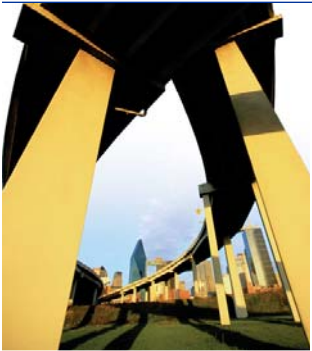


# SOA in the Real World



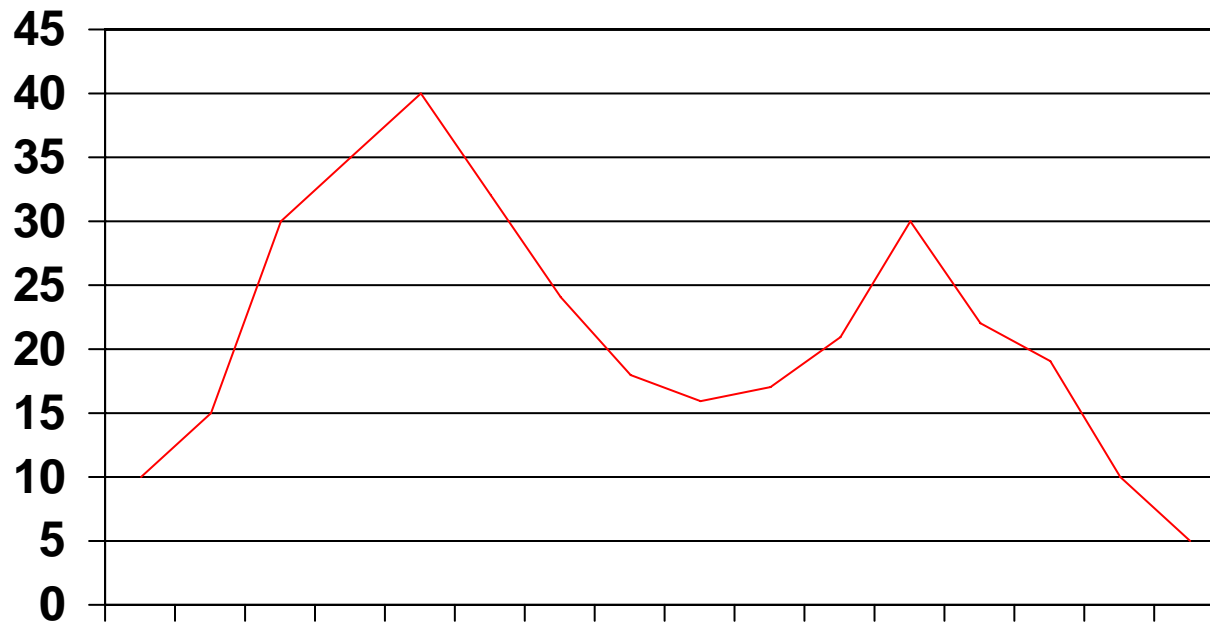
**Gartner**

Dan Sholler  
Vice President  
Research

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# Adopting SOA



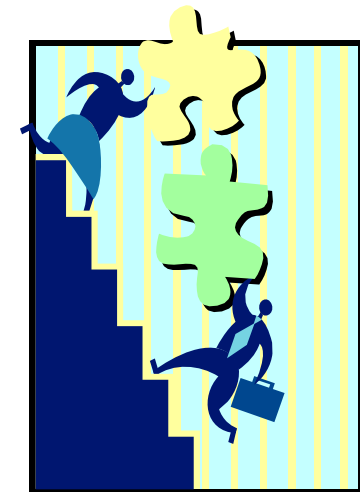
*Work related to building, deploying and maintaining services now represents 12.9% of IT budgets*

# Client Issues

1. Where are SOA implementations today?
2. What are the crucial technical and organizational challenges to successful SOA and how can enterprises overcome them?

# Where are SOA implementations today?

	<b>Survey 1</b>	<b>Survey 2</b>
<b>Current # Web Services Projects</b>	<b>6</b>	<b>4</b>
<b>Planned # Web Services Projects</b>	<b>7</b>	<b>8</b>
<b>Avg # Web Services per Project</b>	<b>7</b>	<b>8</b>
<b>Avg # Web Services Re-used per Project</b>	<b>3</b>	<b>4</b>
<b>Expected # Months to Payback</b>	<b>14</b>	<b>12</b>

