

Building a Smarter Planet with the Telecommunications Industry

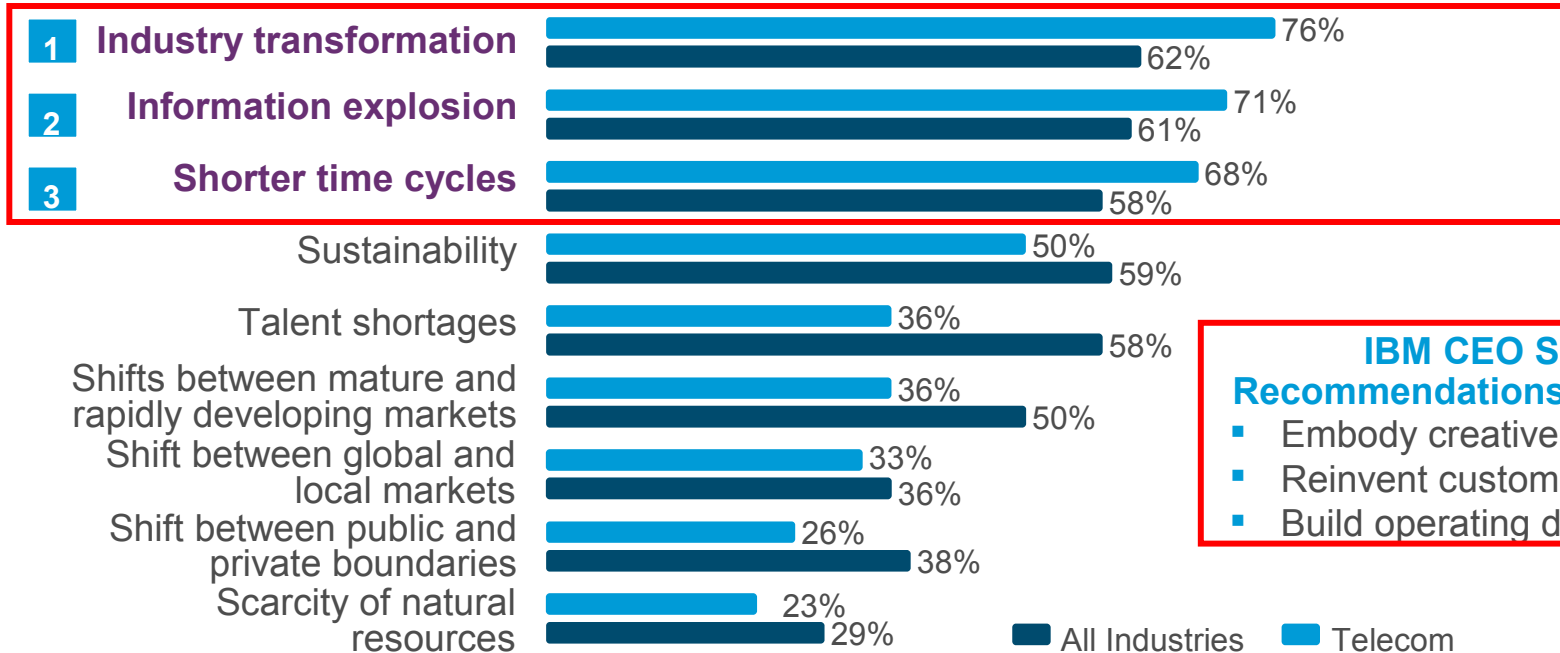


Larry Hargrove
Global Sales and Solutions Executive
IBM Service Provider Software

- **Telco Industry Drivers**
- **IBM POV on Smarter Planet and Smarter Telecom**
- **IBM Software Priorities**
- **IBM and Vodafone**

Over the next 5 years , three major factors will be the main sources of concern for CEOs of Communications Service Providers

