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Mardi 7 juillet 2009
(4ème édition du SOA Summit)
IBM Forum – Paris La Défense

Meilleures pratiques d'utilisation de SOA dans de grands projets ou solutions verticales
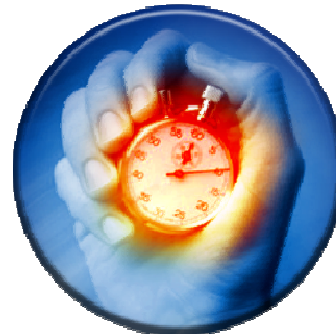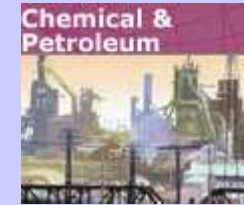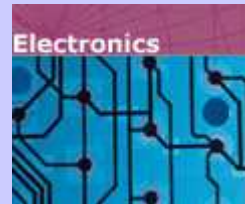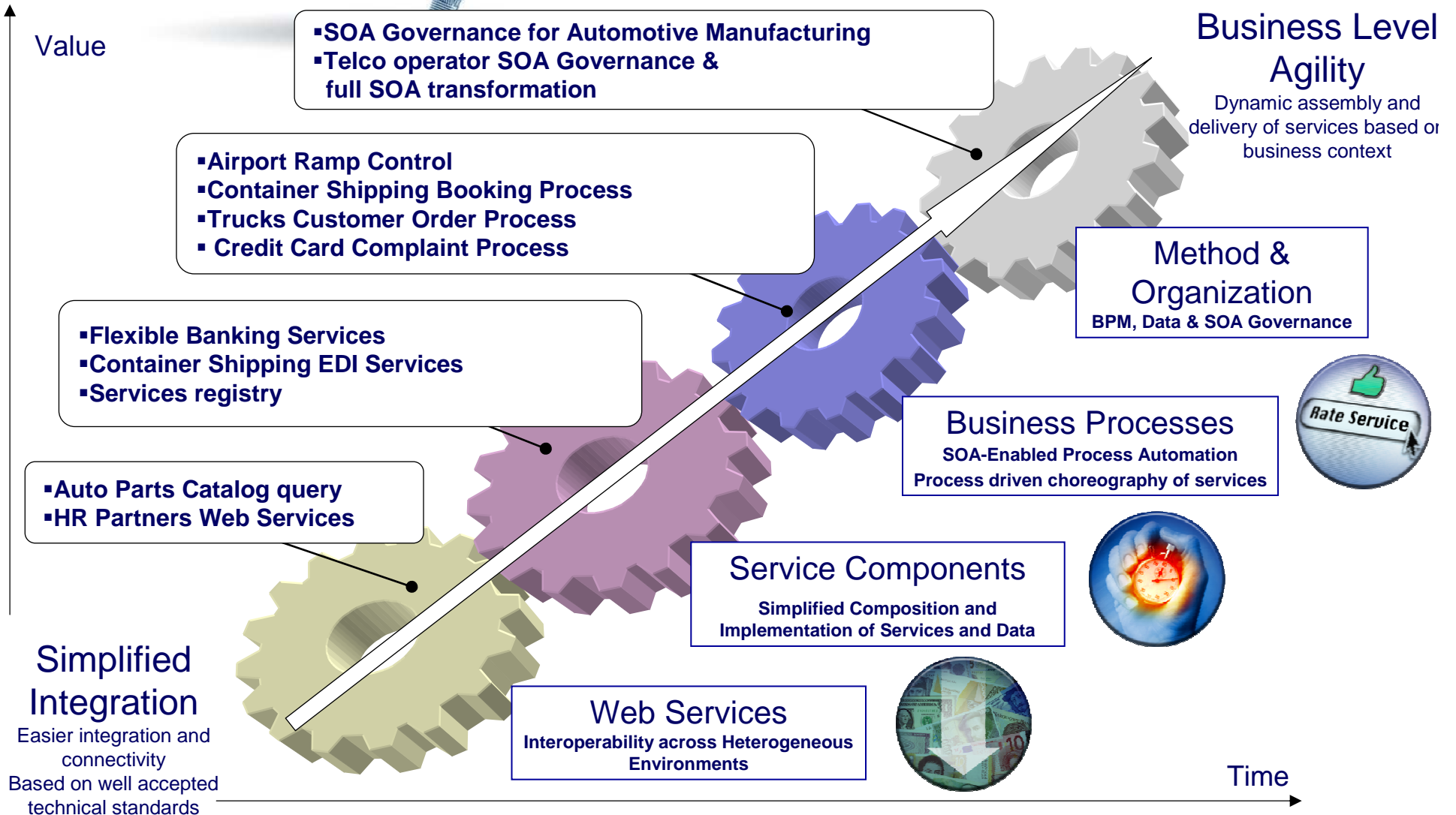
CULTURE SOA

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Value

- **SOA Governance for Automotive Manufacturing**
- **Telco operator SOA Governance & full SOA transformation**

- **Airport Ramp Control**
- **Container Shipping Booking Process**
- **Trucks Customer Order Process**
- **Credit Card Complaint Process**

- **Flexible Banking Services**
- **Container Shipping EDI Services**
- **Services registry**

- **Auto Parts Catalog query**
- **HR Partners Web Services**

Business Level Agility
Dynamic assembly and delivery of services based on business context

Method & Organization
BPM, Data & SOA Governance

Business Processes
SOA-Enabled Process Automation
Process driven choreography of services

Service Components
Simplified Composition and Implementation of Services and Data

Simplified Integration
Easier integration and connectivity
Based on well accepted technical standards

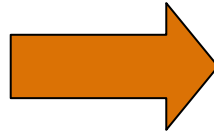Web Services
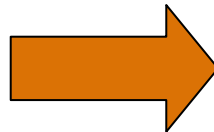Interoperability across Heterogeneous Environments

Time

Moins Cher

- Prêt-à-porter de modèles et modules informatiques spécifiques à chaque industrie
- Alignés avec les standards et pratiques métier et technique spécifiques
- Intégration d'un joint de dilatation métier et technique limitant la propagation des changements
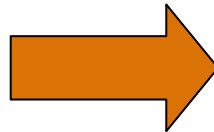
De meilleure qualité