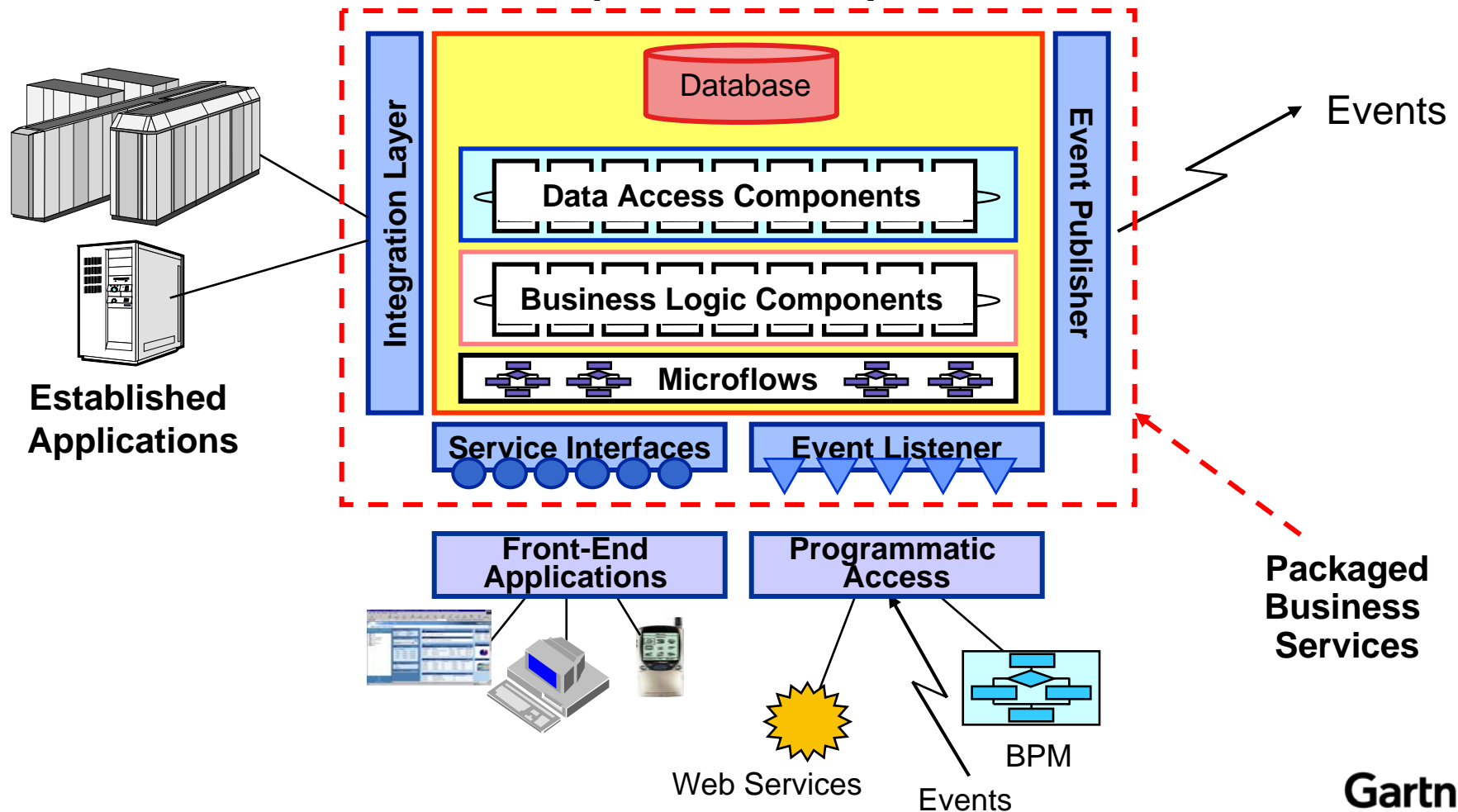


Source: Gartner April-June 2005, N=270

Source: Gartner December 2005 N=248

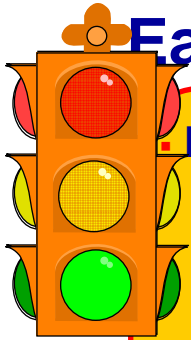
# Packaged Applications will Push Mainstream Adoption of SOA

## *Packaged Business Applications Architecture (Circa 2010)*



# Not All Applications Can Be Service-Oriented Only

## Early targets of opportunity Advanced SOA composites



### ▪ **Multichannel Applications**

- ✓ E-commerce
- ✓ Internet banking
- ✓ On-line trading
- ✓ E-ticketing

### ▪ **Self-Service Portals**

- ✓ Customers
- ✓ Suppliers
- ✓ Citizens (e-government)

### ▪ **Composite Applications**

- ✓ Contact center
- ✓ Branch operations
- ✓ Single view of "something"

