



The Advisory Council

THE NEXT GENERATION OF IT RESEARCH & ADVISORY SERVICES

# TAC SmartSOA™ Service

Service-oriented  
Architecture





## Service-oriented Architecture

- Finally, a common way to integrate IT assets across business functions
  - Supply Chain Management
  - Customer Relationship Management
  - Enterprise Resource Planning
  - Human Resources
  - Business Intelligence





## SOA Benefits IT *and* Business

- Provides standards-based integration
  - Data, systems & applications, and *business processes*
- Eases reuse and scalability
  - Facilitates extensible and flexible IT assets
- Enables alignment and agility
  - Organizational optimization of business and IT functions





# SOA Value Proposition

- Catalyzes integration of data and applications with *business processes*

<b>Before SOA</b>	Data-driven	EDI, management reporting, decision support systems, business intelligence
<b>With SOA</b>	Process-driven	Service-based composite applications, real-time analytics, dynamic optimization

- Enables commodity products and skills

<b>Then</b>	Product-specific	Point-to-point	Near impossible
<b>Now</b>	Standards-based	Cross-enterprise	Near easy



## SOA Business Drivers

- Reuse IT assets across business lines
- Disseminate knowledge on leveraging IT assets for business processes
- Enable business partners to find and integrate with service offerings
- Increase application reliability
  - e.g., enable service consumers to dynamically discover changes



# Where's the ROI in SOA?

- ROI grows over time and projects

ROI Type	ROI Examples
Quantitative: IT value Often longer-term than business value	<ul style="list-style-type: none"><li>• Cost savings from re-use, standardization, etc.<ul style="list-style-type: none"><li>– Less effort to launch &amp; maintain projects</li><li>– Faster payback than previously attainable</li></ul></li></ul>
Qualitative: Business value Often much larger than IT value	<ul style="list-style-type: none"><li>• Additional revenue opportunities<ul style="list-style-type: none"><li>– Decreased time-to-market, new opportunities for services, products, and partnerships</li></ul></li><li>• Increased productivity (i.e., automation)</li></ul>



# SOA Business Impacts

Objective	User	Project
Manage data	NASA	Streamline data access and link users to data processing services
Manage workflow	State government	BPEL process to validate child health insurance applicant eligibility
Consolidate services	Harvard Medical School	Facilitate data sharing processes across departments and affiliates
	Providence Health System	Link legacy systems into a patient portal; enables online bill payment, etc
Cut costs	Verizon	Eliminate redundant systems acquired via mergers; integrate dev. Operations
Cut time to market	Owens & Minor	Improve inventory accuracy, productivity, and cash flow; accelerate process automation



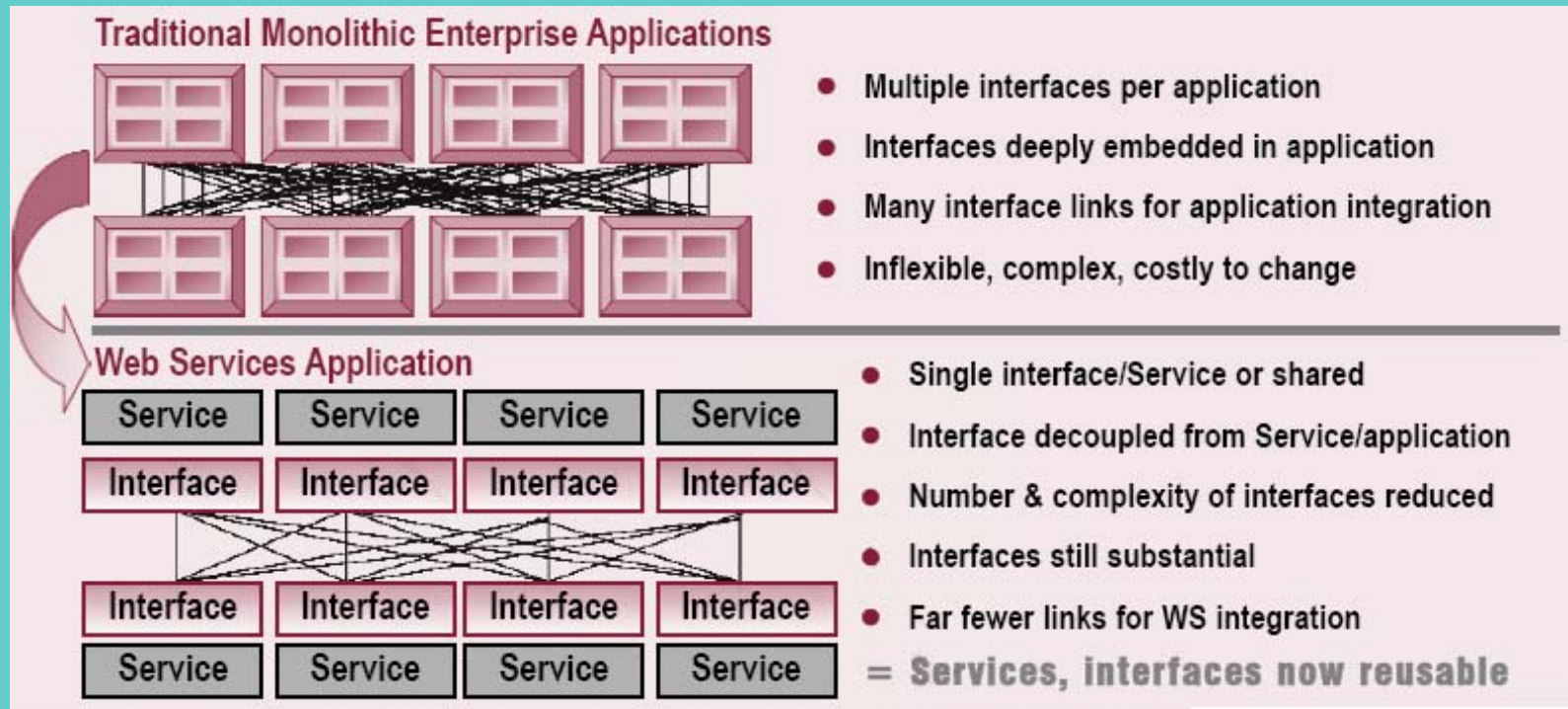
## SOA Business Impacts, cont.

