SOA and BBC Creative Futures

London APC, 01 Dec 06
Daniel Abunu, Senior Technical Architect
BBC Future Media & Technology
Aim

- Creative Future
- Key Barriers to Creativity and Change
- Using SOA to support and foster Creativity and Change at an Enterprise Level
- Bringing it all together
<table>
<thead>
<tr>
<th>Technology Group</th>
<th>Creative Future</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CREATIVE</strong></td>
<td>TECHNOLOGY ENABLED PROCESS INNOVATION</td>
</tr>
<tr>
<td><strong>DIGITAL</strong></td>
<td>CONNECTING DIGITAL ISLANDS</td>
</tr>
<tr>
<td><strong>SIMPLE</strong></td>
<td>SIMPLE INTERFACES &amp; SERVICES</td>
</tr>
<tr>
<td><strong>OPEN</strong></td>
<td>TRUST &amp; GOVERNANCE</td>
</tr>
</tbody>
</table>
Barriers

- **Economics**: High Cost, Complexity and Risk of Creativity, High Demand, Low Supply
- **Learning**: Knowledge Sharing & Collaboration
- **Trust**: Lack of Visibility, Quality & Control
- **Communication**: Disparate & Disjointed Vocabularies
Fostering Creativity

- Support Learning and Collaboration
- Lowering the Risk and Cost of Experimentation
- Address Economics of Production
- Empower with Tools, Accelerators & Support
- Decouple Domains of Change
- Make it Simple & Intuitive
SOA & Creative Futures
What SOA means to the BBC

A Simple and Intuitive design and integration

Philosophy, Approach, Paradigm or Pattern that is used to enable and support a flexible and adaptive BBC
Our view of SOA

- SOA is simply a service view of business resources and applications.
- A service is basically an abstraction of a business resource or application into units of repeatable functionality with standardised and publishable interfaces.
- Services can be distributed and interwoven to support existing and new business processes by changing the sequence of execution.
The Service Vision

- To drive and promote greater business *creativity* and *innovation* through the encapsulation of business resources as services that interact remotely through standardised interfaces.
- To support a portfolio of *independent* *interchangeable* business services that can be orchestrated to support (un)anticipated opportunities and threats.
- Reduction of time to market and cost of change through creation of *stateless* business services that can be *reused* in various business context.
Positioning SOA in the BBC

- Business Process Design Methodology
- Application Architecture
- System Integration Pattern
- Sourcing Model
**Key SOA Concepts**

- **Service Consumer**: Entity accessing the services. This can be a person, application, or system.
- **Service Provider**: Entity responsible for implementing and providing the service. This can be a person, application, or system.
- **Service Broker**: Entity responsible for registering and advertising available services.
- **Service Contract**: An agreement between a Service Provider and Consumer; sometimes enforced by the broker.
Key Themes

- A Simple and Intuitive Service Oriented View
- Shift focus from “HOW” to “WHAT” to Drive Process Innovation
- Decoupling Domains of Change to Reduce Impact and Cost of Change
- Technology Enabled Governance to Promote Trust
SOA & Creative Future: Connecting The Dots

- Creative
- Digital
- Simple
- Open

Empowering tools and Raising Line of Commoditisation
Event Driven Integration & Interoperability
Simple and Intuitive Approach
Technology Enabled Governance

Technology Group
Bringing it All Together

- SOA Reference Model & Roadmap
- Traditional Broadcast Value Chain
- On Demand Value Chain
SOA Reference Model

- Business Tools, Portal & Collaborative Services
- BPM and Document Services
  (Business Fabric Services)
- Integration and Interoperability Services
- Other Infrastructure Services

Technology Group
SOA Roadmap

Service Delivery
Service Integration
Service Orchestration
Service Management

ENABLED
GOVERNED
INTEROPERABLE
ADAPTIVE
Traditional Broadcast Value Chain

CREATE
- Commission
- Schedule
- Produce

DELIVER
- Broadcast
- Archive

- Linear
- Inefficient
- Inflexible
- Analog
- Costly
On Demand Value Chain

CREATE  DELIVER  FIND  PLAY  SHARE

Find
• Search Content & Schedules

Access / Play / Invoke
• Play Anywhere, Anyplace, Anytime

Share
• Communities and Networks
• Content Interoperability & Packaging

Core Business Services
Business Support Services
Technology & Business Governance

Common Infrastructure & Digital Fabric
Workflow & Collaboration Services
Portal & Presentation Services

Technology Group
Bringing it together

Technology Group

Audiences
Broadcasting / Publishing
Asset Management
Production
Business Support

Create Composite Services
Find Composite Services
Deliver Composite Services
Play Composite Services
Share Composite Services

Service A
Service B
Service C
Service D
Service Reference Architecture

- Audience Interaction Services
- Distribution & Delivery Services
- Asset Management Services
- Production Services
- Business Support Services
- Digital Fabric Utility Services
- Digital Fabric Technical Services
- Infrastructure Services
- Service Delivery & Management
- Service Governance
- Find
- Play
- Share
- Other Composite Services

Technology Group
Digital Fabric BBC News Case Study

Change: Using Digital Fabric it is possible to connect multiple file based providers.

Change: Expose Shared Services (e.g. Ingest, Transcode)

Change: Collaborative Working & Content Sharing

Change: Optimise Business Processes

News Providers

Associated Press

BBC

External Partners

Consumers & Partners

Shared Services

Digital Fabric BBC News Case Study

Technology Group
Old to the New…

- **Old ways**
  - COMPLEX
  - SILOS
  - CAPEX BASED
  - DEVELOP
  - PROCESS
  - CONSTRAIN
  - BUILT TO LAST

- **New ways**
  - SIMPLE & INTUITIVE
  - NETWORKS
  - OPEX BASED
  - MODEL & ASSEMBLE
  - SERVICES & FUNCTIONS
  - EMPOWER
  - BUILT TO CHANGE & INTEGRATE
In Summary

- Use SOA to enable and support a creative climate
- Approach is Simple and Intuitive
- Supports lower risk and cost of change
- Better Economics
- Decouples Domains of Change
- Supports Knowledge Sharing and Collaboration
- Delivers Better Governance and Promotes Trust
Questions

Thank you...
Bringing it all together

Standards Policies Patterns

Create Find Play Share

Presentation

Audiences / Interaction

Broadcasting / Publishing

Asset Management

Production

Business Support

Integration & Interoperability

Infrastructure Services

Governance Services

Contract Management

Information Management

Compliance Management

Registry Management

Portfolio Management

Performance Management

Others