### ▪ **"Real Time" B2B**

### ▪ **Workflow Applications**

- ✓ STP
- ✓ Claim processing

### ▪ **Event-Based Applications**

- ✓ Risk management
- ✓ Fraud detection
- ✓ Real-time supply chain
- ✓ Near-real-time data consistency integration

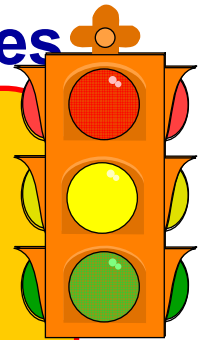
### ▪ **Batch Oriented Processing**

- ✓ Bill/statement printing
- ✓ Data warehouse loading

### ▪ **"Monitoring" Applications**

- ✓ BAM
- ✓ Indoor positioning
- ✓ Industrial processes

### ▪ **EDI-style B2B**



# Key Challenges for SOA

- Governance requires a shift in the Business/IT alignment and relationship
- Decisions about internal standards require both technical and business expertise
- Value measurement and validation of agility is unknown
  - Incremental adoption delivers incremental value

*Most SOA issues are not technical in nature, but related to the definition of services and data*

# Where are we with SOA today

- SOA is the primary architecture for future work across the board
- SOA adoption is limited by COTS vendors and timelines
- Externally facing, multi-channel applications are the best targets of opportunity
- Even the most aggressive organizations have only now transitioning to the exploitation phase
- SOA demands an extensive organizational commitment



# Stages of SOA Adoption

	Introduction	Spreading	Exploitation	Plateau
<b>Business Goals</b>	Address Specific Pain (e.g., Customer Portal)	Process Integration (e.g., B2B)	Process Flexibility (e.g., Time to Market)	Continuous Adaptation & Evolution
<b>IT Goals</b>	Proof of Concept	Establish Technology Platform	Leverage Services Reuse	Scale Up
<b>Scope</b>	Single Application	Multiple Applications (Single BU)	Multiple Applications (Cross BUs)	Virtual Enterprise
<b># of Published Services</b>	<25	<100	<500	>500
<b># of Service Consumers</b>	<5	<25	<50	>50
<b># of Service Calls/Day</b>	<10,000	<100,000	<1,000,000	>1,000,000
<b># of Service Developers</b>	<10	<20	<100	>100

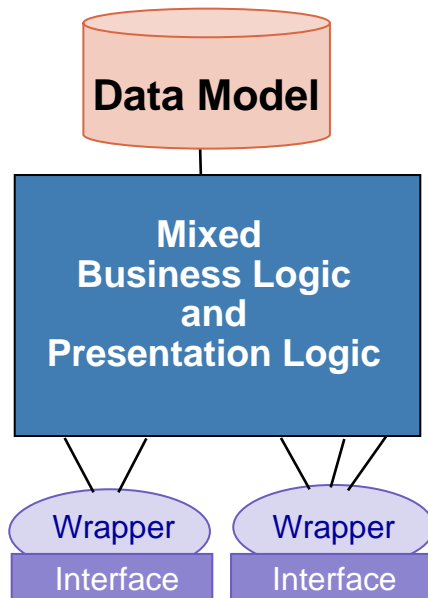


# SOA-Enabling Established Applications

Introduction

## Wrapping

Use of screen-scraping to package "pseudo-services"



