

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



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



Lower operating costs
to drive profitability

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



Increase retention **AND**
drive new revenue



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

Operational and Network Efficiencies

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

Lower opera
to drive pro

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

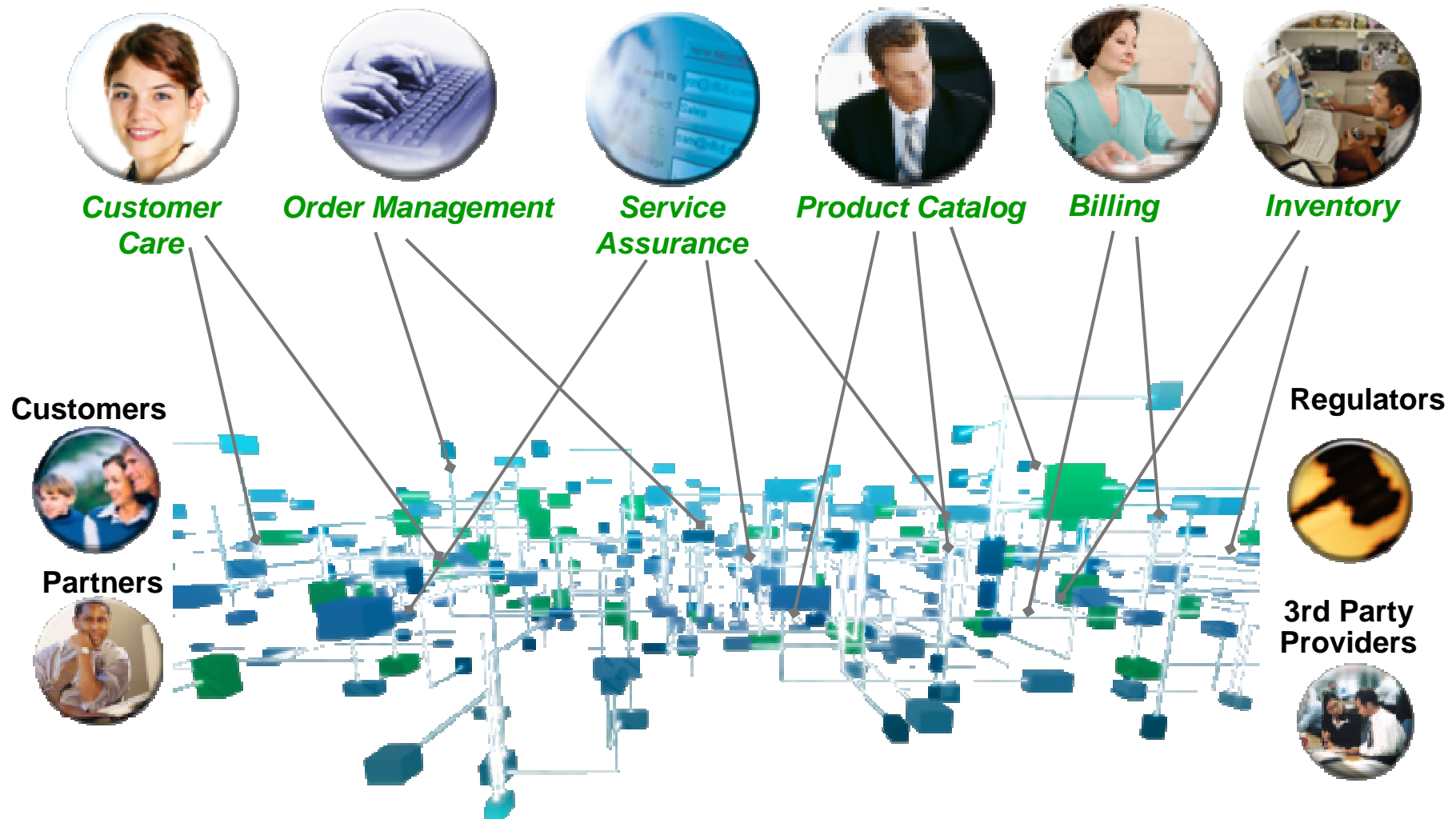
Management Priorities . . .

- 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 . . .

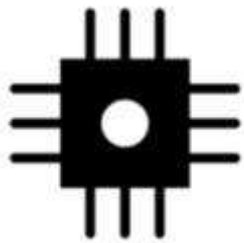
- Deliver converged voice, video and data services
- Integrate service applications and connect with backend support systems
- Leverage existing network infrastructure
- Simplify service administration

