

The background features a light gray grid pattern. Scattered across the grid are various 3D-rendered objects: solid spheres in shades of blue, green, yellow, and red; hollow rings in blue, green, and red; and some larger, semi-transparent spheres. The objects are distributed across the page, with a higher concentration in the corners.

IBM Software

Information On Demand **2010** Comes To You

Unlock the True Value of Your Information

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Information OnDemand **2010**
Comes To You

Information Agenda for Communications Service Providers

Tommy Eunice
Senior Architect

Unlock the True Value of Your Information

Today's Agenda



1. Learn More About Information Agenda for Telecoms...

Understand how industry trends can be exploited by Information Agenda



2. Customer Retention and Churn

Gain insights into churn management and customer loyalty

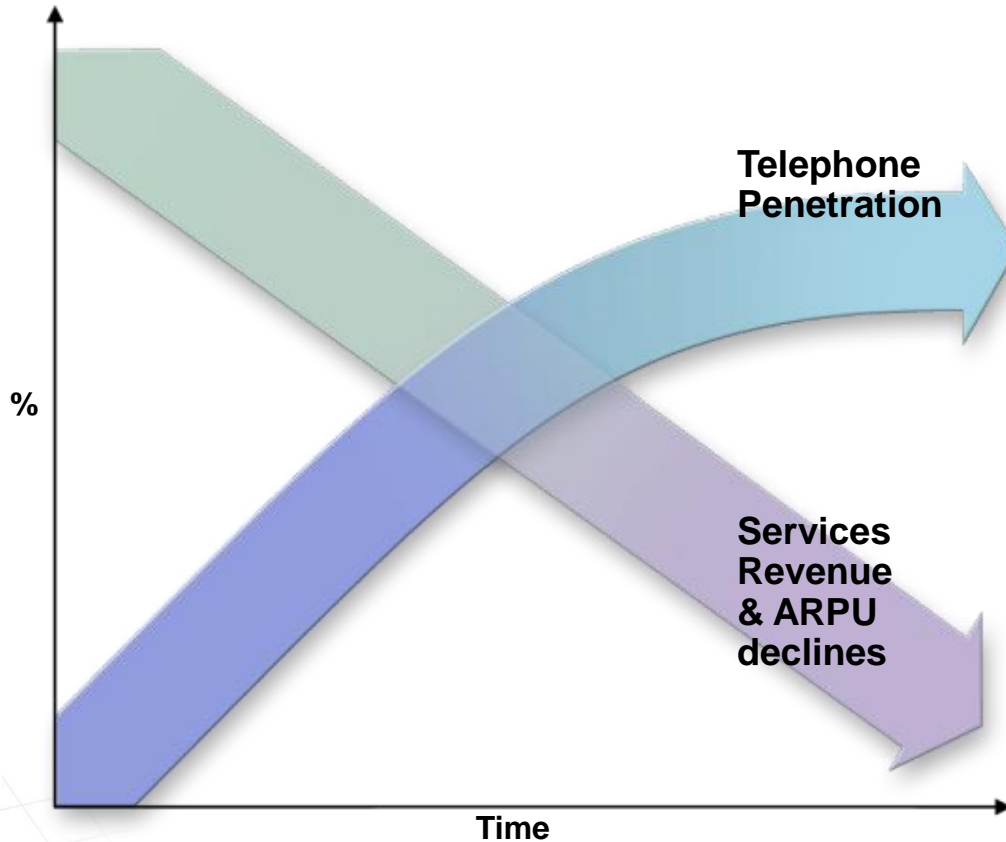


3. Network Analytics

Derive value and insight from network data

The CSP Challenge

Market Saturation Increases As Revenue Growth Declines



5+ Billion mobile telephony subscribers worldwide

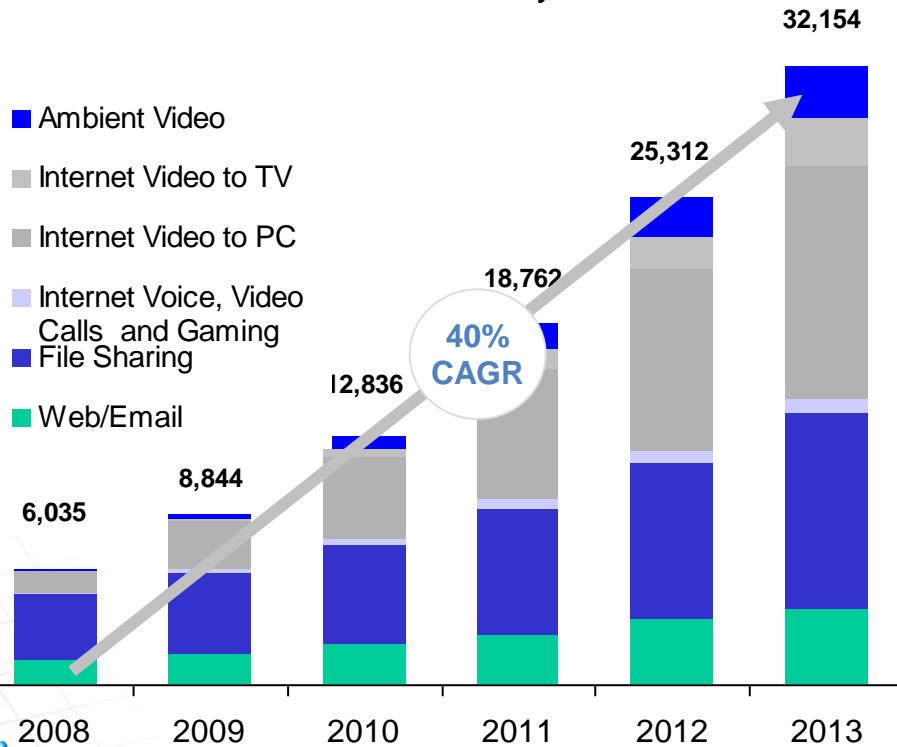
57% Of growth in global telecom services market by 2012 is attributed to mobile services

