



IBM ISV & Developer Relations EMEA Business Partner Forum

**Accelerating Solutions for Smarter Communications**  
*SPDE framework and IBM software capabilities*

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# Today's Market Challenges....

Improve time to market  
**AND** quality of value added  
services



Lower operating costs  
to drive profitability



Deliver converged voice,  
video **AND** data services



Increase retention **AND**  
drive new revenue

Monitor **AND** manage services  
end user experience quality



Leverage existing  
network infrastructure



Integrate services **AND**  
connect with backend support systems



# Today's Market Challenges.... Require new actions and so

## Accelerate new services and business models

**Adapt** to current and future changes by capitalizing on the opportunities for innovative new business models.

Improve time to market AND quality of value added services

Lower opera to drive pro

## Operational and Network Efficiencies

**Improve** what service providers do today by focusing on improving operational efficiency.

d voice, services

Increase retention AND drive new revenue

Monitor AND manage services and user experience quality

Leverage existing

## Differentiate the Customer Experience

**Apply** the wealth of data and intelligence available today to focus on meeting customer needs.

Integrate se connect with backer

## Meeting the Challenges: Imperatives for CSPs

*Drive costs out of operations, innovate new revenue services and deliver an enhanced user experience*

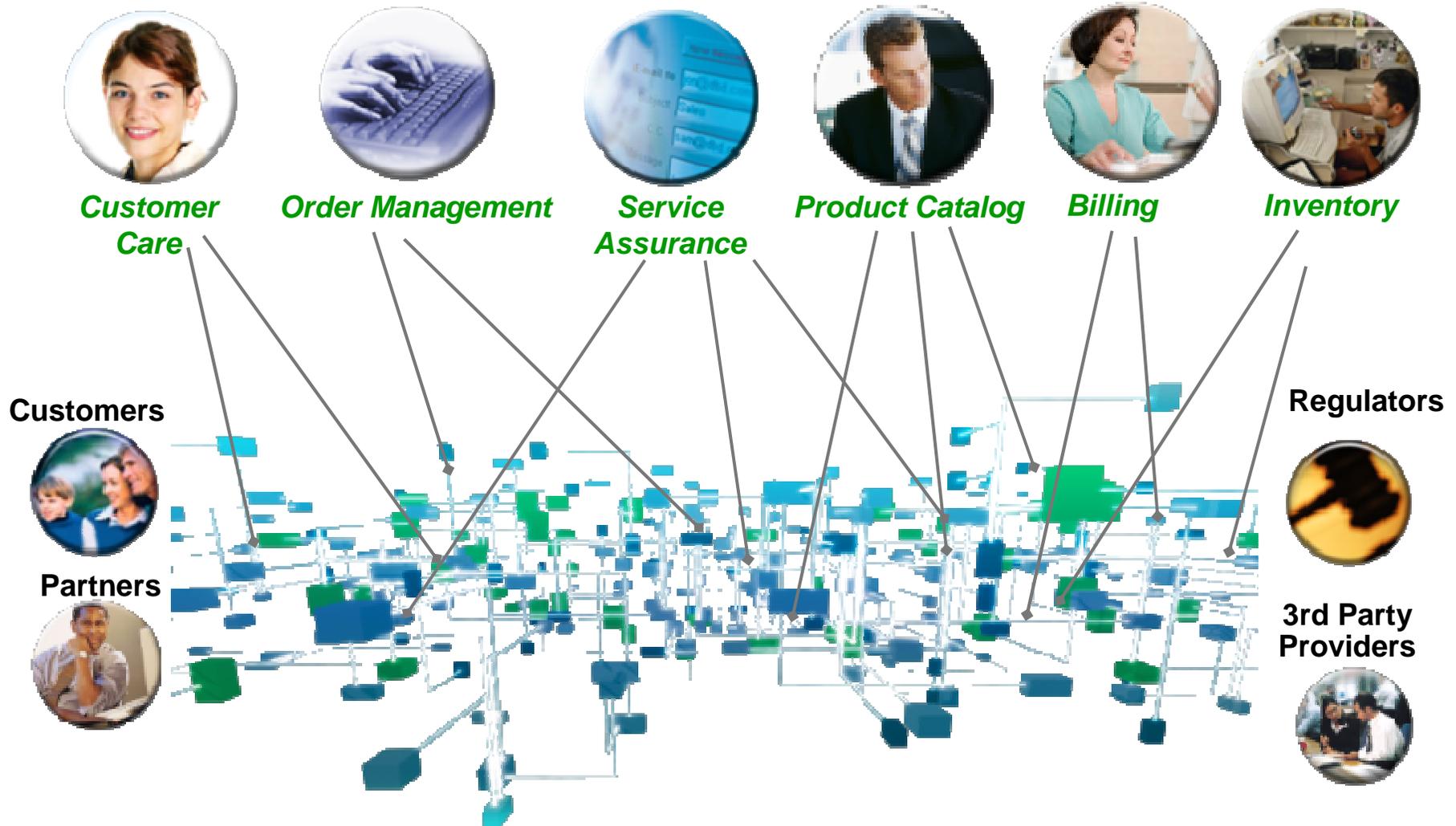
### **Management Priorities . . .**

- Achieve differentiation through customer satisfaction and innovative offerings
- Speed time to market of value added services
- Lower operating costs to drive profitability
- Increase retention and drive new revenue

### **Technology Imperatives . . .**

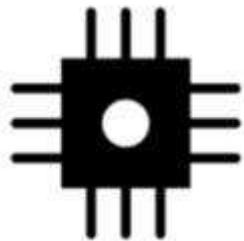
- Deliver converged voice, video and data services
- Integrate service applications and connect with backend support systems
- Leverage existing network infrastructure
- Simplify service administration

# Inflexible and complex operations and data silos inhibit CSP transformation

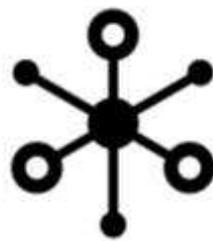


# Start planning and implementing smarter communications systems

**INSTRUMENTED**



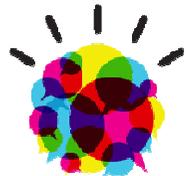
**INTERCONNECTED**



**INTELLIGENT**



An opportunity for **communications service providers** to think and act in new ways.



## Smarter Communications

Leverage instrumented systems and devices to help spawn innovative new services.

Enable individuals, businesses, and governments to interact in new, more efficient, and personalized ways.

Convert the increasingly vast amount of data into information to meet and predict the changing needs and behaviors of customers.

## Leading Communications Service Providers are responding with smarter solutions

Higher customer  
**satisfaction** and more  
profitable **growth**.

Accelerate new services  
and business models

Airtel



Improve retention of  
profitable customers by  
applying **business  
analytics**

Differentiate the  
Customer Experience

cablecom



Process **optimization**  
through **standards** and  
best practices.

Operational and Network  
Efficiencies

T-Com



→ *IBM builds repeatable technology patterns into solutions to make them smarter*



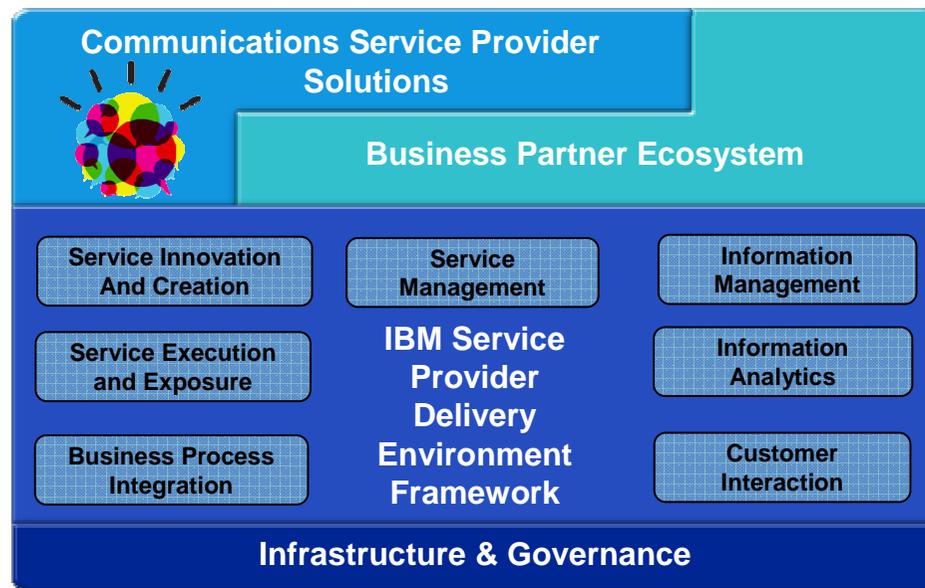
## Software is critical to enabling smarter communications solutions

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- **Software is increasingly viewed as a *strategic business asset***
- ***Software* is helping CSPs:**
  - Drive business transformation with standards and flexibility
  - Increase visibility and control for operations and support IT
  - Turn network data into actionable information throughout the company
- **Leaders everywhere are deploying *increasingly intelligent* software, systems and products**
- **Accelerating innovation and enabling effective change is highly dependent on the ability to *manage effective software delivery***