Inflexible and complex operations and data silos inhibit CSP transformation

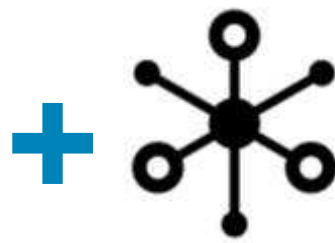


Start planning and implementing smarter communications systems

INSTRUMENTED



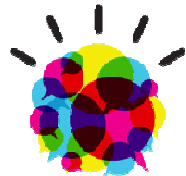
INTERCONNECTED



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



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

Differentiate the
Customer Experience



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

Operational and Network
Efficiencies



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

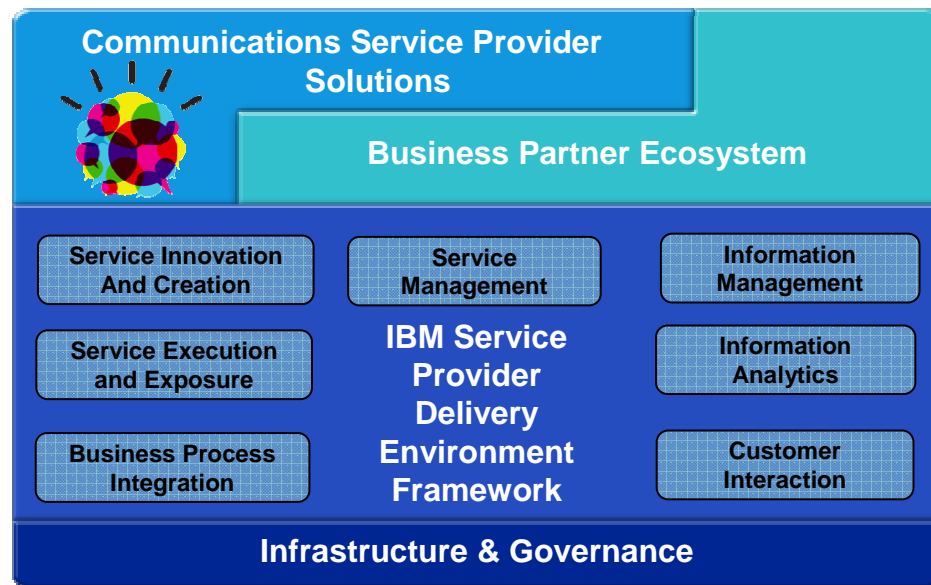


Software is critical to enabling smarter communications solutions

- **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

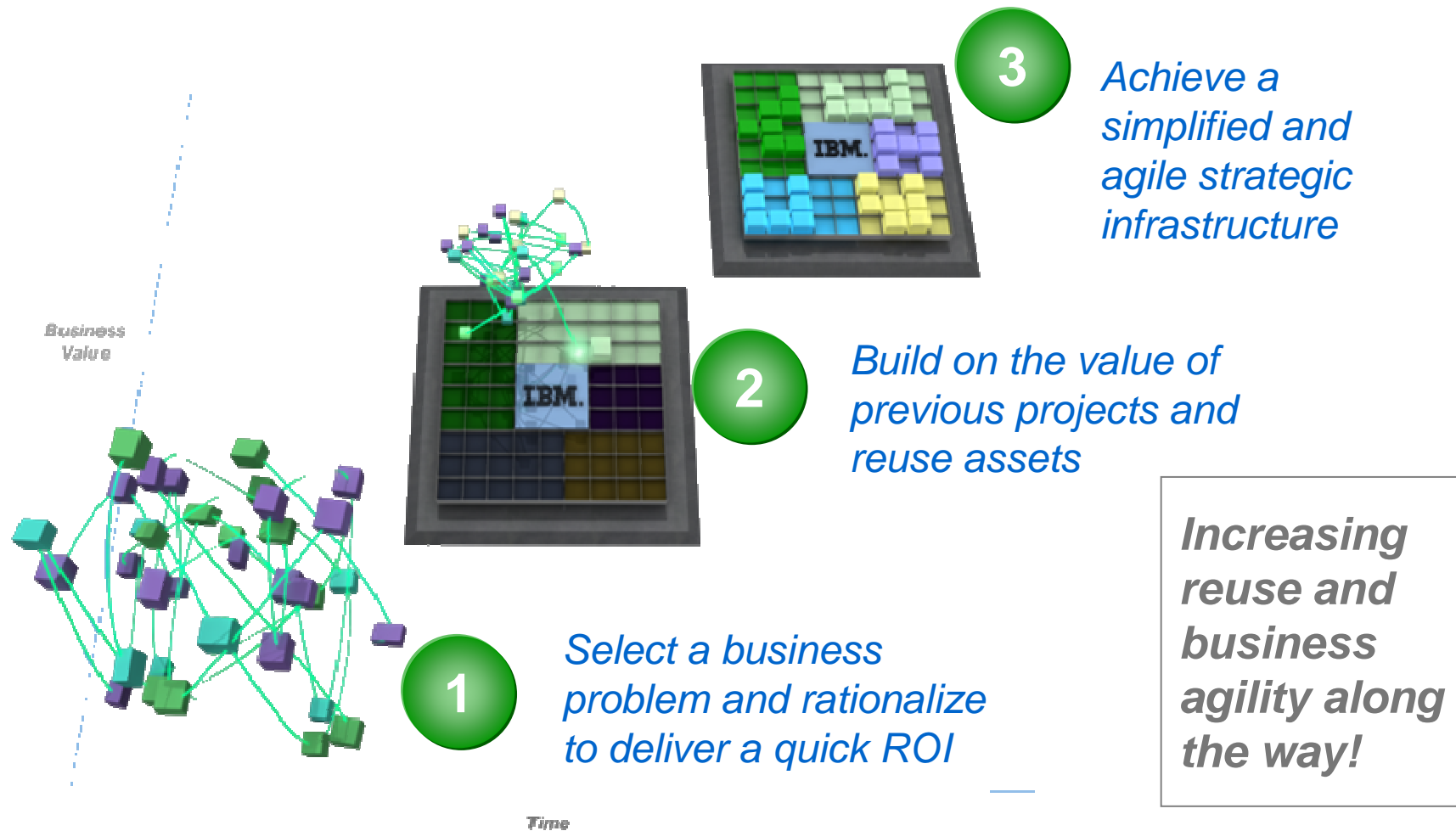
The framework gives you speed, flexibility and choice in deploying solutions while reducing cost and risk!



The framework provides...

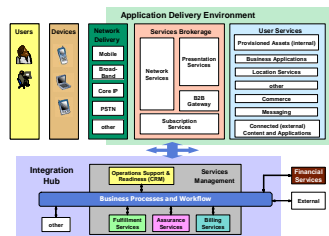
- An approach to align technology with CSP business needs
- Communications industry best practices and solution accelerators to speed deployment
- Re-usable implementation patterns to lower risk
- Support for adoption of open and industry standards
- A choice of business applications from IBM business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

