



IBM Software Universe
Smarter Businesses, Smarter Industries.

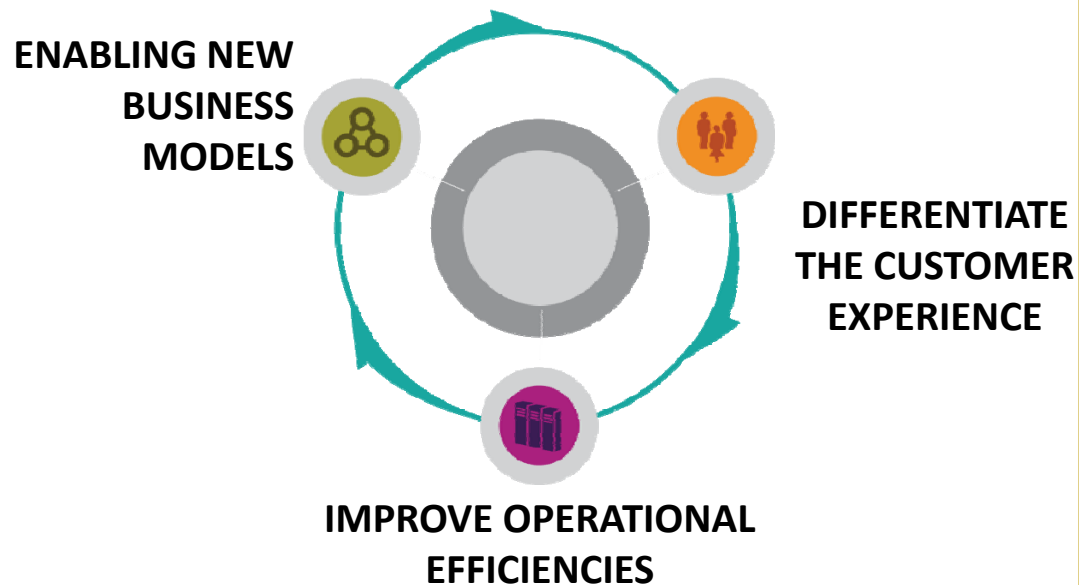
8th March 2011, Pan Pacific, Dhaka.



IBM Bridging Gaps between Business Requirements & IT Capabilities

Vikrant R. Sankhe
Dy. General Manager

Smarter Telecom addresses three key issues

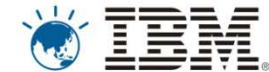


• **IBM Telecom Frameworks: Bridging the gap between business & IT**

- Data Management for Telecom
- Networks: Fault and Performance Management
- Effective Software Delivery for Telecom
- Access the information you need - anytime, anywhere
- Optimizing Business Processes using Filenet BPM
- Customer Churn & Insight for Telecommunications
- Dynamic Business Process Management for CSP

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Bangladesh Telecom Market....



Telecom Industry Contributes ~ 6% GDP Growth

2010 – Mobile Subscribers ~ 71.464 mn with penetration rate of 43.46%

2015 – Forecasts Mobile Subscriber ~ 194.990 mn representing a mobile penetration rate of 110.59%, surpassing the 100% for the first time.

Industry's average ARPU continue to foresee a downtrend due to intense competition and aggressive pricing tactics from operators to gain market share.

Monthly APRU is < US\$ 3...Lowest cost mobile phone service in the world. The fall in ARPU relates to expectations that the prepaid subscriber base will continue to increase as a proportion of the total, a trend that is encouraged by network expansion into rural markets, where three-quarters of the population reside.

Annual Churn Rates are increasing.

Average Minutes Per User is declining.

Plans to transform Bangladesh into a digital country by 2021 are gaining traction after the Bangladeshi government announced plans in September 2010 to implement seven projects at a cost of BDT64.34bn (US\$923.75mn).

The seven projects will focus on rolling out next-generation technologies such as broadband wireless and fibre optic cable networks in order to improve Bangladesh's inadequate broadband infrastructure.

The key objective is to lower operating costs and provide affordable broadband services to the population through the unification and standardization of the country's broadband networks.

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Today's Market Challenges....



Improve time to market
AND quality of value added
services



Lower operating costs
to drive profitability



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



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



Increase retention **AND**
drive new revenue



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



Leverage existing
network infrastructure



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Today's Market Challenges.... Require new actions and solutions



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.