- Pilotables de bout en bout au niveau adéquat de responsabilité métier
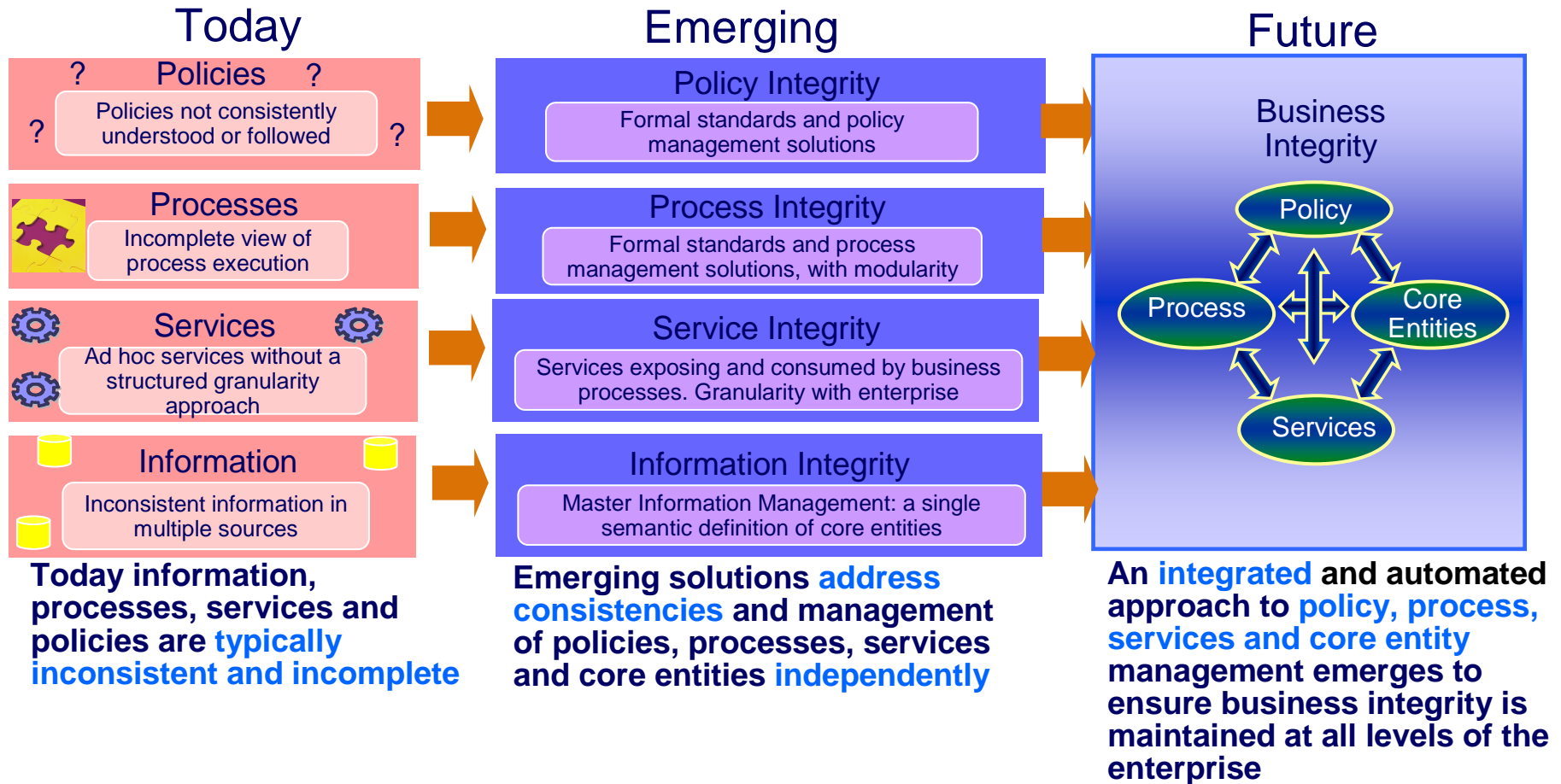- Intégration de l'information, des services et des processus
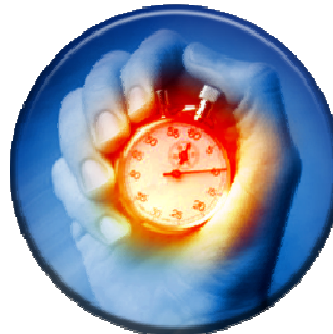
Plus Rapide

- Componentisation de l'information, des services et des processus en éléments avec un propriétaire métier unique
- Intégration et entre modules par contrats intégrant la variabilité et l'adaptabilité
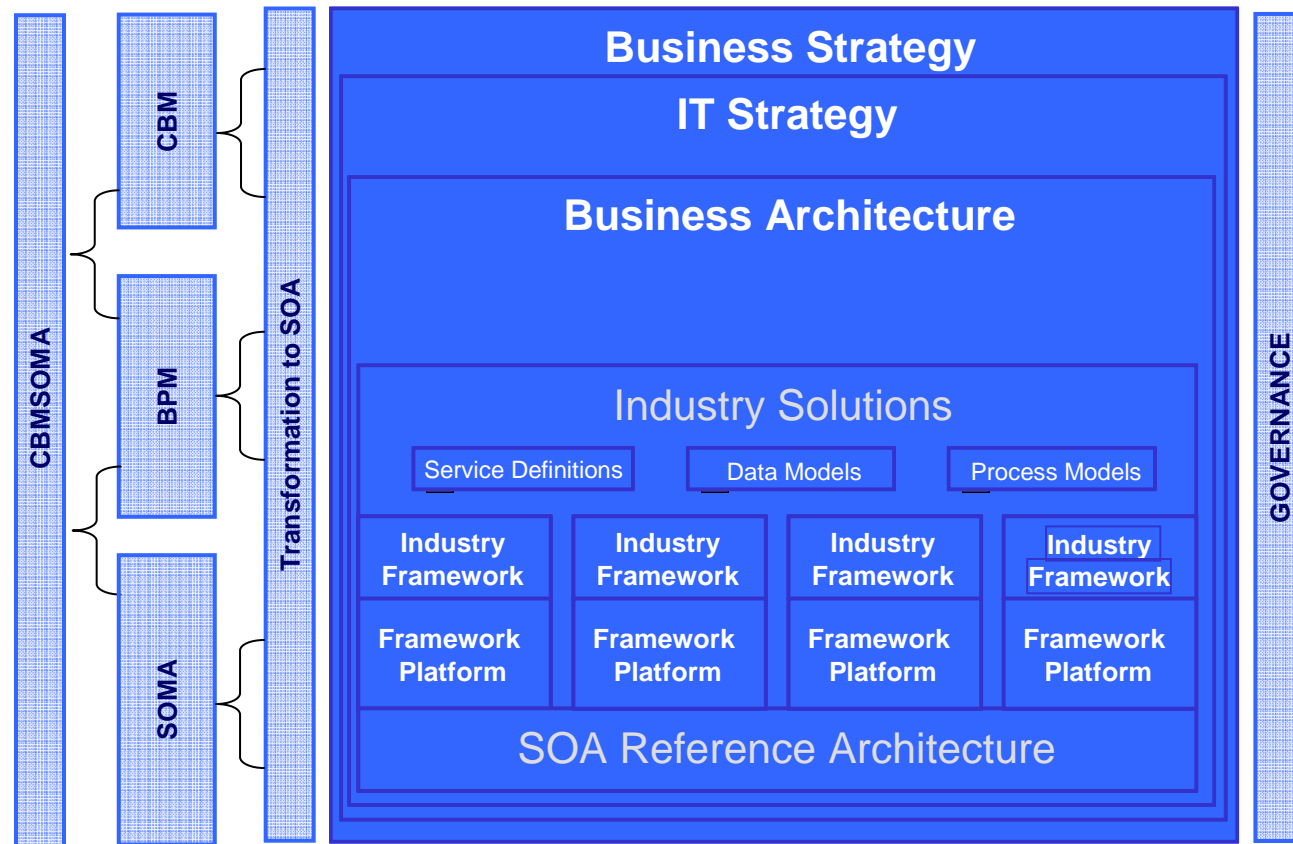- Comportement modifiable par directives de niveau métier externes

An Integrated Business Integrity Management Framework

Today

? Policies ?

? Policies not consistently understood or followed ?

Processes

Incomplete view of process execution

Services

Ad hoc services without a structured granularity approach

Information

Inconsistent information in multiple sources

Today information, processes, services and policies are typically inconsistent and incomplete

Emerging

Policy Integrity

Formal standards and policy management solutions

Process Integrity

Formal standards and process management solutions, with modularity

Service Integrity

Services exposing and consumed by business processes. Granularity with enterprise

Information Integrity

Master Information Management: a single semantic definition of core entities

Emerging solutions address consistencies and management of policies, processes, services and core entities independently

Future

Business Integrity

Policy

Process   Core Entities

Services

An integrated and automated approach to policy, process, services and core entity management emerges to ensure business integrity is maintained at all levels of the enterprise

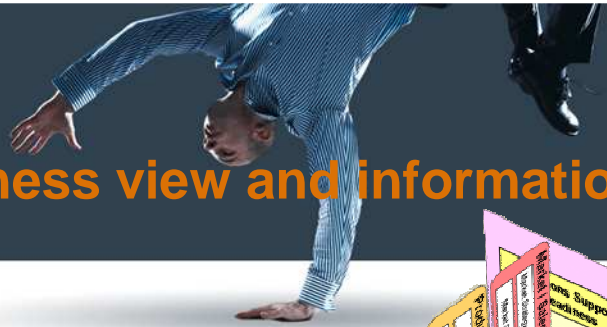# Industry Model-Driven Business Transformation approach