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

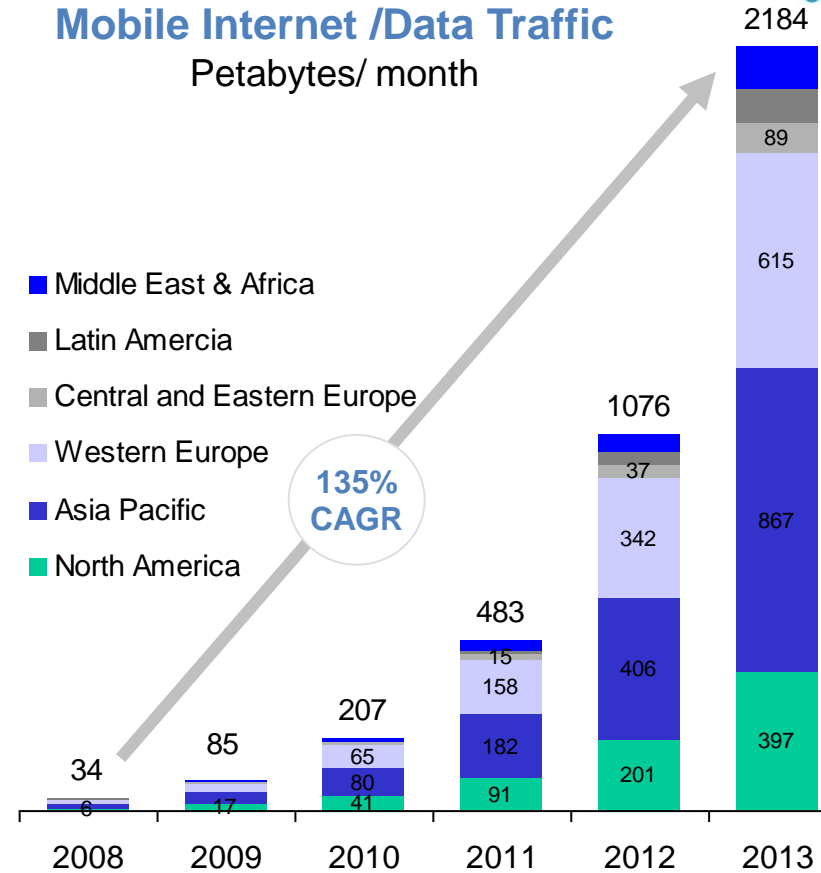
Market is reaching saturation, revenue & ARPU decline, while customers demand new personalized services at all times

Use Of Video and Other Data Services Grow as Internet Data Traffic Quintuples and Mobile Broadband Consumption Soars

Global Consumer Internet Traffic, 2008–2013
 Petabytes/ month



Mobile Internet /Data Traffic
 Petabytes/ month



Source: Cisco Visual Networking Index, June 2009.

http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-481360.pdf IDATE, IBM institute for Business Value (IBV) Analysis

Continued Global Expansion Is Hindered By Legacy Systems, Processes, Business Models And Thinking.

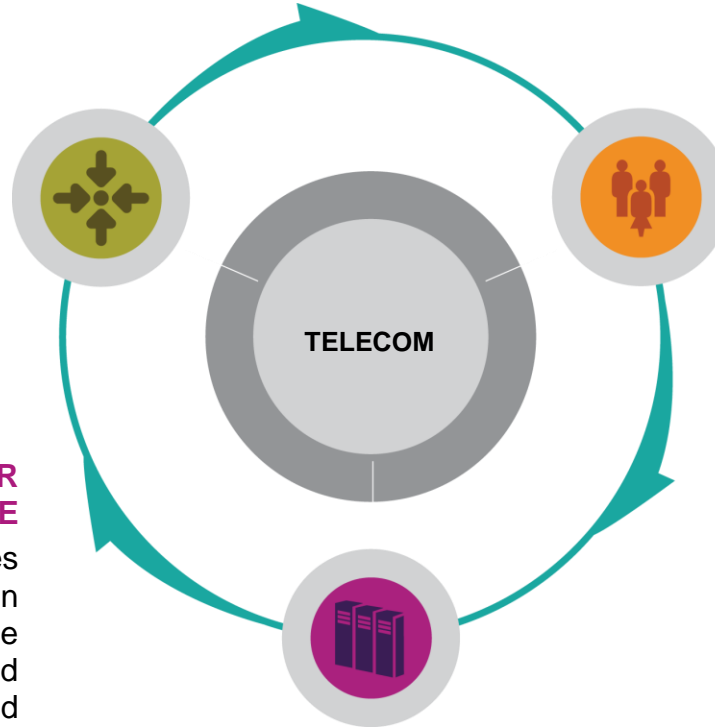
We need smarter networks, smarter processes and smarter data use. Smarter telecommunications systems deliver on this potential by focusing on **three** important imperatives:

ENABLING NEW BUSINESS MODELS

Developing new business models and partner collaboration by leveraging the continued convergence of Telecom, Media and Internet strengthens core business, improves competitive position and generates new revenues faster.

DIFFERENTIATING THE CUSTOMER EXPERIENCE

Launching new innovative services quickly, using real-time analytics to gain deep customer insights and personalize offerings, monetizing customer data and assets, improving security, and modernizing customer systems increase ARPU and reduce churn



IMPROVING OPERATIONAL EFFICIENCIES

Achieving operational excellence through reducing infrastructure and process complexity drives business profitability, funds innovation, enables expansion into new markets, and supports critical network and business transformation initiatives.

IBM is Helping CSPs Worldwide

Enabling new Business Models	Stimulating Innovation and Collaboration	
	Accelerating Time-to-Market	
	Harnessing new Business Models	
Differentiating the Customer Experience	Improving Order-to-Service	
	Leveraging 360° view of customers	
	Transforming Charging and Billing	
Improving Operational Efficiencies	Enabling service & Customer Assurance	
	Managing Security end-to-end	
	Evolving the Network	

Example Benefits from an Information Agenda

- ✓ Identified unprofitable customer segments & implemented program to better qualify customers
- ✓ Implemented churn methodology approximately 50% more accurate than previous techniques

- ✓ 60 day new product/ services cycle reduced to 30 days

- ✓ Increased acceptance rate for campaigns from a few percentage points to 30% while reducing campaign costs

- ✓ Reduced time to activate new mobile accounts by 90%

- ✓ Central document source & integrated processes for all partner transactions

- ✓ Improved CRM performance & availability to support 50 call centers and 8,000 concurrent users

- ✓ Established best practices to optimize network given the constraints of coverage, capacity, cost & quality of service

- ✓ Established single view of customer data across sales, service, provisioning, and billing

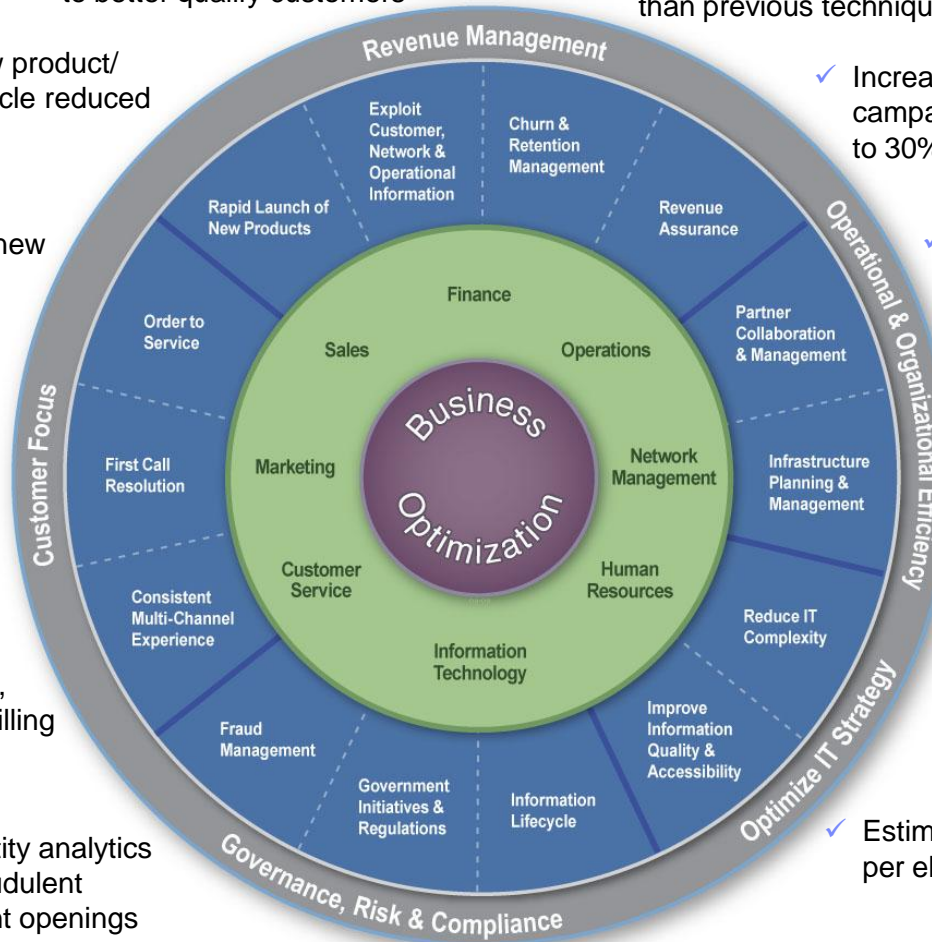
- ✓ Improved analysis/ design/ development process by 25-50% in pilot projects