Objective	User	Project
Coddle customers	Starwood Hotels & Resorts	Replace legacy reservation system and integrate customer experience and call center applications
Improve alignment	Fireman's Fund	Consolidate technology applications to align IT with business and strengthen agent relationships
Increase agility	Motorola	Business activity monitoring and optimization across enterprise applications
Partnering	T-Mobile	Deliver third-party content & services (e.g., from Time Warner, Bertelsmann Music Group)



# SOA Migration Path

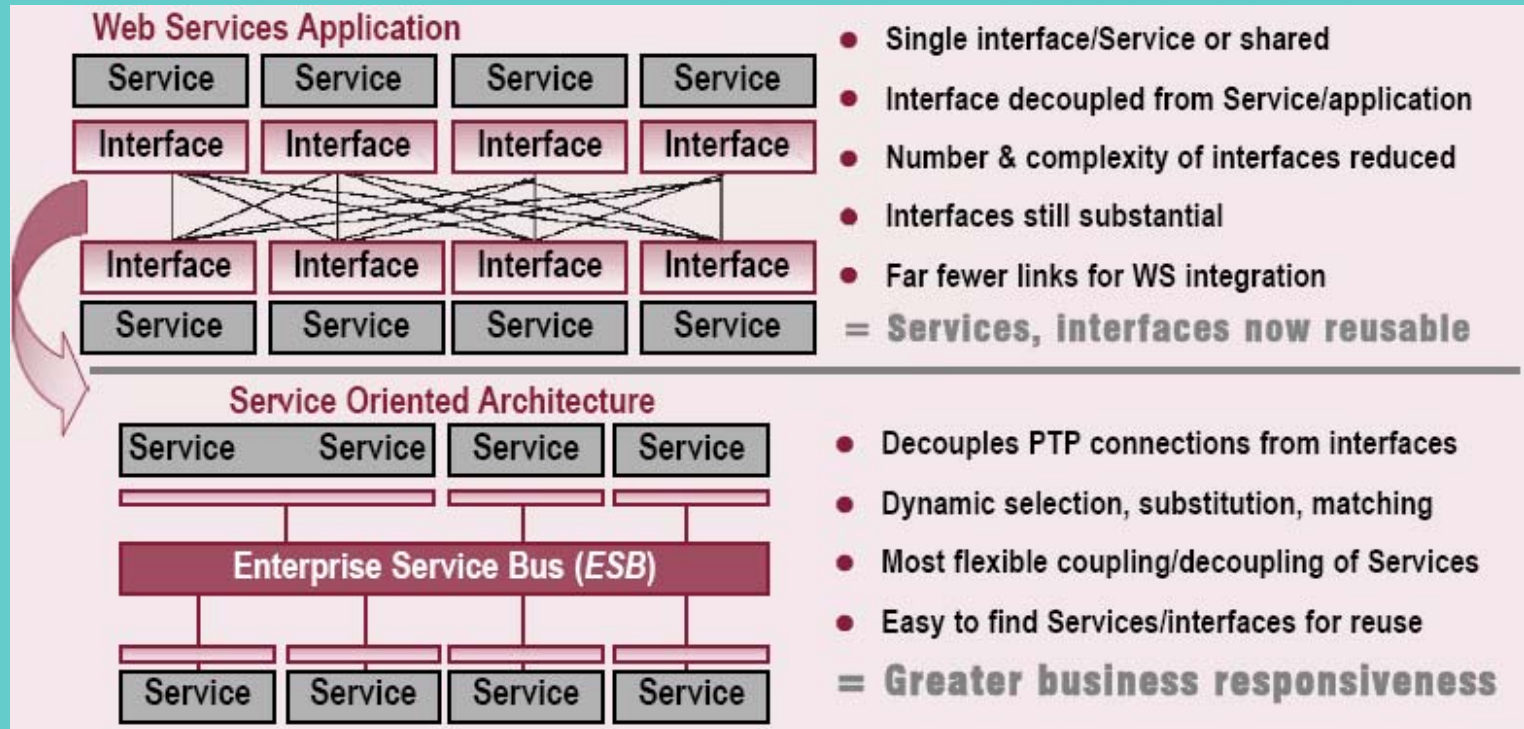
- First, move from EAI to standards-based services