### Pros:

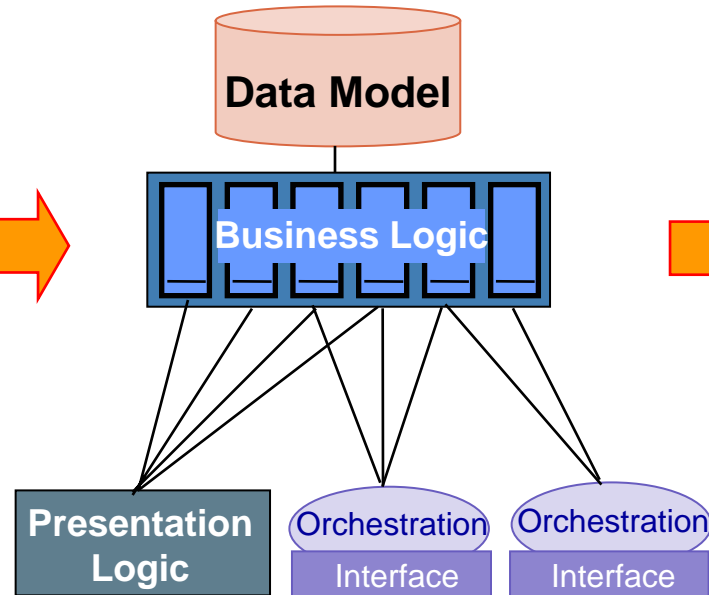
- Noninvasiveness
- Low cost/Fast

### Cons:

- Suboptimal granularity
- Hard to maintain

## Re-engineering

Business logic is modularized and separated from presentation



### Pros:

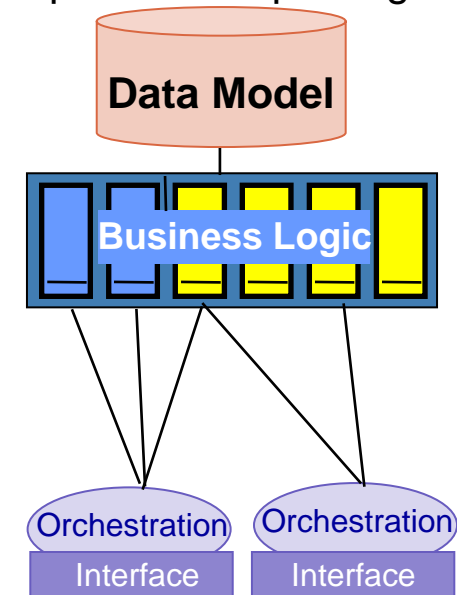
- Easier to maintain
- Better performance/scalability

### Cons:

- Invasive/high cost
- Granularity might be suboptimal

## Replacement

Business logic of services is redesigned from scratch or replaces with packages.



### Pros:

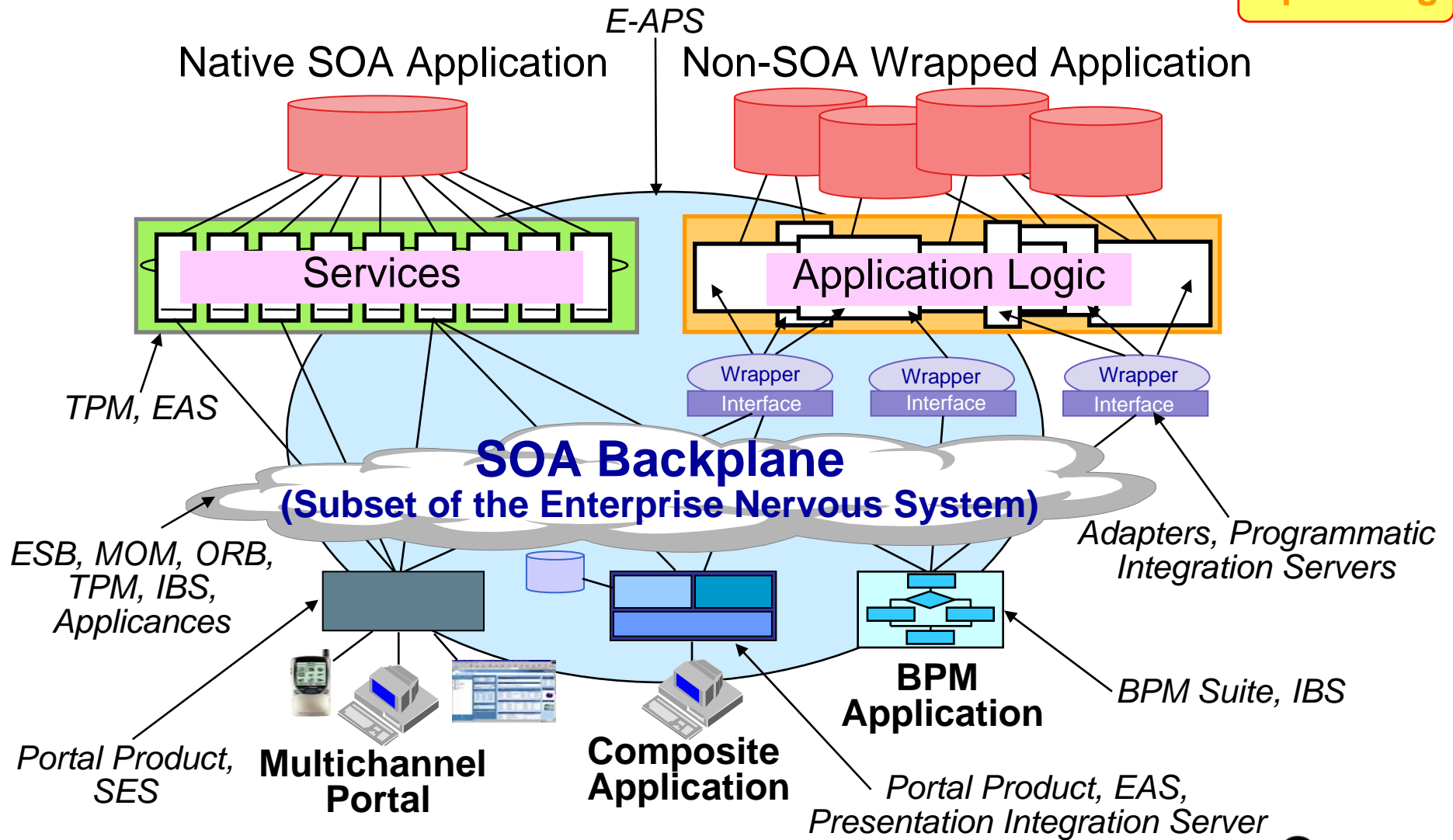
- Optimal granularity/reuse
- Enables technology change