- ✓ Employed entity analytics to reduce fraudulent online account openings

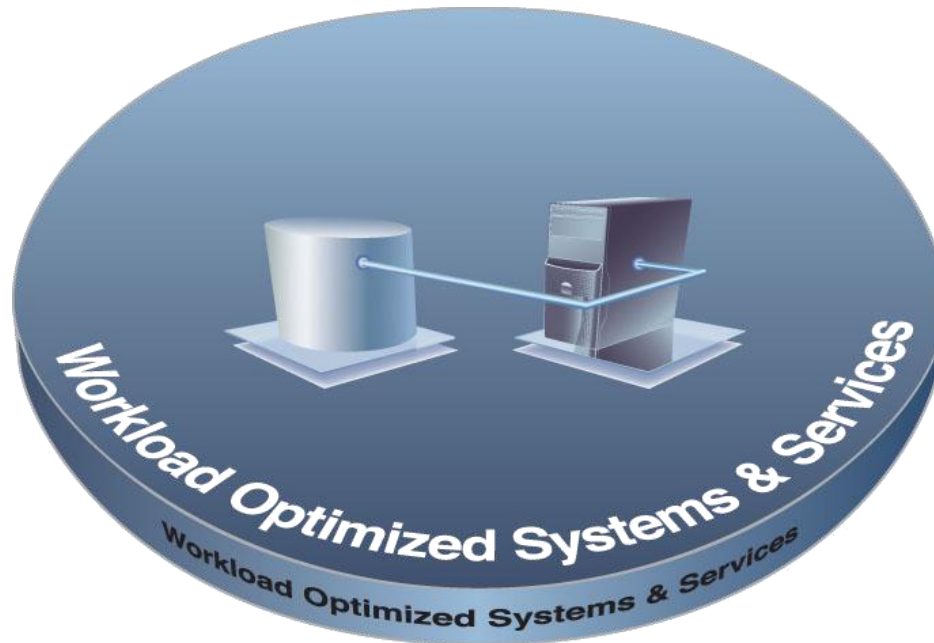
- ✓ Estimated savings of AUS\$ 1-4 per electronic bill

- ✓ Enabled cross-application compliance with data privacy laws to avoid fines

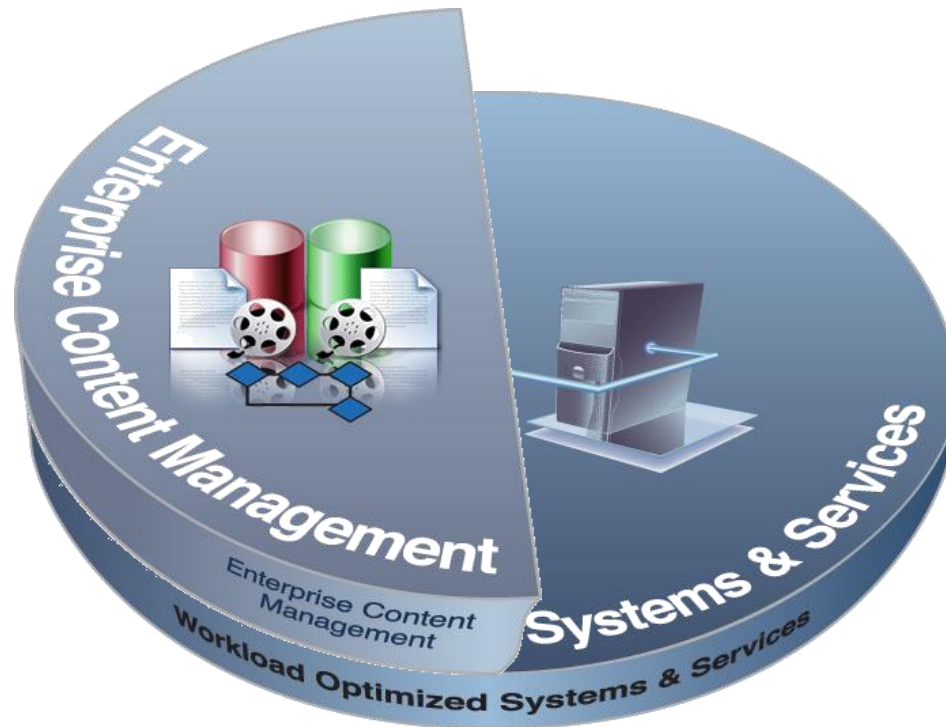
- ✓ Projected savings of US \$73 million via enterprise archiving strategy



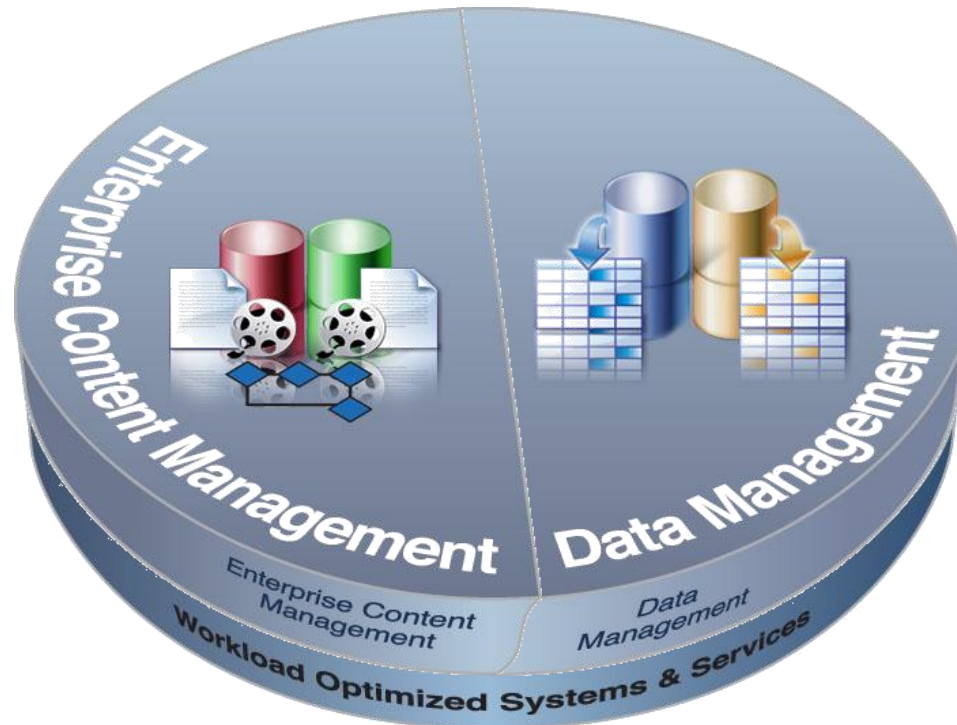
Information Agenda Telecom Solutions, Supported by a Foundation of Software Assets