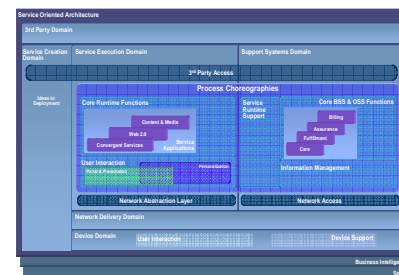
2006 – SPDE 2.0



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



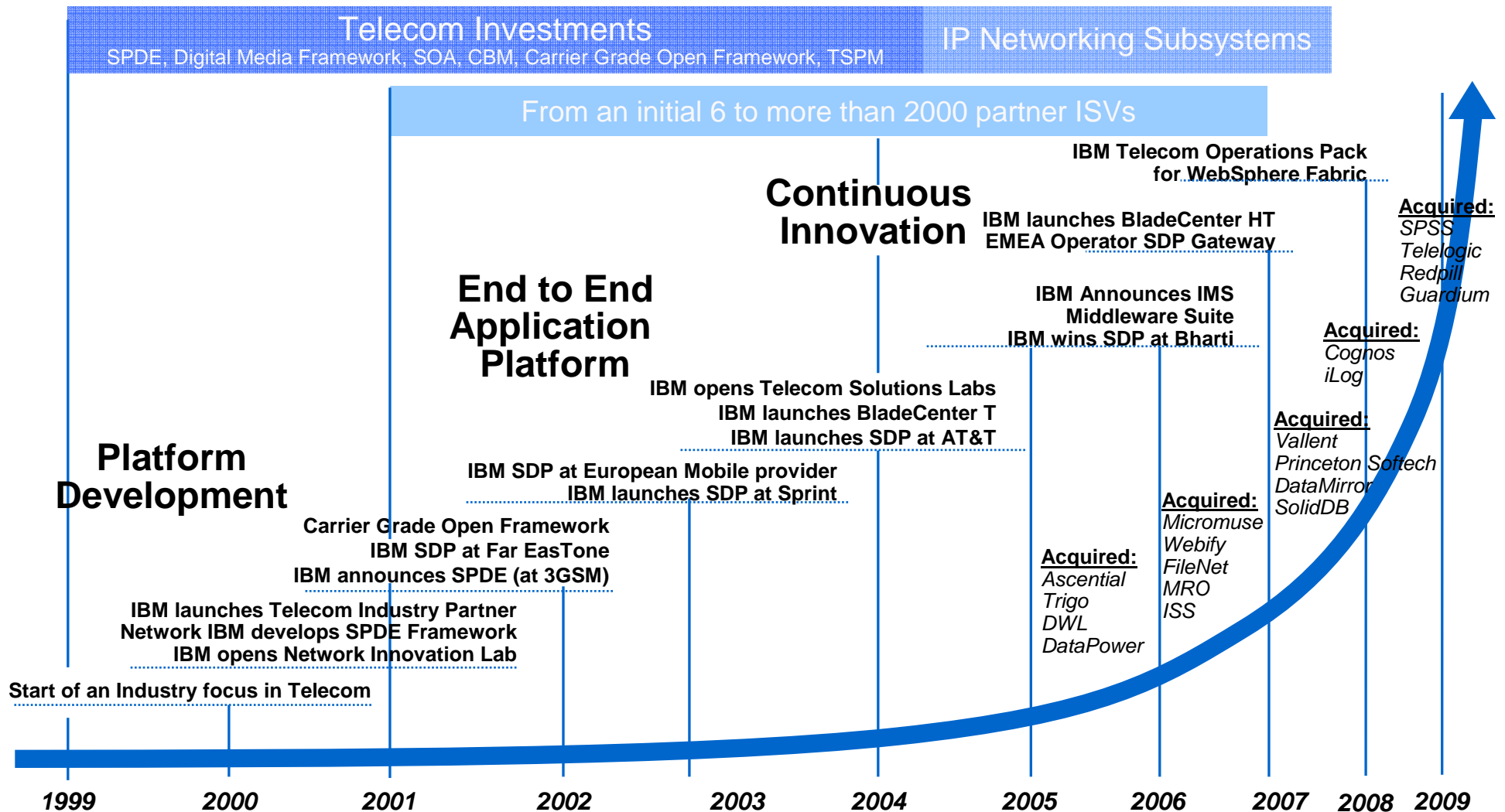
SPDE Focus in 2010

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

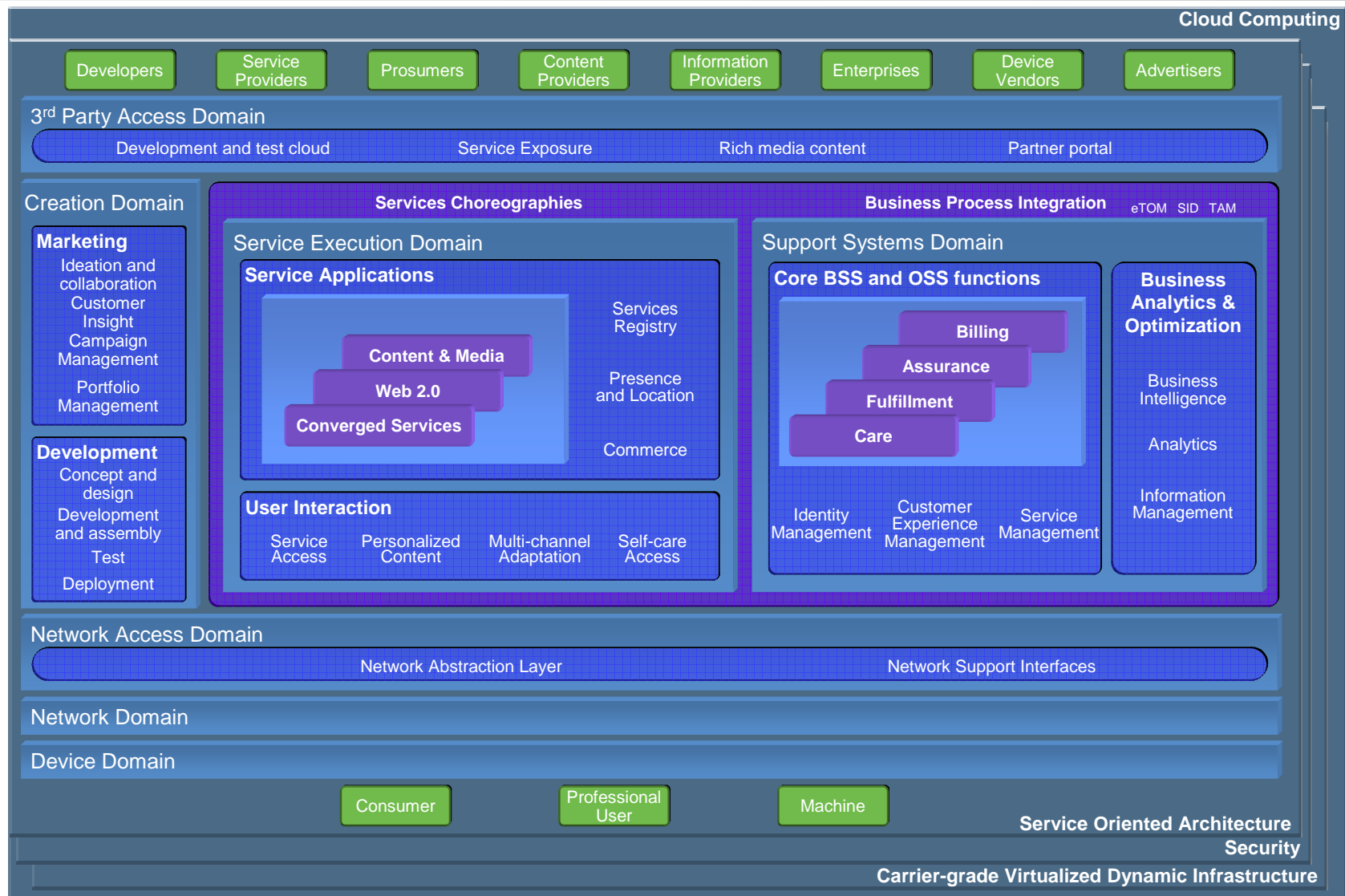
Level 0



IBM Service Provider Delivery Platform

SPDE 3.0 - 2010

Level 1



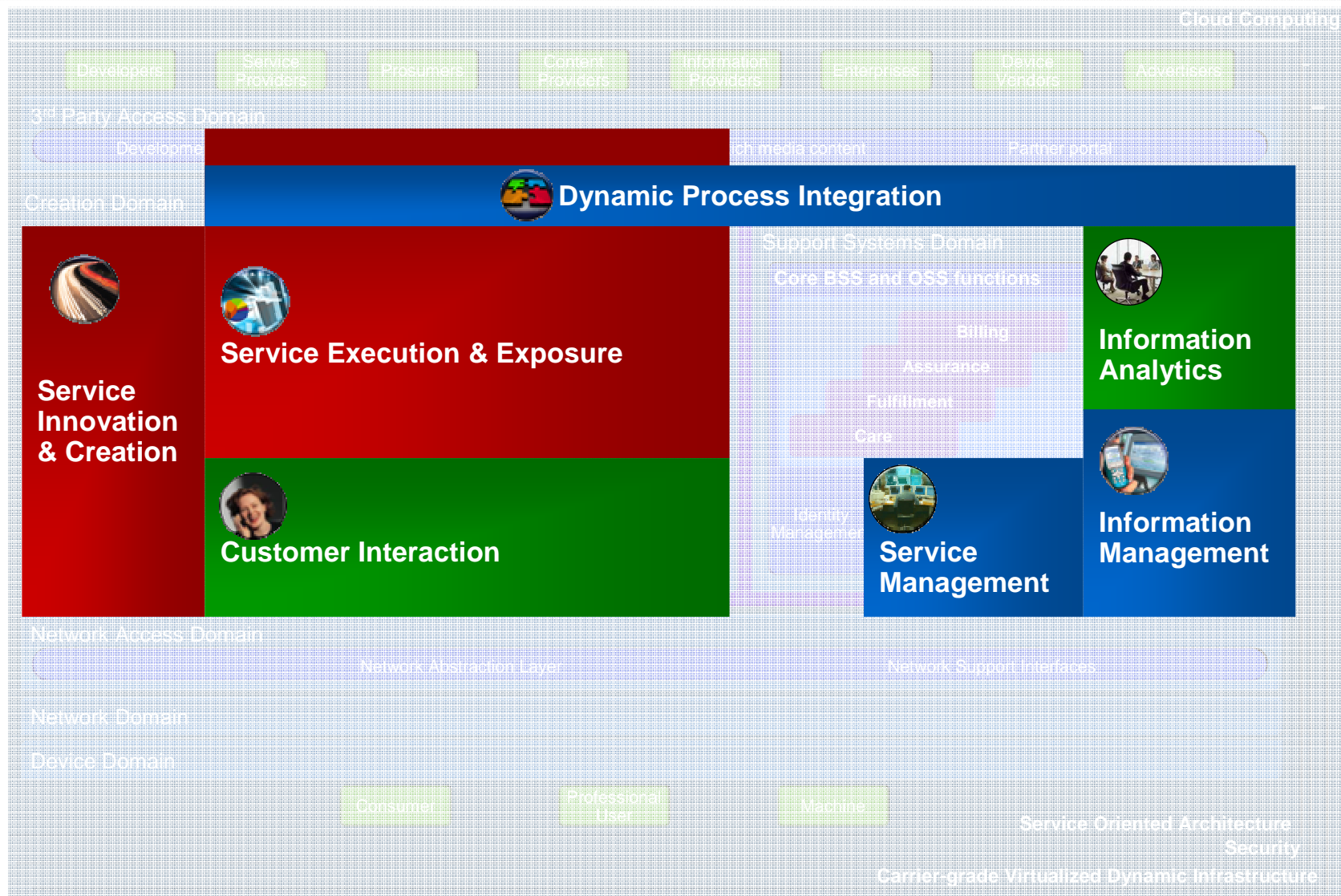
The SPDE Framework spans the enterprise

Accelerate new services and business models

Operational and Network Efficiencies

Differentiate the Customer Experience

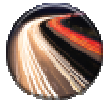
Level 1



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

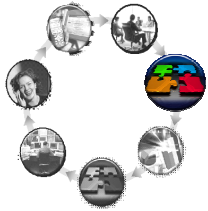
“We can react very quickly to promotional opportunities when they arise. Just as important, we can detect in near real time whether the mechanics of our promotion are working—and if they’re not, we can change them almost instantly.”