### Cons:

- Risk is higher
- High cost

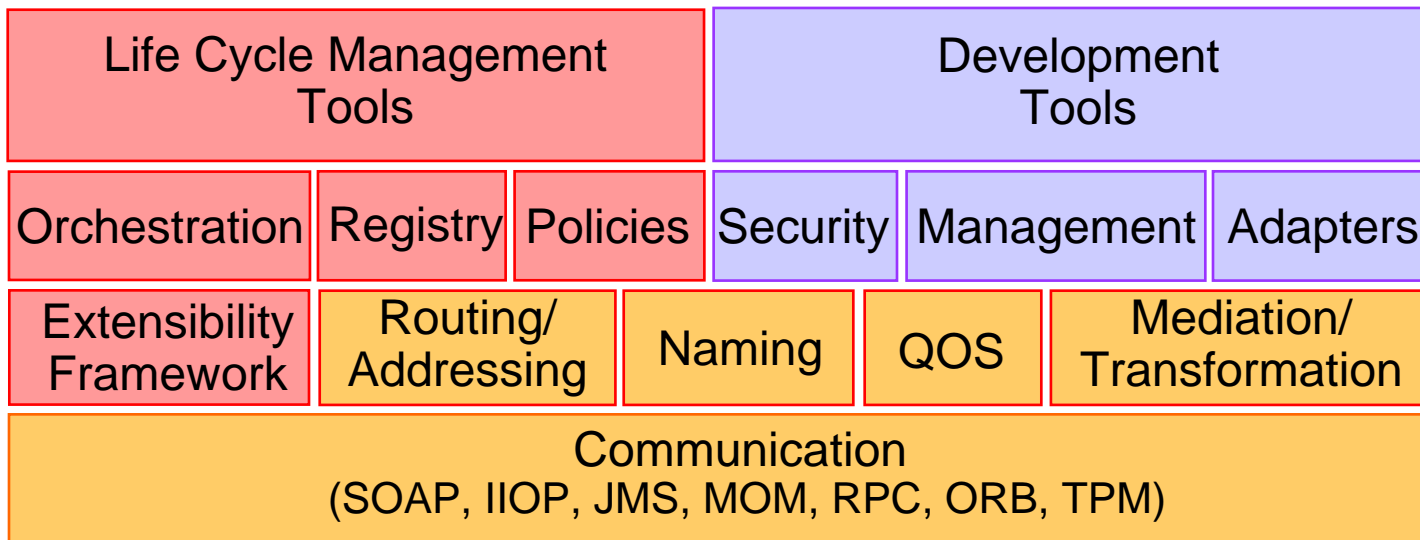
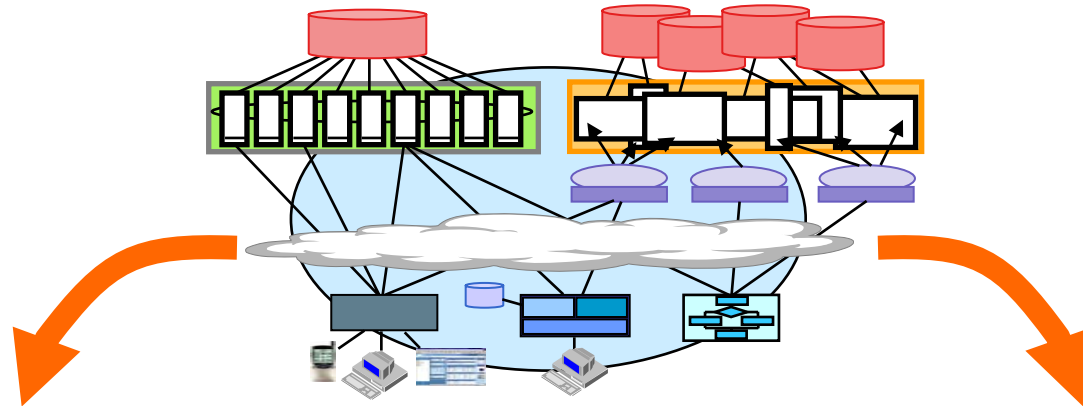
# SOAP and WSDL Are Not Enough: Orient Yourself Through the Middleware Bazaar