# IBM provides a comprehensive framework that delivers smarter solution deployment for CSPs

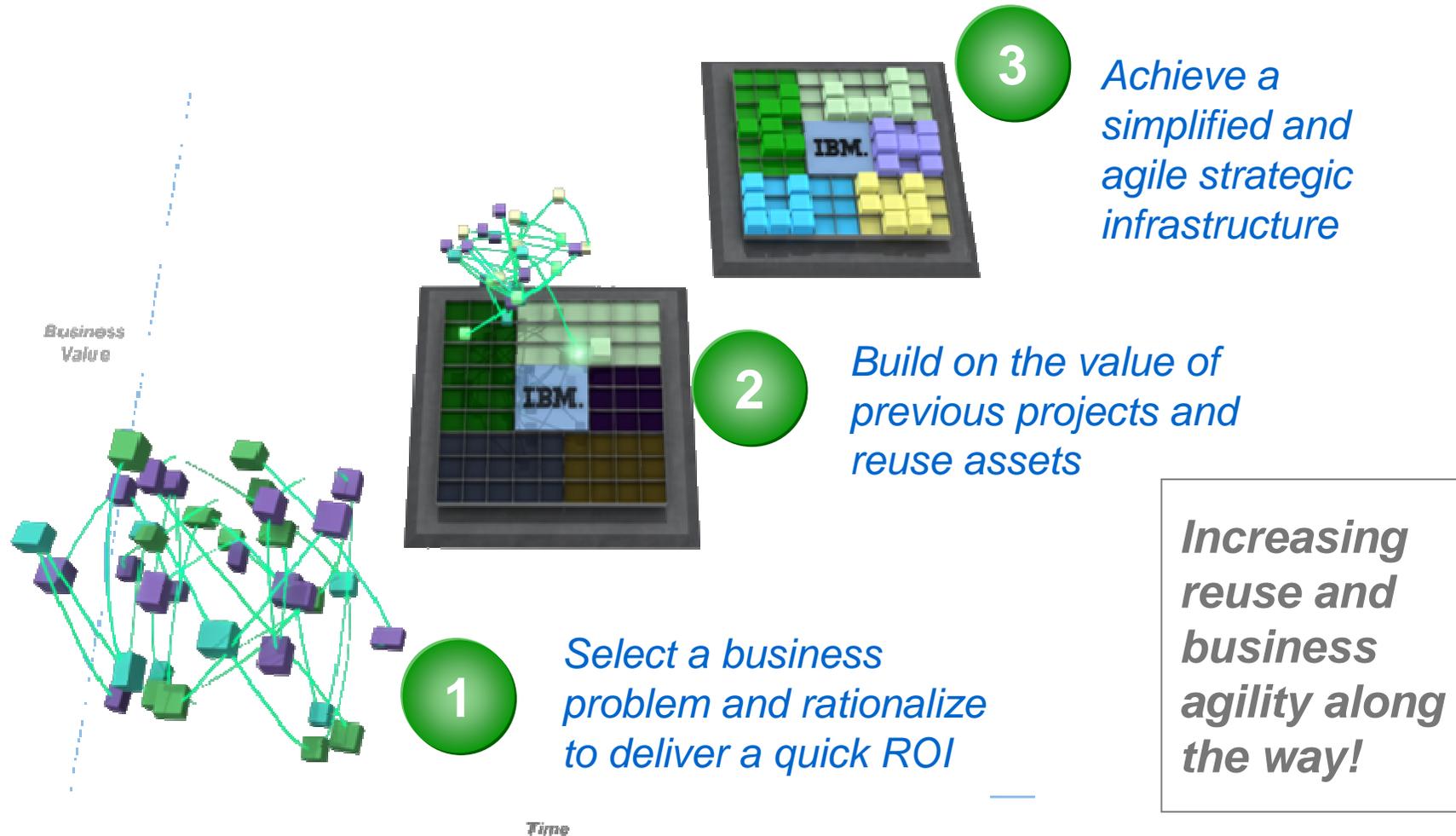
**The framework gives you speed, flexibility and choice in deploying solutions while reducing cost and risk!**



The framework provides...

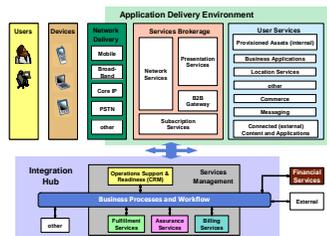
- An approach to align technology with CSP business needs
- Communications industry best practices and solution accelerators to speed deployment
- Re-usable implementation patterns to lower risk
- Support for adoption of open and industry standards
- A choice of business applications from IBM business partners

## Leveraging components of a framework, a CSP can progressively transform to a simplified but strategic infrastructure



# IBM's Service Provider Delivery Environment framework has evolved over time to address industry issues

## 2001 – Framework introduction



### Early SPDE Solutions

- Mobile Data Services
- Subscriber Management
- Portal Management
- eTOM Process
- 11 Automation

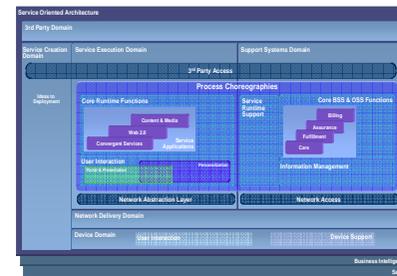
## 2006 – SPDE 2.0



### SPDE enhanced with

- Service Creation
- 3GPP IMS Enablers
- SOA
- TMF NGOSS

## 2009 – SPDE 3.0



### SPDE expanded

- Ideation, Service Exposure and Mashups via Web 2.0
- Dynamic SOA BPM
- Media Integration
- Info Agenda for CSP/Business Intelligence
- Service Assurance & Customer Experience Mgmt
- Security Solutions

## 2010 – SPDE 3.0

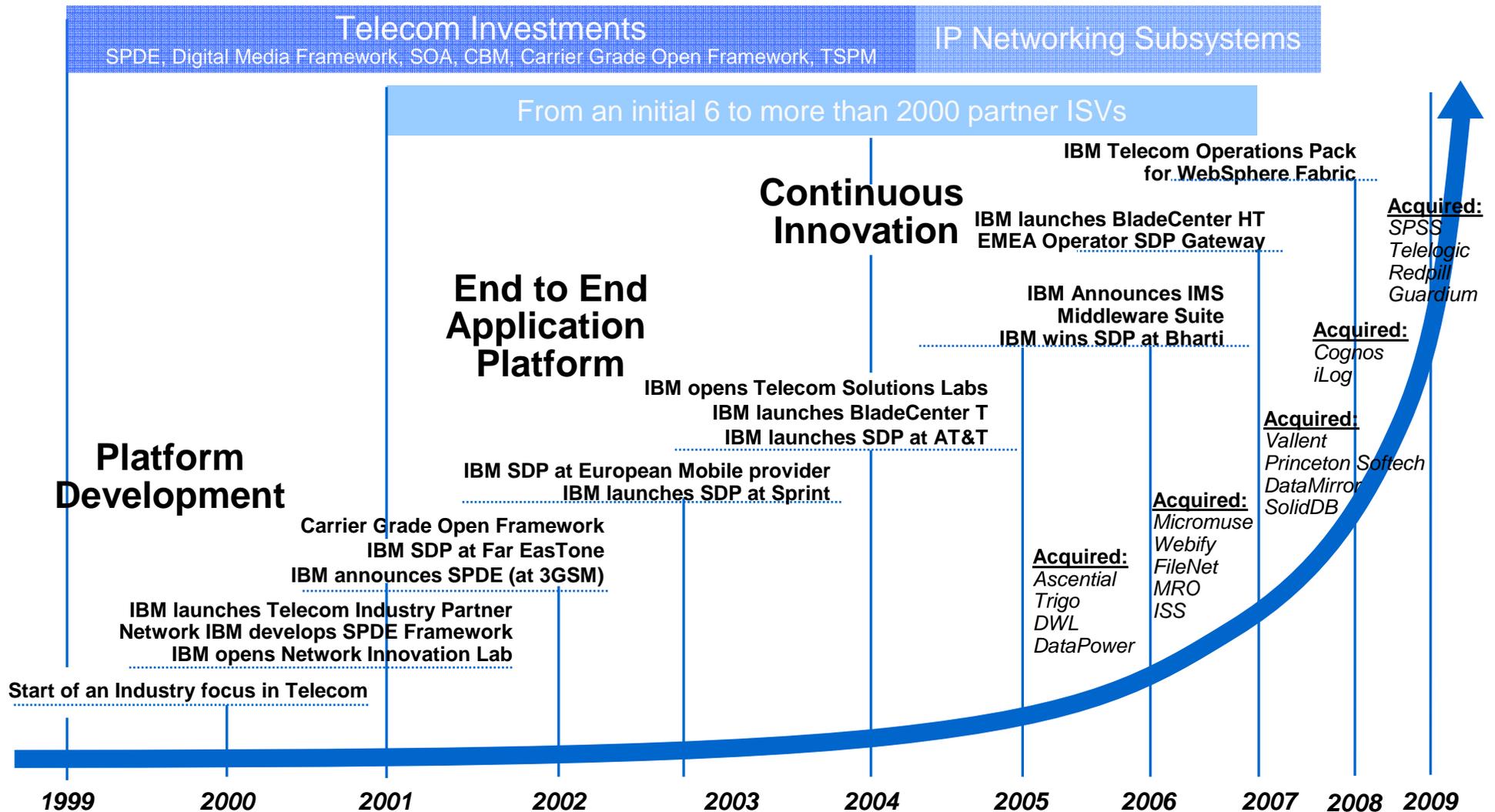


### SPDE Focus in 2010 Project Area Enrichment

- Information Management
- Service Management
- Information Analytics
- Customer Interaction