- The Model Driven Business method Provides linkage between Business, BPM, and SOA

- Legacy Transformation is integrated with the method, ensuring the value of existing assets is leveraged in the SOA lifecycle

- This integrated approach sets the stage for downstream SOA Solutions

  ⇨ **Industry Thought Leadership**
  ⇨ **Business Blueprint/Roadmap**
  ⇨ **Composite Business Models**

  ⇨ **Leverage maximum value from existing applications**

CBMSOMA

CBM

BPM

SOMA

Transformation to SOA

GOVERNANCE

Business Strategy

IT Strategy

Business Architecture

Industry Solutions

Service Definitions	Data Models	Process Models

Industry Framework	Industry Framework	Industry Framework	Industry Framework
Framework Platform	Framework Platform	Framework Platform	Framework Platform

SOA Reference Architecture

Business and technical **information** model standardization

SID, OCIM, ACORD, SEPA, CIM, OAGIS

Business "**city planning**" map and **business processes** standardization

eTOM
APQC, SCOR,

Policies

Application "city planning" implementation map standardization including **interfaces** and **services**

CIM, IEC 61968, OAGIS, Telecommunication Application Map (TMF www.tmforum.org).
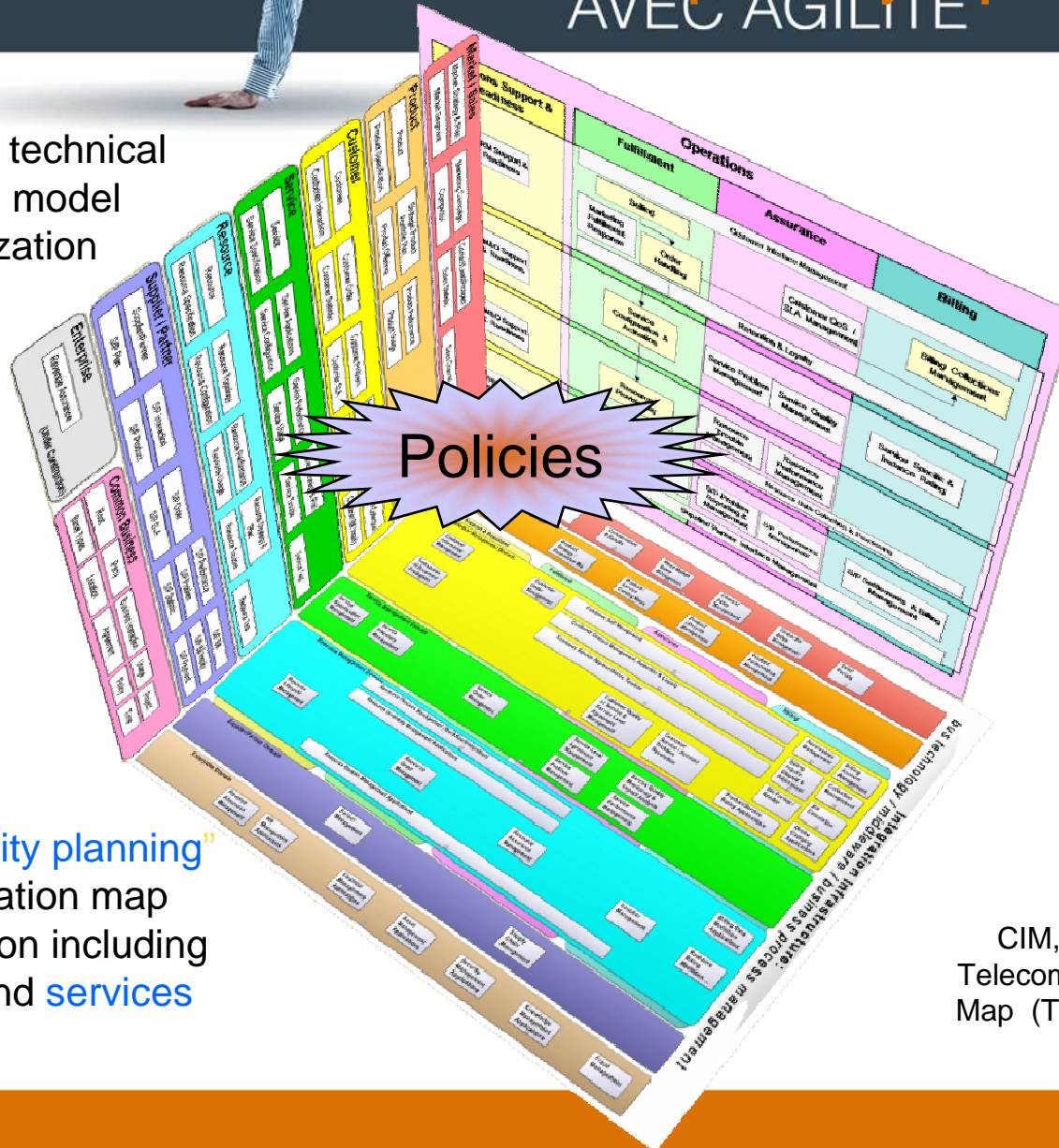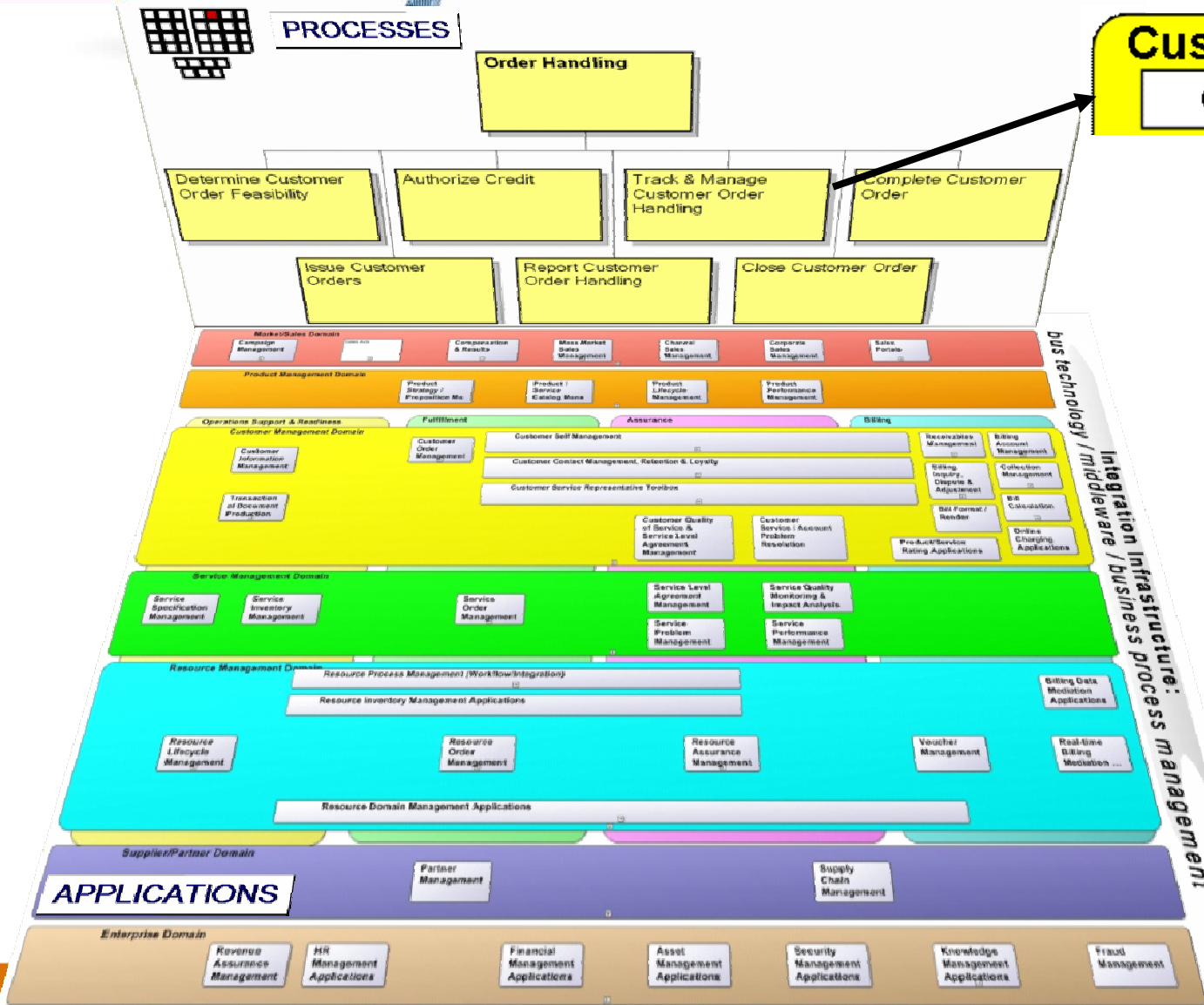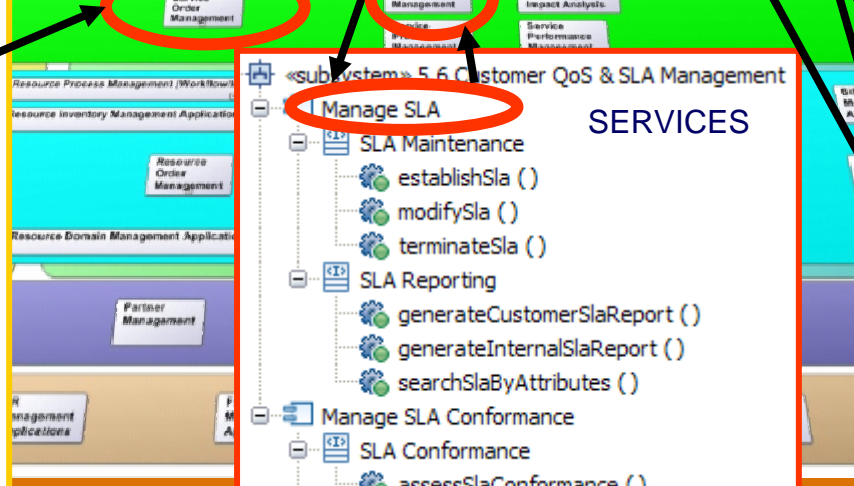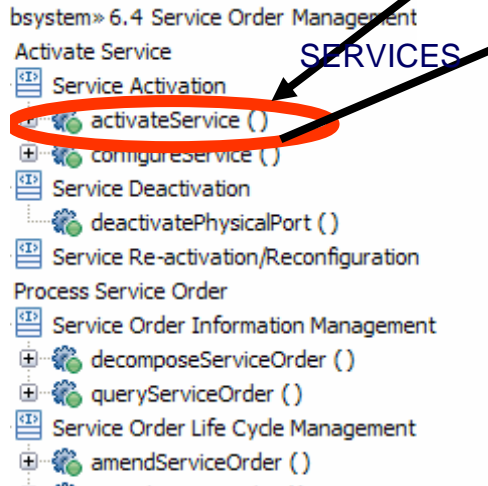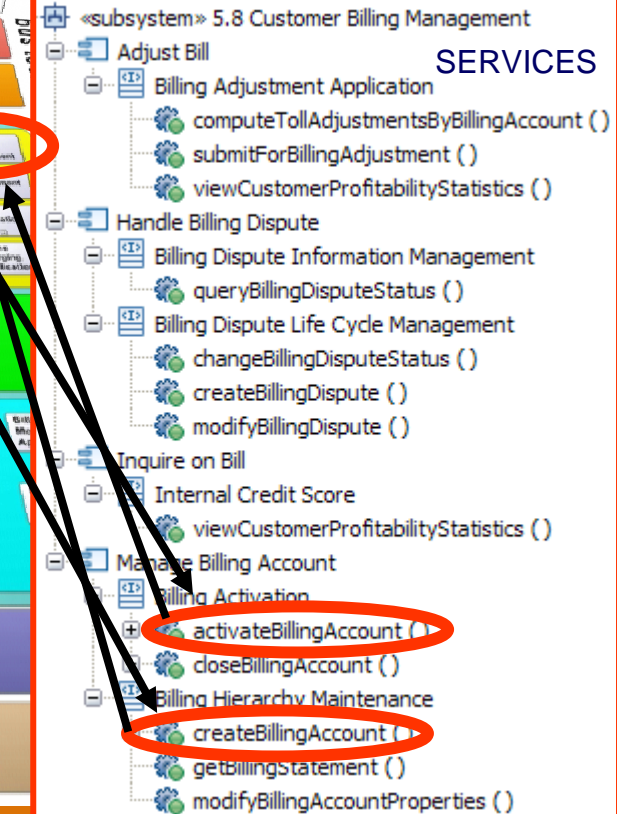
www.apqc.org
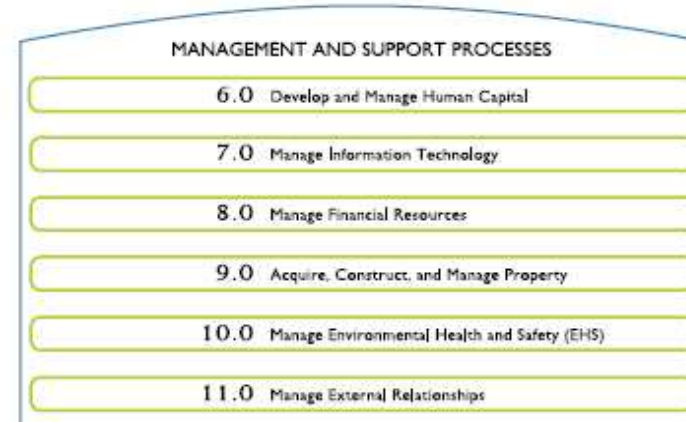
PROCESS CLASSIFICATION FRAMEWORK℠