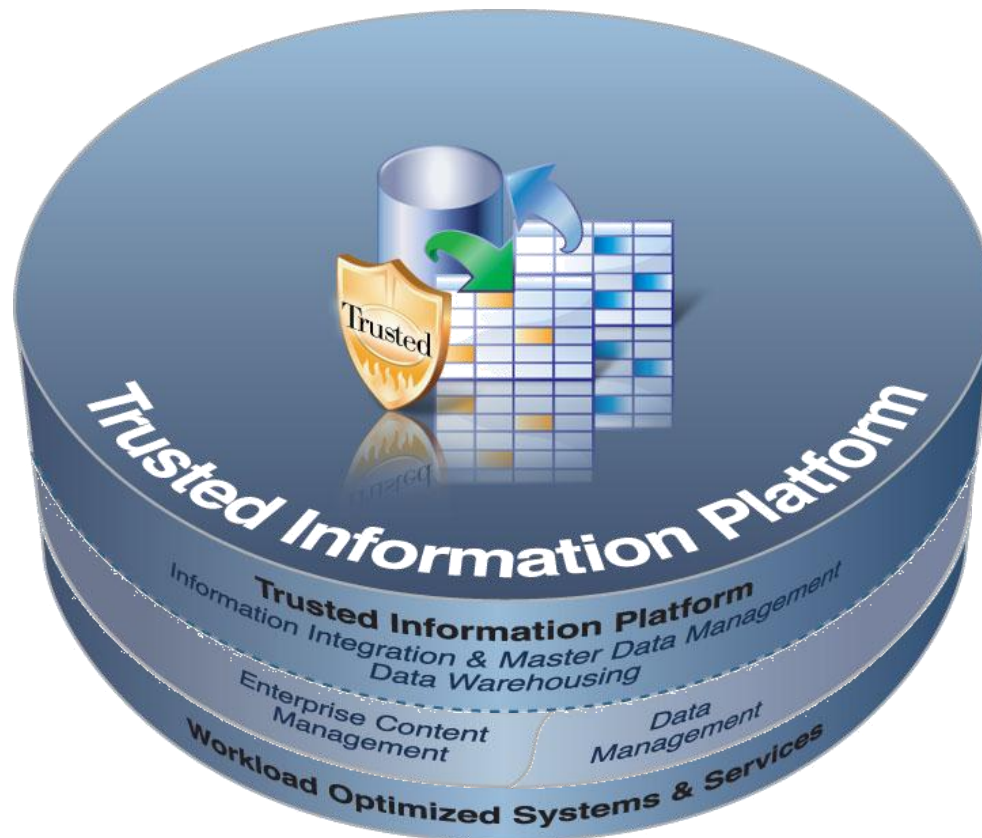
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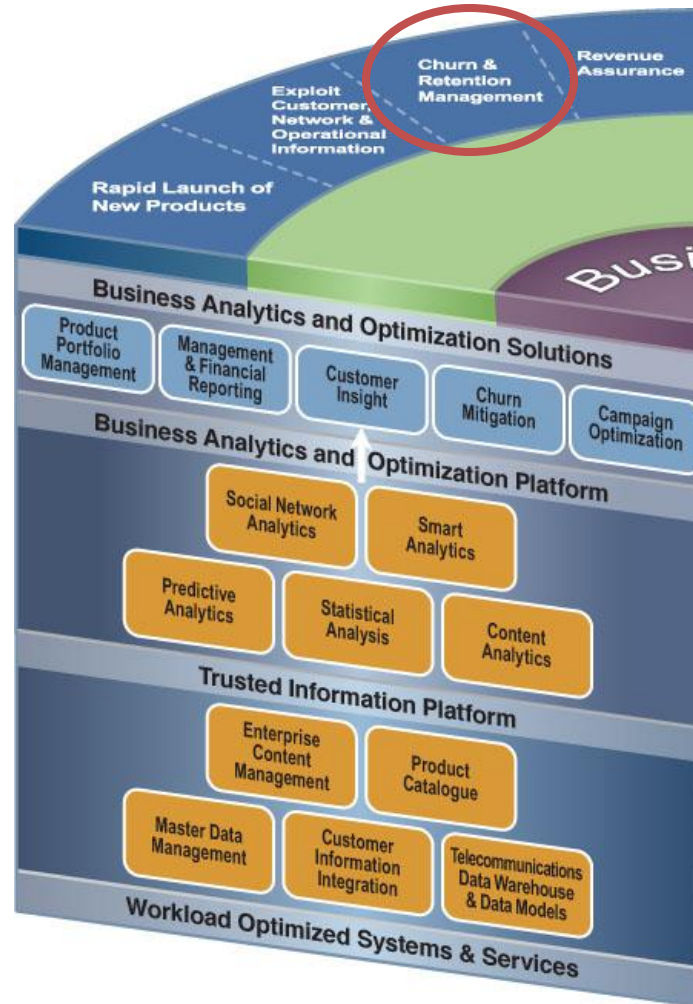


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Churn Mitigation & Customer Retention

