SOA Today:
How to get Started on an SOA Journey and Achieve Rapid Results

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Myth #1: Business is Constant

Customer Demands

DYNAMIC

New Leadership

Changing Marketplace

Corporate Regulations

New Demand

Optimizing Processes

New Legislation

AGILITY

Re-Organization

REAL TIME ENTERPRISE

New Technologies

TUSC Opinion: A PRACTICAL SOA & Modernization Approach can enable legacy, ERP, and silo data stores to share information for the benefit of the business.
SOA Concept

Composite Apps

Business Processes

Order Management

Business Service Orchestration

Order Management

Data Services

Legacy Systems

Customer Data
CRM
ERP
Orders
Logistics
The new delivery model: digital business

Break down silos: Architect and digitize the business

**Business and IT as one thing**

Order-to-cash

- Concept-to-product

- Trouble-to-resolution

- Requisition-to-payment

**Business services**

- Update customers
- Submit orders
- Schedule shipment
- Finalize compensation
- Merge accounts
- Order supplies

**Virtualized enterprise data**

- Customer
- Contracts
- Products
- Inventory
- Accounts

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**Executive portal**

**Financial workstation**

**Product developer desktop**

**Fulfillment workbench**

**Field service device**

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**Sales process portal**

**Service process dashboard**
Traditional Approaches to SOA aren’t working...

Difficult Planning Cycles
- Deployment lag
- Lack of Agility
- Risk of non-compliance
- Increased biases
- Increased Business risk
- Broken Systems

Organizational Confusion
- Rogue Employees
- Political Alliances
- Increased turnover
- Loss of Knowledge
- Decrease Morale
- Reduced-buying
- Shifting cultures

Cumbersome Methodologies
- Increased Resource Cost
- Increased Software Cost
- Longer deployment lag
- Project delays
- Project cancellation

Business Distrust
- Difficult Messaging
- Lack of awareness
- Reduced Cooperation
- Cross-Dept. infighting
- Business Process Failures
- Customer dissatisfaction

Lack of Current State Awareness
- Misguided Focus
- False Vision & Future State
- Lack of Control
- Improper Roadmap
Traditional: “over the wall” delivery model

Business

Design the business:
• Business metrics
• Transaction entry
• Process efficiency
• Adapt to application silos

IT

Build to requirements:
• Order taker
• Project delivery
• Technology usage
• Give them what they ask for
What percentage of software is never or rarely used?
64%
Comparisons of Approaches

Traditional SOA
1. Define all your Business Processes
2. Define all Governance policies
3. Implement Technology Stack

Results
- Cumbersome SOA
- 1-3 year ROI
- Business must wait

SOA-Today Jump Start
1. Prove viability of SOA (1-3 week)
2. Get Business Requirements
3. Build Services Rapidly

Results
- Quick SOA
- 1-3 month ROI
- Business Aligned

Non-SOA Approach
1. Build IT Infrastructure & Stack
2. Build vendor driven Integrations
3. Revise to Business Needs

Results
- IT Driven; Upfront costs
- Lacks Agility
- Where’s the business?
The Agile Manifesto

- Individual Interactions (over processes and tools)
- Working Software (over comprehensive documentation)
- Customer Collaboration (over contract negotiation)
- Responding to Change (over following a plan)
A Potential SOA Manifesto

- Architecture driven (over product implementation)
- Integrated Systems, Processes, People (over individual silos)
- Business Visibility and Understanding (over IT priorities)
- Re-usability (over redundant efforts)
- Standards and Governance (over non structure)
- Agility and Adaptability (over non flexibility)
SOA and Agile Similarities

- Focus on the business
- Built for change
- Incremental structure
- Keep it Simple
- Collaboration is King
- Team dictates success
- Decomposition
Efficient development
• Build services in minutes!
• Integrate with business app easily

Improve services usage
• Collaborative with business client
• Metrics – select the best, delete the rest

Reduces risk
• Shorter time-to-solution
• Simple approach
• Built-in precision tuning

REVISE
Show the user and get immediate feedback

RAPID DELIVERY
Metrics → Selection

BUILD
Quickly create or change services to expose data and processes

TRY
Integrate into simple display tools
Why use Agile on SOA

- Quicker Feedback from business team
- Ensure Business & IT Alignment
- Production ready code is built faster, shorter iterations
- Improved Quality
- Flexibility
- Faster Time to Market
- Reduced Waste
- Increase in Predictability
- Better Morale
Adoption Path