Factors impacting your organization to a large extent over the next 5 years

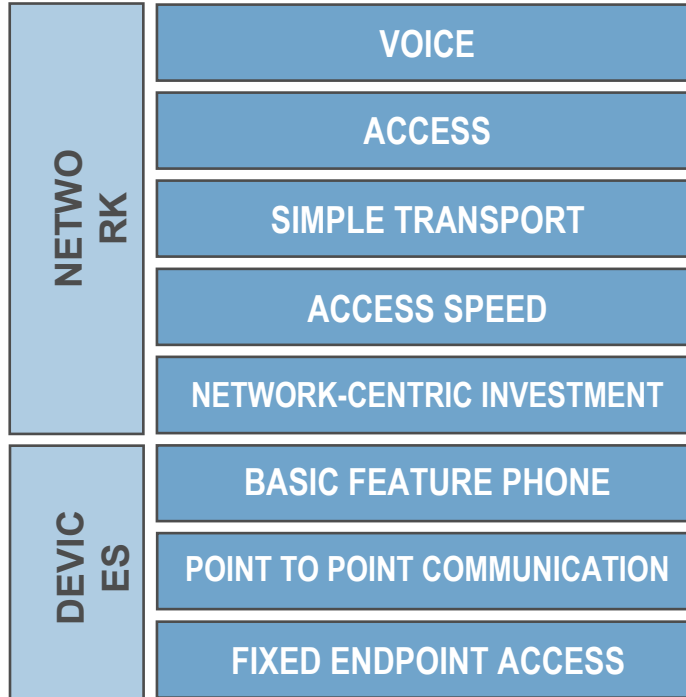


IBM CEO Survey Recommendations for Telecom

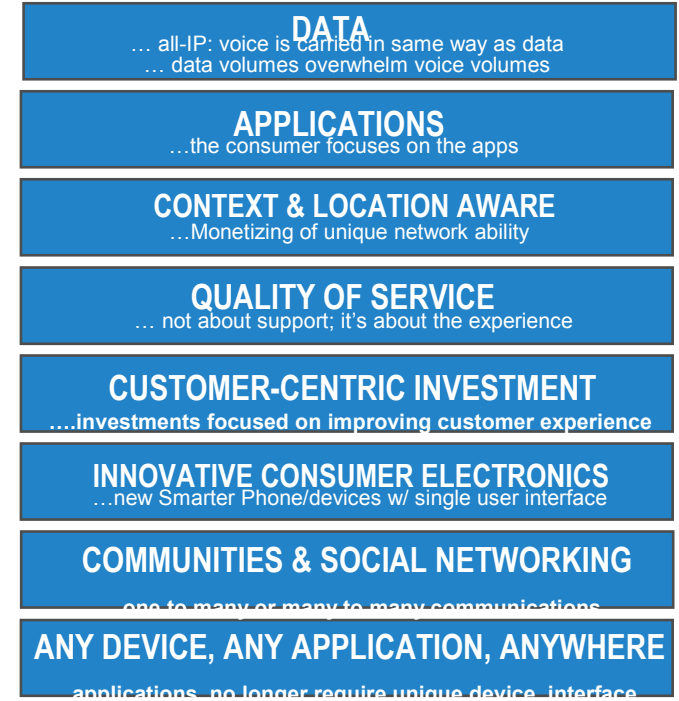
- Embody creative leadership
- Reinvent customer relationships
- Build operating dexterity