Strategic Imperative:
Revenue Management



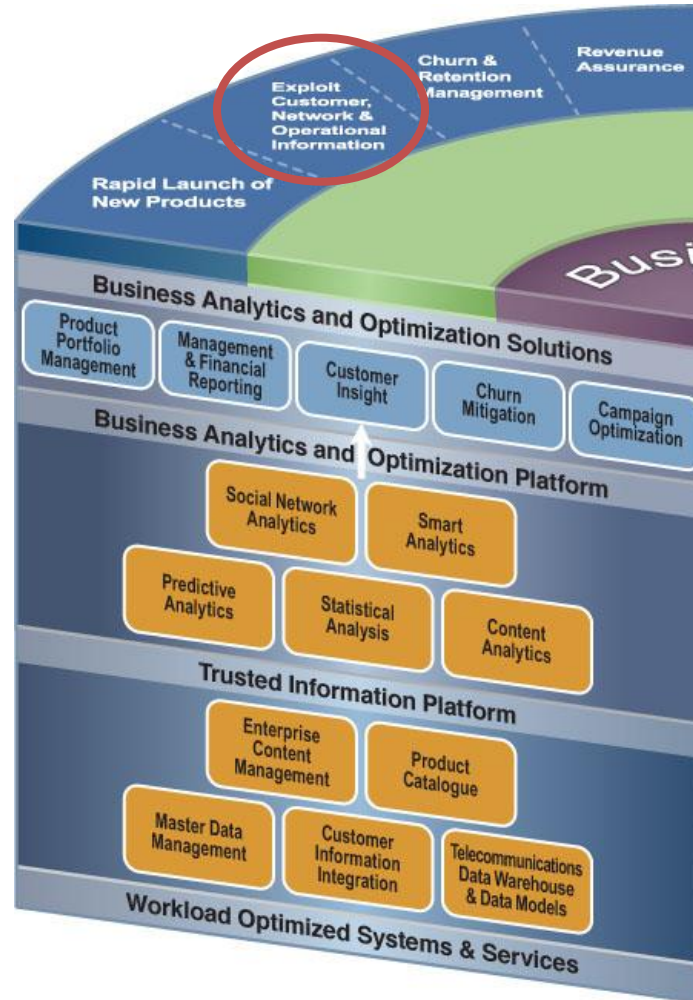
Churn & Retention Management

Analyze market segments, customer behaviours, buying propensities, product usage and provider-owned information sources throughout the entire customer lifecycle to identify and predict profitable customers at risk of dropping service. Proactively address the issues in order to retain. Analyze customer perceptions of pricing, products and services to maximize ARPU and increase customer loyalty.

Goals	Challenges	Required Capabilities
Faster, more accurate market analysis	Data quality, integration and currency	Data governance & lifecycle management
More accurate targeting of product/services to market segment	Limited analytical tools; poorly defined analytical processes	Data mining, reporting, statistics, modelling, predictive analytics, text analytic
More accurately targeted campaigns	Propensity models absent or outdated	Modelling, predictive analytics
Consistent process across channels	Different systems and processes for each channel	Business process management, Single view of customer, Single view of product
Continual analysis of customer lifecycle	Incomplete or poorly integrated customer information	Streams, surveys, reporting, statistics, modelling, predictive analytics, text analytics

Insight from Provider-Controlled Data

Strategic Imperative:
Revenue Management



Insight from Provider-Controlled Data

Exploit extensive customer, network and operational data controlled by provider to monitor network operations and customer experience, identify new revenue opportunities, develop new products & services, cross-sell / up-sell, improve customer retention, reduce costs, improve efficiency and increase ARPU.

Goals	Challenges	Required Capabilities
Integrate & aggregate data from XDRs, CRM, WH, ERP, LOB applications to monitor & analyze services, products and customers.	Data quality, integration and currency	Data governance & lifecycle management, industry data models
Real-time analysis and reporting of customer behaviors, network usage, data resources.	Unable to determine current state of network (and device) for customer. Lack well defined analytical processes; limited analytical tools	Streams, reporting, statistics, modelling, predictive analytics, SQM / network intelligence
Consistent, repeatable process to efficiently transform analytical results into revenue-producing products and services.	Lack well defined analytical and product lifecycle management processes.	Data mining, reporting, modelling, predictive analytics, text analytics, business process management, content management

Uncover Details of Network, Customer and Product Trends Contained in Massive Volumes of Provider-Controlled Data

Deeply optimized by IBM experts
Flexible growth to meet changing business needs



Analytics Software Options

- ☑ Business Intelligence capabilities
- ☑ Cubing Services
- ☑ Text Analytics & Data Mining
- ☑ . . . more to come

Powerful Data Warehouse

- ☑ Warehousing Platform
- ☑ Advanced Workload Management
- ☑ System Automation

Hardware & Services

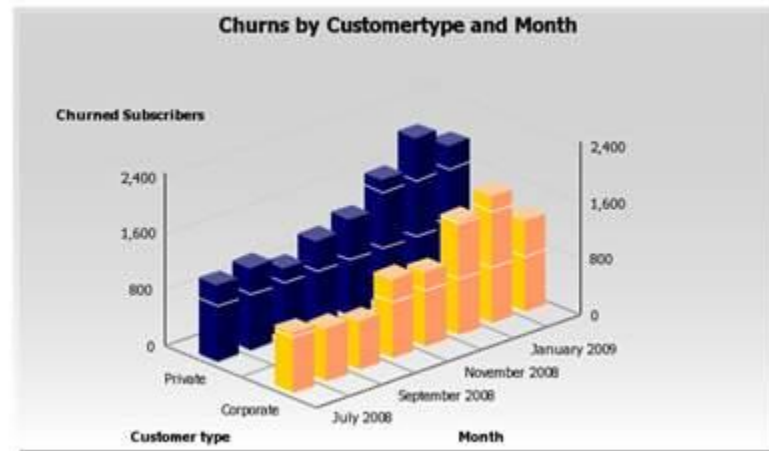
- ☑ Power 550 Express + AIX
- ☑ IBM System Storage DS5300
- ☑ Build, Deploy, Health Check & Services

- Gain **advanced analytical insight** into subscribers
- Provide **predictive analytical insight**
- Add **social network analysis** models
- Deliver **real-time** predictive analytical insight
- **Manage** churn

- ✓ **An integrated, high-performance analytics solution for accelerating delivery of insights for faster, smarter action**
- ✓ **Able to adjust and grow based on the telco's changing business needs**
 - ☐ *broad analytic capabilities*
 - ☐ *powerful warehouse capabilities*
 - ☐ *scalable and fully-integrated IBM hardware*
 - ☐ *set-up services and single point of premium support*

Delivering results in days instead of months

Churns by Customertype and Month



Telco Enterprise Dashboard

Cognos Viewer - Telco Home

Home Launch About


Telco Executive Dashboard

Financial Summary

	Actual	Budget	Variance	Status	Next Period Prediction
Revenue	€468.8	€422.9	€45.8	✓	✗
Expenses	€95.9	€86.6	-€9.3	✗	✓
EBITDA	€564.7	€509.6	-€55.1	✓	—

Financial Performance Detail (000,000's)


Americas

	Actual	Budget	Var			Actual	Budget	Var
Revenue - Direct	€41.0	€37.1	€4.0	- Act * Bud	Marketing	€2.2	€2.0	€0.2
Revenue - 3rd Party	€41.3	€37.2	€4.1		Maintenance	€2.1	€1.9	€0.2
					Salaries	€2.1	€1.9	€0.2


Asia Pac

	Actual	Budget	Var			Actual	Budget	Var
Revenue - Direct	€41.1	€37.1	€4.0	- Act * Bud	Marketing	€2.1	€1.9	€0.2
Revenue - 3rd Party	€38.6	€34.8	€3.8		Maintenance	€2.1	€1.9	€0.2
					Salaries	€2.1	€1.9	€0.2

CEEMEA

	Actual	Budget	Var			Actual	Budget	Var
Revenue - Direct	€38.4	€34.7	€3.7	- Act * Bud	Marketing	€1.9	€1.7	€0.2
Revenue - 3rd Party	€38.5	€34.9	€3.6		Maintenance	€1.9	€1.7	€0.2
					Salaries	€1.9	€1.7	€0.2

N. Europe

	Actual	Budget	Var			Actual	Budget	Var
Revenue - Direct	€38.3	€34.5	€3.9	- Act * Bud	Marketing	€1.9	€1.7	€0.2
Revenue - 3rd Party	€38.3	€34.5	€3.8		Maintenance	€2.1	€1.9	€0.2
					Salaries	€2.1	€1.9	€0.2