# IBM is investing in the Communications Industry for the long term

Driving the continuous evolution of the IBM SPDE Framework



# IBM Service Provider Delivery Platform

## SPDE 3.0 - 2010

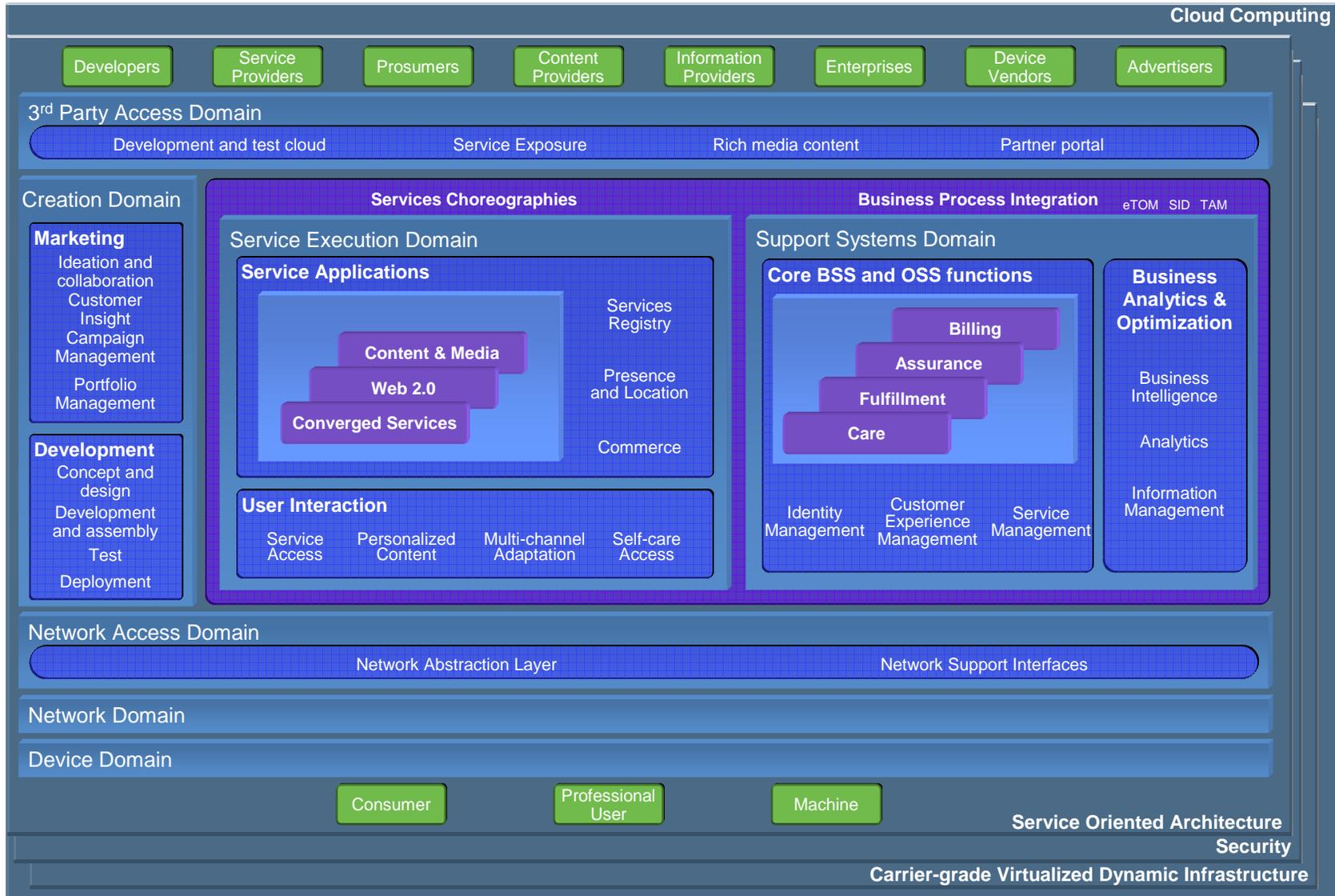
Level 0



# IBM Service Provider Delivery Platform

## SPDE 3.0 - 2010

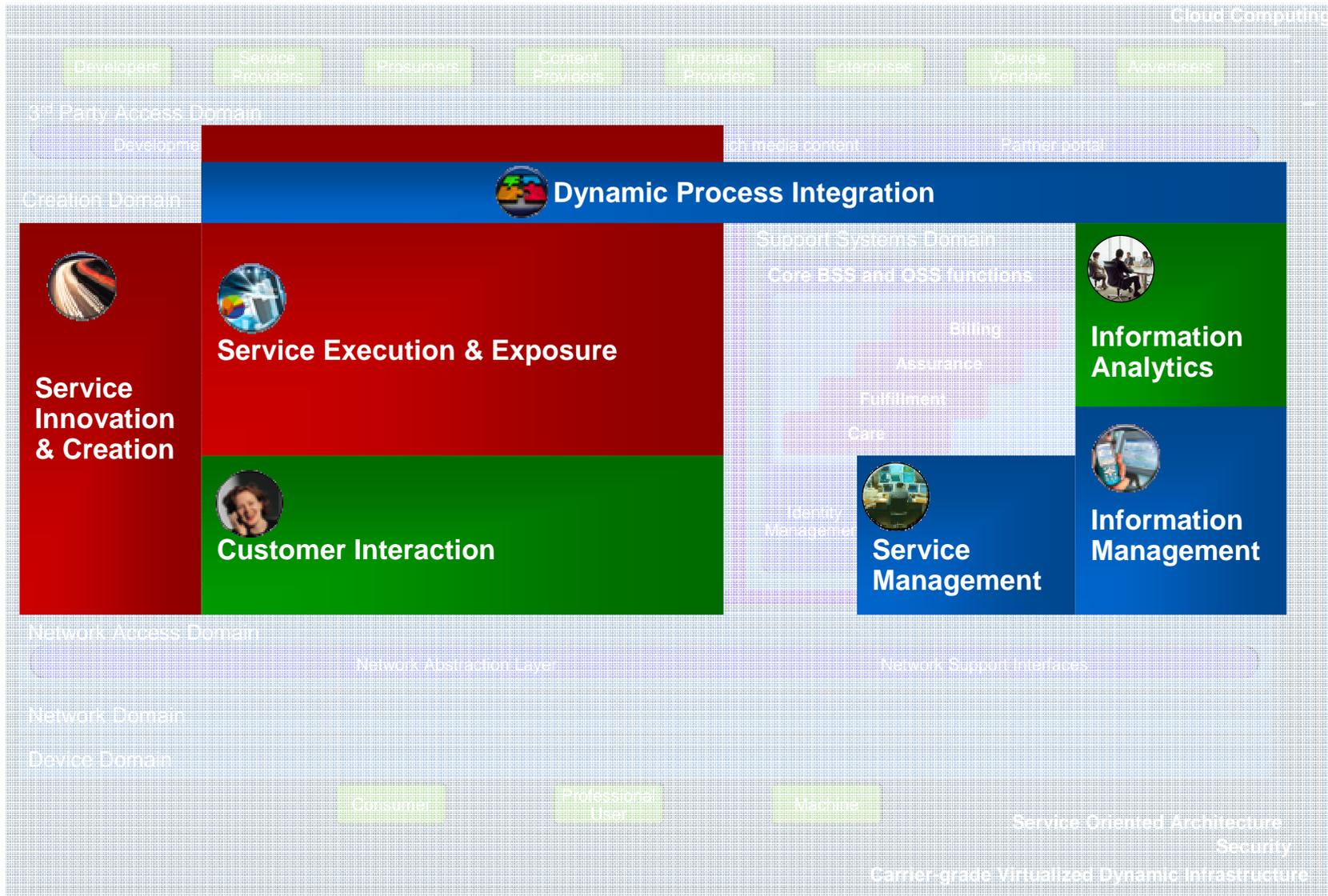
Level 1



# The SPDE Framework spans the enterprise

- Accelerate new services and business models
- Operational and Network Efficiencies
- Differentiate the Customer Experience

**Level 1**



# The SPDE Framework spans the enterprise

*Linking business and IT to enable new capabilities*

## Accelerate new services and business models



**Service Innovation & Creation:** Ideation and creation of revenue generating services



**Service Execution & Exposure:** Assemble, deliver and expose value added services quickly

## Operational and Network Efficiencies



**Dynamic Process Integration:** Streamline integration of OSS/BSS processes



**Service Management:** Provide comprehensive and integrated management of services and infrastructure



**Information Management:** Exploit increasing volumes of customer, service and network information by establishing a foundation for data quality, consistency and accuracy

## Differentiate the Customer Experience



**Customer Interaction:** Provide simplified and automated customer service for clients and partners across multiple channels



**Information Analytics:** Analyze data/information from internal and external sources to drive informed decisions and actions

# IBM's CSP software strategy and SPDE framework are based on core principles that support the service lifecycle



An asset-based approach to  
Business Transformation

- Open, network-agnostic service platform – *improved re-use, time to market.*
- Communications industry extensions to industry-leading software products – *CSP function on a scalable, cost efficient base.*
- Dynamic SOA process integration - *reduce cost, time, complexity of launching new services.*
- Foundation based on IT and Communications Industry standards – *investment protection.*
- Handle emerging Telco, Media and IT standards, technologies and convergence - *adaptable and scaleable*
- Supports an end-to-end Service Lifecycle across Network and IT – *standardization, integration, automation.*



## Globe Telecom

Gaining tactical agility with smarter promotions

### Challenge

Globe Telecom, the number two provider of mobile communications services in the Philippines, realized that it needed to reach a new level of agility in the creation and management of promotional service offerings, if the company was to thrive in its intensely competitive market.

### Solution

IBM and Nokia Siemens Networks designed and built a SOA-based service creation and delivery platform that enables Globe to rapidly and cost-effectively create service offerings from reusable service components. Hundreds of simultaneous targeted promotions, enabled by the integration of customer intelligence, behavior segmentation, profit simulation and promotion execution drive revenue improvement and are delivered through an integrated and automated solution.

- IBM® Service Provider Delivery Environment (SPDE) Framework
- IBM WebSphere®
- IBM Tivoli®
- IBM Rational®

### What Makes it Smarter



- Leveraging information gathered from handsets, Globe is able to identify the optimal service promotion for each customer—and the best time to deliver it.
- Expected one-year payback period and more than 95% reduction in time and cost of developing new promotions
- 600% increase in promotion effectiveness

*“We can react very quickly to promotional opportunities when they arise. Just as important, we can detect in near real time whether the mechanics of our promotion are working—and if they’re not, we can change them almost instantly.”*