Accelerate new services and business models

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

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

Differentiate the Customer Experience

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

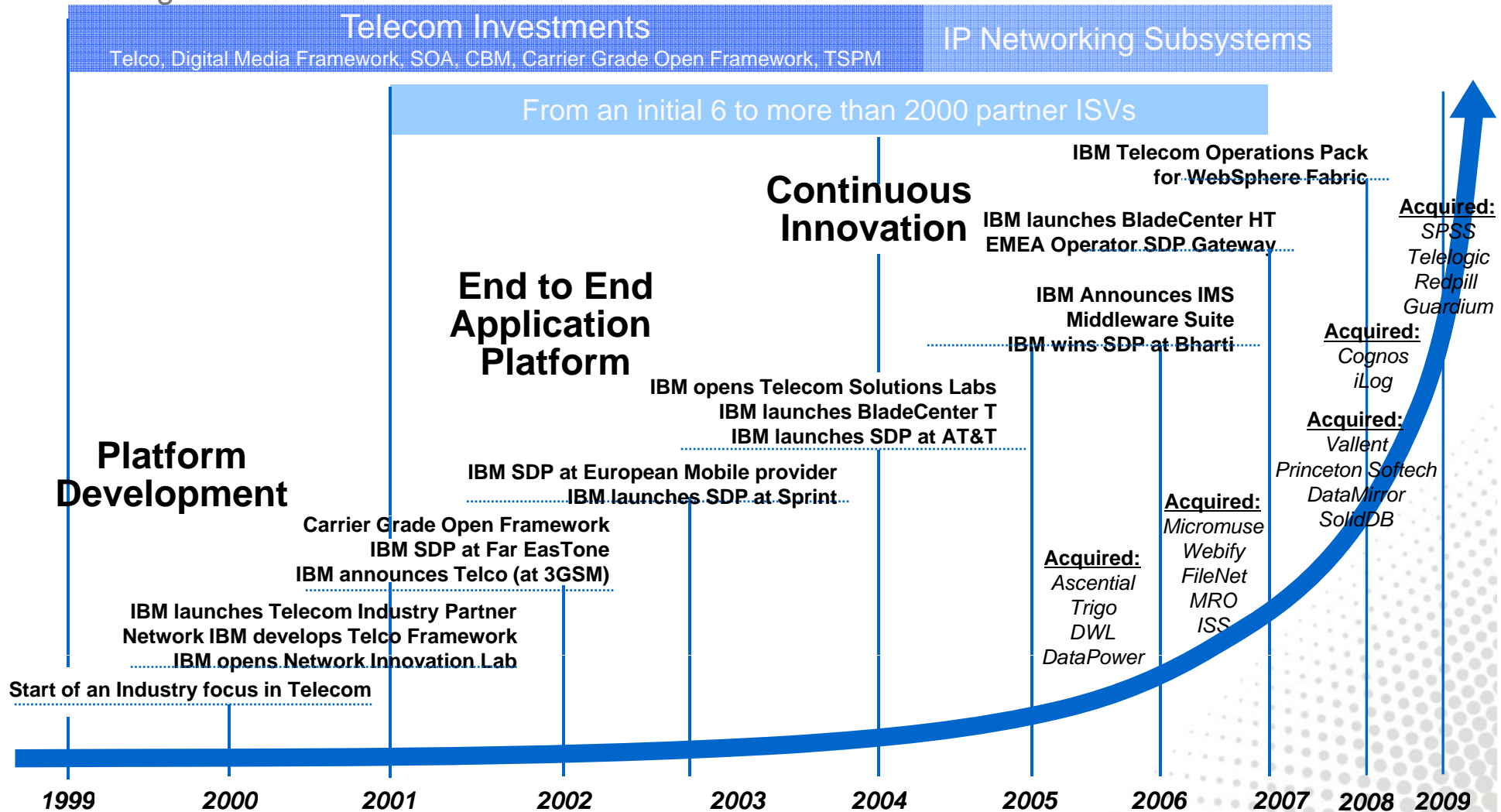
Integrate services **AND**
connect with backend support s

Smarter Businesses, Smarter Industries.