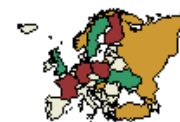
Segment

Customer Activity (000's)


Business Packages	Act	Plan	Individual Services	Act	Plan
Activations	✓ 77	76	Activations	✓ 306	305
De-Activations	✗ 59	50	De-Activations	✓ 160	202



Premium Packages	Act	Plan	Value Packages	Act	Plan
Activations	✓ 76	74	Activations	— 302	305
De-Activations	✓ 48	102	De-Activations	✓ 93	115



Operational Performance Metrics

Service Order SLA Met	Call Center	SO SLA %	Revenue
✗ 69.1% 	Banglore	69.8%	90%
	Brazil	79.2%	88%
	London	68.5%	90%

Trouble Ticket SLA Met	Call Center	TT SLA %
✗ 68.6% 	Banglore	69.1%
	Brazil	66.2%
	London	74.2%

Predictive Enterprise at Work

- **Capture information**

- Ability to capture attributes, interactions, behaviours, and attitudes for customers, employees or constituents
- Data collection capabilities for market research and feedback management

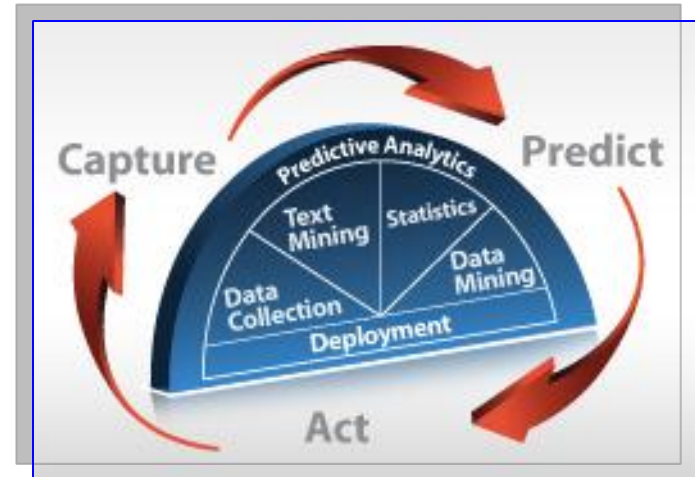
- **Predict behaviour and preferences**

- Top down statistical analysis, useful for all data types and frequently used for survey data, delivers deeper insight
- Data Mining enables predictive modelling

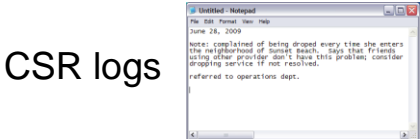
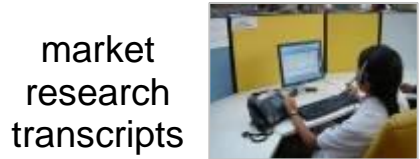
- Text Analytics extracts and categorizes concepts from unstructured text, making qualitative data more quantifiable and delivering new insights

- **Act on results**

- Unique technology and methodology streamlines deployment of analytical results throughout the enterprise to enable better decision making
- Provides reliable automation of analytical processes for better orchestration & discipline
- Enables collaboration to deliver more effective analytical results



Insight from Unstructured Information



Customer Service



Service Management



Partner



Content Analytics



Churn alerts
 Monitor FAQs
 Market sentiment
 Corporate reputation
 Voice of the customer
 CSR training & monitoring

Product Management



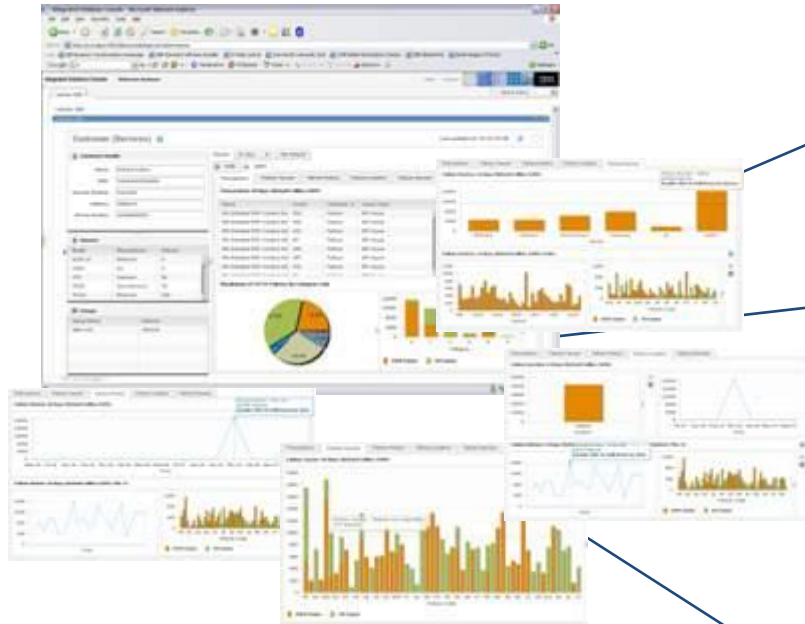
Marketing



Sales



Analyse Network Data to Improve the Customer Experience



Customer Care:

- How can we show our customers that we understand their individual quality issues?
- How can we correlate more individual customer issues to known service quality problems?



Account Managers:

- How do I track a single user or user group within an account?
- How do I authenticate concerns regarding quality?



Marketing:

- View Service Usage by region, customer demographic, time of day?
- How can I check the effectiveness of marketing campaigns?



Service Managers:

- How are my services doing against other dimensions like location, device and segment?
- How can I analyze my service delivery trends by customer and in aggregate?