Spreading



# The SOA Backplane Unveiled: Web Services and More

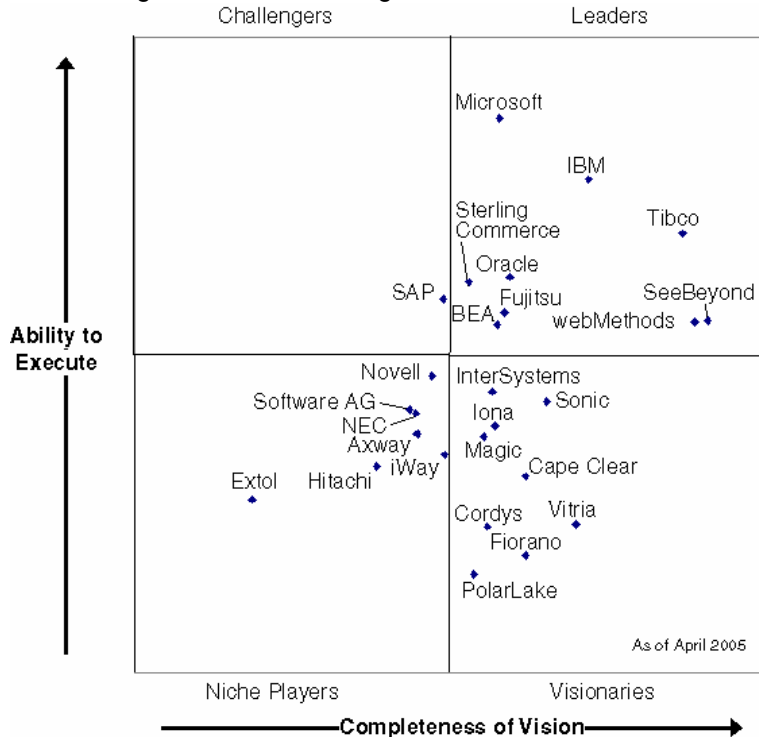
Spreading



= Minimal Features     
  = Common Features     
  = Advanced Features

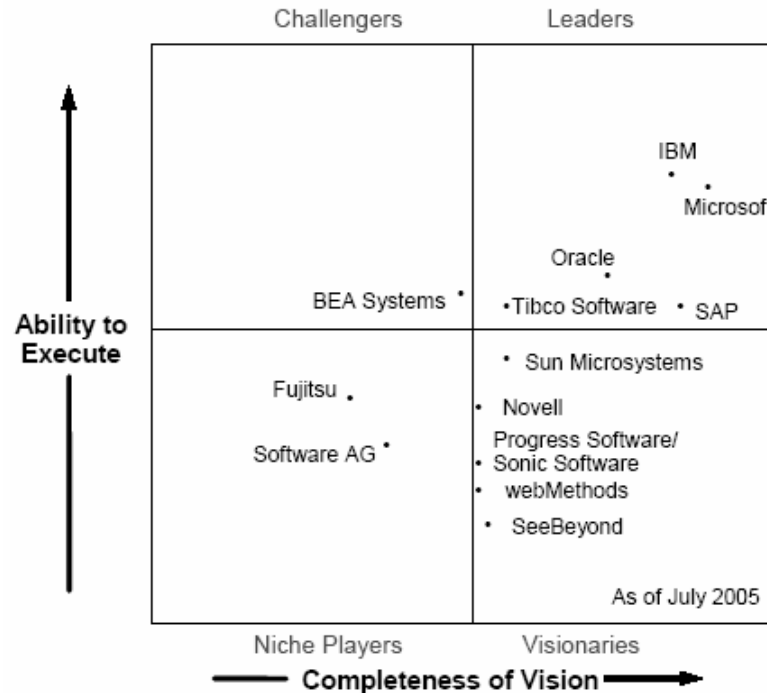
# Vendor Landscape is fragmented

Magic Quadrant for Integration Backbone Software, 1H05