APQC.

THE FRAMEWORK FOR PROCESS IMPROVEMENT

Experience shows that the potential of benchmarking to drive dramatic improvement lies squarely in making out-of-the-box comparisons and searching for insights not typically found within intra-industry paradigms. To enable this beneficial benchmarking, the APQC Process Classification Framework℠ (PCF) serves as a high-level, industry-neutral enterprise process model that allows organizations to see their business processes from a cross-industry viewpoint.

This cross-industry framework has experienced more than 15 years of creative use by thousands of organizations worldwide. The PCF provides the foundation for the Open Standards Benchmarking Collaborative℠ (OSBC) database and the work of its advisory council of global industry leaders. The PCF will continue to be enhanced as the OSBC database further develops definitions, processes, and measures. The PCF and associated measures and benchmarking surveys are available for download and completion at no charge from the Open Standards Benchmarking Collaborative Web site at www.apqc.org/OSBCdatabase.

To capture the value inherent in intra-industry benchmarking, industry-

OPERATING PROCESSES

| 1.0 Develop Vision and Strategy | 2.0 Develop and Manage Products and Services | 3.0 Market and Sell Products and Services | 4.0 Deliver Products and Services | 5.0 Manage Customer Service |

MANAGEMENT AND SUPPORT PROCESSES

6.0 Develop and Manage Human Capital

7.0 Manage Information Technology

8.0 Manage Financial Resources

9.0 Acquire, Construct, and Manage Property

10.0 Manage Environmental Health and Safety (EHS)

11.0 Manage External Relationships

operations

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to product
nd services (10407)
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236)
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customer feedback
1238)
eedback on ad

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ent opportunities

to product
nd services (11241)

10

■ The APQC standard defines 4 levels of Process Classification Framework **www.apqc.org**

● Category:

    o Interactions between categories are "Abstract Processes" in BPMN definition

● Process Group:

    o Interactions between process groups in a category are "Abstract Processes" in BPMN definition

● Process:

    o An APQC Process Is a "Private Process" in BMPN sense

    o Interactions between processes in a "process group" are "Abstract Processes" in BPMN definition

● Activity:

    o Includes one or more BPMN "lane"

PROCESS CLASSIFICATION FRAMEWORK

APQC
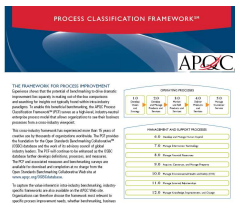
5.0 Manage Customer Service (10006)

5.1 Develop customer care/customer service strategy (10378)
- 5.1.1 Develop customer service segmentation/prioritization (e.g., tiers) (10381)
  - 5.1.1.1 Analyse existing customers (10384)
  - 5.1.1.2 Analyse feedback of customer's needs (10385)
- 5.1.2 Define customer service policies and procedures (10382)
- 5.1.3 Establish service levels for customers (10383)

5.2 Plan and manage customer service operations (10379)
- 5.2.1 Plan and manage customer service work force (10387)
  - 5.2.1.1 Forecast volume of customer service contacts (10390)
  - 5.2.1.2 Schedule customer service work force (10391)
  - 5.2.1.3 Track work force utilization (10392)
  - 5.2.1.4 Monitor and evaluate quality of customer interactions with customer service representatives (10393)
- 5.2.2 Manage customer service requests/inquiries (10388)
  - 5.2.2.1 Receive customer requests/inquiries (10394)
  - 5.2.2.2 Route customer requests/inquiries (10395)
  - 5.2.2.3 Respond to customer requests/inquiries (10396)
- 5.2.3 Manage customer complaints (10389)
  - 5.2.3.1 Receive customer complaints (10397)
  - 5.2.3.2 Route customer complaints (10398)
  - 5.2.3.3 Resolve customer complaints (10399)
  - 5.2.3.4 Respond to customer complaints (10400)

5.3 Measure and evaluate customer service operations (10380)
- 5.3.1 Measure customer satisfaction with customer requests/inquiries handling (10401)
  - 5.3.1.1 Gather and solicit post-sale customer feedback on products and services (10404)
  - 5.3.1.2 Solicit post-sale customer feedback on ad effectiveness (10405)
  - 5.3.1.3 Analyze product and service satisfaction data and identify improvement opportunities (10406)
  - 5.3.1.4 Provide customer feedback to product management on products and services (10407)
- 5.3.2 Measure customer satisfaction customer-complaint handling and resolution (10402)
  - 5.3.2.1 Solicit customer feedback on complaint handling and resolution (11236)
  - 5.3.2.2 Analyze customer complaint data and identify improvement opportunities (11237)
- 5.3.3 Measure customer satisfaction with products and services (10403)
  - 5.3.3.1 Gather and solicit post-sale customer feedback on products and services (11238)
  - 5.3.3.2 Solicit post-sale customer feedback on ad effectiveness (11239)
  - 5.3.3.3 Analyze product and service satisfaction data and identify improvement opportunities (11240)
  - 5.3.3.4 Provide customer feedback to product management on products and services (11241)

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Supply-Chain Operations Reference-model

PLAN   SOURCE   MAKE   DELIVER   RETURN

SCOR® Supply-Chain Council

Version 9.0

SCOR is a registered trademark in the
United States and Europe

http://www.supply-chain.org

Level			
	#	**Description**	**Schematic**
Supply-Chain Operations Reference-model	1	**Top Level** (Process Types)	Plan / Source / Make / Deliver / Return / Return
	2	**Configuration Level** (Process Categories)	
	3	**Process Element Level** (Decompose Processes)	
		P1.1 Identify, Prioritize, and Aggregate Supply-Chain Requirements / P1.2 Identify, Assess, and Aggregate Supply-Chain Resources / P1.3 Balance Supply-Chain Resources with Supply-Chain Requirements / P1.4 Establish and Communicate Supply-Chain Plans	
Not in Scope	4	**Implementation Level** (Decompose Process Elements)	

Using the Business Process Modeling Notation standard process types (BPMN) to categorize processes

■ There are three basic types of sub-models within an end-to-end BPMN model:

- 1. Private (internal) business processes:
  - o internal to a specific organization and are the types of processes that have been generally called workflow or BPM processes. A single private business process may be mapped to one or more BPEL4 document. A private process has one single business owner and usually focuses on a core entity

- 2. Abstract (public) processes
  - o This represents the interactions between a private business process and another process or participant. The abstract process shows to the outside world the sequence of messages that are required to interact with that business process. It represents the end to end view.

- 3. Collaboration (global) Processes
  - o A collaboration process depicts the interactions between two or more business entities. These interactions are defined as a sequence of activities that represent the message exchange patterns between the entities involved.

■ Additional useful BPMN Constructs

- Lane
  - o A Pool (and lanes) represent a Participant in the Process. A Participant can be a specific business entity (e.g, a company) or can be a more general business role (e.g., a buyer, seller, or manufacturer).

Level 2 decompositions like CBMs, eTOM, APQC Process groups have **between 50 and 100 components**

Level 3 decompositions such as APQC Processes or eTOM for Telcos have **between 350 and 1000 elements**

Looking for a manageable granularity of services

Level 4 such as APQC have between **1500 and 10,000 tasks**

Potentially more than **10,000** Business Services Operations for the Enterprise at **level 4**

Given the numbers, **manageable granularity** for **reusable** business services (with one or more operations each) **is around level 4.**

Without a business decomposition it is difficult to identify the level of a service

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Accelerate business process innovation with industry-specific assets
Pre-built capabilities and best practices for rapid value

- Proven industry thought leadership

- Adaptable packaged industry processes

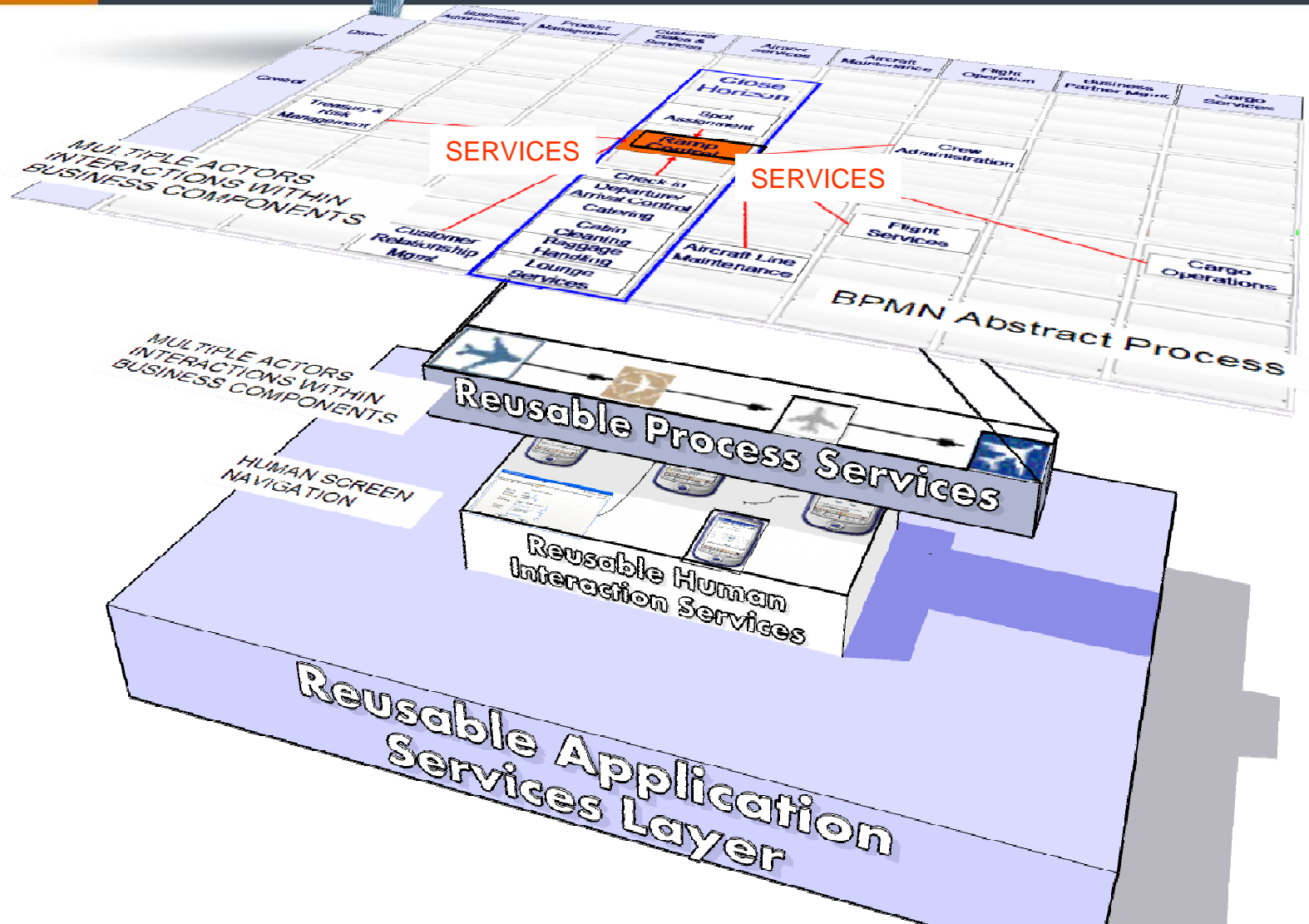- Use industry standards to decrease risk