The communications industry is witnessing a migration in value

Current Value Drivers

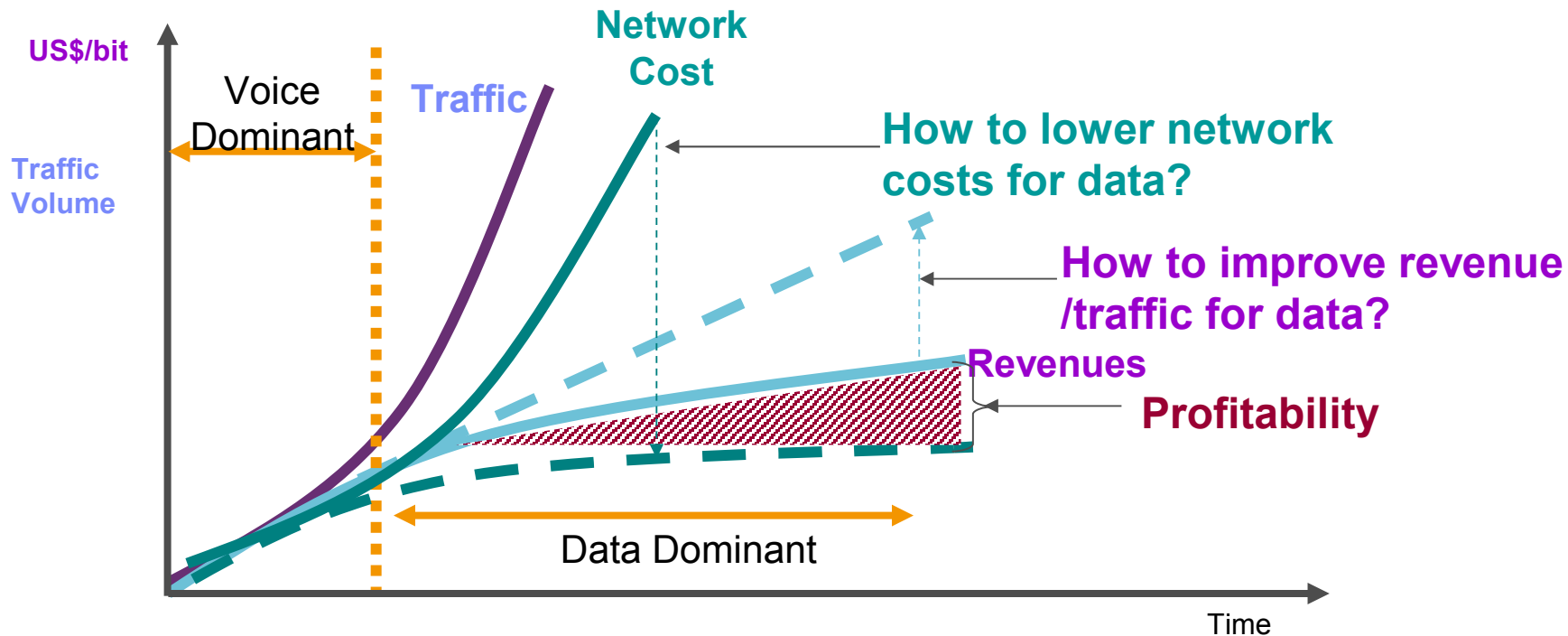


2010-2015 Value Drivers

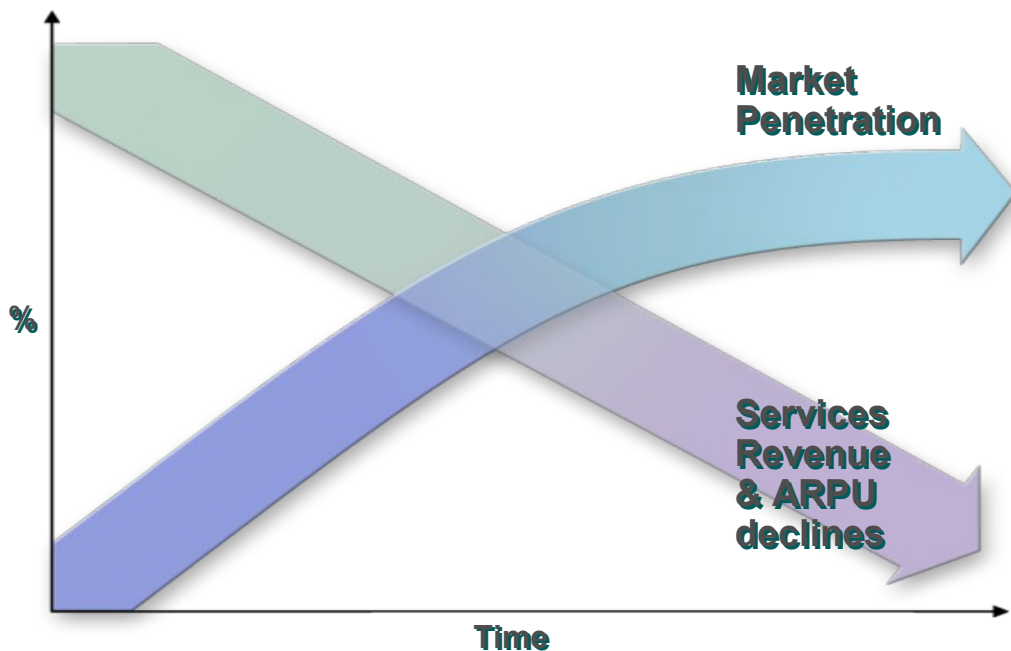




The cost of delivering data is not matched by revenues as revenue and traffic volumes are decoupled in a data-dominant world



Market Saturation Increases and Revenue Growth Rate Declines



Market is reaching saturation, revenue & ARPU decline, while customers demand new personalized services at all times

5+ Billion mobile telephony subscribers worldwide

57% Of growth in global telecom services market by 2012 is attributed to mobile services

40% Of subscribers have changed service providers in the last three years

Consumers today **experience brands in completely new ways** across multiple touch-points...



Consumers expect
a buying
experience
that offers:

Choice
Convenience

and is

Contextual
Continuous

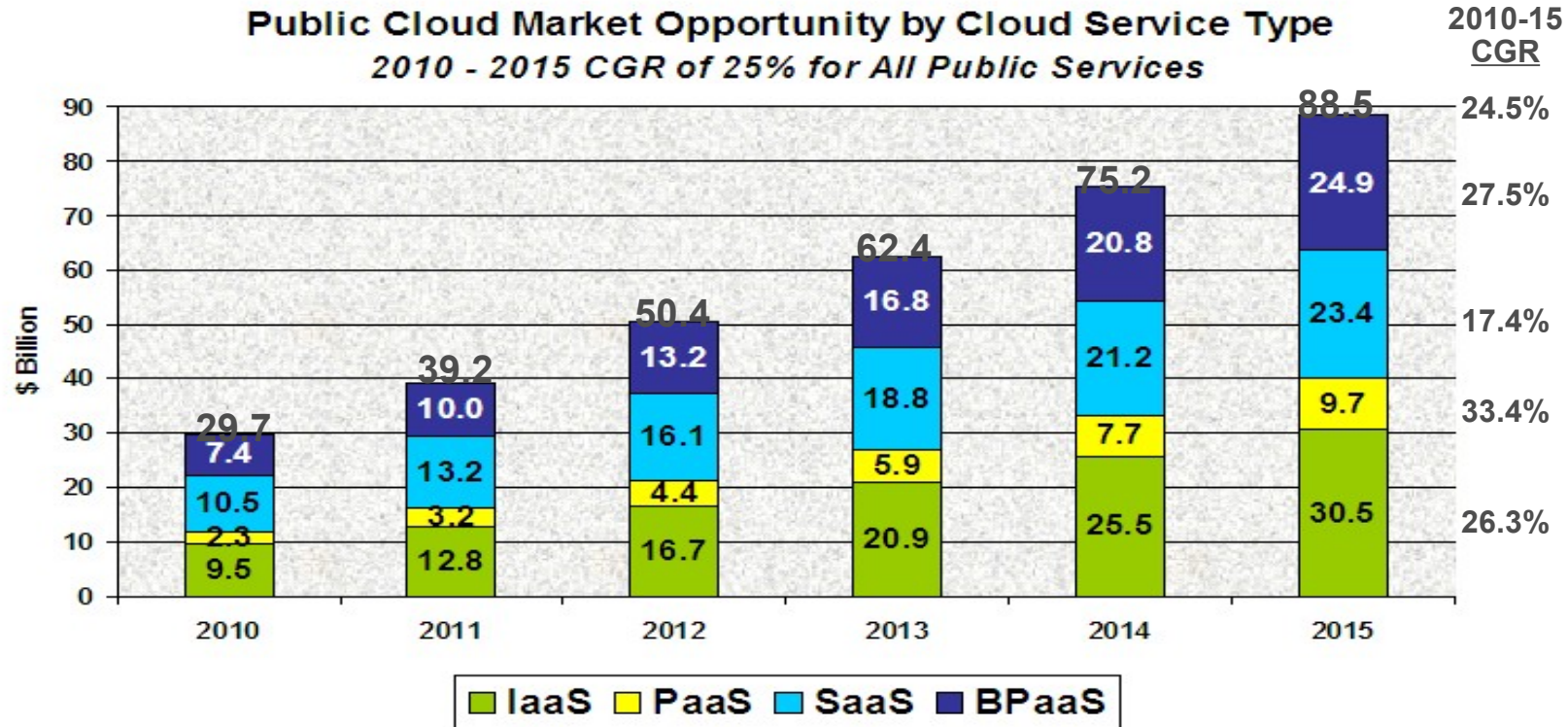
- **Timely**
- **Localized**
- **Experiential**
- **Informative**
- **Personalized**
- **Cross-channel**



...challenging businesses
to deliver **relevant interactions** and
a **consistent brand promise**

Public Cloud Services Market to Grow from \$39B to \$88.5B at 25% CGR

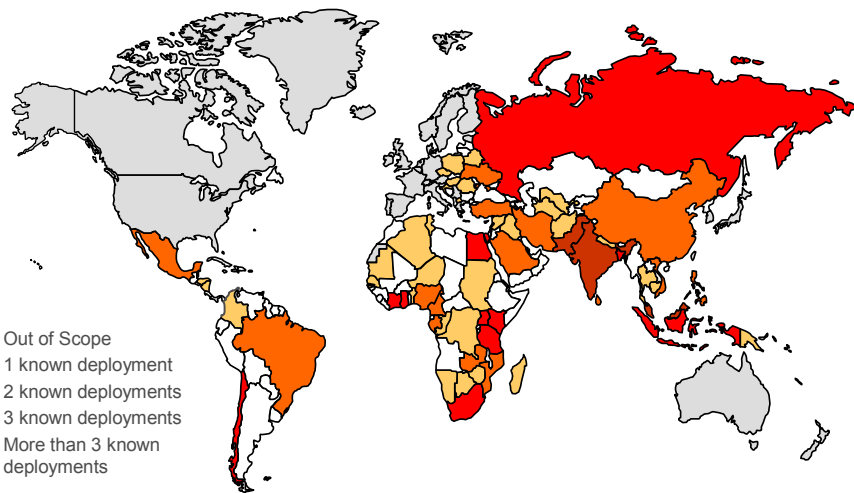
CSPs are well-positioned to address the fast-growing demand for cloud services.