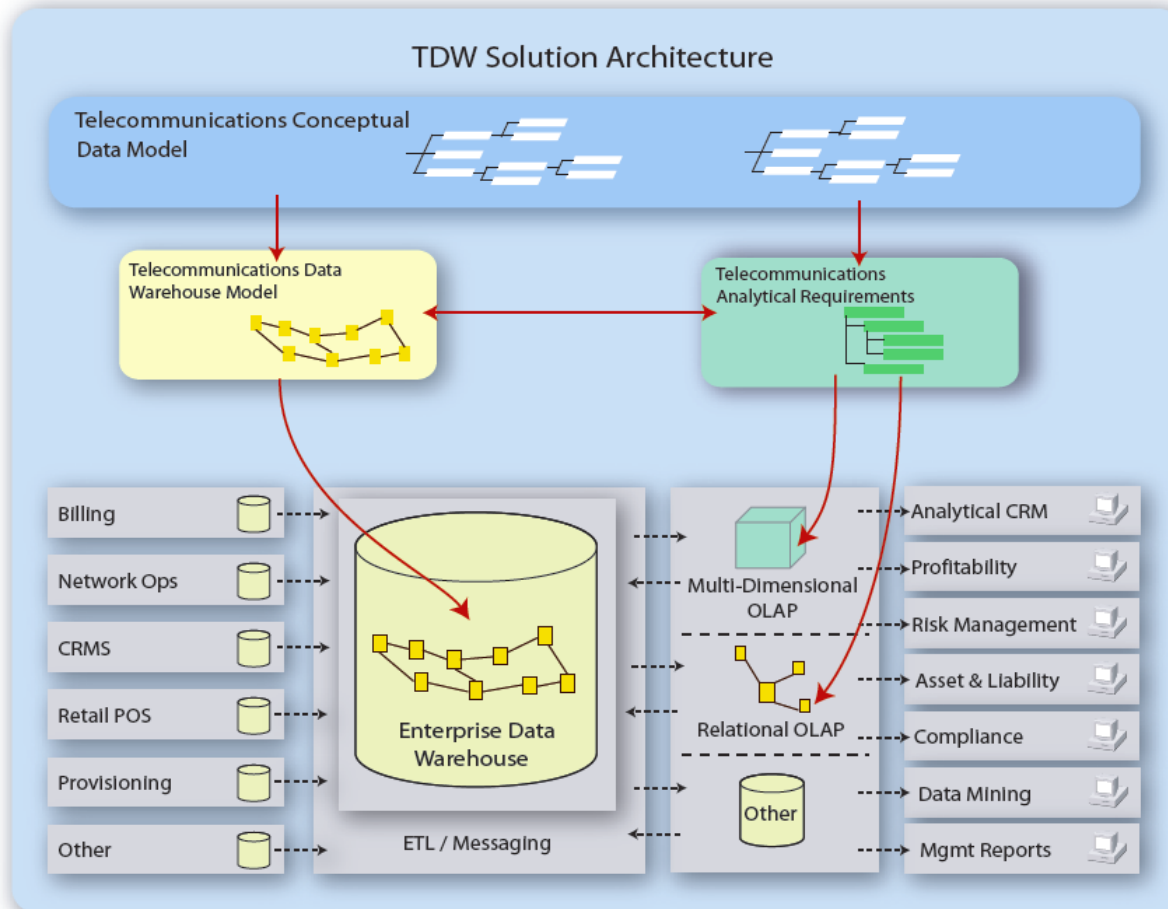
Operations:

- How can I relate customer impacting issues to network problems?
- How can I figure out if a customer complaint is device, location, time or specifically customer related?



Standardised Telecommunications Data Model

Creating a trusted view of customer/product/network across LOB



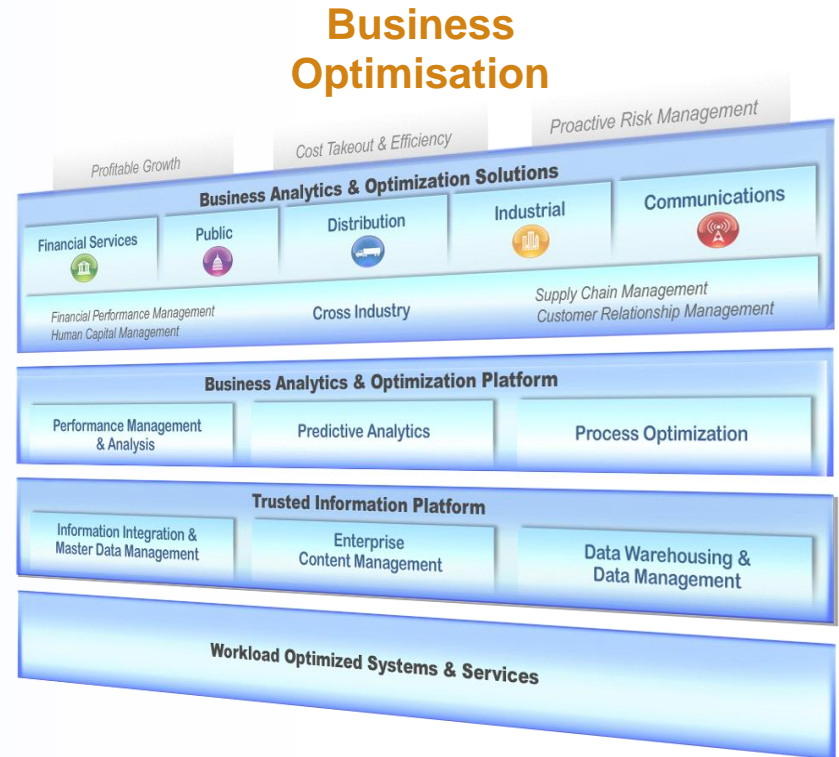
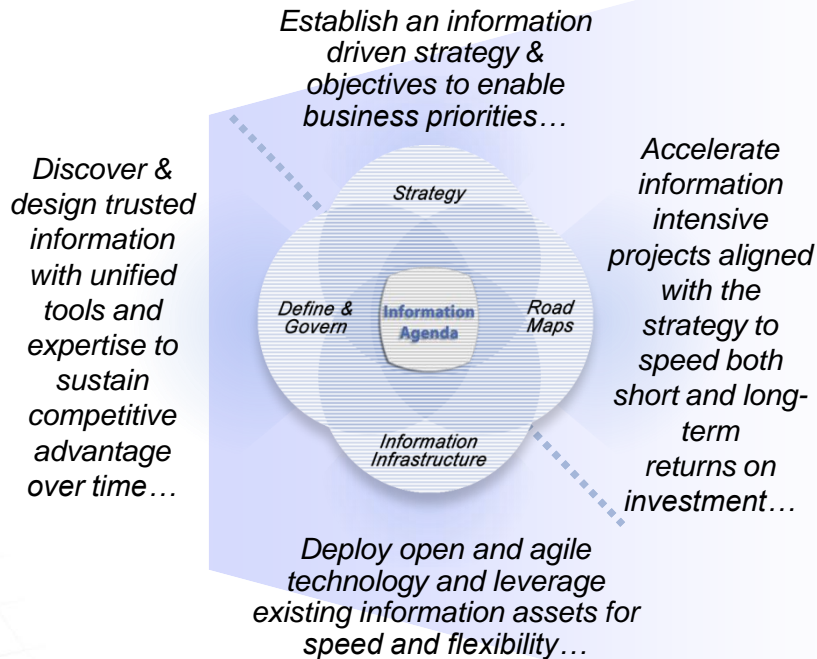
- Common Customer View
- Product Lifecycle Management
- Campaign Performance Management
- Analytical Customer Relationship Management
- OSS/BSS Re-engineering
- Data Warehouse and Data Mart Consolidation

Data model and analytical requirements have been shown to reduce development effort by as much as 50%.

IBM is Helping Unlock the Value of Information Using Our Proven Methodology and Leveraging Software Assets...