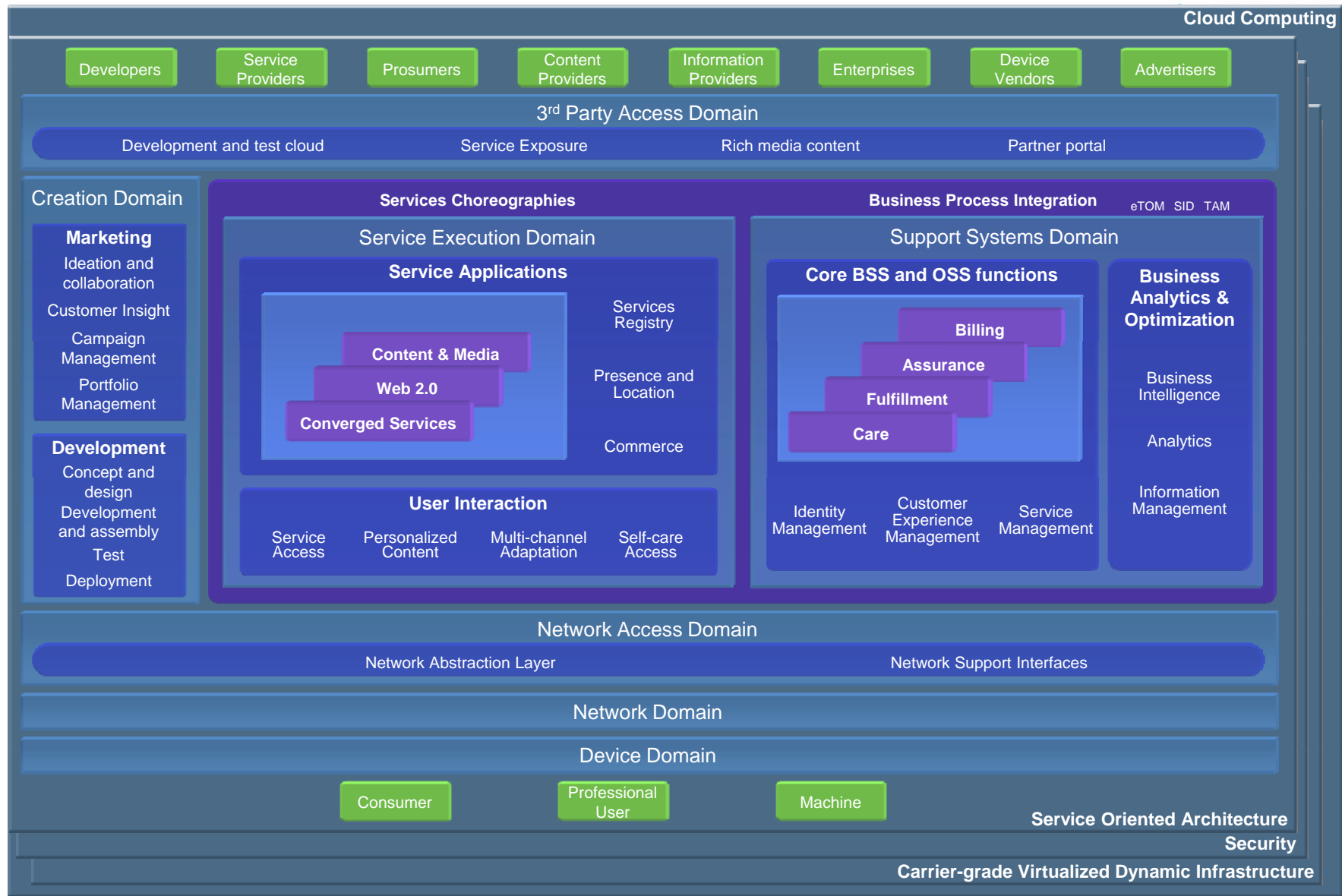
IBM is investing in the Communications Industry for the long term

Driving the continuous evolution of the IBM Telco Framework



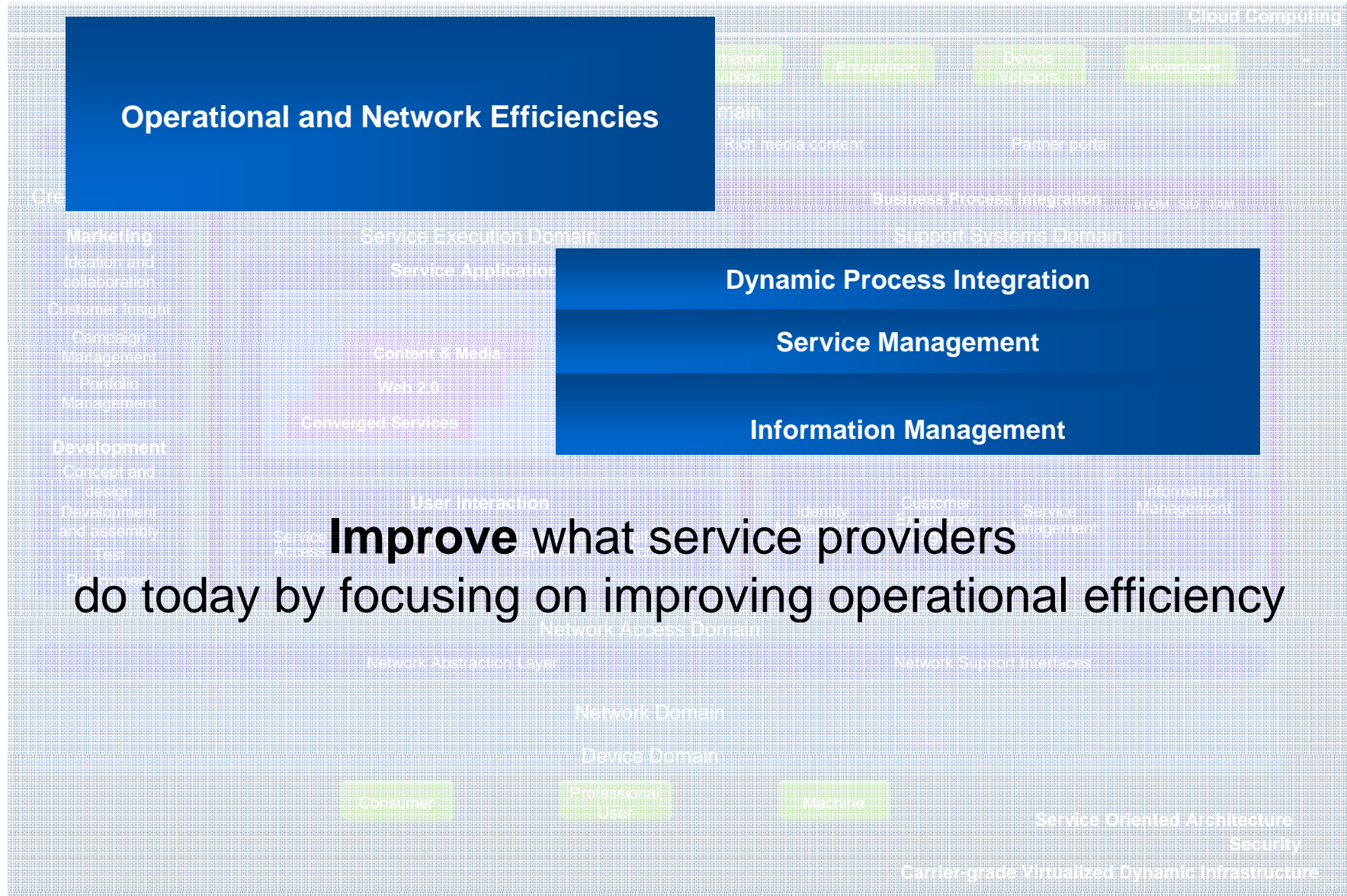
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IBM Telecom Framework



