Service Orientated Architecture (SOA)

System I and the IBM Software Development Platform

REAL SOLUTIONS

Overview

- What is SOA?
- Why strive for SOA?
  - Where are we now?
  - SOA benefits
- Moving to SOA
  - The SOA technologies
  - What's involved?
  - Development processes and standards
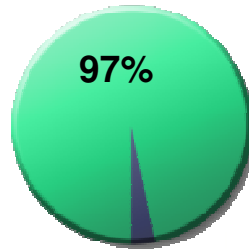 - Getting there faster using WDHT

Overview

- How do we get there?
- Summary

What is SOA?

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SOA Facts

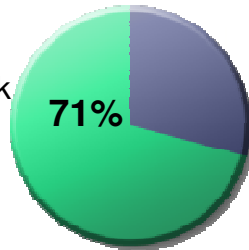97% justified projects on cost savings

97%

100%

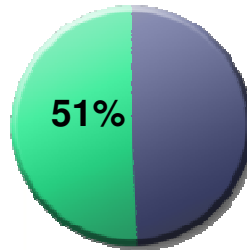100% realized improved flexibility

71% reduced risk

71%

51%
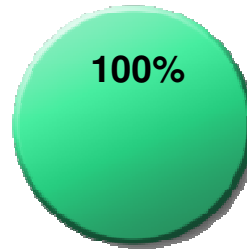
51% experienced increased revenue

SOA Facts

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SOA Facts

"SOA is being used in the developing world to solve hunger. Entire populations will be fed on future business value."

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What does it really mean?

- Delivering composite applications made up of services from a variety of sources
  - At the back-end, using integration technologies
  - At the front end, delivering composite end user experiences
- Moving to modern development technologies for core development and the enablement of existing assets
- Adopting standards and development processes to ensure success

Why strive for SOA?

Where are we now?

- Business Perception
- Proprietary Technology
- RPG/Cobol
- Business Requirements
- Application Flexibility

SOA Benefits

Business Perception
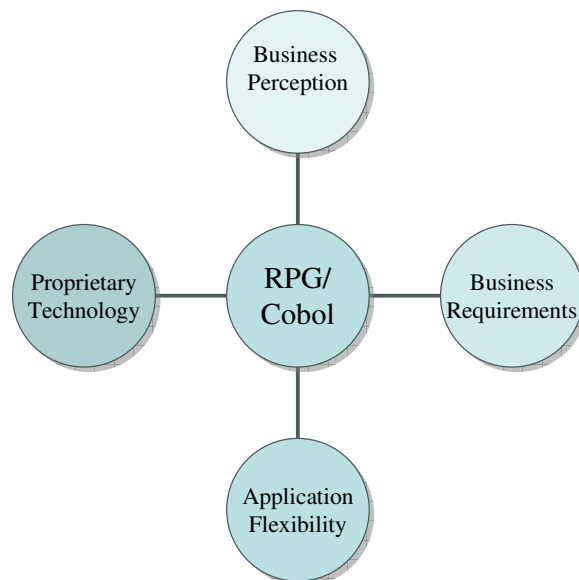
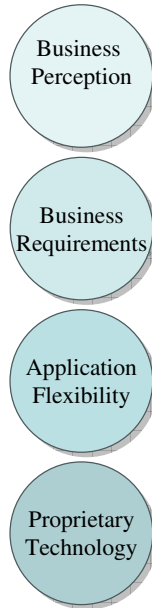- We can deliver compelling, modern composite applications which integrate information sources and improve user effectiveness

Business Requirements

- We can deliver faster and smarter, re-using existing assets, combining new and package functionality and scaling our development team dynamically

Application Flexibility

- We can integrate with anything, run on anything, deliver to any channel and handle any type of functionality

Proprietary Technology

- We use standards based technology for design, development and integration; technology which is proven and yet open.

SOA Benefits

Business Perception

Business Requirements

Application Flexibility

Proprietary Technology
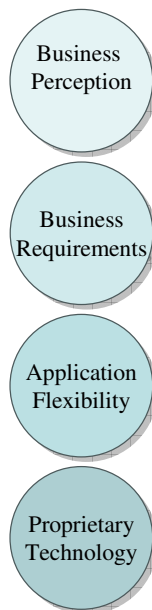
Long Term Migration Strategy

Moving to SOA

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The SOA Technologies

- Development Platform
  - Modern, object orientated development language with advanced tooling and widespread adoption
  - Used to build new applications and services and integrate with existing ones
  - J2EE and .Net are the two big camps
- Messaging or Service Layer
  - Business logic exposed as callable services which can be used by other applications or organisations
  - Typically web services, MQ Series or JMS but can also be e-mail, FTP and legacy transactions
- Integration Hub or "ESB"
  - Choreographs integrations between systems
  - Allows easier and faster development of composite applications, reaction to change, on-going maintenance and re-use of services

The SOA Technologies

- Portal
  - Delivers visual composite applications with integration at the glass
- Development Process and Standards
  - Control use and lifecycle of development in standards based manner
  - Improving efficiency, compliance, ability to change and ability to scale and managing the increasing complexity of your applications

Why is Java good news?