Industry Capabilities

- Banking, Healthcare, Insurance, Telco Content Packs, PLM
- 9 Industry specific SOA products

SOA Business Catalog

- *Over 4500 SOA assets*
- *67% from Business Partners*

SERVICES

SERVICES

BPMN Abstract Process

MULTIPLE ACTORS INTERACTIONS WITHIN BUSINESS COMPONENTS

MULTIPLE ACTORS INTERACTIONS WITHIN BUSINESS COMPONENTS

BPMN Private Process

HUMAN SCREEN NAVIGATION

BPMN Pool

SERVICE GRANULARITY ADAPTATION

BPMN Lane

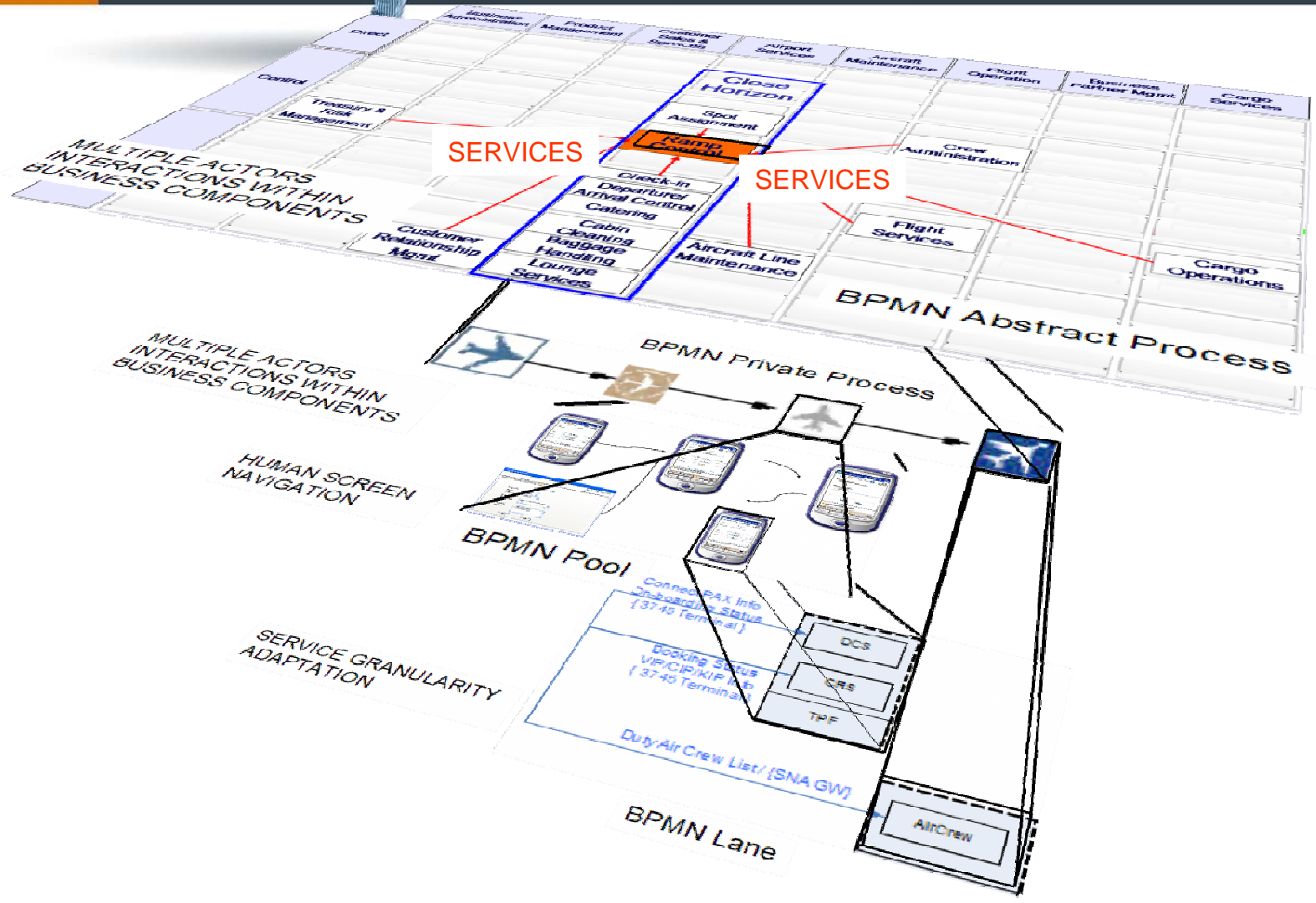CULTURE
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Asynchronous flows between multiple human or machine actors use WS-BPEL standard in a persistent mode to implement choreography

Single actor/person screen navigation in a human task uses standards preferably like JSF, Struts or (BPEL4People)