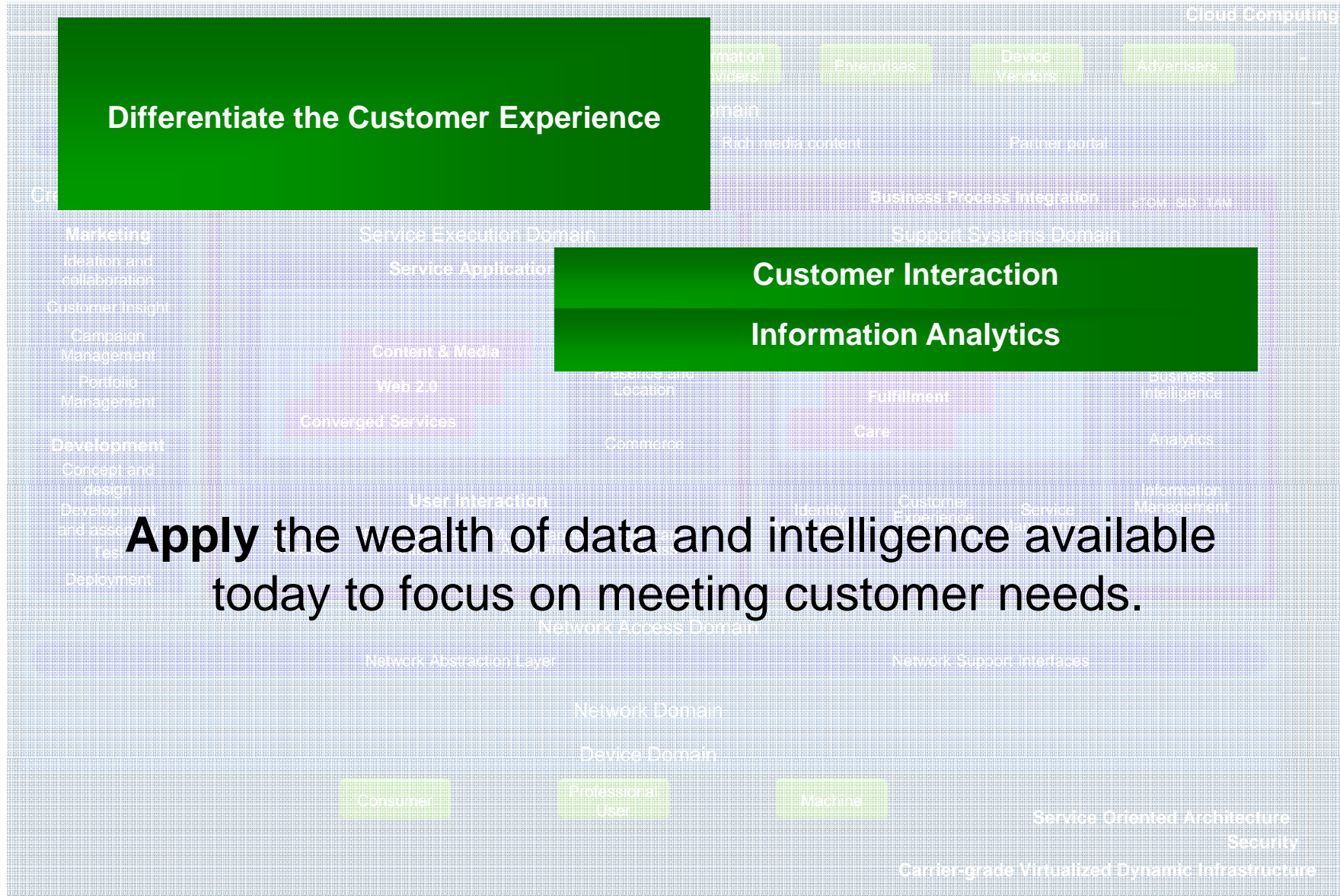
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The Framework spans the enterprise