- Universal application
- Widely supported to defined standards
- The programming language for the Internet
  - Used for industrial strength applications
- Reduces time to delivery
- Object re-use, collaborative development, modern development tools
- Productivity & Flexibility

The IBM SDP

Rational. software   **Build**   **Run**   WebSphere. software

Manage

Tivoli. software
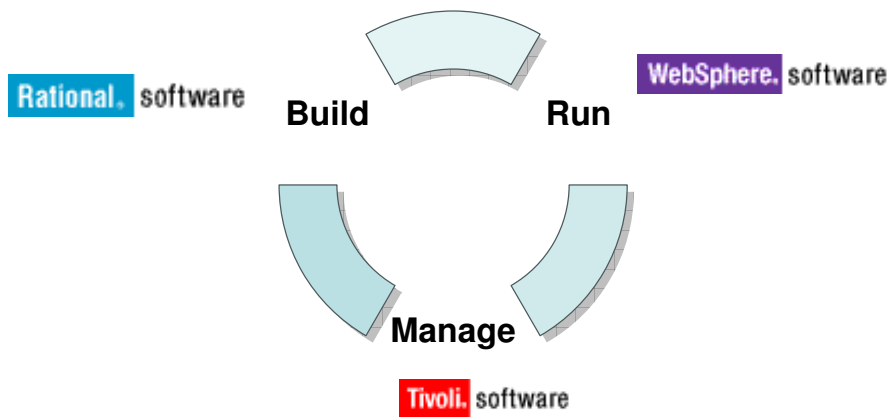
What's Involved?

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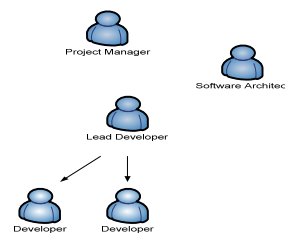
The Requirement
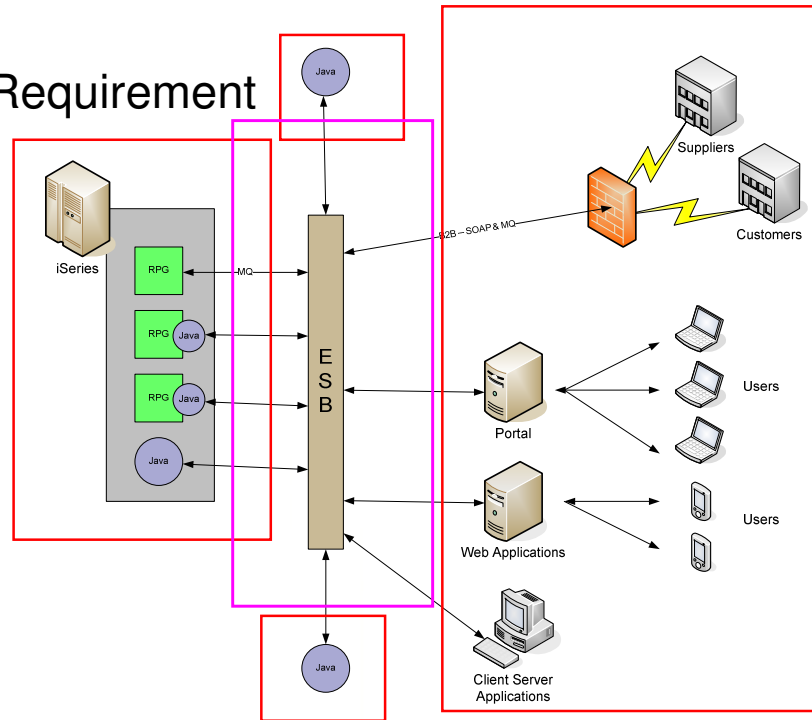
Development Process and Standards

- Standards based methods of analysis and design
  - UML
  - Use Cases
- Configuration Management managing change of requirements, design and applications
- Iterative project management focussing on time-boxed delivery and high fidelity fit to requirements

- **Managing the development process and allowing you to scale dynamically**

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Getting there faster using WDHT