*— Mario Domingo, Head of Product Design and Creation, Globe Telecom*

# New capabilities are required in order to succeed

*Enabled by IBM's SPDE industry framework*



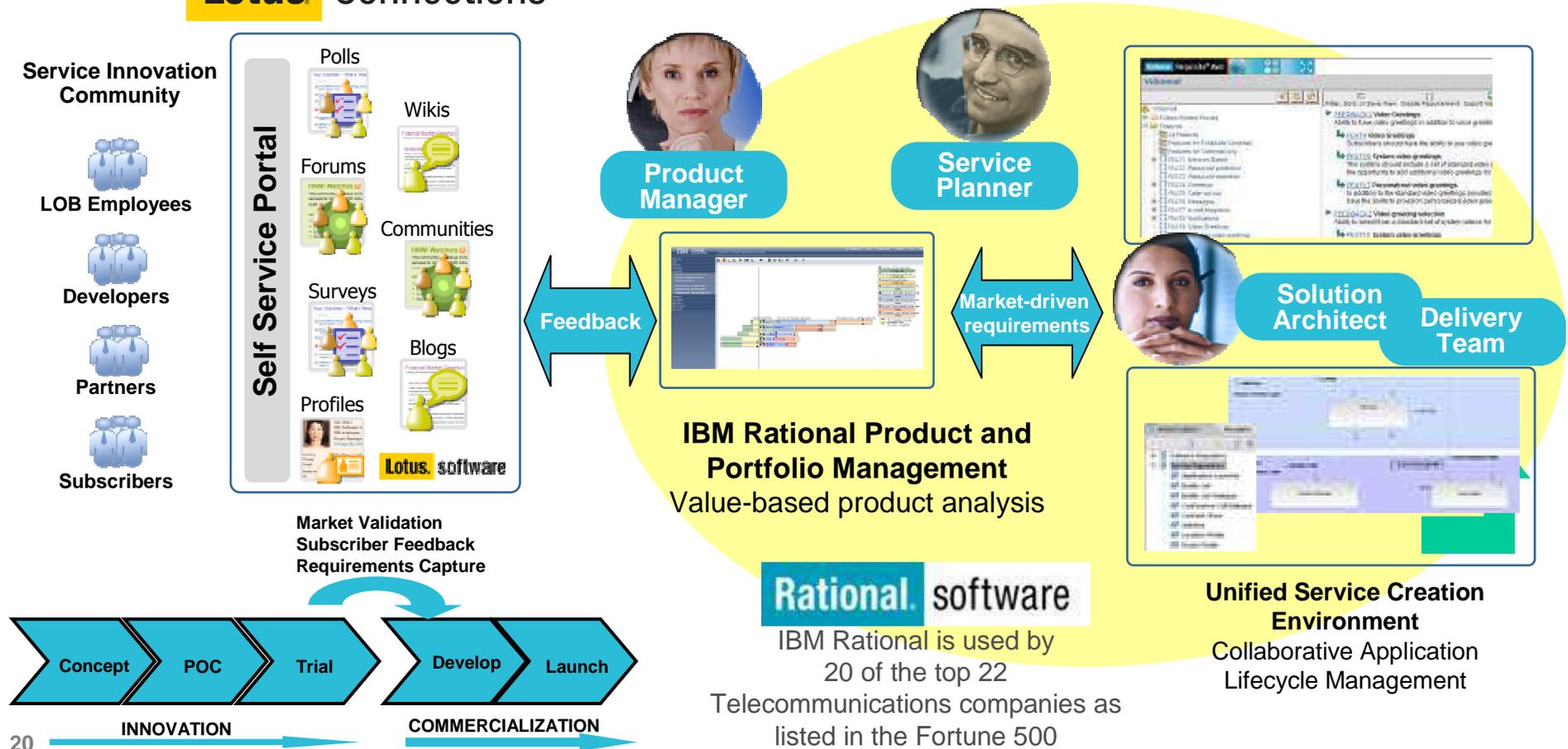


# Service Innovation and Creation

*Ideation and creation of applications and services using Lotus & Rational products*

Increase revenues and retain customers by applying web 2.0 tooling from **Lotus** and service development capabilities from **Rational** to create rich composite services

## Lotus Connections





# Service Innovation and Creation

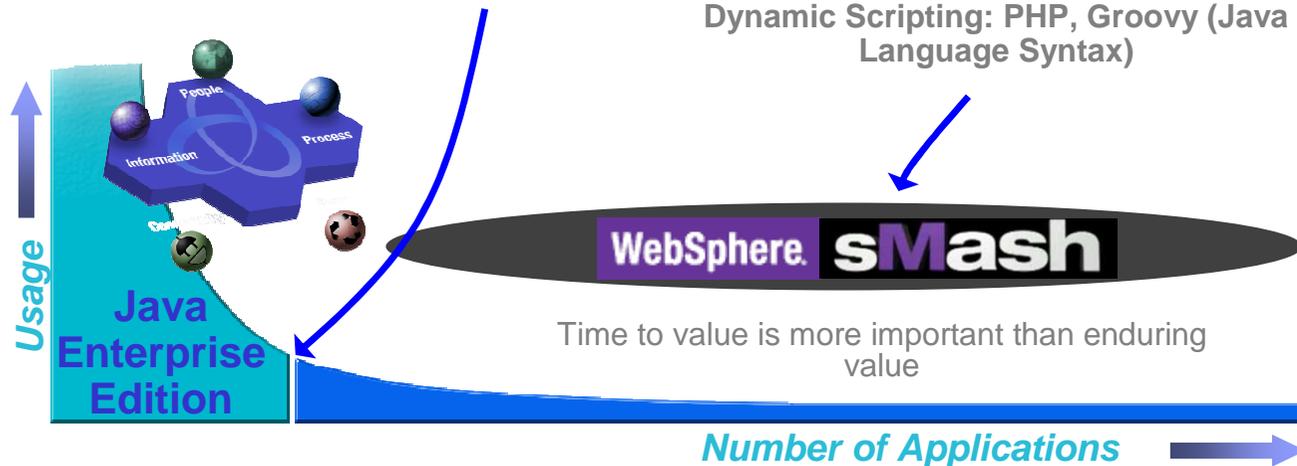
Using *WebSphere sMash* & *IBM Mashup Center* for the application long tail

For enterprise department and mid-market customers looking for **rapidly developed agile applications**, **short implementation cycles** and ways to easily leverage existing investments.

**WebSphere** Application Server  
Strategic, long-lived applications

Dynamic Scripting: PHP, Groovy (Java Language Syntax)

## IBM Mashup Center



A mashup platform for easy **creation**, **sharing**, **discovery** and **assembly** of reusable application building blocks (widgets, feeds, mashups) to form **new applications**

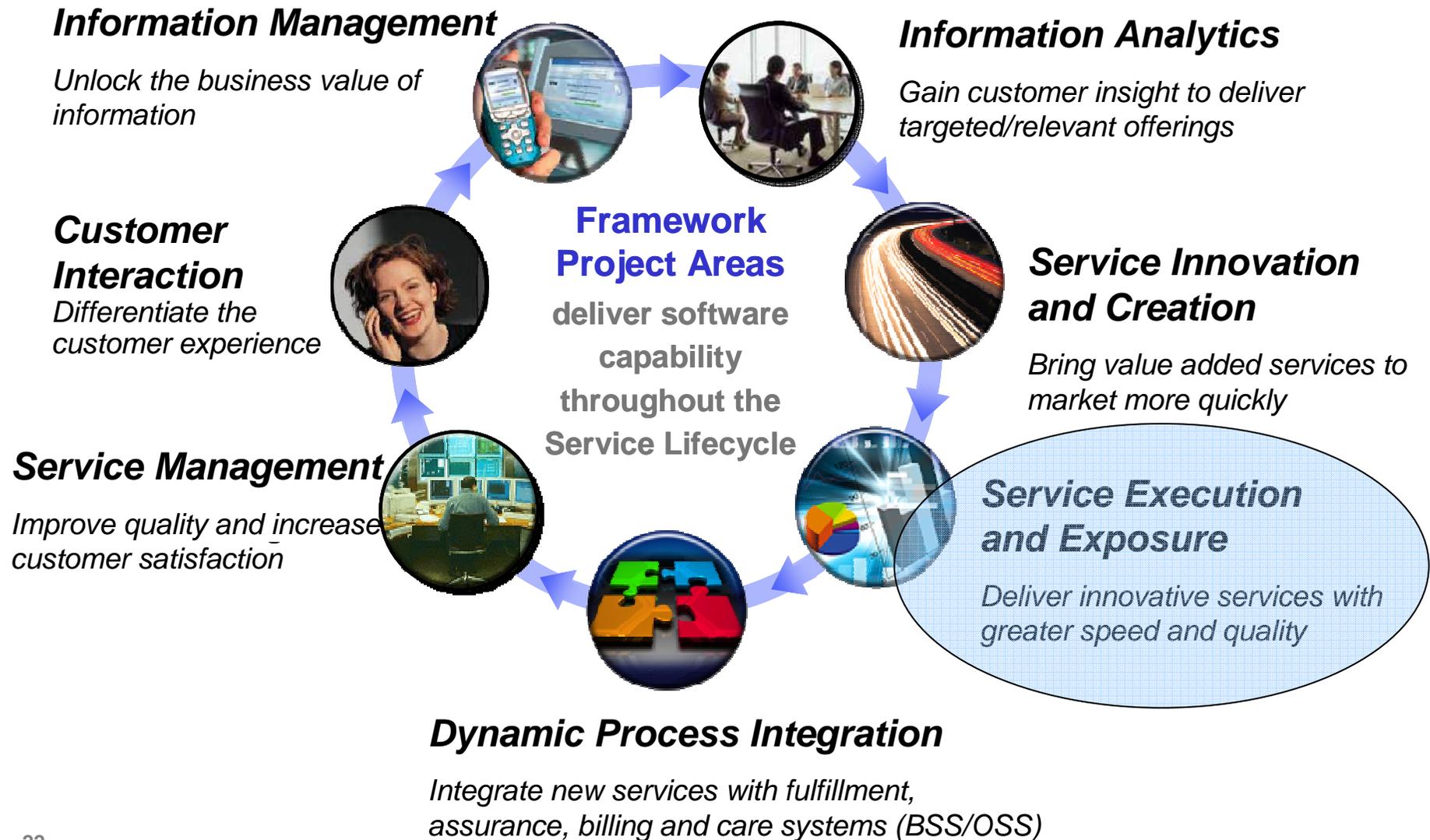
Scenario: Enable Mobile Access:

Scenario: Integrated view of disparate data:



# New capabilities are required in order to succeed

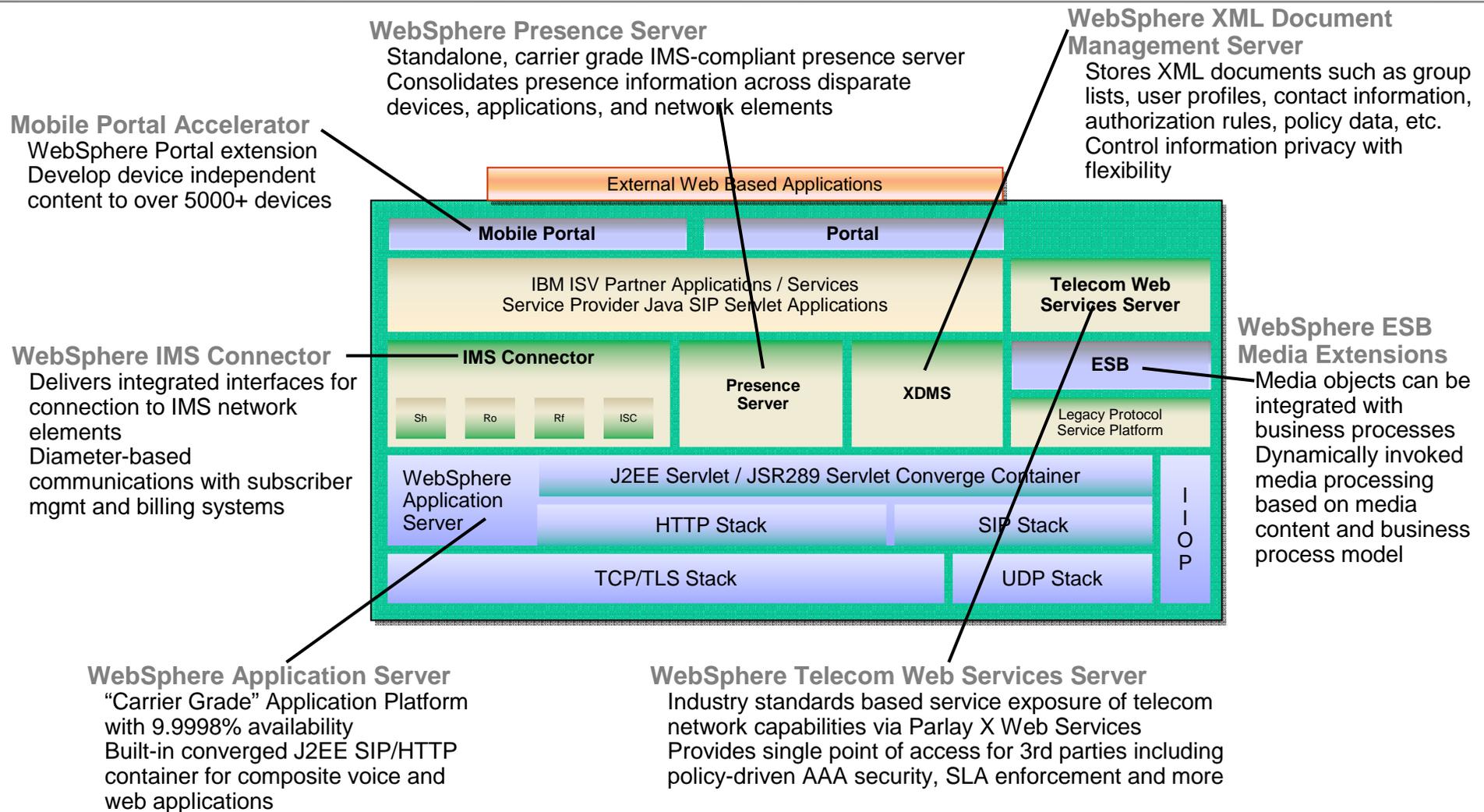
*Enabled by IBM's SPDE industry framework*





# Service Execution

## Using WebSphere for Telco in the Service Execution Domain

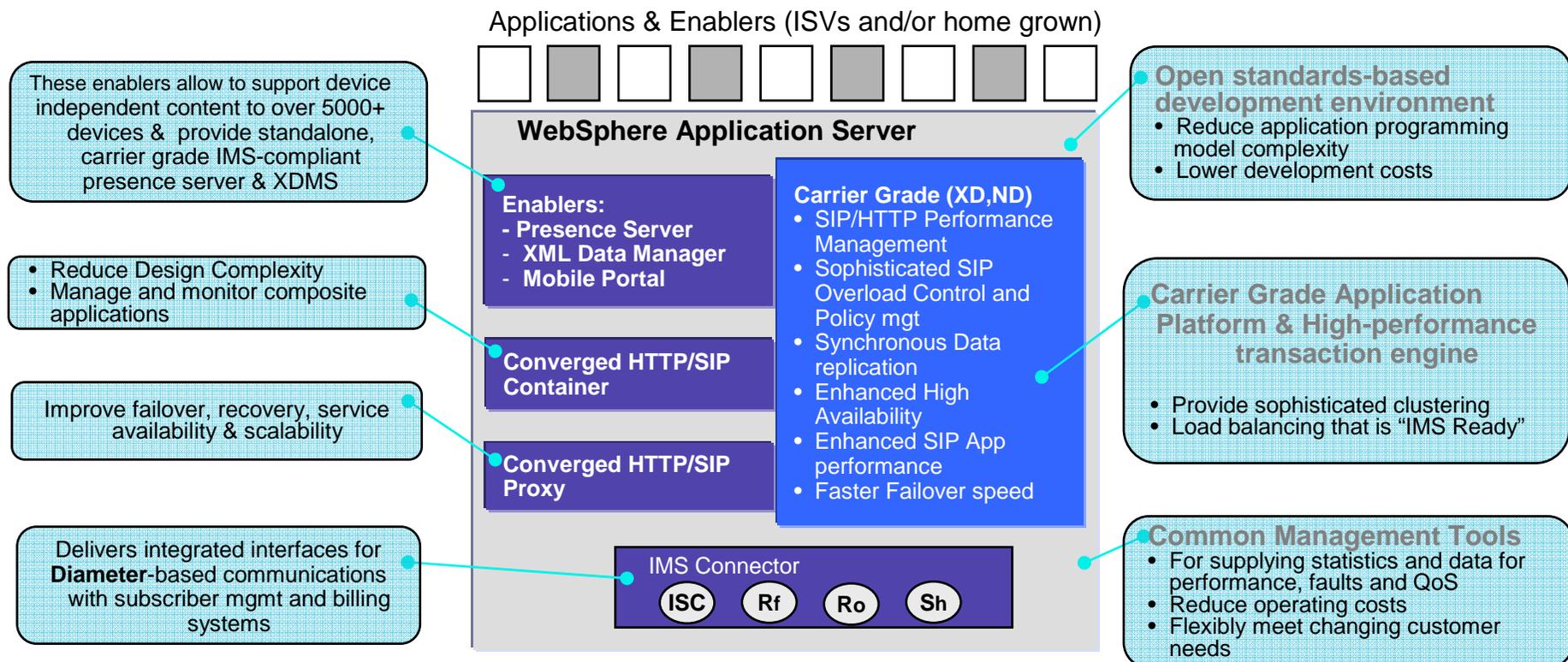


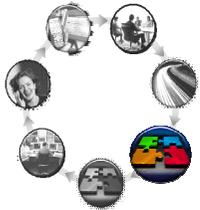


# Service Execution

*WebSphere Application Server is the foundation layer*

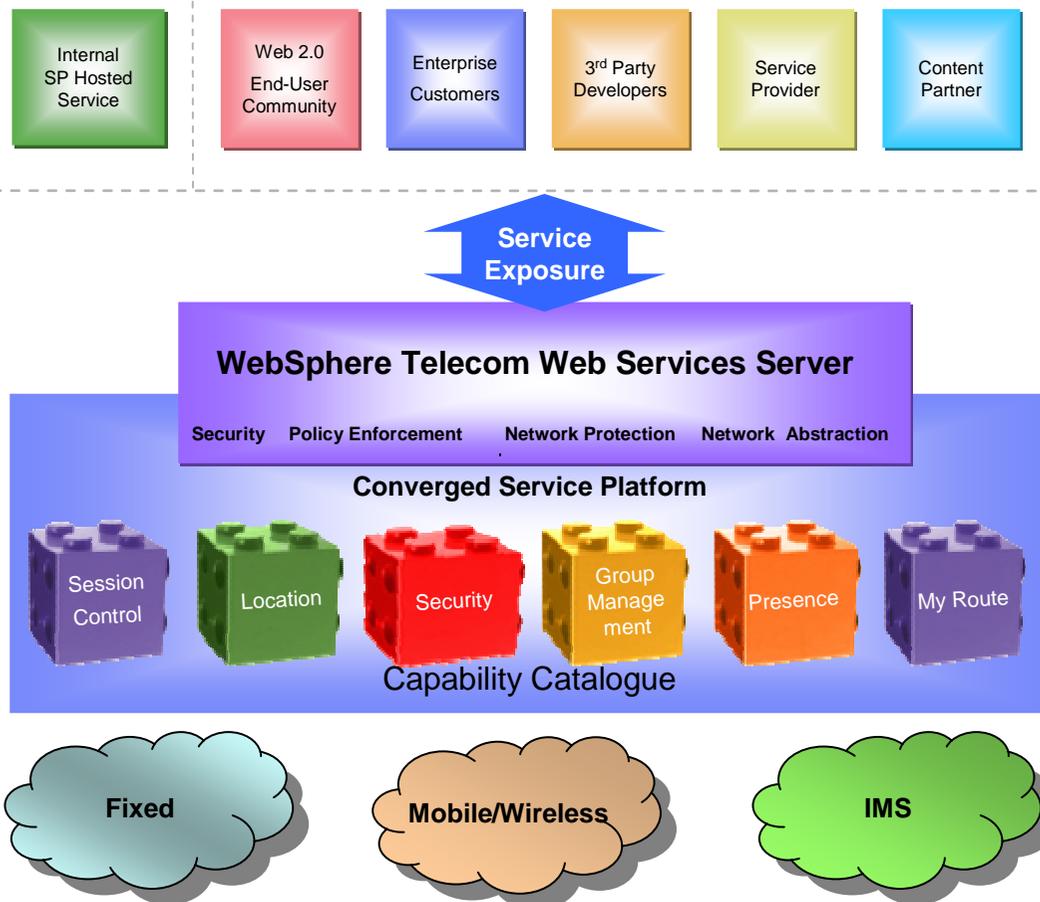
Meet subscriber demands for composite services through a SOA-based, high-performance **WebSphere execution platform** for converged services that leverages presence, voice, media and IT enablers