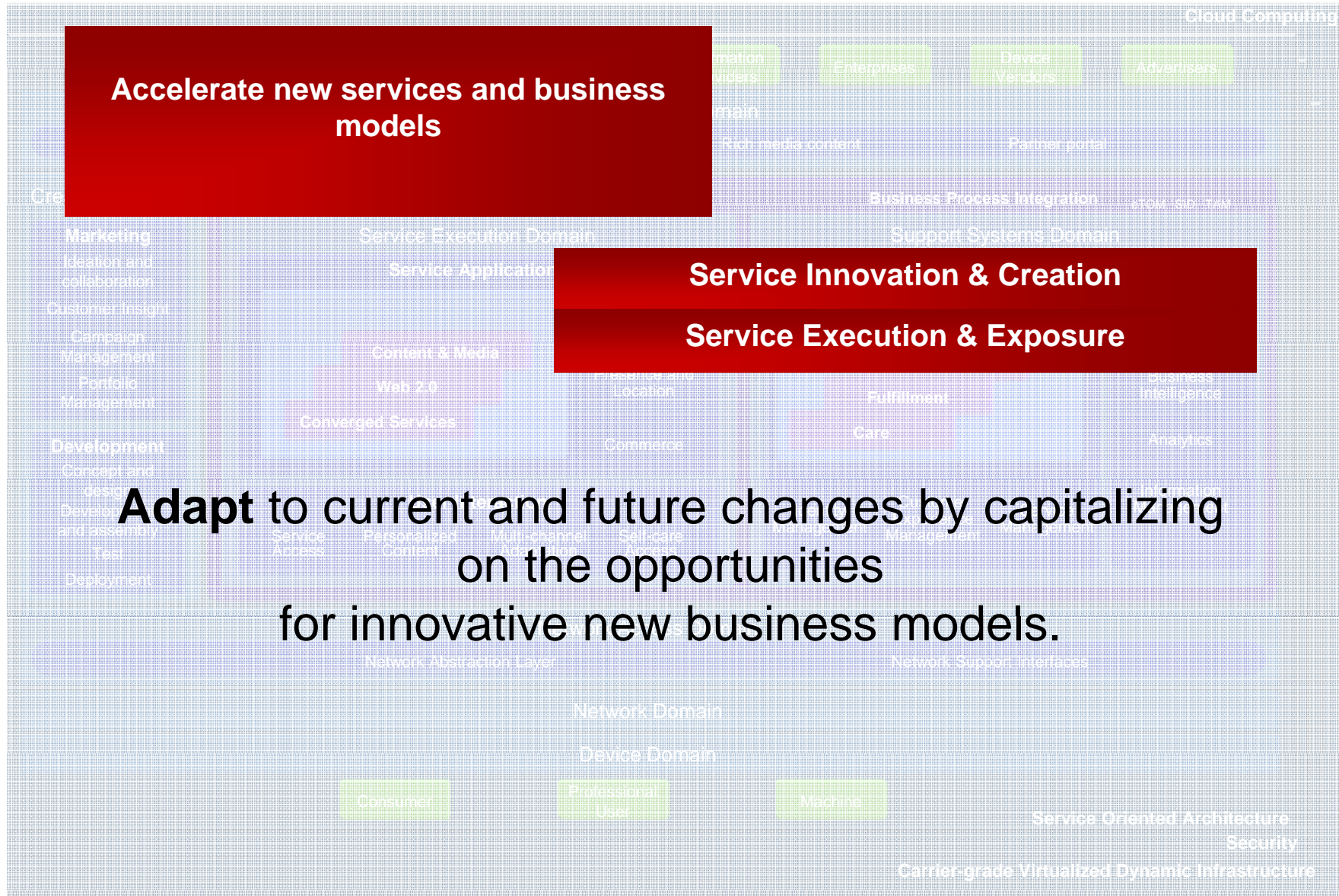
Smarter Businesses, Smarter Industries.

The Framework spans the enterprise



Smarter Businesses, Smarter Industries.

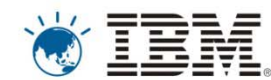
The Framework spans the enterprise



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

Smarter Businesses, Smarter Industries.

Today's Market Challenges....
Require new actions and solutions



Improve time to market
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services



Lower operating costs
to drive profitability



**Operational and Network Efficiencies :
Dynamic Process Integration**

Deliver converged voice

Increase retention **AND**
drive new revenue

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



Leverage existing
network infrastructure



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



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Achieving business agility with dynamic process integration



Using BPM, increased customer satisfaction with better problem handling resolution

China Mobile - Shanxi
Reduced time to resolve customer service calls from two weeks to less than one hour



Decoupled their OSS from their network to facilitate bringing new services to market.

TELUS
Introduced new & exciting services (IPTV) to customers



By integrating OSS/BSS processes and standardizing on WebSphere platform

Mobitel
Teamed with IBM to develop a new mobile payments system - Moneta



Using BPM & eCommerce solutions to deliver new business model

GridIT
Creating new customer self-service commerce platform



With BPM solution, sped delivery of new services with automatic provisioning of ADSL

Telefónica São Paulo
Increased # of ADSL customers with faster delivery



Next generation Order Management System based on ILOG BRMS

Swisscom
Achieved 90% straight-thru-processing



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The need

- Jump-start delivery of new products & services by connecting back office operations to customer service.
- Role-based collaboration on processes, perform and manage human tasks, manage key performance indicators, & adjust business policies.
- Analyze, document and deploy business processes with minimal IT involvement. Streamline workflows and automate escalations & exception handling.
- Centralize, standardize and automate compliance and regulatory processes to reduce costly exceptions and lowering risks

