCH** does SOA cost?

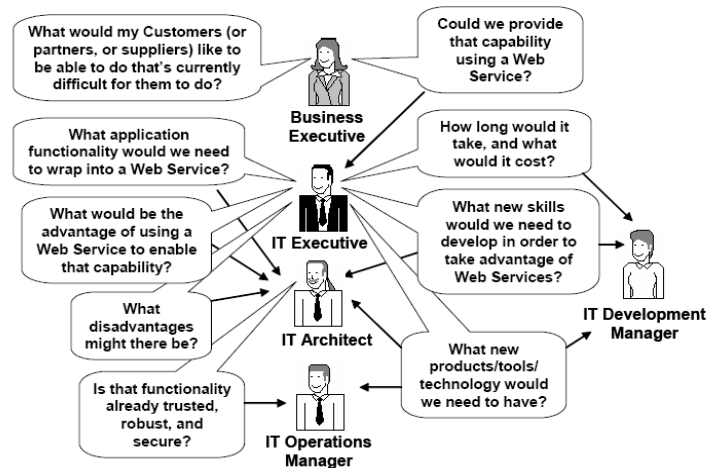
Does anyone really understand **WHAT** are the pre-requisites to implement SOA cheaply?



Does anyone really understand **HOW** to implement SOA?

Does anyone really understand **WHEN** to implement SOA?

What Are the Questions You Should Be Asking and Answering to Prepare for Customer-Impacting Web Services?



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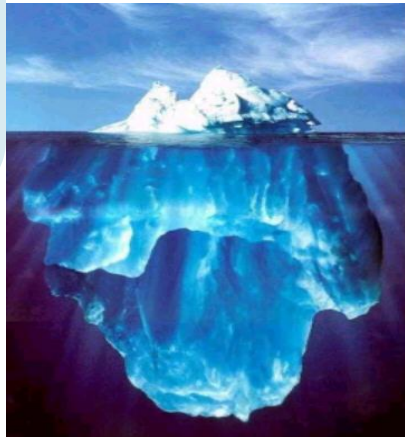
Implementation Challenge 4:

Does anyone really understand WHAT is SOA and what it is NOT to ensure appropriate investment?

A service *provider* is a small application. This Application is deployable into production as a self sufficient unit. This App costs money to develop, test, monitor and maintain.

You can create hundreds of these small applications.

You can group these small applications into a larger application called a Business Component.



A service consumer is a small application. This Application is deployable into production as a self sufficient unit. This App costs money to develop, test, monitor and maintain.

You can create hundreds of these small consumer applications to call the hundreds of provider apps.

The above explanation provides a common sense view on the impact of the:

- Application Portfolio costs, re-use cost and savings
- Governance of the design, development and deployment to enable re-use of services
- Governance of the design, development and deployment to enable re-use of consumers
- The organisation structure implications
- Tooling required to enable management
- The impact on the IT processes to ensure re-use namely: change management; configuration management

Implementation Challenge 5:

Does anyone really understand how much SOA costs and how to track the benefits?

	Creation Cost
Service Planning	
Service create/re-use	
Service Governance	
Service Management	
Service Infrastructure	
Service skills organisational	

Asset	Creation Project	Amount Invested	Re-use Project	Current Savings	Future Projects	Future Savings
Party Component	Harold	R0.5m	CCA Maestro FAS 1	R 0.3m R 0.3m R 0.3m	MMP:POP:CL Lamda Renewal	R 0.3m
Intermediary Service	Alfa	R X	Omega	R Ym	Delta	
Infra: Registry	Alfa	R y	Omega	R Ym	Theta	
Total		R X m		R X m		R X m

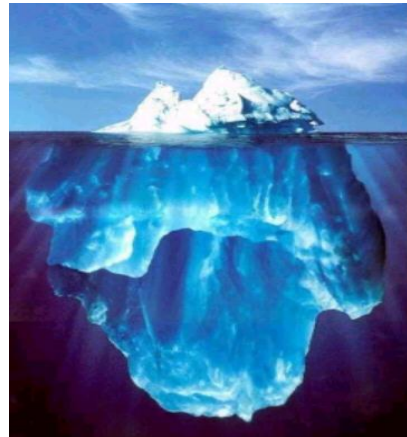
The important aspect here is:

- Group the Services into manageable business components
- Have projects track the creation cost
- Use Sizing techniques and benchmark estimations to guide the Re-use amount.
- Build the evolution into the Project Business Cases
- IT IS VERY DIFFICULT TO TRACK BENEFITS

Implementation Challenge 6: Does anyone really understand WHEN to implement SOA?

Timing is important since the Industry is still trying to understand how to:

1. Build a business case
2. How to manage the consumers?
3. How to manage the providers?
4. Determining how to sell services?
5. Handle the convergence of the players
6. How to keep the application portfolio costs down?
7. Deal with different implementation of the standards
8. Deal with that not all the standards are finalised



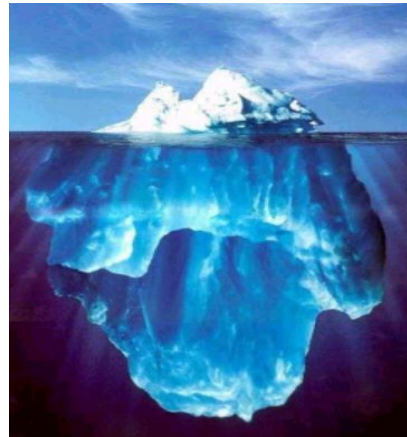
Should you wait until all the above is sorted or should you brave the challenge. At Sanlam we are starting to work the above issues.



Implementation Challenge 7:

Does anyone really understand HOW to implement SOA within large IT Development & Operations Environments?

It is easier to move a small group of highly innovative individuals towards SOA then trying to move a full IT organisation.



At Sanlam we have started this difficult journey



Conclusion

Understand your overall IT and Business problem clearly.

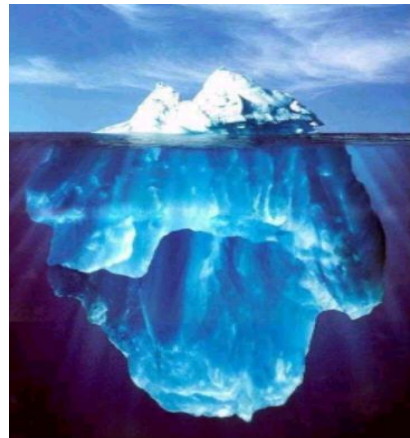
Position your intermediate targets as simply as possible

Clearly understand the terms SOA, BPM, CFE, IDM so forth from a common sense perspective. Do not embark until it makes sense.

See if these Big Words can help to SOLVE the problem

Track your investment

Plan the critical mass adoption of the solutions.



Most important: the BIG Words are interventions to solving a IT Business problem and not the target.



END



Dev CC Challenges '09

Extending the Delivery method, standards, guidelines

Establishing utilities to enable more productive design, development, maintenance & support

Establishing a asset re-use registry to show the cost benefits

Supporting the establishment of the Application life cycle Strategy

Grow JAVA critical mass of ITD people

Enabling 3 community sessions per year per role

Creating a Solution design authority to help save money and improve quality of designs across projects

Scale the Dev CC knowledge to support Project resources