# Service Exposure

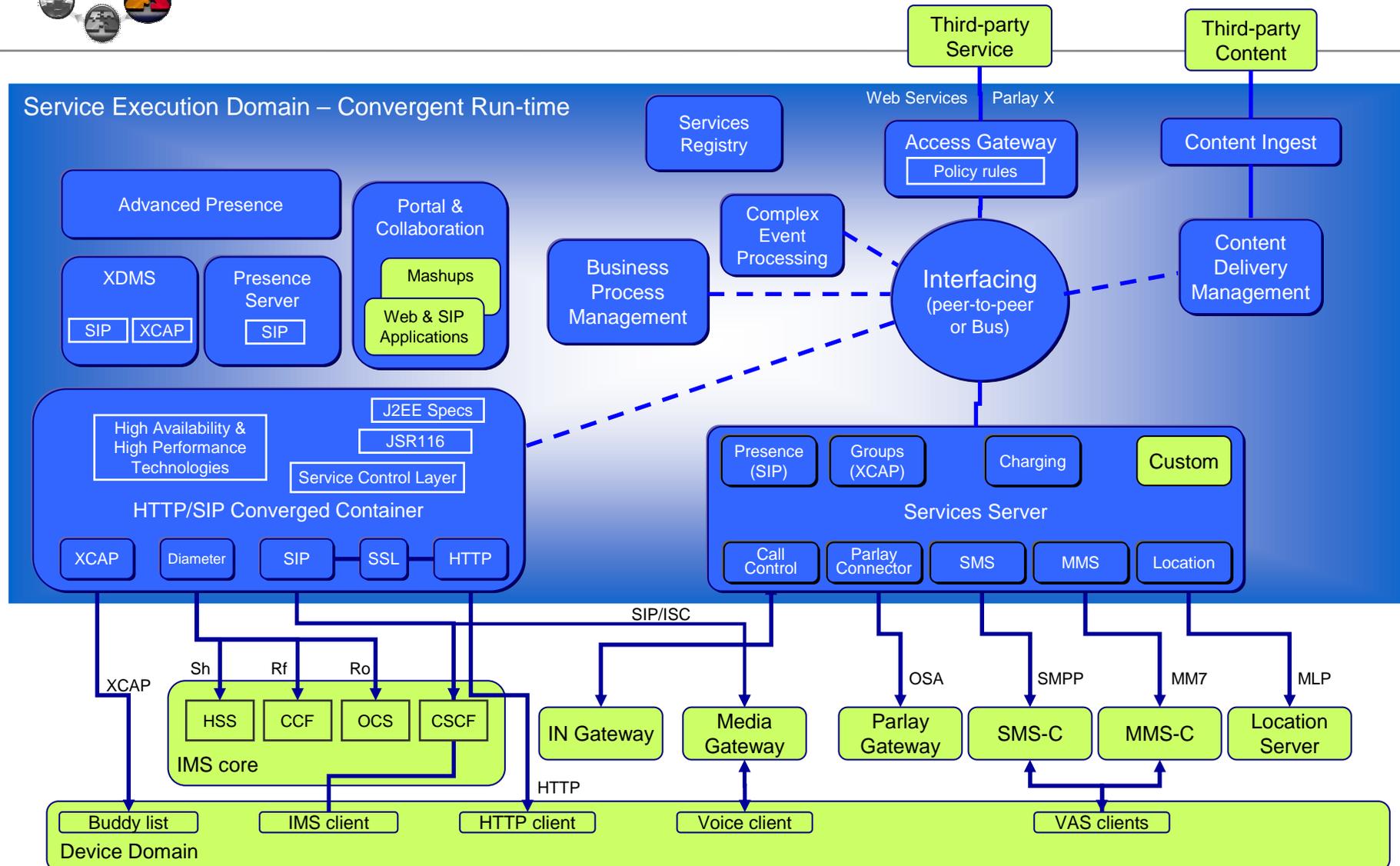
## WebSphere Telecom Web Services Server: Linking SOA and Web 2.0



- Provides **Secure, industry-standard** Web service exposure of telecom network capabilities
- Enables highly personalized services through **policy-driven** execution and service level agreements
- Extensible design facilitates rapid development of new services for 3rd party exposure and **Web 2.0** delivery
- Web 2.0 mashup tools to help create, deploy and share customized Web applications faster and better



# IBM Service Execution Domain in an SDP



# New capabilities are required in order to succeed

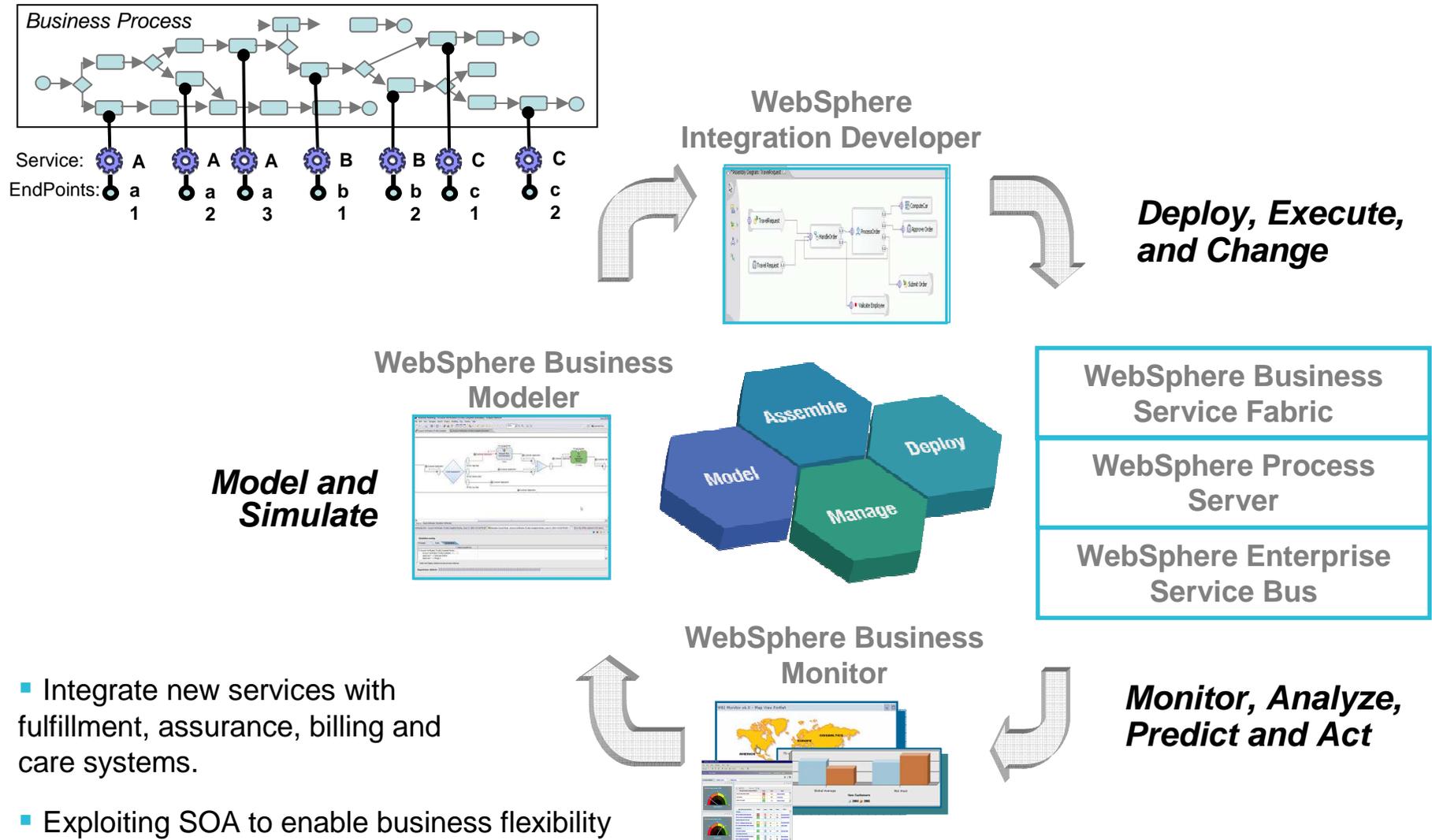
*Enabled by IBM's SPDE industry framework*