— 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



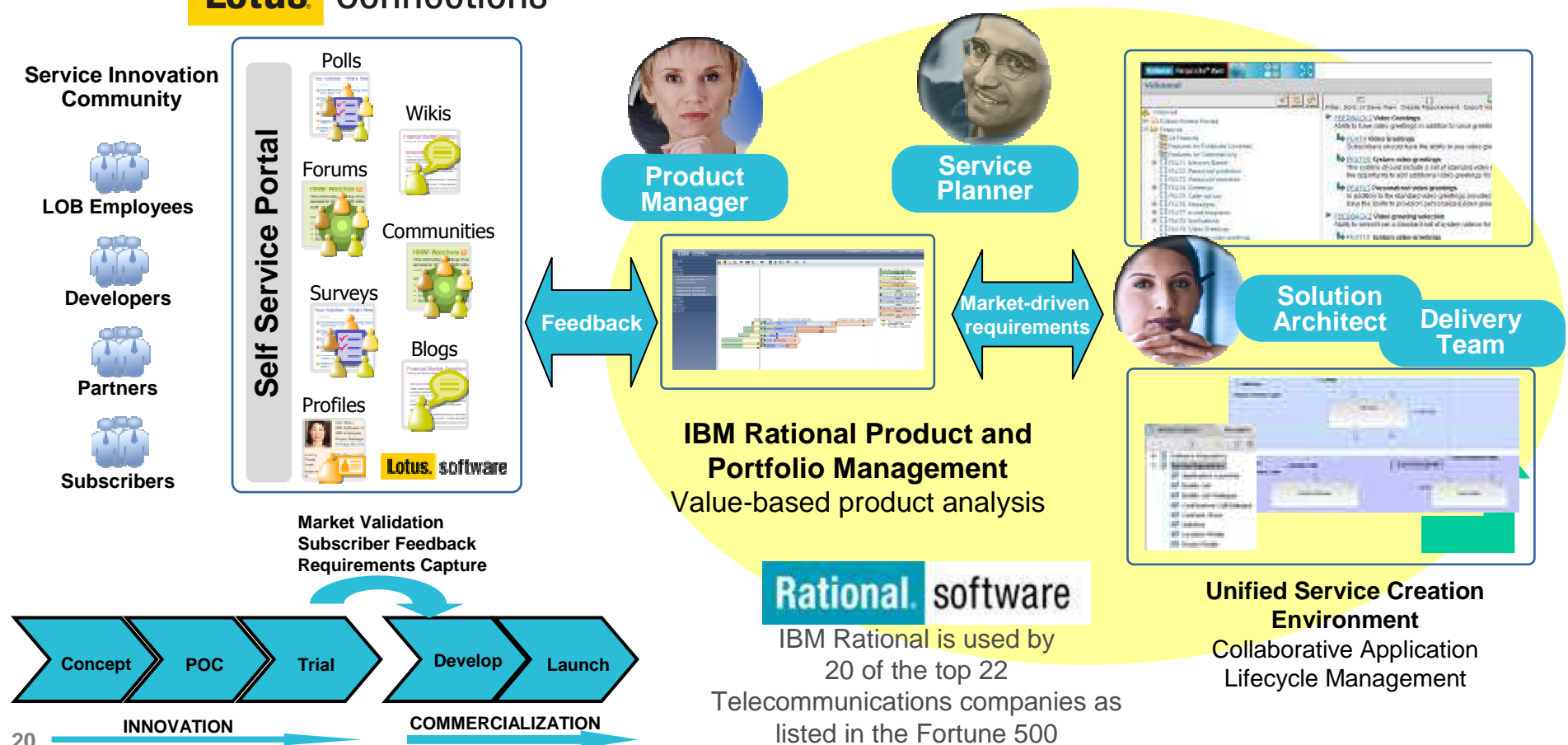


Service Innovation and Creation

*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





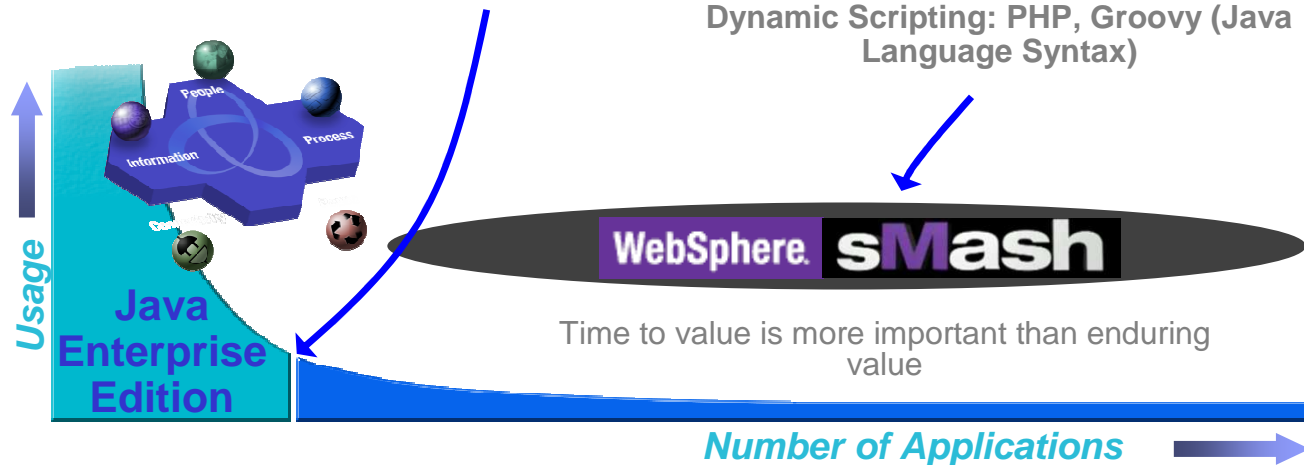
Service Innovation and Creation

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**

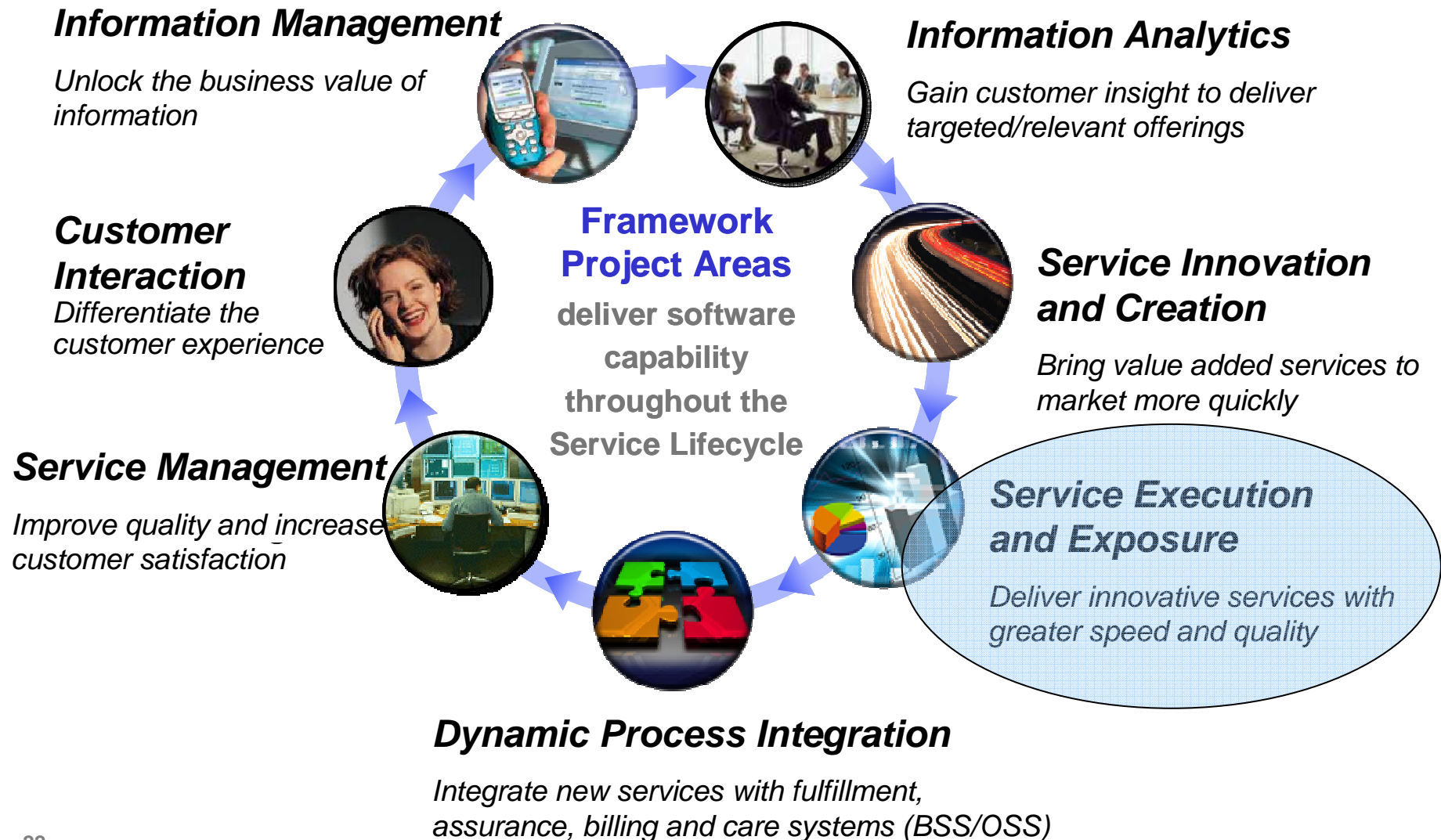
Scenario: Enable Mobile Access:

Scenario: Integrated view of disparate data:



New capabilities are required in order to succeed

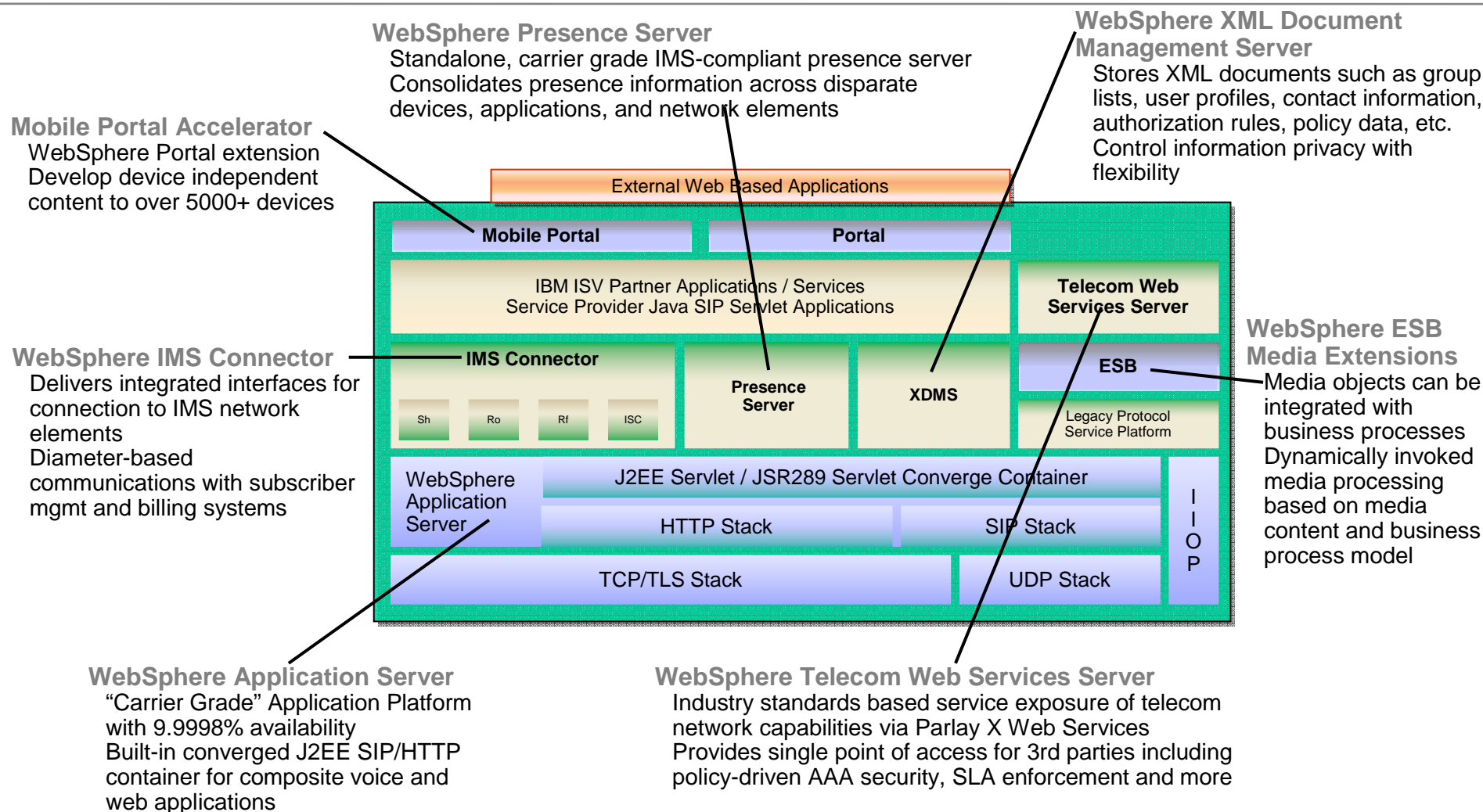
Enabled by IBM's SPDE industry framework





Service Execution

Using WebSphere for Telco in the Service Execution Domain

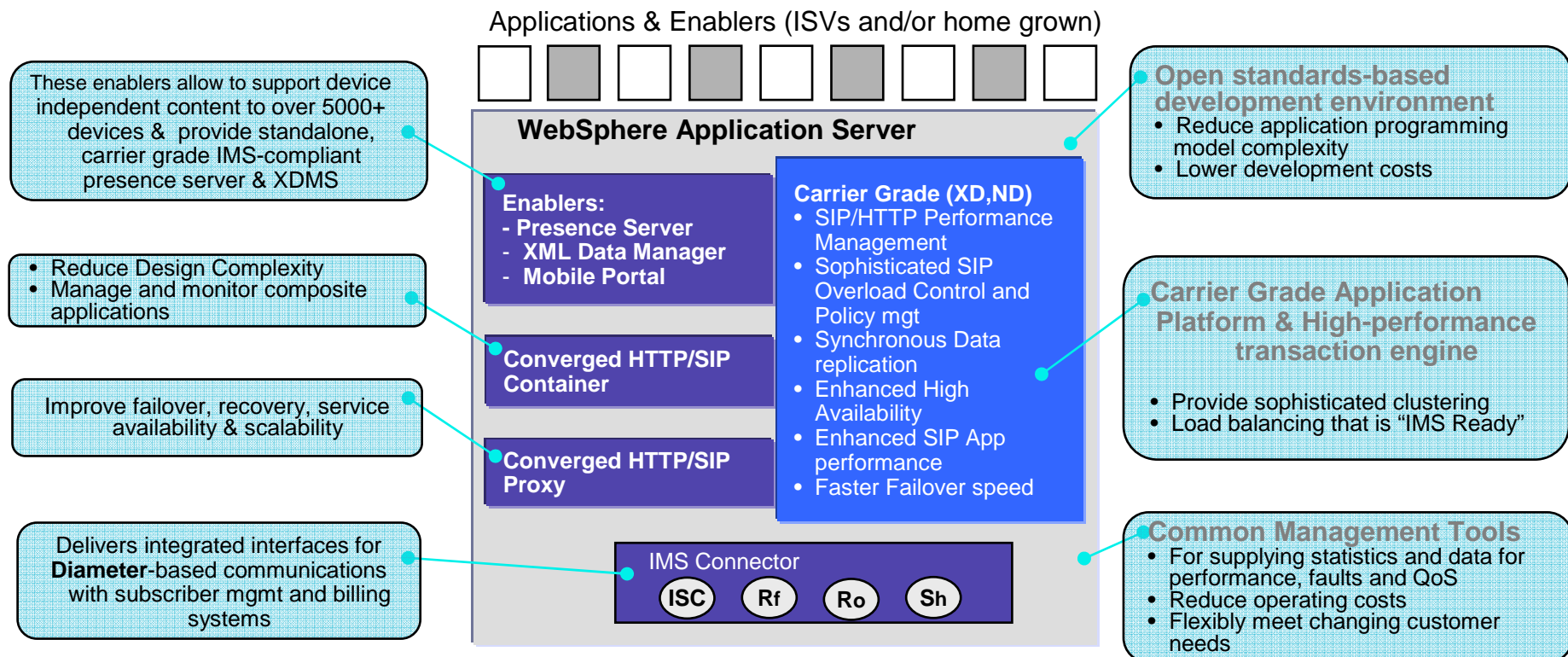




Service Execution

WebSphere Application Server is the foundation layer

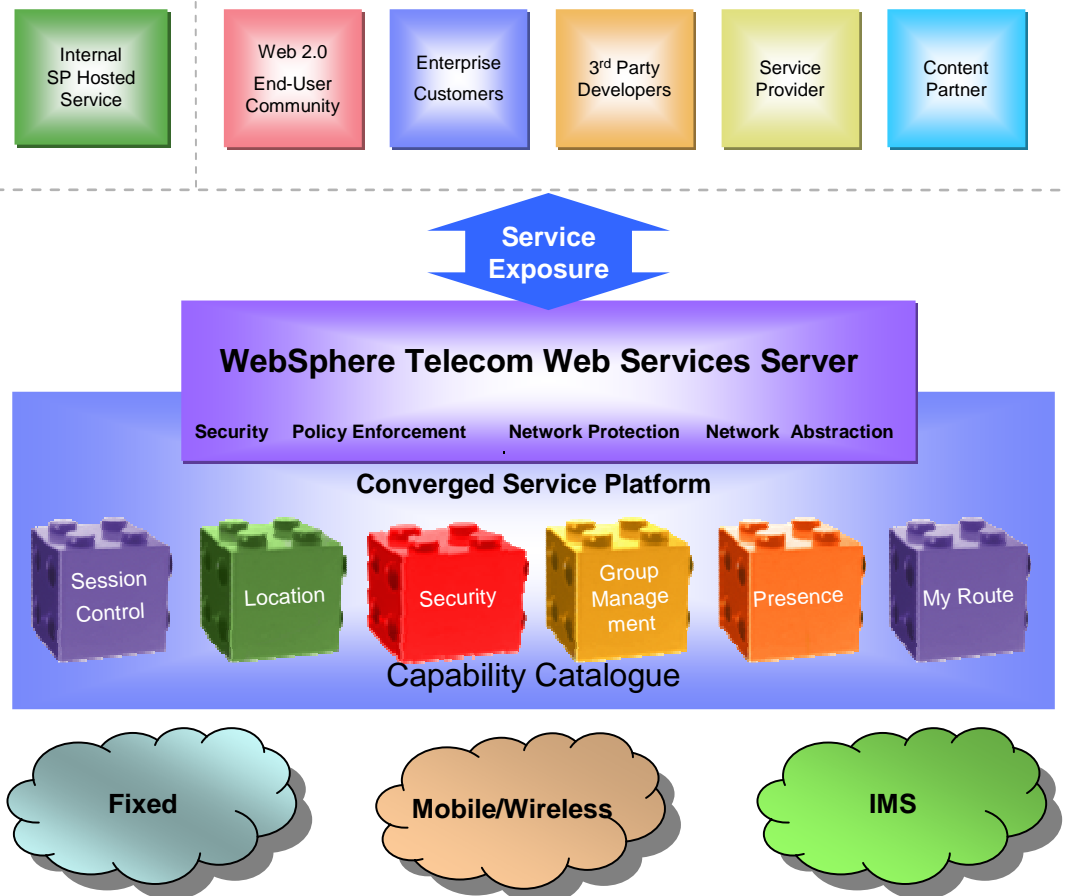
Meet subscriber demands for composite services through a SOA-based, high-performance **WebSphere execution platform** for converged services that leverages presence, voice, media and IT enablers