New markets are opening for CSPs, creating new demands for partnering, platforms and skills

Mobile Money

The mobile payments space is increasingly dynamic in emerging markets with over 165 live services or pilots as of July 2010



Source: The Hype Cycle and Mobile Banking, Kabir Kumar CGAP at MMT Dubai November 2009

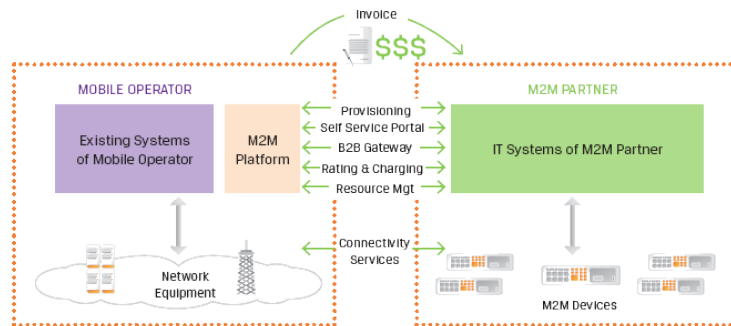
“The most successful mobile payment schemes are those in which the scheme operator controls both the banking and the telecommunications assets.”

Source: “Best Practices: Mobile Payments in Action”, IDC August 2010

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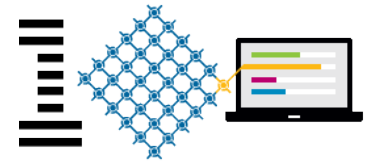
Machine to Machine (M2M)

“M2M services are becoming increasingly competitive as domestic + global operators see a huge opportunity for connecting remote machines, devices, sensors, industrial + medical equipment, utility meters, consumer electronics + more, via their wireless data networks.”

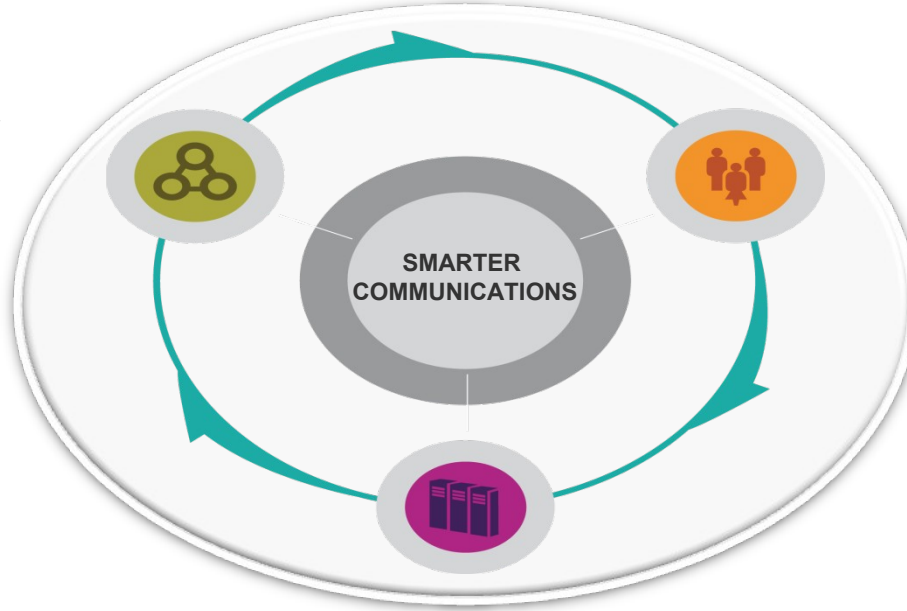


AT&T	Utilities, fleet management, security, healthcare, consumer electronics
KPN	Utilities, consumer electronics, health care, asset tracking and monitoring
Orange	Utility meter reading, home automation, automotive (e-toll, e-call, connected car and fleet management), security, healthcare, RFID/supply chain, C.E.
Telefonica	PoS: First Data, Ingenico, fleet management, e-health, utilities
T-Mobile	Home security, resource management, utility/smart grid, vending, automotive telematics, vehicle tracking, consumer electronics, transport and logistics, retail, commerce, industrial automation healthcare, public sector
Verizon	Telematics, utility/energy, consumer electronics, financial services, industrial, healthcare
Vodafone	Environmental monitoring, remote maintenance and control, payment, security, tracking and tracing, healthcare, metering, consumer electronics, industrial computing and automotive & electronic toll.