JSF provides support for defining navigation, user interactions events and actions in XML navigation rules files, making maintenance easier,
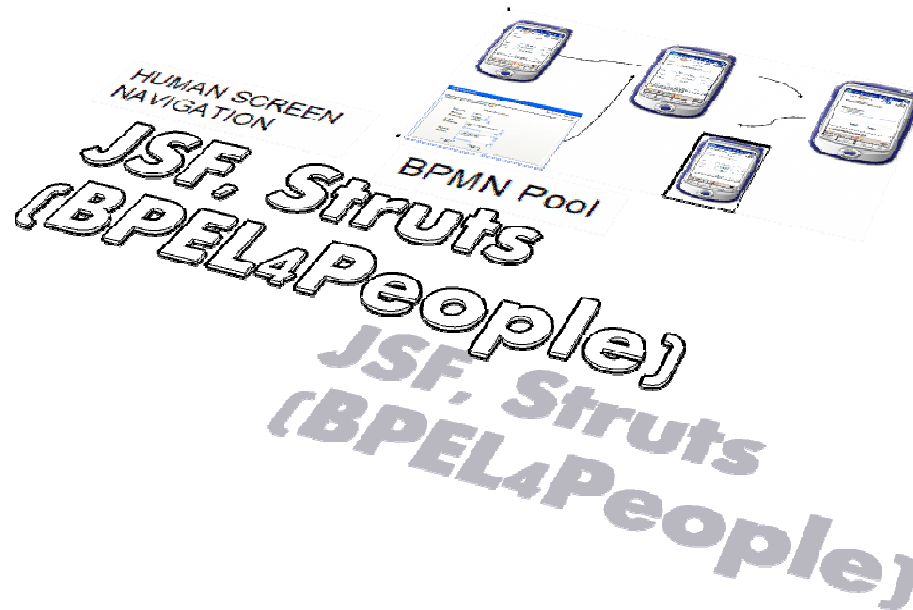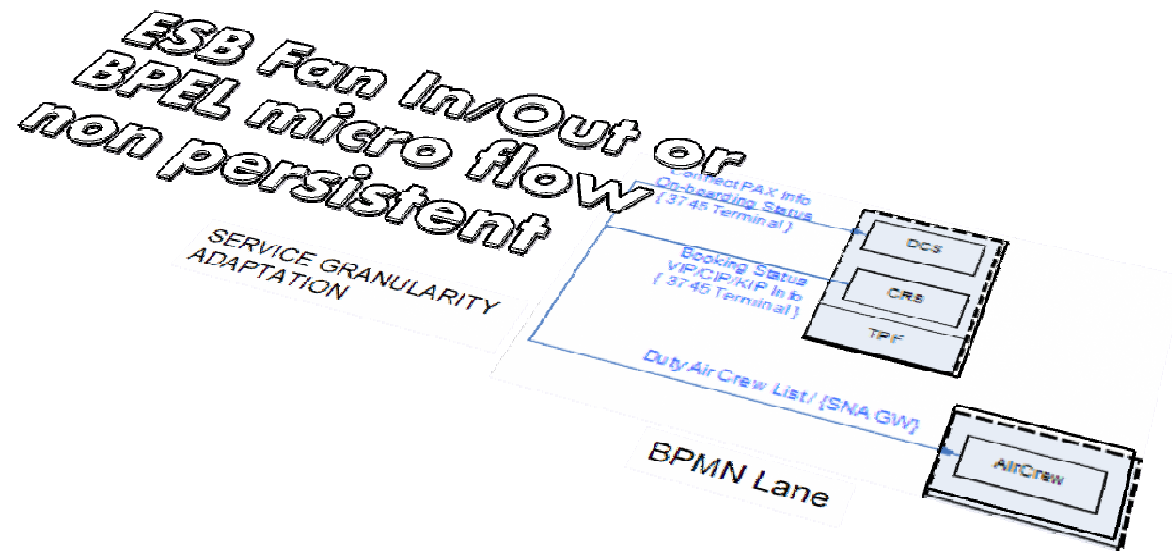
The decomposition and granularity approach leads to the adaptation need from existing APIs or Services to the variable reusable interfaces. The selection of technology will depend on Non Functional Requirements such as
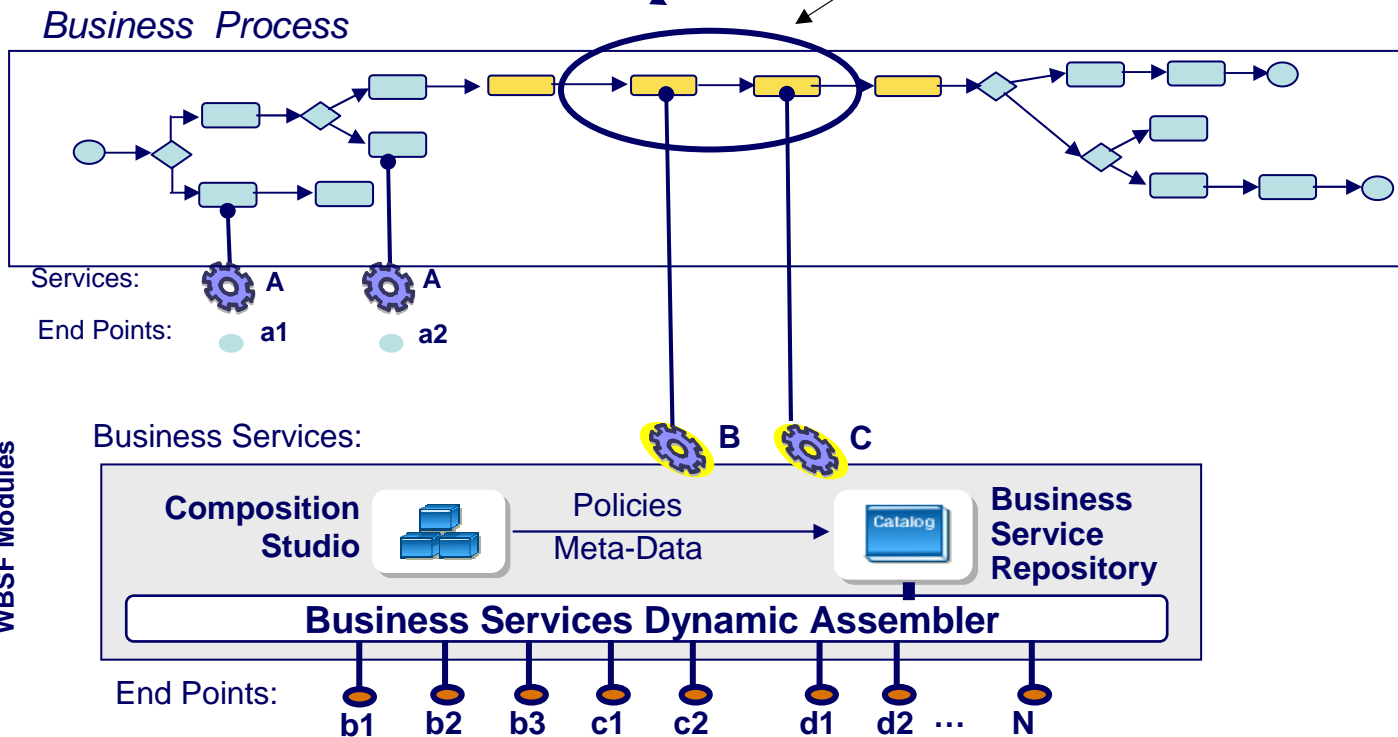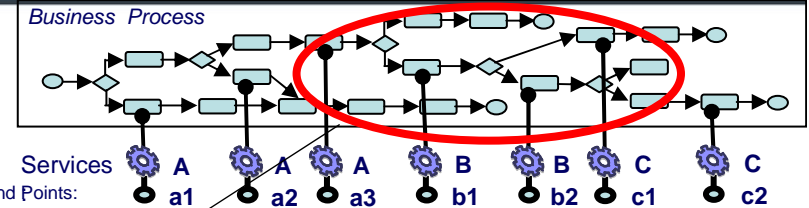
- Technologies of integrated services & APIs
- Transactional scopes
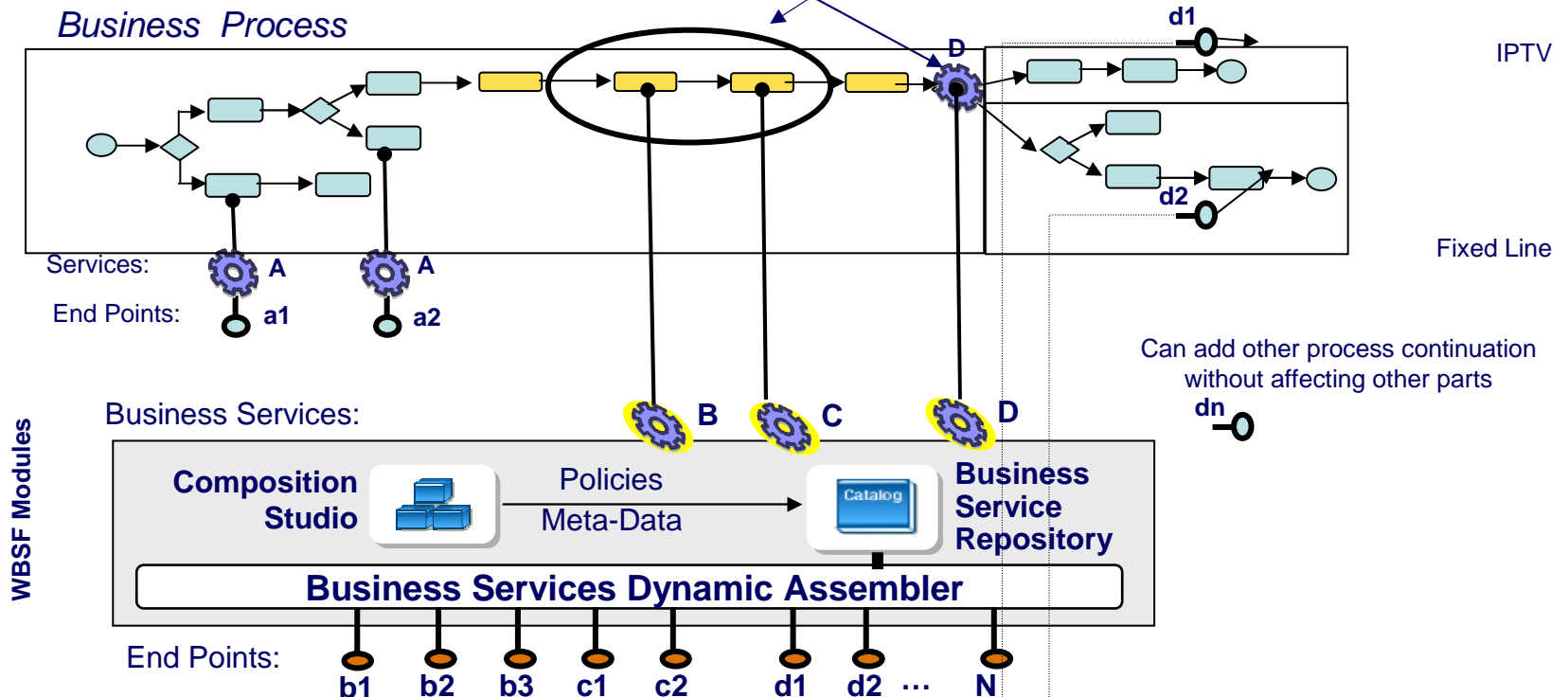- Persistence & State preservation