Service Exposure

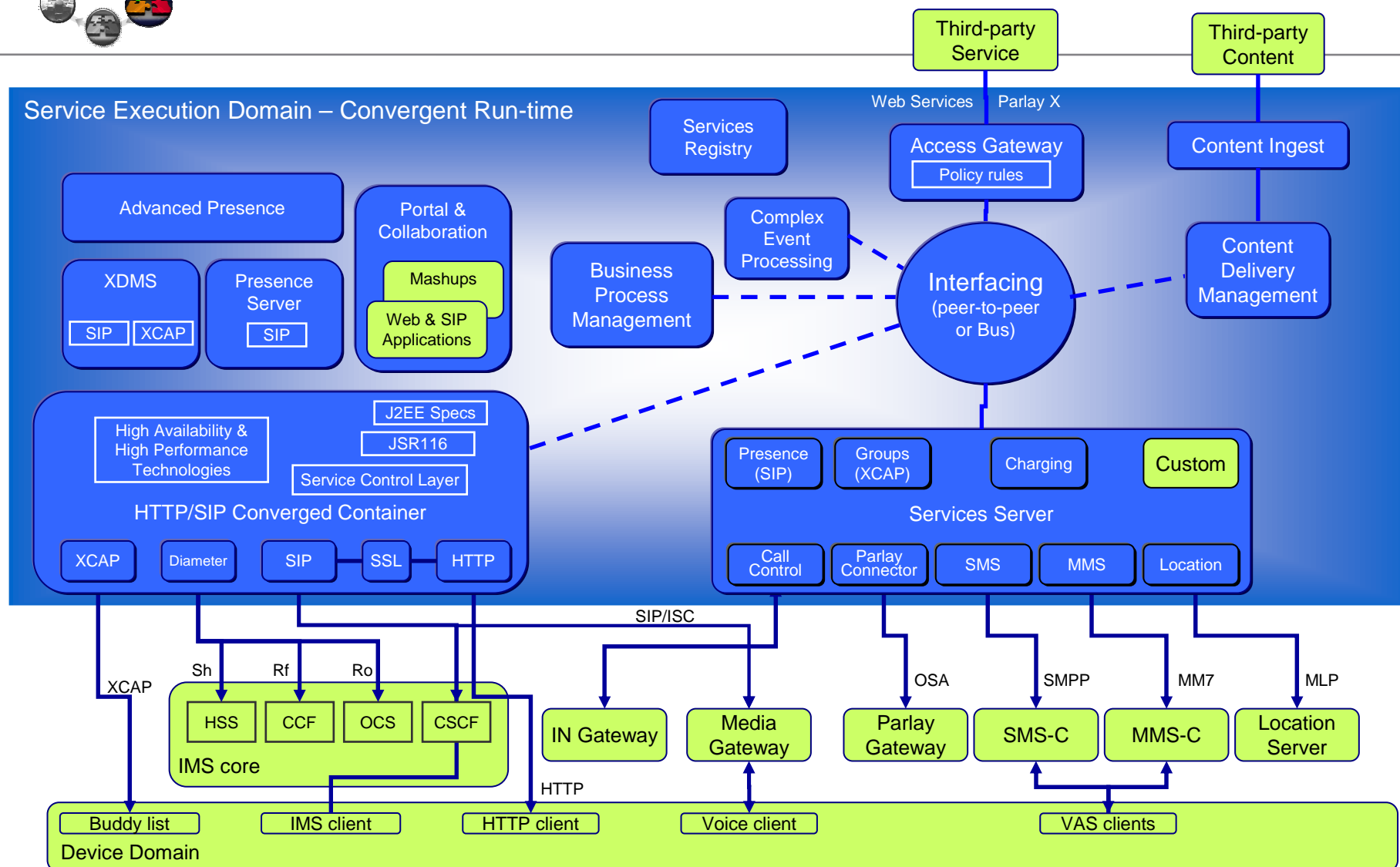
WebSphere Telecom Web Services Server: Linking SOA and Web 2.0



- 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



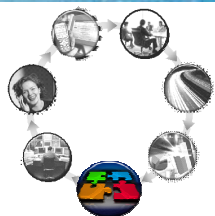
IBM Service Execution Domain in an SDP



New capabilities are required in order to succeed

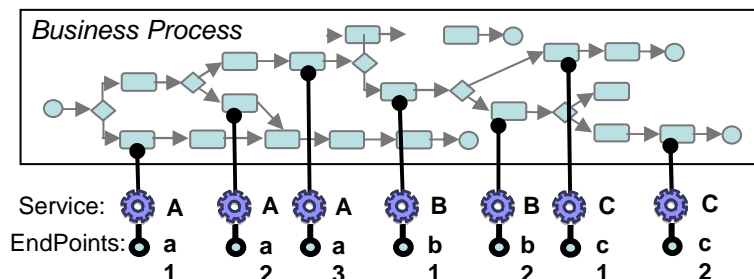
Enabled by IBM's SPDE industry framework



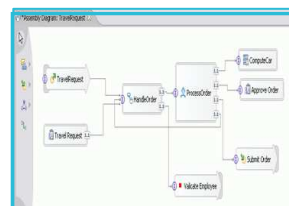


Dynamic Process Integration

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



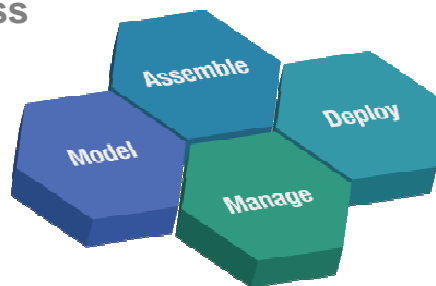
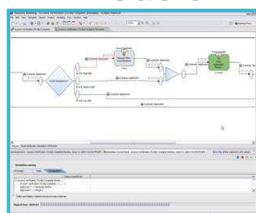
**WebSphere
Integration Developer**



***Deploy, Execute,
and Change***

**WebSphere Business
Modeler**

***Model and
Simulate***

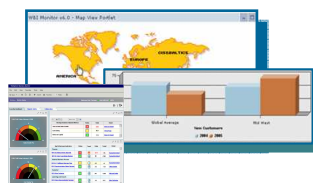


**WebSphere Business
Service Fabric**

**WebSphere Process
Server**

**WebSphere Enterprise
Service Bus**

**WebSphere Business
Monitor**



***Monitor, Analyze,
Predict and Act***

- Integrate new services with fulfillment, assurance, billing and care systems.
- Exploiting SOA to enable business flexibility