To respond to these challenges and opportunities, Service Providers must think and act differently to help their enterprise customers – *become smarter*



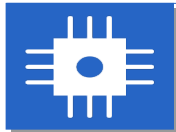
ENABLE NEW
SERVICES AND
BUSINESS MODELS



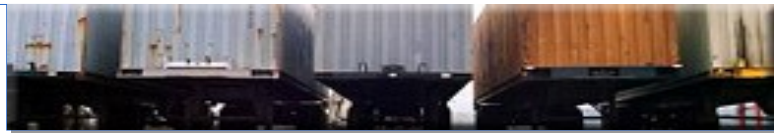
DIFFERENTIATE
THE CUSTOMER
EXPERIENCE

IMPROVE OPERATIONAL EFFICIENCIES AND REDUCE COSTS

Our world is changing and becoming smarter



It is becoming increasingly
INSTRUMENTED



By 2010, 30 billion RFID tags will be embedded into our world and across entire ecosystems



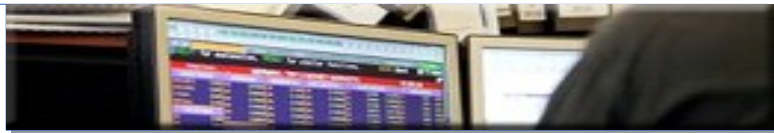
It is becoming more
INTERCONNECTED



An estimated 2 billion people will be on the Web by 2011.... and a trillion connected objects – cars, appliances, camera, roadways, pipelines – comprising the “Internet of Things”

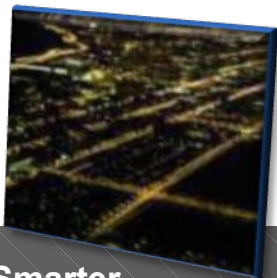


Systems are becoming more
INTELLIGENT

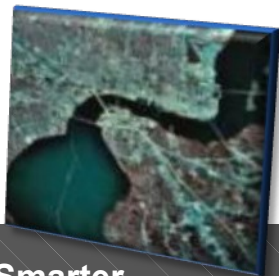


Every day, 15 petabytes of new information are being generated. This is 8x more than the information in all U.S. libraries

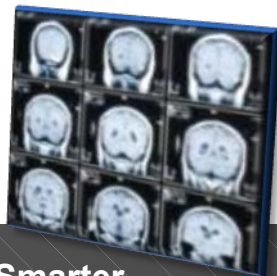
Industries are becoming smarter...



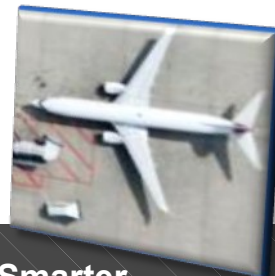
**Smarter
energy & utilities**



**Smarter
government**



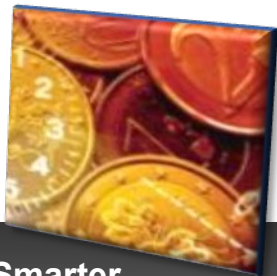
**Smarter
healthcare**



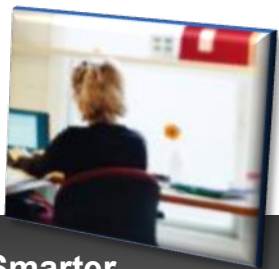
**Smarter
transportation**



**Smarter
solutions for retail**



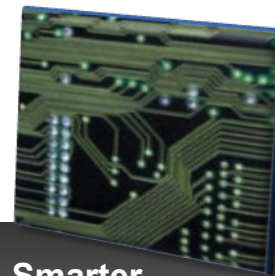
**Smarter
banking**



**Smarter
insurance**



**Smarter
telecommunications**

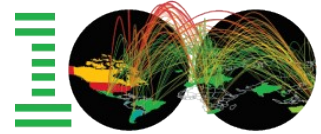


**Smarter
electronics**



**Smarter
chemical & petroleum**

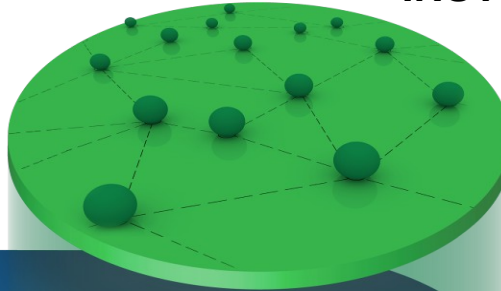
Communications Service Providers can play a crucial role on a smarter planet