# Dynamic Process Integration

*Defining and Managing Your Business Processes using  
WebSphere BPM Stack*





# Process Integration - IBM Telecom Content Pack

*Telemangement Forum (TMF) Industry SOA Application Architecture ...*

## Industry BPM Solutions (Built by Customers & Partners)



Accelerate delivery of

## WebSphere Industry Content Packs



Insurance



Banking



Telecom



Healthcare



PLM

Built & supported on

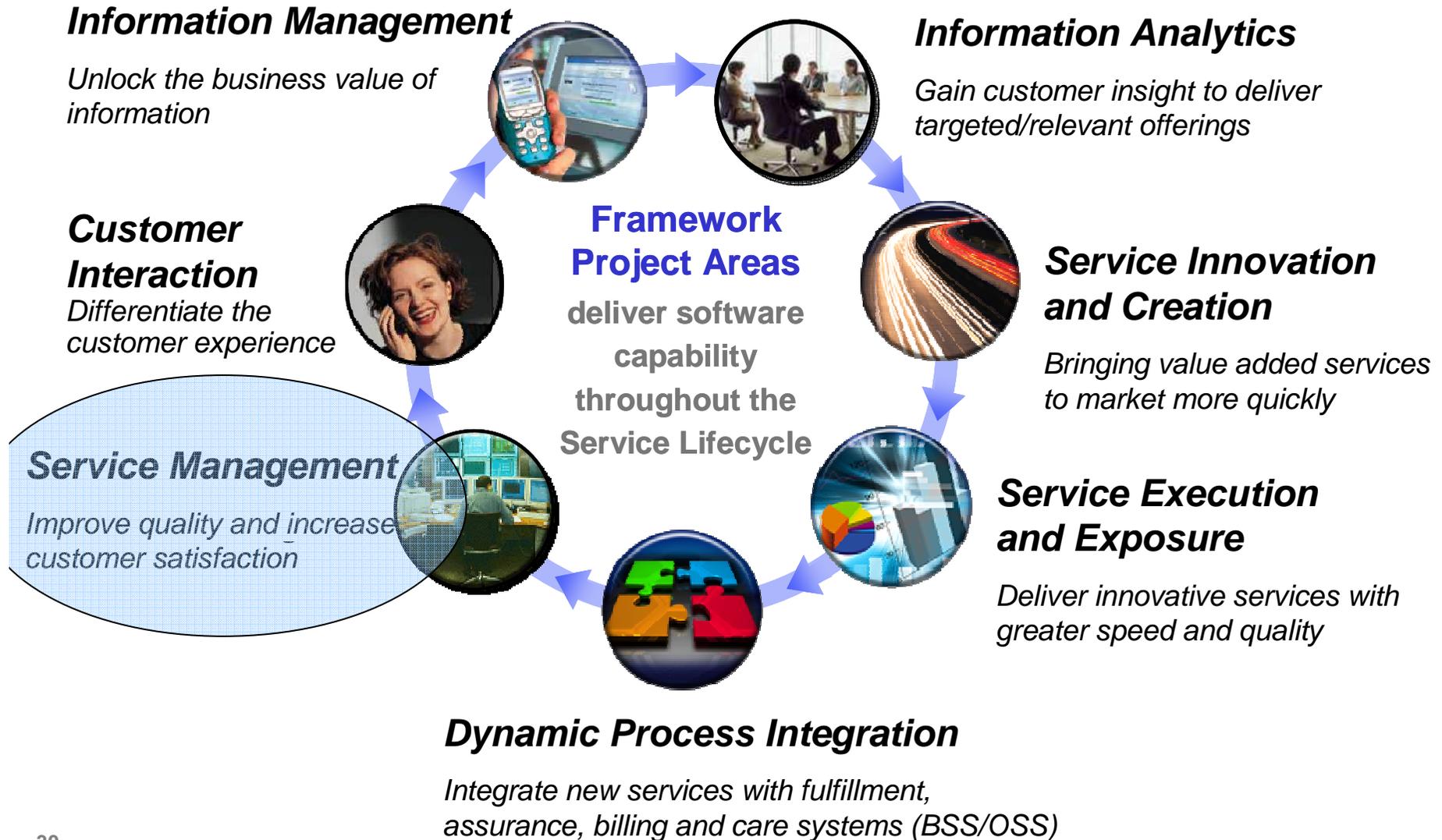
## WebSphere BPM

Business Modeling & Simulation, Human Tasks & Collaboration, Process Execution & Integration, Business Activity Monitoring

- Integration data model based on **SID** System View
- Based on telecom **NGOSS** and technical standards
- Business Services (NGOSS Contracts) identified & organized around **TAM**
- Interface definitions (**WSDL**) with associated SID implementation schemas (XSD)
- Extensible and configurable to support unique client needs
- **IBM SWG product** that is maintained, updated and released

# New capabilities are required in order to succeed

*Enabled by IBM's SPDE industry framework*





# Service Management

*Provide comprehensive and integrated management of services and infrastructure using **Tivoli & Maximo** solutions*

## Service Quality, Security, and Customer Experience Management:

Focus on customer and quality to reduce churn and improve customer satisfaction.

- Manage the service execution, delivery platform & network
- Measure and manage the customer experience
- Manage service quality: Fault, Availability & Performance
- Network Management: Layers 1 to 7

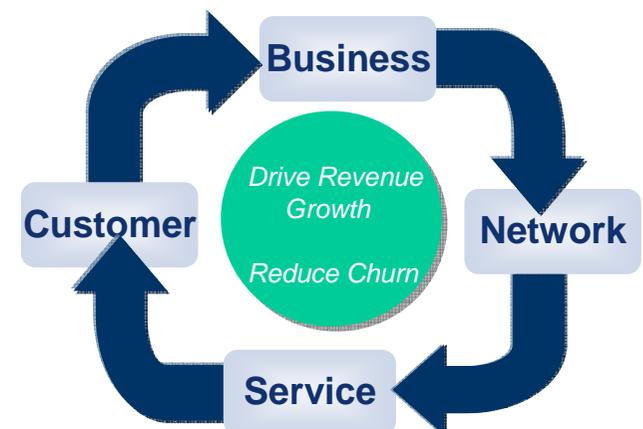
Using **IBM Tivoli Netcool Software**, gain end-to-end view of network performance. Conduct rapid root cause analysis



## Asset Management:

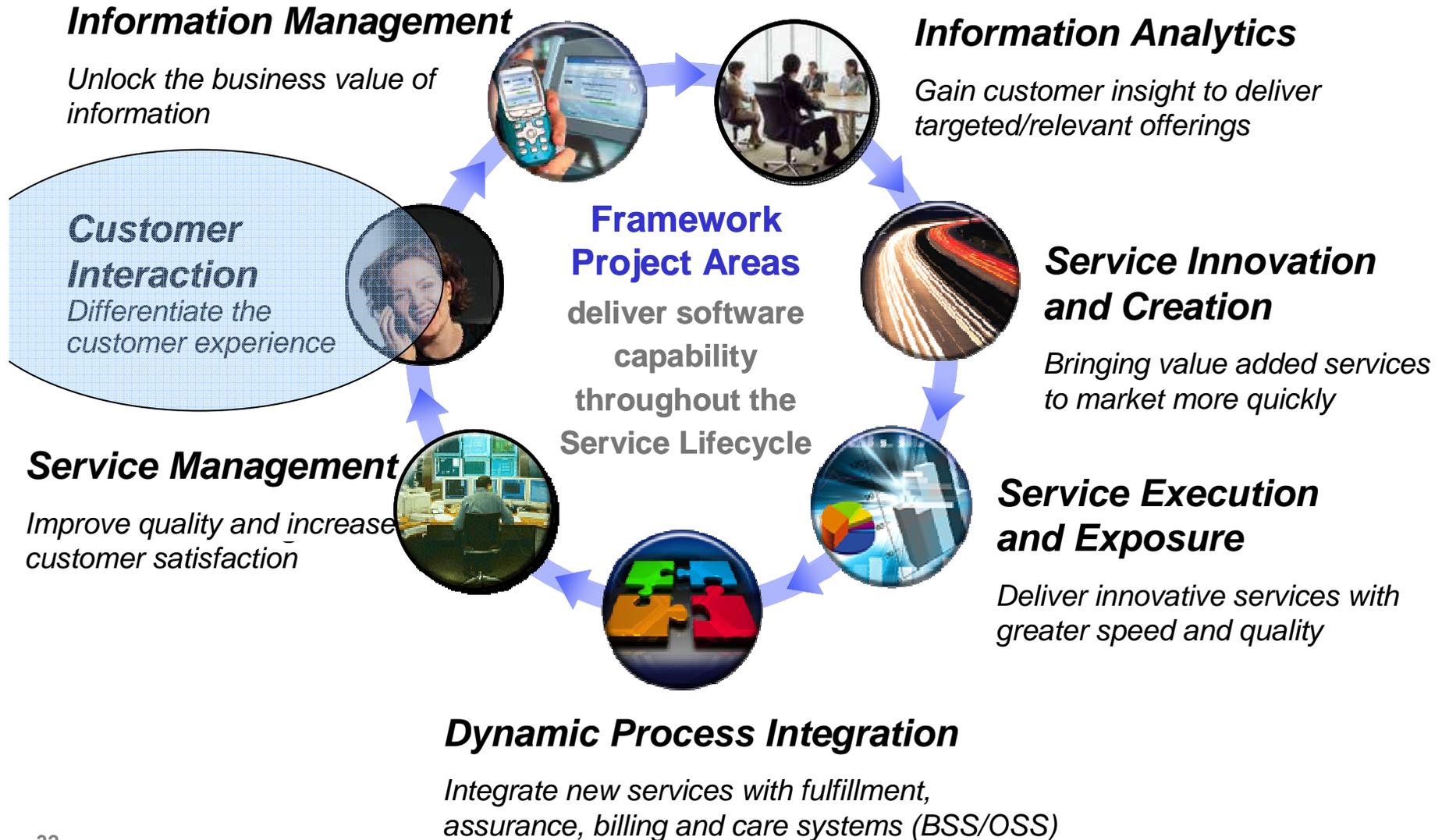
- Management of physical network & IT assets
- Full lifecycle coverage

Combined **Maximo/Netcool** solution



# New capabilities are required in order to succeed

*Enabled by IBM's SPDE industry framework*





# Customer Interaction

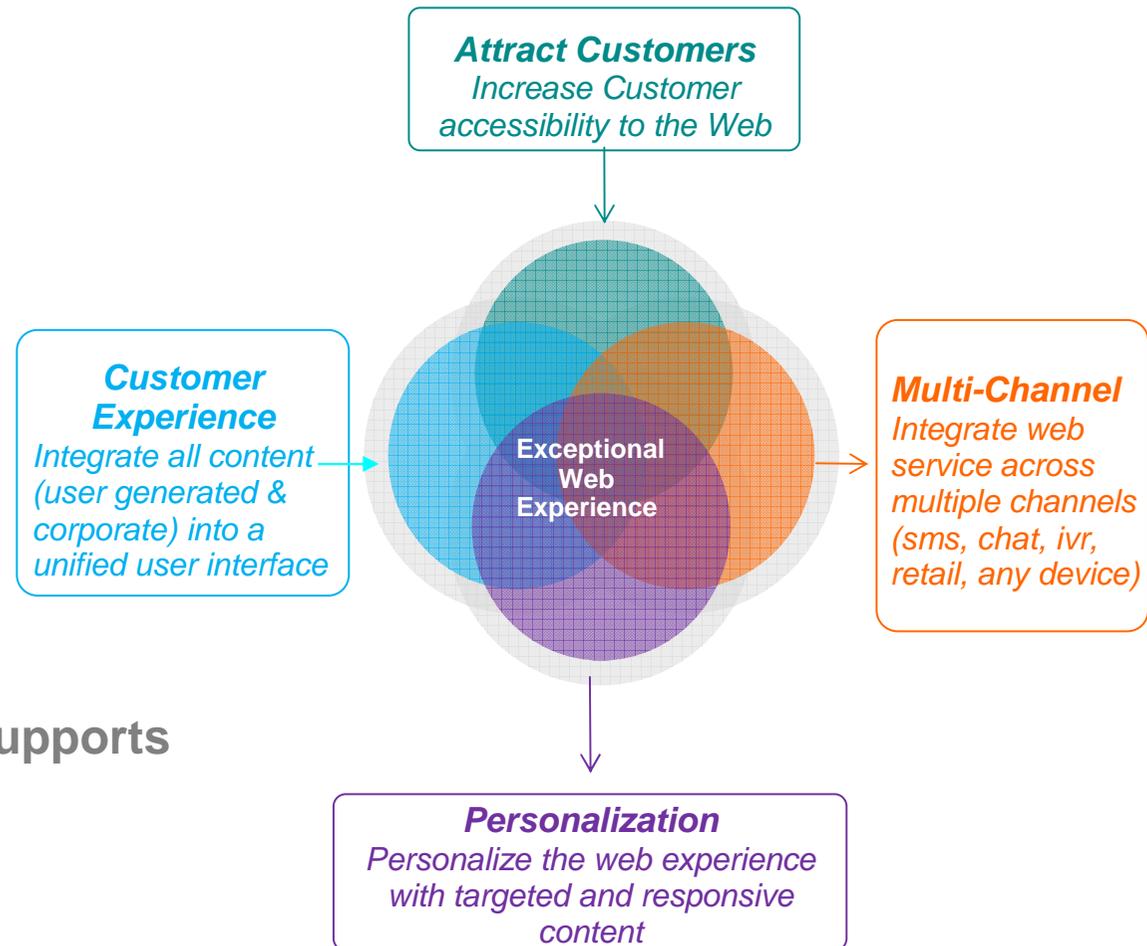
*Provide simplified and automated customer service for clients and partners across multiple channels*