PDM

RPG in WDSC

WDHT

J2EE with WAS and RAD

Portals

SOA
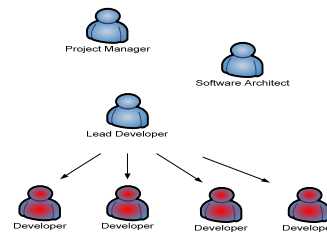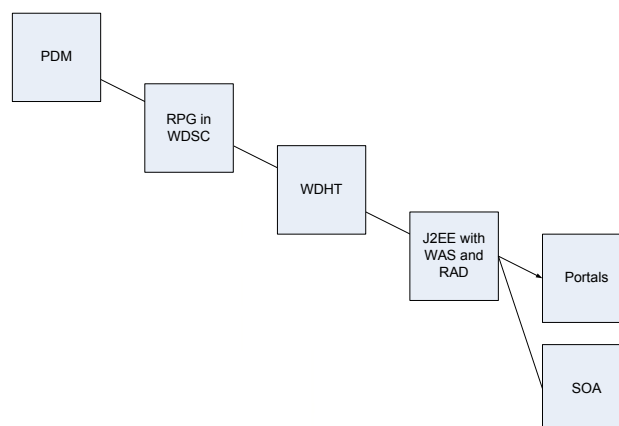
Getting there faster using WDHT

- WDHT
  - Quick and Easy ✓
  - Functionally Rich ✓
  - Does Not Require Source Code ✓
  - Flexible and Expandable ✓
  - WebSphere and J2EE based ✓
  - Removes requirement for interactive feature ✓

How do we get there?

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SOLUTIONS

On Ramp Programmes

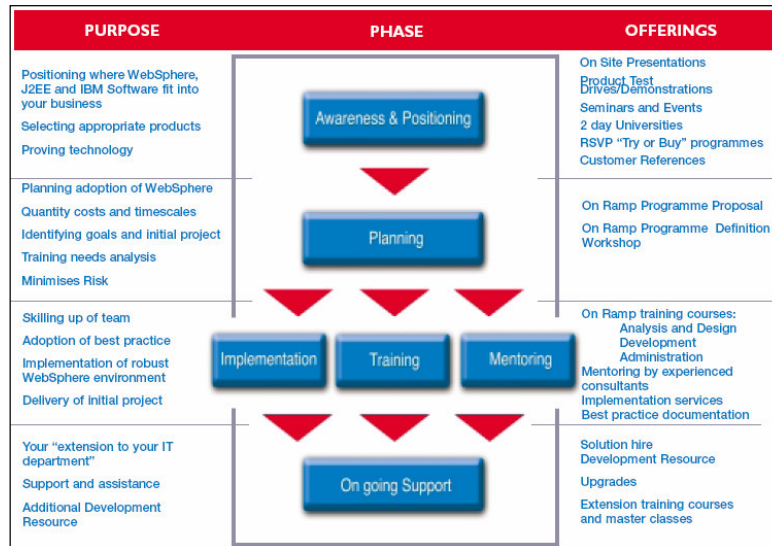| PURPOSE	PHASE	OFFERINGS
Positioning where WebSphere, J2EE and IBM Software fit into your business Selecting appropriate products Proving technology	**Awareness & Positioning**	On Site Presentations Product Test Drives/Demonstrations Seminars and Events 2 day Universities RSVP "Try or Buy" programmes Customer References
Planning adoption of WebSphere Quantity costs and timescales Identifying goals and initial project Training needs analysis Minimises Risk	**Planning**	On Ramp Programme Proposal On Ramp Programme Definition Workshop

Skilling up of team
 	
Adoption of best practice
 	
Implementation of robust WebSphere environment
 	
Delivery of initial project
	Implementation **Training** **Mentoring**	On Ramp training courses:
		   Analysis and Design
		   Development
		   Administration
		Mentoring by experienced consultants
		Implementation services
		Best practice documentation

Your "extension to your IT department" Support and assistance Additional Development Resource	**On going Support**	Solution hire Development Resource Upgrades Extension training courses and master classes

Summary

Summary

- SOA
  - Not necessarily the cure to 3rd world poverty… but a pragmatic way to enable System i applications and move towards modern development
  - Improving business perception, meeting new requirements faster, increasing flexibility and moving away from proprietary technology
- The IBM Software Development Platform
  - Java/J2EE, Rational and WebSphere
  - Providing class leading tools to implement SOA in your organisation
  - Allowing you to get on board quicker whilst removing interactive cost
- On Ramp and REAL Solutions
  - Helping you get there with tried and tested methodologies and industry leading skills