INTERCONNECTED



INSTRUMENTED



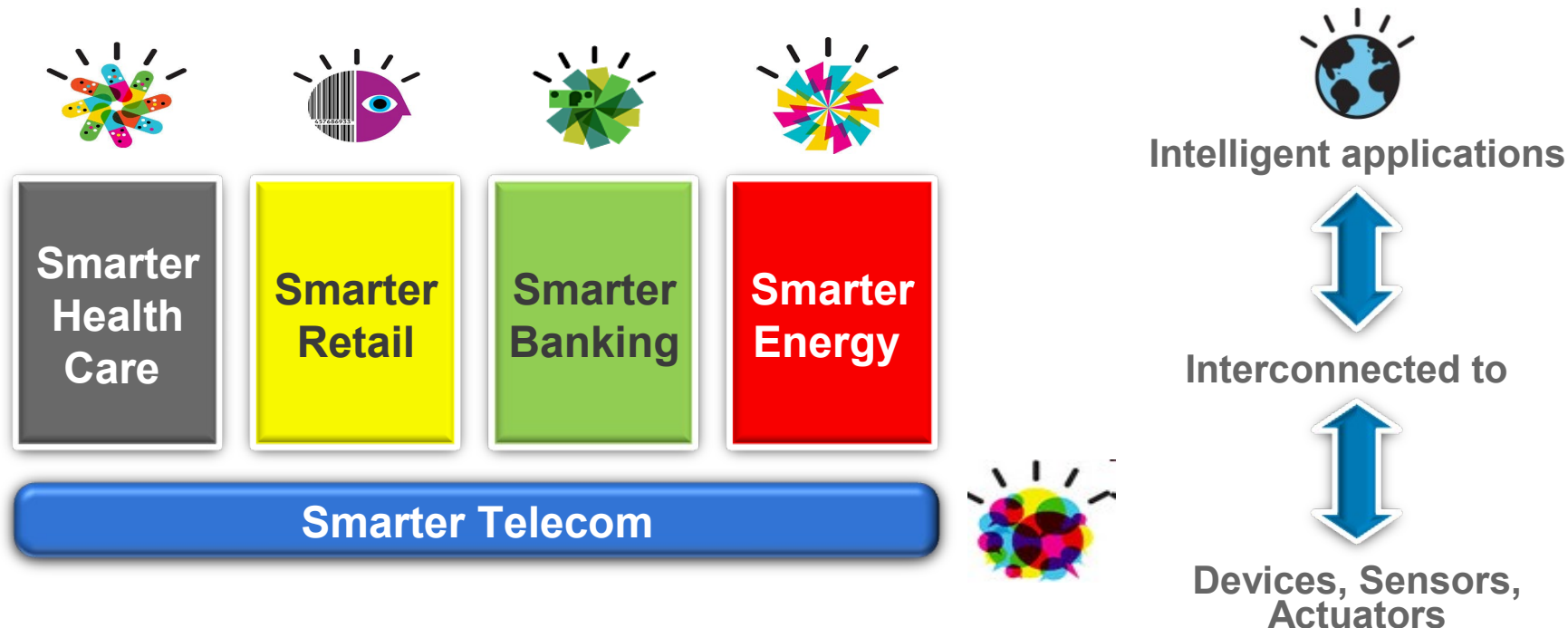
Services and Applications

based on an expanded ecosystem that provides new capabilities to people and smart devices

Communications Infrastructure

INTELLIGENT

IBM has developed a strong framework for delivering Smarter Planet to Industry verticals



IBM's **Service Provider Delivery Environment Framework** helps our clients become Smarter Telecom providers more quickly and at a lower risk