- Integration suites
- ESBs

Figure 1. Magic Quadrant for Web Services Platforms, 2005



- MOM
- QoS
- Appliances

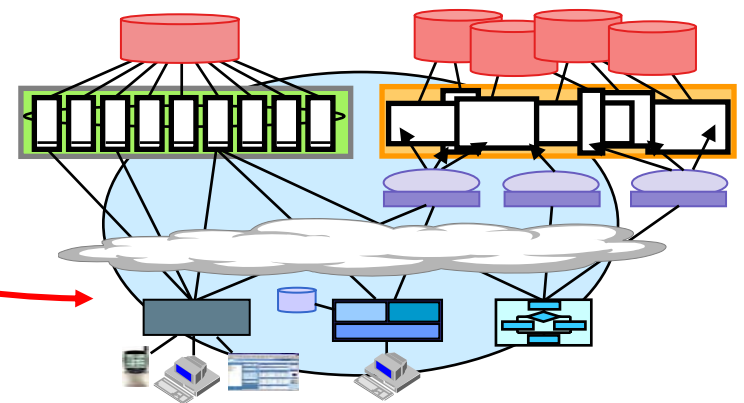
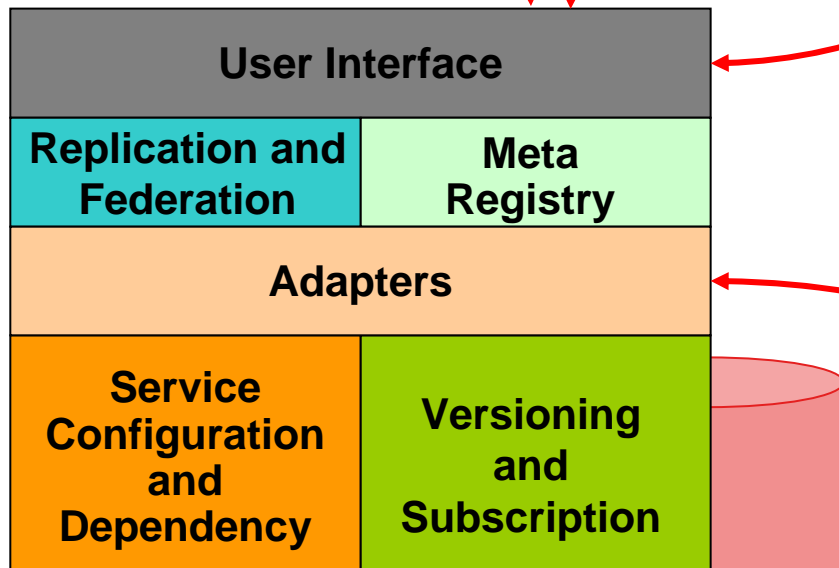
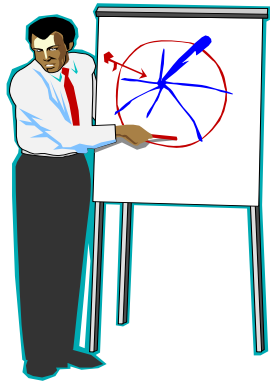
# Managing Life Cycle in SOA: The Service Registry