# SOA Migration Path, continued

- Then use services to build a SOA



Source: Software Strategies



# The SOA Imperative: Why Now?

- Maturing standards enable:
  - Large pool of skilled resources
  - Commodity tools & servers (e.g., open source)
  - Easier legacy integration (extends asset lifetime)
  - Flexibility, extensibility, and scalability: Services are easier to reuse than objects or components
- Common methods provide transparent insight into events and transactions
  - Accountability (audit, compliance, etc)
  - Analysis and optimization
  - Alignment and agility





# SOA Adoption Rate is High

- And growing...
  - Percent of companies adopting SOA:

Company Size:	Large	Medium	Small
April, 2005	70%	28%	22%
December, 2005	77%	51%	46%

Source: Forrester Research

- Critical mass has been achieved
  - “Early adoption” is no longer an option
  - But you don’t want to be a “laggard”...
    - i.e., the last 20-30% to adopt



# SOA Help Varies Widely

- Many vendors offer SOA guidance & services
  - Biased for their products or their partners'
- Traditional IT analysts have unique opinions
  - Disparate and contrarian, by necessity
- Customers are frustrated and confused
  - Vendors and IT analysts often propagate FUD (fear, uncertainty and doubt)
- Good news: Methodology convergence
  - Soon only a few methods will be accepted as "best practice" (e.g., WS-I Basic Profile, OASIS Blueprints)





## SOA: A Spectrum of Views

- The pessimists: Hard to find
- The (over)optimists:
  - “If you don't adopt SOA, you could be cutting yourself off and not be able to upgrade your current applications.”  
(ZapThink, 12/26/2005)
- We are pragmatists
  - SmartSOA™





# The SmartSOA™ Approach

- Let customer needs & constraints drive practical use of “just-right”:
  - Standards, tools & technologies, and patterns & practices
- Service-enable existing business logic and legacy systems
  - Then compose them into new business processes





## SmartSOA™ Overview

- Four steps to adoption
  - Assess SOA readiness
  - Define tactical projects with incremental ROI
  - Rapidly prove broader paybacks
  - Catalyze strategic projects
- Service packages
  - Readiness Assessment
    - Requires an accurately completed online survey
  - Implementation Strategy and Planning
  - Implementation Execution and Transition



# Readiness Assessment

- On-site engagement
  - Typically two days
    - Assumes accurately completed customer survey
  - Discovery: Identify requirements and constraints
    - Review environment: Technical, business, organizational
  - Analysis: Expert insights and opinions
    - Map customer requirements and context to best-practice SOA maturity models
  - Guidance: Client-specific and vendor-agnostic
    - Technology selection and deployment
    - Organizational socialization





# Implementation Strategy & Plan

- On-site engagement
  - Map requirements to processes
  - Design flexible process-driven composite applications
    - Decompose processes into:
      - Coarse-grained business services
      - Fine-grained infrastructure services
    - Define messages & service interfaces
  - Define metrics and key performance indicators





# Implementation Execution & Transition

- Project-specific engagements
  - General:
    - Use best practice standards and methods
      - WS-I profiles, OASIS blueprints, etc
    - Leverage third-party tools for messaging, management, process, etc.
      - identity, security (enforcement, monitoring, provisioning), reliability, routing, transformation, reporting, governance (registry, discovery, policy, contracts, change, portfolio, quality of service), taxonomy and semantics, process integration, analytics and optimization
    - Knowledge transfer: Training, mentoring, etc.
  - Custom: Client-driven