Process Integration - IBM Telecom Content Pack

Telemanagement 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

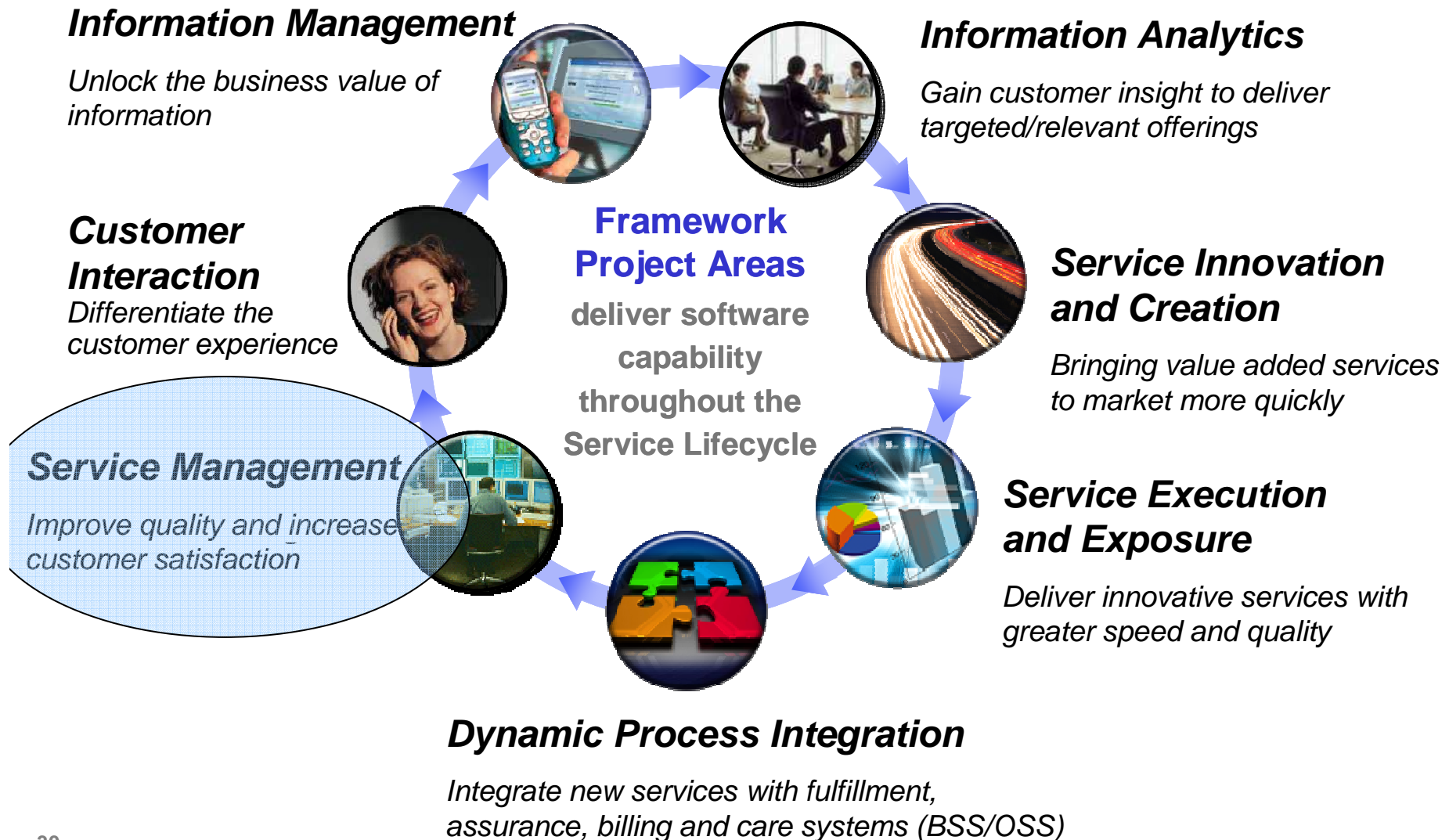
WebSphere BPM

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

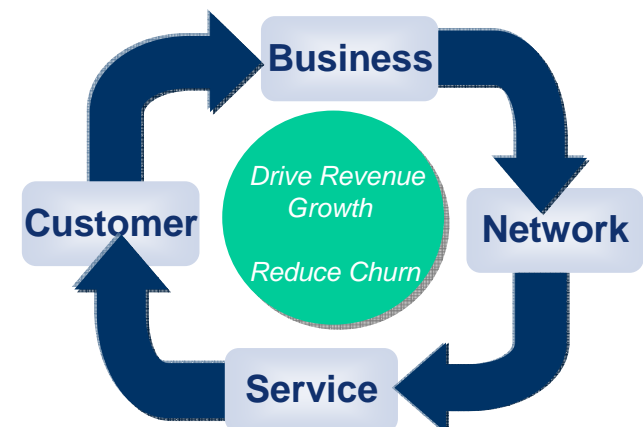
Using **IBM Tivoli Netcool Software**, gain end-to-end view of network performance. Conduct rapid root cause analysis



Asset Management:

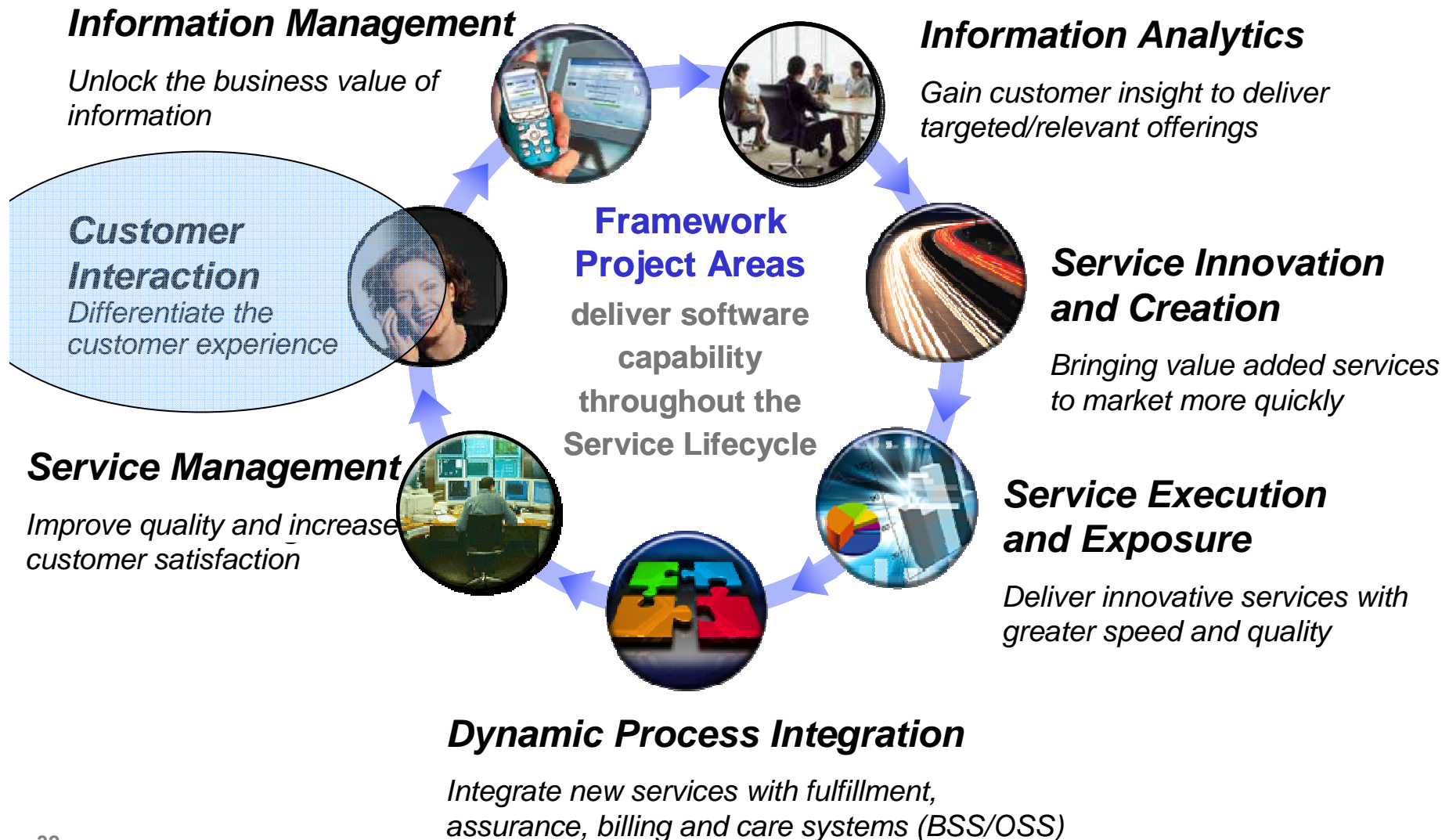
- Management of physical network & IT assets
- Full lifecycle coverage