Solution

- Websphere Telecom Content Pack - Pre-built solution accelerators that speed time to market for Telecom solutions.
 - Based on NGOSS eTOM, SID, TAM standards & IBM's best practices
 - Powerful Business Rule Management System - Build or select best offers, deploy flexible pricing and promotions, streamline order management, enable loyalty programs...
 - Efficient Supply Chain Management
 - Visualization Tools – Manage Large sets of Data, Intelligent dashboards to monitor operations

Operational and Network Efficiencies : Dynamic Process Integration

Business Process Integration



Business Benefits

- Top line growth – New differentiated products/services assembled from business services and pre-built industry SOA content
- Reduction in cost – Optimize IT asset reuse and reduce time to market for industry SOA solutions
- Accelerate Time to Value for Initial Build by up to 64% (Mobitel)
- Streamline Order Management with 90% Straight-thru-Processing (SWISSCOM)
- Reduced time to market for new services up to 85% (Globe Telecom)
- Reduce monthly billing from 10 days to 36 hours (mBlox)

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Today's Market Challenges....
Require new actions and solutions



Improve time to market
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Lower operating costs
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Deliver converged voice,

**Operational and Network Efficiencies :
Service Management**

Increase retention **AND**
drive new revenue

Monitor **AND** manage services
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Leverage existing
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Integrate services **AND**
connect with backend support systems



Smarter Businesses, Smarter Industries.

Customers Realizing Smarter Business Outcomes

Service Management differentiates offerings and improves the customer experience 

By deploying a Tivoli Netcool Solution

BT


Achieved 100% availability of critical service with only 5 engineers assigned to oversee environment



Using Tivoli Netcool software and trouble-ticketing integration

Cablecom


Reduced time needed to correlate a network alarm to the service impacted from 50 minutes to just 10 seconds



Using IBM Tivoli Netcool to monitor business and consumer services

SmarTone


Reduced the amount of time it takes to manage the network by 80%



The Tivoli Netcool service assurance system for monitoring existing and future wireless networks allowed

Swisscom


To triple the growth of their services and infrastructure without a corresponding rise in headcount



The Tivoli Netcool end-to-end management solution helped

T-Mobile

To reduce the average number of events by a factor of 100



By implementing a Tivoli Netcool solution

Telekom Austria

Reduced fault investigation time by 50% (less than 25min on average)



Smarter Businesses, Smarter Industries.



The need

- Optimizing service quality and focus on the **customer experience**
- Focus on customer and quality to reduce churn and improve customer satisfaction
- Launch innovative new services quickly to
 - Capture market share and increased revenue
 - Ensure positive first-time user experience to improve new service uptake

Solution

- Provide instant, relevant customer experience information to Customer Care
- Automate root cause analysis of service performance problems
- Prioritize network issues by customer/business impact
- Measure service quality experienced by specific enterprises and subscriber demographics

Business Benefits

- Customer Satisfaction
- Brand Loyalty
- Additional Revenue from existing customers
- Capture new market share



The need

- Improve operational efficiencies
- Reduce capital expenditures
- Improve staff effectiveness
- Embrace new frameworks such as SDP, IMS and SOA
- Drive convergence of fixed/mobile and telco/IT/media

Solution

- Monitor entire services infrastructure to ensure uninterrupted availability
- Gain end-to-end view of network performance & Conduct rapid root cause analysis
- Automated alerts based on thresholds
- Visualize topology and target fault isolation
- Identify network bottlenecks and capacity planning issues
- View historical and predictive utilization across infrastructure
- Provide key customer visibility of network utilization and trending

Business Benefits

- Improve Operational Performance & Minimize New Capital Expenditures - Reduced number of events per day - reducing the amount of time it takes to manage the network by 80%
- Manage Complexity
- Accelerate Time to market with new technology support
- Helps staff understand the impact of a service degradation and prioritize time and resources to address critical problems first



The need

- Lower total cost of ownership for each asset
- Improve efficiency
- Converge assets to streamline operations
- Obtain asset visibility and control
- Ensure compliance

Solution

- Management of Physical Network & IT Assets
- Full Lifecycle Coverage -
 - Planning, Procurement, Deployment, Maintenance and Retirement

Business Benefits

- Process optimization and efficiency
- Reduction of stranded/lost assets
- Better service quality
- Superior financial management

Operational and Network Efficiencies : Service Management



Cell Tower Management

The need

- Rapid growth of cell site infrastructure
- 90% of all energy consumption at cell sites, 50% due to HVAC
- Widely distributed field workforce to support infrastructure
- Government incentives being offered to reduce energy consumption

Solution

- Smart Energy Management
- Mobile Workforce Management

Business Benefits

- Targeted 30% reduction of energy consumption and costs
- Targeted 10% reduction of facility maintenance costs
- Projected savings of \$200M over 3 years

Smarter Businesses, Smarter Industries.

Today's Market Challenges.... Require new actions and solutions



Improve time to market
AND quality of value added
services



Lower operating costs
to drive profitability



Deliver converged voice

Operational and Network Efficiencies : Information Management

on **AND**
revenue

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



Leverage existing
network infrastructure



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



Smarter Businesses, Smarter Industries.