## WebSphere Portal provides an exceptional user experience

- Commerce features for personalization, cross-sell, up-sell, intelligent cart
- Combine widgets from multiple sources: Industry, internet, enterprise and personal widgets
- Applications run across multiple devices: Desktop, mobile phone, TV, etc.
- Integrated community for collaboration, feedback and ratings

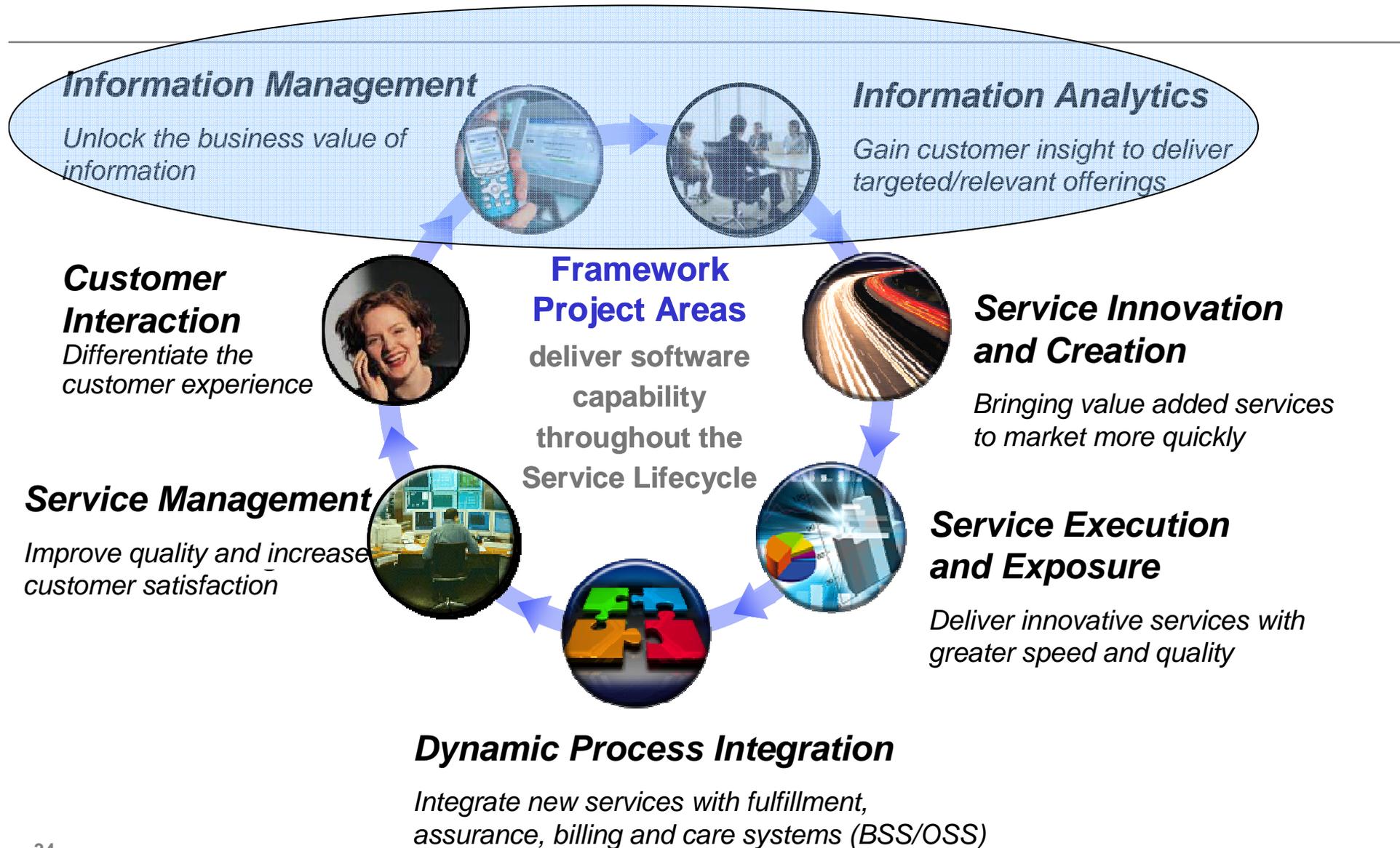
## WebSphere Commerce easily supports complex Telco offerings

- Multi-channel Integration
- Integrated Social Commerce
- Web 2.0 Store Model
- Support a Rich Digital Media Shopping Experience



# New capabilities are required in order to succeed

*Enabled by IBM's SPDE industry framework*





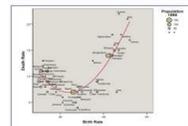
# Information Analytics

*Drive decisions from internal and external sources of information using **Cognos & SPSS** solutions*

- Apply analytics to identify trends, **understand behaviors** and **purchase propensities**
- Utilize analytics and business intelligence to identify and proactively **retain valued customers**
- Apply sophisticated analytics to provider-controlled data/information to achieve carefully **targeted customer interactions**
- Employ analytics to identify existing and potential **sources of fraud**
- **Predict future events** and proactively act upon that insight to drive better business outcomes



**Customer data:**  
Demographics  
Products/Services, ...



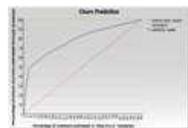
**Transaction & billing data:**  
CDRs, SMS, MMS, Mobile internet, ...



**Interaction data:** Website usage, Call center interactions, email, call logs...



**Attitudinal data:**  
Surveys  
Social media,...



**statistics** - customer segmentation, sales trends, fraud analysis, customer satisfaction, customer interactions

**modeling** – preferences, buying propensities, customer lifetime value, capacity planning, product strategy

**reporting** – APRU, product profitability, sales performance, campaign effectiveness, churn trends

**text analytics** – voice of customer, improve FAQ data base, market sentiment, social network insight, call center optimization

**prediction** – buying behaviors, churn & retention, next best offer, campaign optimization, targeted marketing

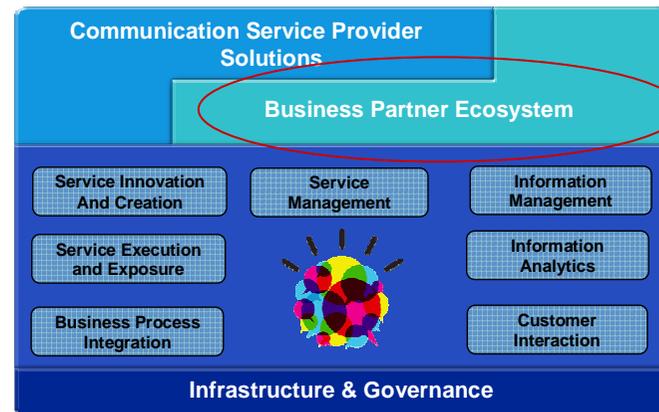
# The SPDE Business Partner Ecosystem

*Providing applications that are compatible with the SPDE Framework*



Pre-integration between SPDE software capabilities and industry-leading partner applications provides...

- Faster deployment
- Easier integration
- Lower cost of operations



## Getting Started with the Service Provider Delivery Environment (SPDE) Framework

- Understand IBM's Smarter Communications vision
- Understand IBM's SPDE Framework, its software capabilities and IBM Communications Industry solutions
- Identify specific business concerns to establish a starting point
- Work together to identify how IBM software and the SPDE Framework can augment your solution and approach
- Identify a business initiative
- Conduct an Industry Business Value Assessment to prioritize initiatives and select a project
- Work on a proof of concept or production pilot

<http://www-01.ibm.com/software/industry/telecommunications/>



## Industry Specific Criteria

*Partner fulfills industry specific technical criteria (A & B)*

*Get validated with 3 points*

# A

### Key Framework Building Block (2 points)

- WebSphere Application Server 6.1 or above
- WebSphere Process Server 6.0 or above
- Tivoli Netcool Omnibus
- Cognos

+

# B

### Industry Specific Electives (1 point)

- WebSphere Application Server -SIP
- WebSphere IMS Connector
- WebSphere Presence Server
- WebSphere XDMS
- WebSphere Telecom Web Service Server
- WebSphere Business Services Fabric
- WebSphere Process Server
- WebSphere ESB with Media Extensions
- Information Server
- Rational Software Architect
- DB2
- iLog
- MDM
- Solid DB

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*More information on IBM Service Provider  
Delivery Environment validation process  
at:*

<http://www-304.ibm.com/jct01005c/isv/tech/validation/framework/index.html>

(external web site for partners)



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Thank You