Exploitation

Governance and Cost Allocation

Definition and Validation

Development and Maintenance

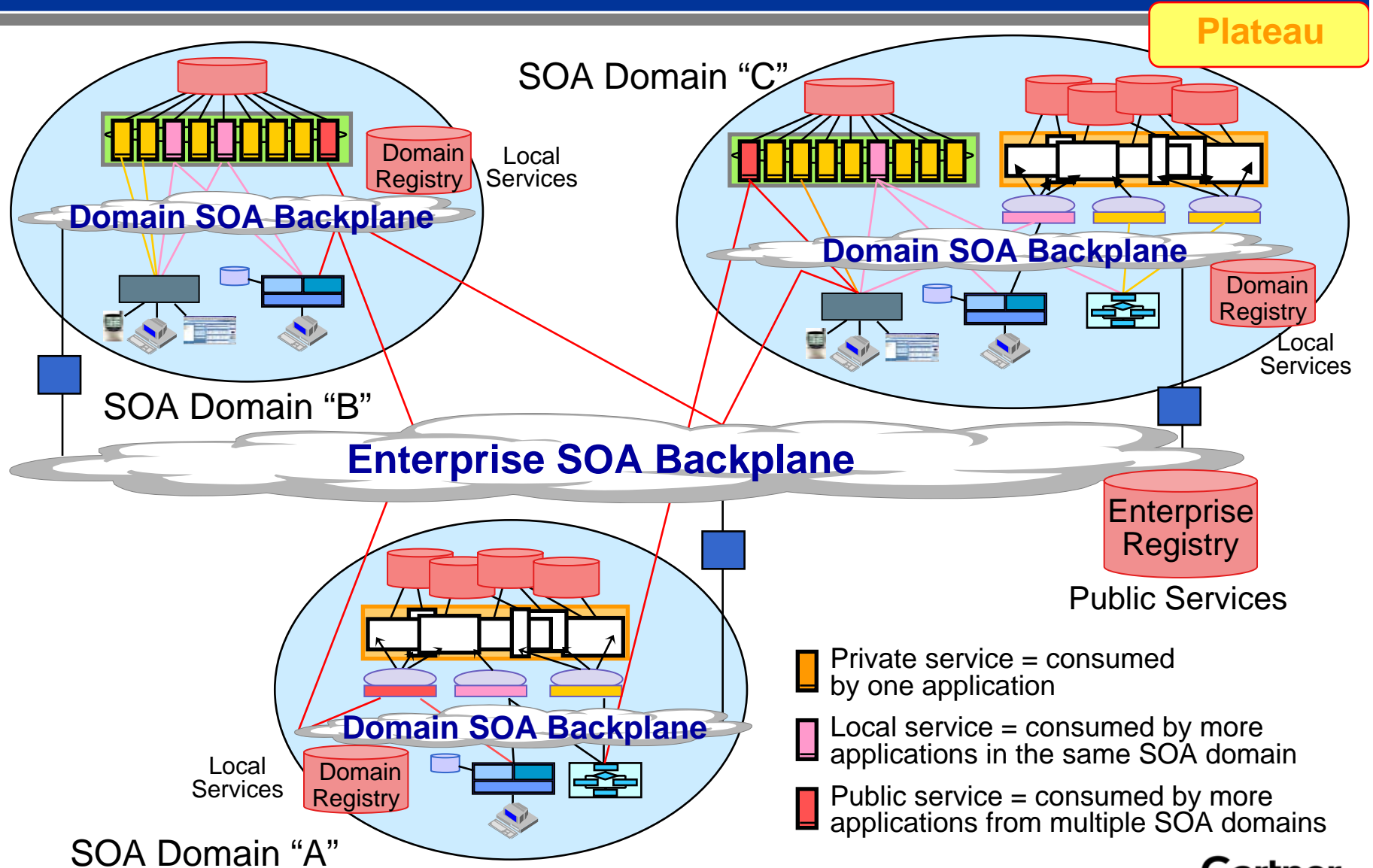


Discovery, Location,  
Management and Security

Service Registry

Gartner

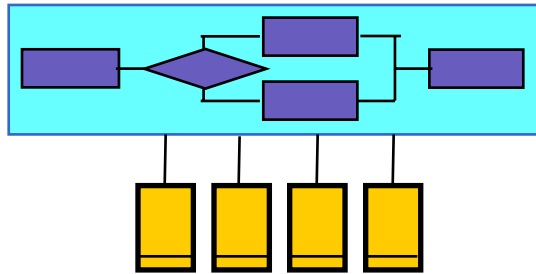
# Enterprise-wide SOA is Multi-owned and Multi-layered



# How Do You Know Which Services You Actually Need (and How Large They Are)?

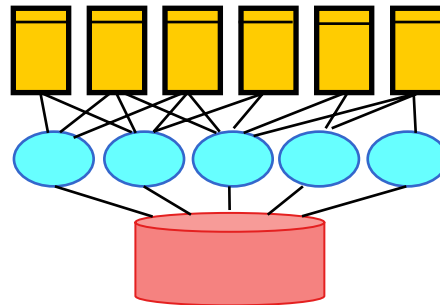
Exploitation

**Process Centric  
(Top-Down)**



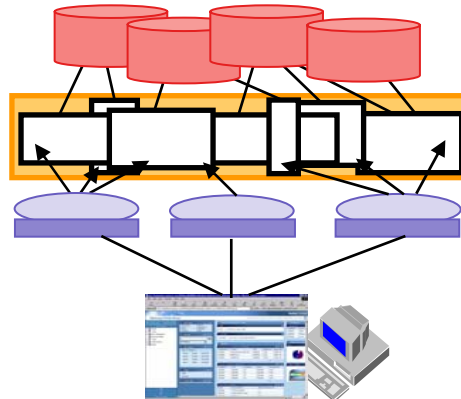
Process Model  
↓  
Business Services

**Data Centric  
(Bottom-Up)**



Business Services  
↑  
CRUD Services  
↑  
Data Model

**Application Centric  
(Meet-in-the-middle)**



Established Apps  
↓  
Wrapped Services  
↑  
New Composite App



# Recommendations

- ✓ Move toward SOA as a means of building a flexible and dynamic infrastructure.
- ✓ Today's SOA is not only about Web services — build knowledge about middleware and application integration technologies as well.
- ✓ SOA is a journey — plan for multiyear, incremental implementation steps, but look for short- and medium-term payback.
- ✓ Governance of Services is the critical success factor for service implementation.