Customers Realizing Smarter Business Outcomes

Information Management



Foundation Tools
Telecom Data Models
Telecommunications Data
Warehouse

3 UK
Increased analysis/
design/ development by
25-50% in pilot
exercises

Optim Solution
for Data Growth
Tivoli Storage Manager

Bharti Airtel
Audit/regulatory data
retrieval requests reduced
from 30 days to 4 hours

IBM Change Data
Capture

Bell Canada
Eliminated ETL delays
and as much as 40 days
data latency

Telecommunications Data
Warehouse
& Data Model

COLT
Out-of-box templates met
80% of business reporting
requirements

IBM DB2, Datastage,
Business Glossary,
Metadata Server, Cognos

Idea Cellular
Aggregated multiple
data sources to create a
"single version of truth"

IBM InfoSphere MDM
Server for PIM

Qwest
Decreased time-to-market
for of new products from
(3 months to 1 month)

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The need

- Subsidiaries need to operate as a single entity
- Customer information stored in multiple systems
- Products are siloed by subsidiary with no cross-selling, up-selling, bundling Customized reporting difficult
- Multiple business intelligence systems make enterprise view difficult

Solution

- Consolidated view of customer information across all product lines, to all residential and business customers through all channels (call center, IVR, email, web self-service, etc.)

Business Benefits

- Design phase shortened
- Easier integration of new data sources
- Source application changes are manageable
- Data from different sources integrated into one data model
- General Ledger Data into TDW model including financial data from SAP and new analysis for financial reports
- New reporting for top management from multiple data sources for dashboards/ scorecards, performance management, financial and sales forecasting with Cognos
- Task reporting of support and installation activities and network information



The need

- Order Entry - needed highly flexible product catalog to support order entry from Mass Market via call center and web channels
- Billing system could not support promotions being offered by product managers who wanted to offer discounts based on key rules such as product bundles (e.g., customers with wireline service receive a discount if they also acquire wireless service)

Solution

- Highly customizable product hierarchy (e.g., product catalog supports multiple permutations and combinations of the DSL service)

Business Benefits

- 7% revenue growth within the pilot
- Decreased time-to-market for of new bundles/packages from (3 months to estimated 1 month)
- Streamlines the selection and configuration of products to one simple screen
- Significant reduction in the time involved to add and change products and promotions
- Lower IT costs through consolidation of product catalog information.
- Improvement in first call resolution.

Today's Market Challenges.... Require new actions and solutions



Improve time to market
AND quality of value added
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Lower operating costs
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Differentiate the Customer Experience : Customer Interaction

Retention **AND**
Revenue

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



Leverage existing
network infrastructure



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




Customers Realizing Smarter Business Outcomes

Delivering exceptional user experiences




By exposing network service capabilities to enterprise and 3rd party developers

Sprint
Delivers innovative customer services to ~40M Sprint-Nextel users



Using an intuitive web application that provides the user with an enhanced converged services experience

Vodafone
Teamed with IBM to develop a new revenue generating Social Networking Application



Using the IBM SPDE Framework to deliver innovative customer services and mobile content

Bharti
•80M subscriber base growing 2.5M per month
•1.2M unique portal users/ day



Promotes mobile web growth and data usage while reducing call center cost via customer self service

Verizon
Teamed with IBM to deliver a Mobil Portal platform



Smarter Businesses, Smarter Industries.

Differentiate Customer Experience : Customer Interaction

Customer Self Service & Mobile Portal



The need

- Allow easy customer access to value added services.
- Eliminate fragmentation of services, caused by different web portals/applications, via a unified page & consistent look and feel
- Promote new value-add services to customers while maintaining subscriber growth, increasing revenue and improving loyalty
- Timely adoption of smart phones
- Promote mobile web growth and data usage
- Reduce call center costs via customer self service
- Support for diversified handsets and custom browsers
- Cross sell/Up sell (ring tones/ring back tones, games, etc)

Solution

- B-to-C portal that allows subscribers to view all their services through a common access point.
- 'Product Portal' provides a single user view & 'Family Portal' presents a view for multi-line accounts
- Includes a web 2.0 experience to drive the interface that accesses the user's data
- Supports 1000s of Mobile devices

Business Benefits

- Improved client enrollment and increased adoption of new service offerings by presenting all options on a consolidated page
- Reduced time-to-market for future products by providing reusable components
- Exceptional user experience to customers on-the-go

Smarter Businesses, Smarter Industries.

Differentiate Customer Experience : Customer Interaction

Automated On-line Shopping



The need

- Serve customers on the web & Engage customers to build relationships
- Speed roll out of new promotions, products, and features projected to increase on-line sales
- Optimize purchasing paths with increased flexibility
- Expand company's network of Partner Co-Branded Web sites and add new on-line properties

Solution

- Leverages the benefits of one platform with a set of common assets that can be used to support all web and telesales channels
- Commerce features for personalization, cross-sell, up-sell, intelligent cart
- Applications 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

Business Benefits

- Improved web experience
- Optimized web sales and conversions rates and
- Increased up-selling and cross-selling opportunities

Smarter Businesses, Smarter Industries.