- What is it?
- Can we use it?
- Prove it
- Standards solidify

- 1-5 Services
- 5-10 Services
- 10-50 Services

Pilot Projects

Enterprise Framework

- Corporate-wide approach
- B2B II
- Federated systems
- Large organizations

Optimized Business Services

First Experiments

50+ Services
**SOA is not just webServices…**

<table>
<thead>
<tr>
<th>SOA</th>
<th>webServices</th>
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</thead>
<tbody>
<tr>
<td>BEM &amp; CEP</td>
<td>Data Transformation</td>
</tr>
<tr>
<td>Workflow</td>
<td>Application Adaptors</td>
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<tr>
<td>Business rules</td>
<td>Web services</td>
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<td>Simulation</td>
<td>XML translation</td>
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<td>Process monitoring</td>
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<td>Process modeling</td>
<td>Routing</td>
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<td>Process Automation</td>
<td>Messaging</td>
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SOA is about expediting business processes via services while EAI is traditionally about data integration via near-real time messaging (i.e., EAI connects silos, SOA breaks them apart).

The business orchestration of SOA is the real driver to the reusability strategy, agility and flexibility. Service orchestration brings to an enterprise a business process model that can significantly improve the flexibility and agility with which business processes are remodeled in response to changes.
Principle: Standards

- Standard way to work with other devices
  - Standard way to plug in anywhere
  - My phone works at your house
  - A phone from overseas can work here with an adapter
  - Standard way to address other systems (703-555-1212)

- “Architecture” enriches experience with additional services
  - Caller ID
  - Voicemail
  - Call Waiting
  - Additional features can be added (and ignored)

- Vendor Independent
  - Doesn’t matter what kind of phone I have
  - Doesn’t matter how old my phone is
SOA borrows from other disciplines

- SOA shares characteristics with many established disciplines and draws upon these disciplines

Strategy development and transformation planning
Managing a portfolio of IT-related business investments, shared services, and shared information

Planning and management across multiple projects, agencies and organizations

Executive commitment
Stakeholder alignment, communication and training
User/COI facilitation

Enterprise-wide management of Portfolio of Shared Infrastructure
Change Control
Quality Assurance

Disciplined approach to gathering, validating and managing business, mission and technical rqmts

Design, development, testing and deployment of
- Business Services
- Technical Services
- Composite Apps
- Shared Infrastructure
Recommended SOA Approach

1. Assessment
   Define status and expectations

2. Define goals and means
   Select pilot, evaluate technology, implement it and assess results

3. Select and execute pilot project
   Build a Roadmap; adapt infrastructure and governance, plan how to reach the target maturity

4. Define rollout and Governance plan

5. Execute rollout plan
   Spread SOA throughout the organization and reach target maturity

Define target functional requirements, business strategy,
Does Governance Matter?
Governance does Matter

Governance provides
- Authorities and responsibilities
- Clear rules and rule enforcement
- Organizational and technical transparency

SOA Governance allows to
- Master complexity of IT
- Support business process change

SOA Governance saves businesses time and money
Single Version of the Truth

<many to many> growth

<many to one> growth

...results in lower total cost of ownership
SOA is collaborative

Governance can encompass all aspects. However, the actual scope depends on the organization.
The SOA Team

- Typically 5-10 people
- Cross-functional
  - -- QA, Programmers, UI Designers, etc.
- Members should be full-time
  - -- May be exceptions (e.g., System Admin, etc.)
- Teams are self-organizing
  - -- Ideally, no titles but rarely a possibility
- Membership can change only between iterations
baby steps
step one
get into the flow
time-boxed rhythm of high-quality value delivery
achieve a sustainable pace
command and control
Not Difficult to get started

Increment 1: Requirements Workshop
- Organizational Review
- Scoping Document
- Our Understanding

Increment 2: SOA Boot Camp
- SOA 101
- Concepts
- Business Drivers
- IT Drivers
- Why SOA

Increment 3: SOA Assessment
- Current State
- Gap & Maturity Analysis
- Roadmap

Increment 4: SOA Jump Start
- 2-5 business services
- Comprehensive Design
- Demonstrate Re-usability

TUSC SOA Framework

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Requirements Workshop

Increment 2:
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Increment 3:
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Increment 4:
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TUSC SOA Framework
Learn more about Rolta’s Agile SOA Solutions!

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