Process segment with many different service permutations and complex service mediation.
Eg: Billing service to access either Mobile Billing System, or Fixed Line Billing system

Business Process

Services End Points:

A a1   A a2   A a3   B b1   B b2   C c1   C c2

Business Process

Services: A   A

End Points: a1   a2

Business Services: B   C

WBSF Modules

Composition Studio   Policies Meta-Data   Catalog   **Business Service Repository**

Business Services Dynamic Assembler

End Points: b1   b2   b3   c1   c2   d1   d2 … N
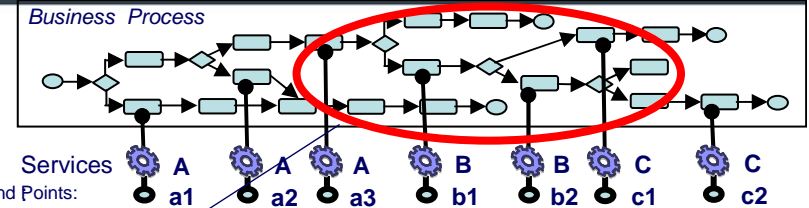
"Private Process" segment with many different service permutations and complex service mediation.
Eg: Billing service to access either Mobile Billing System, or Fixed Line Billing system

Can add other process continuation without affecting other parts

"Private Process" segment with many different service permutations and complex service mediation.
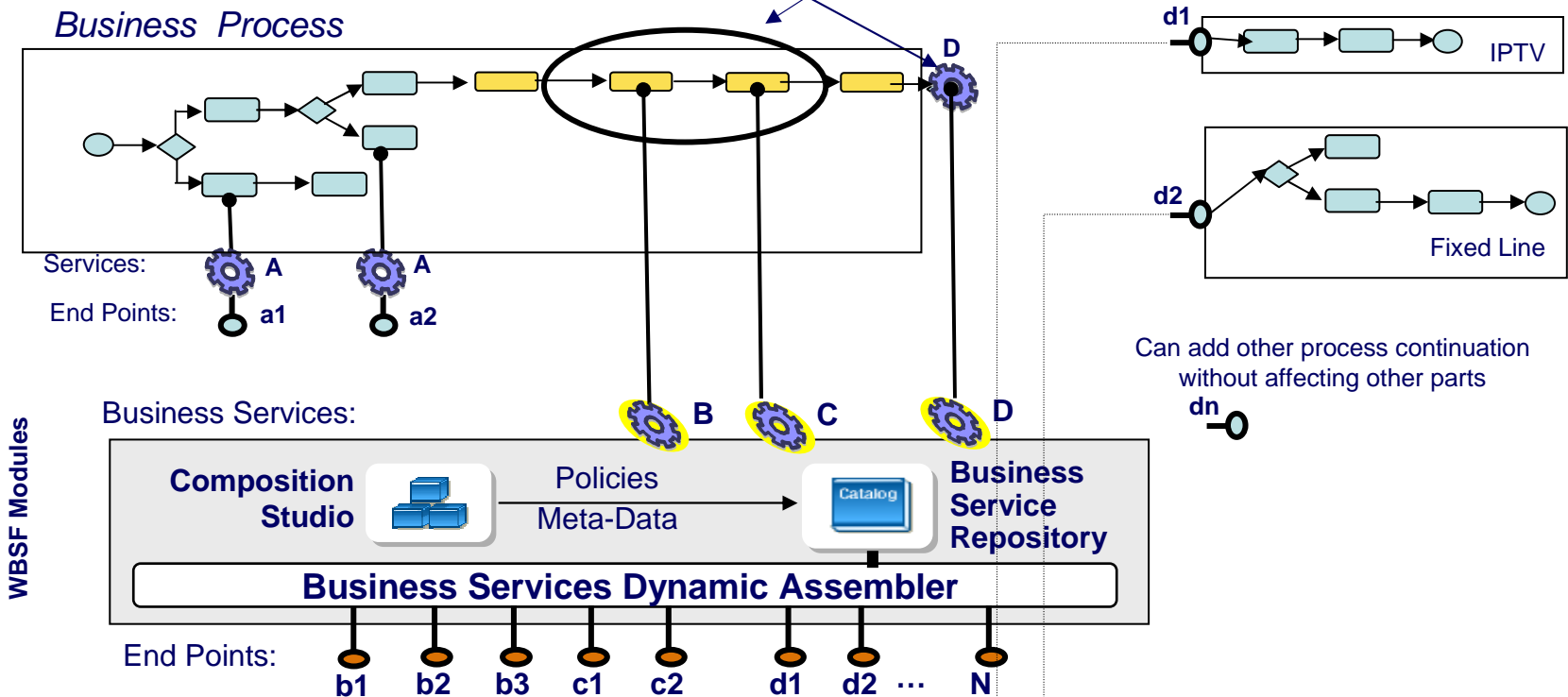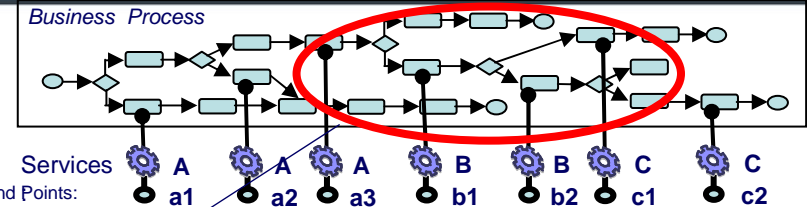Eg: Billing service to access either Mobile Billing System, or Fixed Line Billing system

Business Process

Services End Points:

A	A	A	B	B	C	C
a1	a2	a3	b1	b2	c1	c2

Business Process

Services: A   A
End Points: a1   a2

WBSF Modules

Business Services: B   C   D

Composition Studio   Policies   Meta-Data   Catalog   **Business Service Repository**

Business Services Dynamic Assembler

End Points:
b1 b2 b3 c1 c2 d1 d2 … N

d1   IPTV

d2   Fixed Line

Can add other process continuation without affecting other parts
dn

Merci, Questions ?