Today's Market Challenges.... Require new actions and solutions



Improve time to market
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Lower operating costs
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Differentiate the Customer Experience : Information Analytics

Increase retention **AND**
drive new revenue

Monitor **AND** manage services
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Leverage existing
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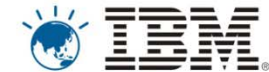


Integrate services **AND**
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Customers Realizing Smarter Business Outcomes

Information Analytics



SPSS PASW Modeler

BT
Improved direct mail campaign response rate by 100 percent

SPSS survey application and text analytics technology

Cablecom
Customer churn rates reduced from average of 19 % down to 2 %

Cognos Content Analyzer

NTT docomo
Lines of business gain current, accurate insight into customer opinions and issues

Cognos TM1

Pelephone
Analyze business and subscriber performance, ARPU, profitability in real-time

FileNet P8 – Business Process Manager, Process Simulator and Process Analyzer

T-Mobile
Real time reporting, process visibility & continual process improvement

Cognos 8 Business Intelligence

Telenet
Access to over 1,000 well-structured reports to advise line-of-business decisions

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Differentiate Customer Experience : Information Analytics

Churn & Loyalty Management



The need

- 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

Solution

- Combine real-time predictive social network analytics with advanced churn models to retain customers
- Apply analytics to identify trends, understand behaviors and purchase propensities

Business Benefits

- Quicker identification of, and response to, customer issues/concerns
- Increased retention rate
- Identified a segment of impulse buyers that weren't profitable and implemented program to avoid customer acquisitions of this type
- Improved ability to perform market research on increasingly larger volumes of data

Smarter Businesses, Smarter Industries.

Differentiate Customer Experience : Information Analytics

Fraud Identification & Prevention



The need

- Prevent accounts from being established by fraudulent individuals on-line or in retail stores.
- Significantly reduce costs associated with fraudulent account provisioning, services and mediation
- Counter increasingly sophisticated fraudulent techniques

Solution

- Identify potentially fraudulent on-line and in-store account openings

Business Benefits

- Eliminated cost of establishing, provisioning and mediating fraudulent accounts
- Obtain greater insight into current fraud techniques and practices
- Established a single point & process for evaluating potentially fraudulent accounts regardless of channel of initiation
- Continually improve ability to identify potential fraud through fine-tuning of analytics parameters and rules

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The need

- Need better tools to support network planning & optimization regarding:
 - Upgrade network to 3G
 - Improve capacity & performance of existing network
- Design network that accommodates increasing traffic requirements at the lowest cost

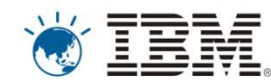
Solution

- The iLog Optimization suit
 - Creates the best possible plans and schedules
 - Explore alternatives & understanding trade-offs
 - Respond to changes in business operations
 - Apply optimization algorithms to plan routing, station selection for 3G upgrade and next generation network topology

Business Benefits

- Established best practices to optimize network given the constraints of coverage, capacity, cost & quality of service
- Facilitate faster Vodafone expansion for new geographies and services
- Enabled rapid creation of new algorithms to meet Vodafone-specific planning and optimization requirements
- Easily expand platform to optimization and planning needs of other divisions

Today's Market Challenges.... Require new actions and solutions



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Accelerate New Services and Business Models : Service Innovation & Creation Service Execution & Exposure



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Customers Realizing Smarter Business Outcomes

Accelerating new services and business models



Using IBM Idea Factory to accelerates the Innovation Life Cycle

China Telecom
Increased new service ideas by 122% and productized services by 800%



By exposing network service capabilities to enterprise and 3rd party developers

Sprint
Delivers innovative services to ~40M Sprint-Nextel users



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Using the IBM SPDE Framework to deliver innovative services and mobile content

Bharti
•80M subscriber base growing 2.5M per month
•1.2M unique portal users/ day



By using a carrier grade platform for creation and integration of next generation media services

AT&T
Working with IBM, delivered a TMF Super Catalyst project in 8 weeks



Using the IBM SPDE Framework as a pilot for service creation and execution

Swisscom
Proved the architecture facilitates the rapid assembly of innovative services



Smarter Businesses, Smarter Industries.

**Accelerate new services & business models :
Service Innovation & Creation/ Service Execution & Exposure**



Service Creation & Delivery

The need

- Reduce the time and cost to bring innovative new services to market with Product Delivery Performance Improvement
- Provide a high-performance execution environment for converged services
- Centralized, real-time information on the capability, availability, and willingness of users to communicate
- Secure, third party access to network services (e.g. location, presence, call control)
- Enable connectivity to IMS networks as well as some reference points for functions such as billing
- Integrate content delivery into existing application portfolios

Solution

- Make value-based project, product, and portfolio decisions
- Deliver quality solutions to meet stakeholder objectives
- Adapt the project to changing business and customer needs
- Collaboration helps CSPs elevate relationships and revenue

Business Benefits

- Increased new service ideas by 122% and productized services by 800%
- Reduced development time by at least 25 percent.
- The time to market for new service is reduced significantly — by up to 90%
- Delivers innovative services to ~40M users by exposing network service capabilities to enterprise and 3rd party developers
- Provide a “Carrier Grade” Application Platform with 99.998% availability



IBM Software Universe

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8th March 2011, Pan Pacific, Dhaka.



THANK YOU