Combined **Maximo/Netcool** solution



New capabilities are required in order to succeed

Enabled by IBM's SPDE industry framework





Customer Interaction

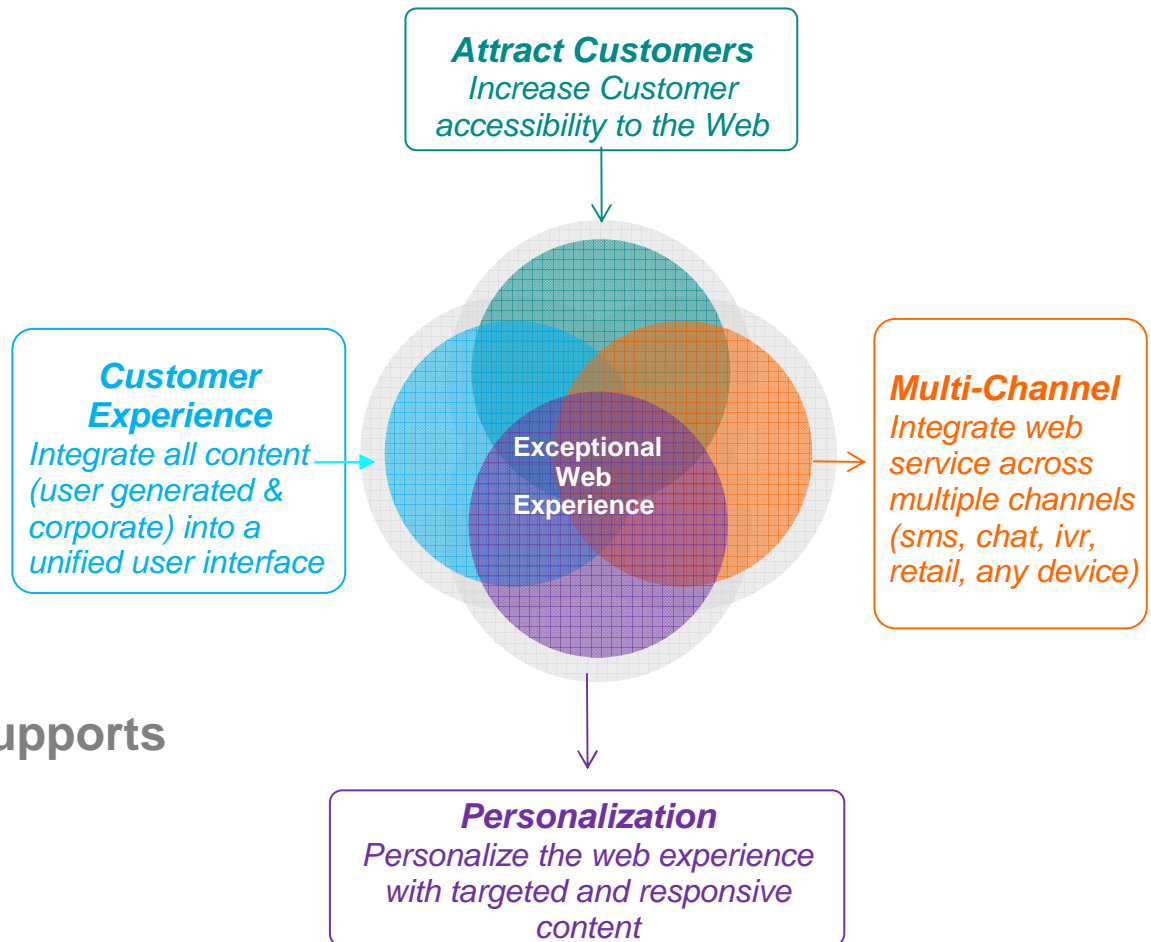
Provide simplified and automated customer service for clients and partners across multiple channels

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

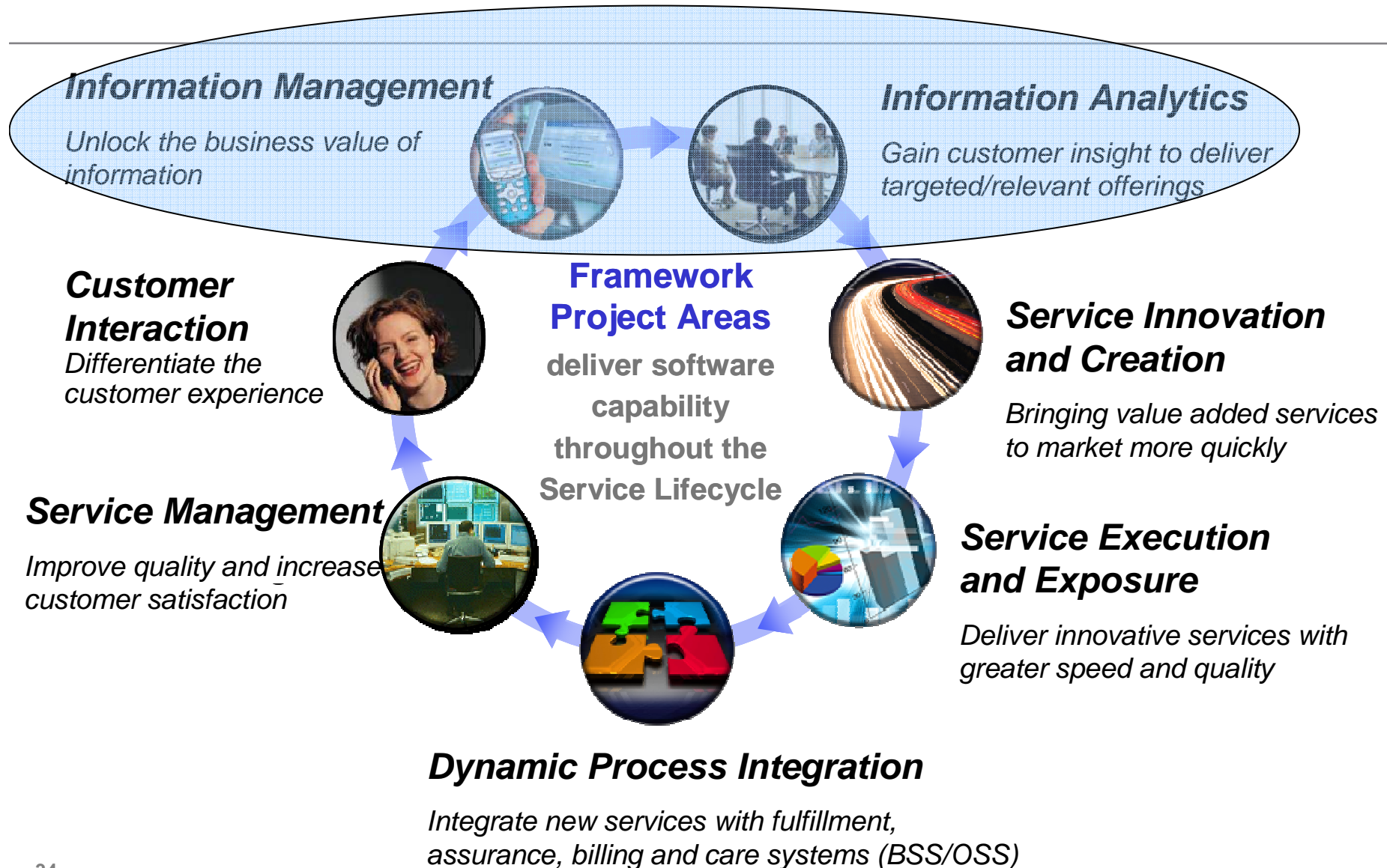
WebSphere Commerce easily supports complex Telco offerings

- 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:

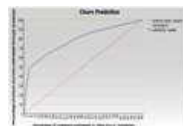
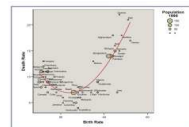
CDRs, SMS, MMS, Mobile internet, ...



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

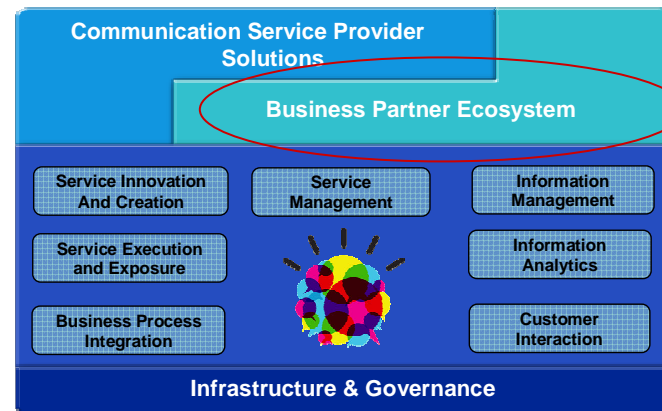
The SPDE Business Partner Ecosystem

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

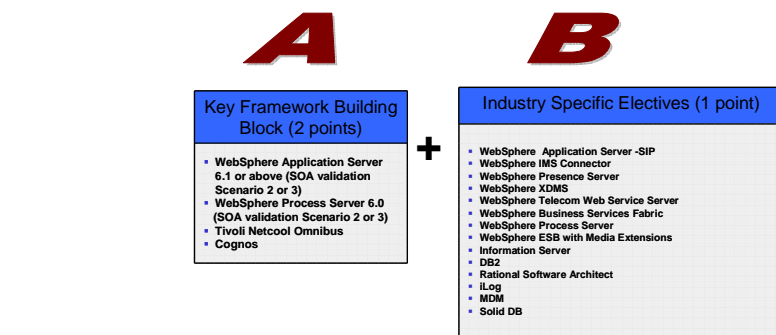
- Understand IBM's Smarter Communications vision
- Understand IBM's SPDE Framework, its software capabilities and IBM Communications Industry solutions
- Identify specific business concerns to establish a starting point
- Work together to identify how IBM software and the SPDE Framework can augment your 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/>

SPDE Partner Validation Program

The objective of the SPDE Partner Program is to prove pre-integration and focus on marketplace success

1. Industry Specific Criteria



2. Validate pre-integration is Complete

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

3. Promote Value of Partners as Framework Assets

<http://w3.tap.ibm.com/w3ki08/display/FWKS/SPDE+Partners>



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

*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)

Thank You