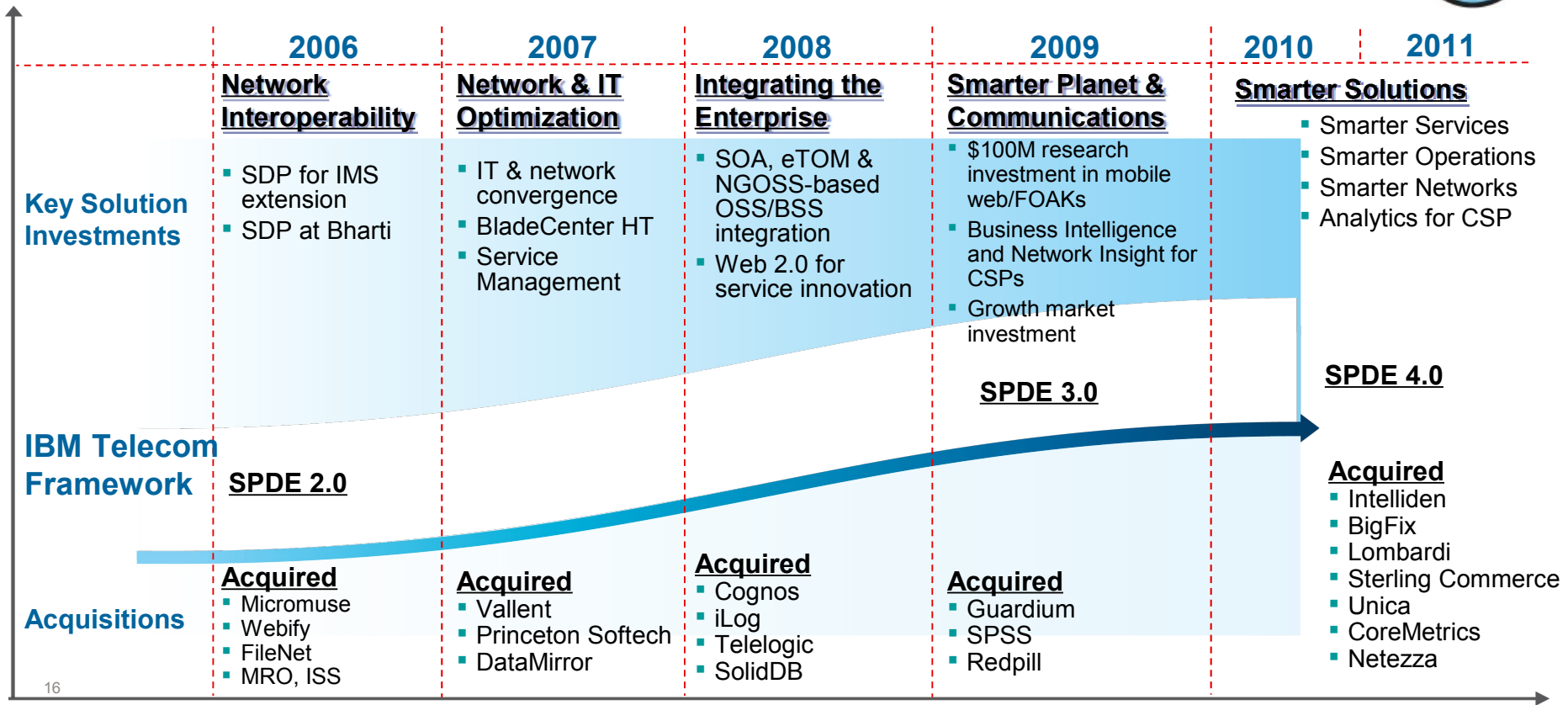
SPDE 4.0 Enhancements

- CSP Business Function Domains
- New Capabilities
- SPDE Enabled Business Projects
- Improved Alignment with TMF Framework

IBM SPDE 4.0 Framework
Service Provider
Delivery Environment



IBM continues to make significant investments in communications industry solutions, acquisitions and industry framework



IBM Software Group has created a new Division to execute on our growth strategy and to meet our 2015 growth objectives



Industry Solutions Division

Industry Tiger Team

Industry Products Unit

IBM Software
Industry Products

IBM
Communications
Service Enablers
Software Products

B2B / Selling & Fulfillment Unit

**Sterling
Commerce**
An IBM Company

WebSphere.

Commerce



Supply Chain

Enterprise Marketing Mgmt Unit



Enterprise Content Mgmt Unit



IBM CLOUD SERVICE PROVIDER PLATFORM

Includes the most advanced, carrier-grade, highly secure and scalable integrated service management system designed to empower CSPs to CREATE, MANAGE, & MONETIZE cloud services *fast*.



CREATE

Rapidly Launch Partner Enabled Apps/Services

Infuse Creativity Into the Service Portfolio

Market White Labeled IBM Cloud Services

Ignite Innovation and Differentiate the Service Portfolio



MANAGE

Exploit Advanced Automation

Rely on Carrier Grade Performance and Unmatched Scalability

Deliver Highly Secure, Quality Assured Services

Leverage Integrated Service Management



MONETIZE

Maximize Effectiveness of Sales Channels

Leverage Intelligence for Differentiation

Optimize Self-Service Web Portals

Energize Cloud Sales & Optimize the Customer Experience



IBM Cloud Service
Provider Platform

IBM and Vodafone's Collaboration Workstreams



**Enterprise
Mobility**

**Software
as a
Service**

**Machine
to
Machine**

**Vodafone
Money
Transfer**

**City in
Motion**

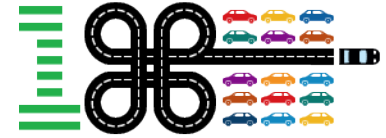
**Business
Analytics**

VCC

VCC

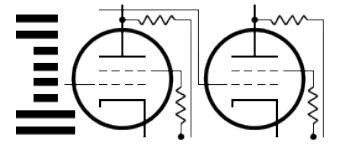
...how can we create a Smarter Planet?...

IBM and Vodafone creating a “City In Motion”



- Management of traffic, transportation and transit systems
- Emphasize safety, quality, reliability and efficiency
- First city will be Istanbul – Project to improve mass transit systems
- Plan to re-use concept of using location data to serve Enterprises (eg Travel & Transport)





**IBM and Vodafone
together are stronger**

together are stronger

Q&A