Proven Methodology

Software Assets



Investments Across IBM Are Accelerating the Shift to Business Analytics & Optimisation

Solutions

Over 4,000
Dedicated Consultants

Software

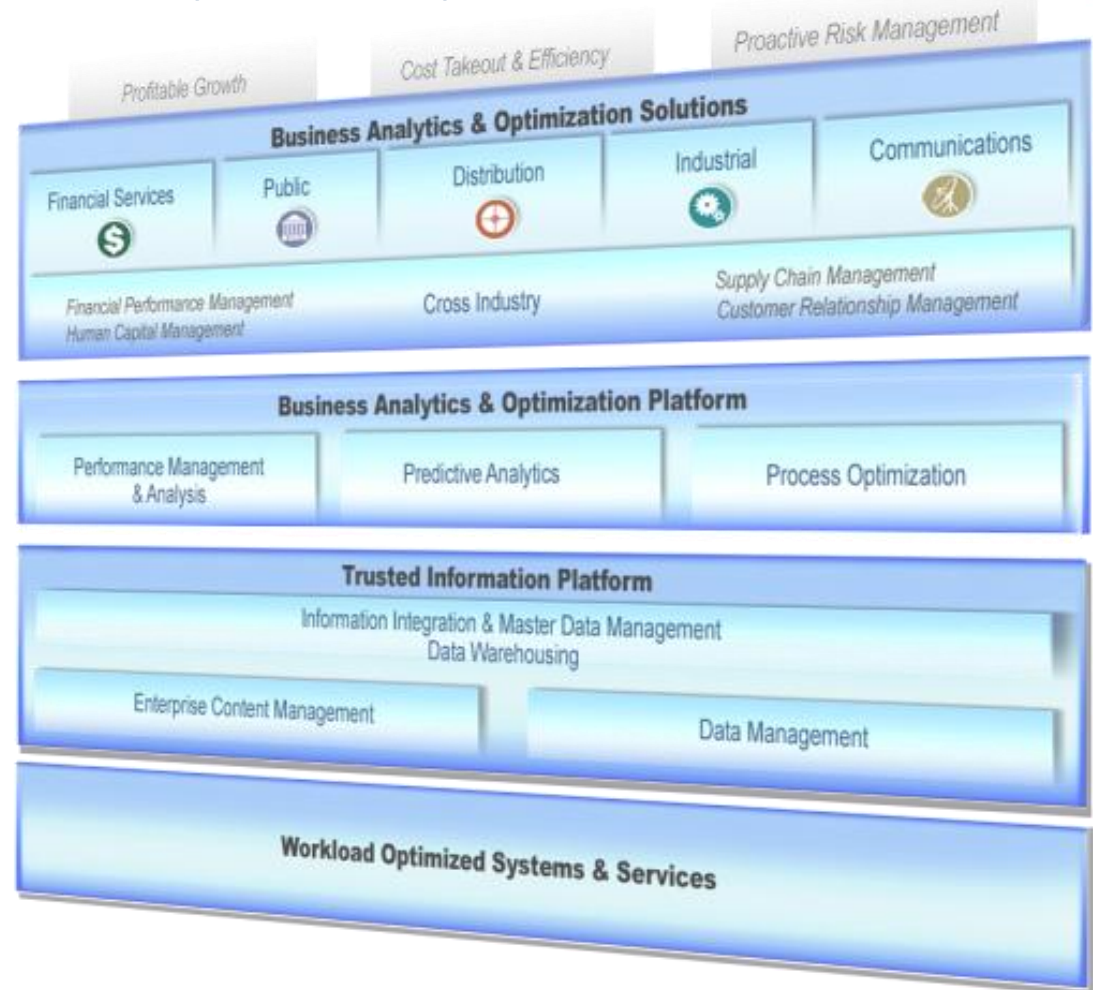
Over \$12B
Software Investments

Systems

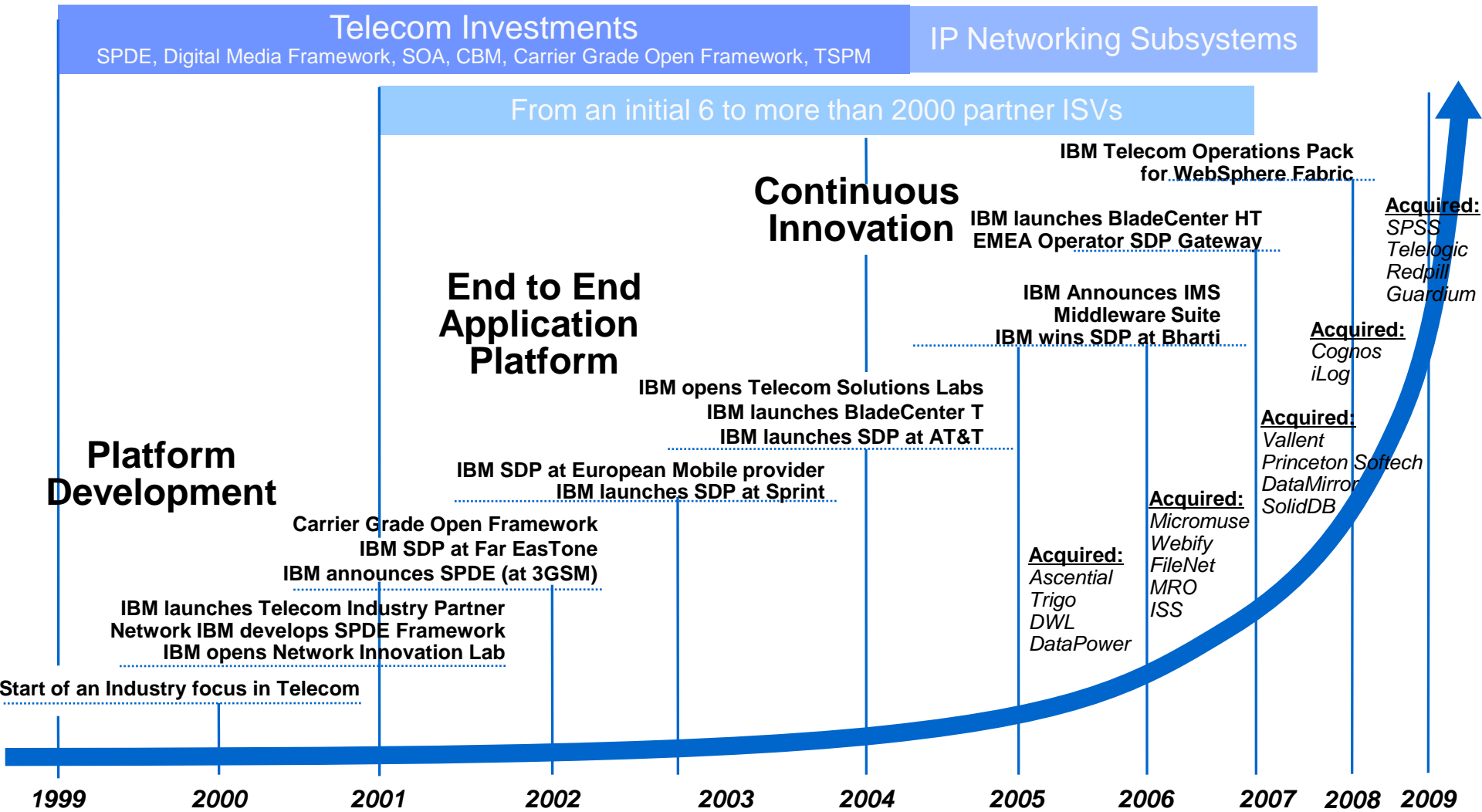
Over \$6B
in Systems Level R&D

Research

10 Years Research in
Services; Largest Math
Department in Private
Industry



IBM Continued Investments in Communications Industry



IBM Centres of Excellence

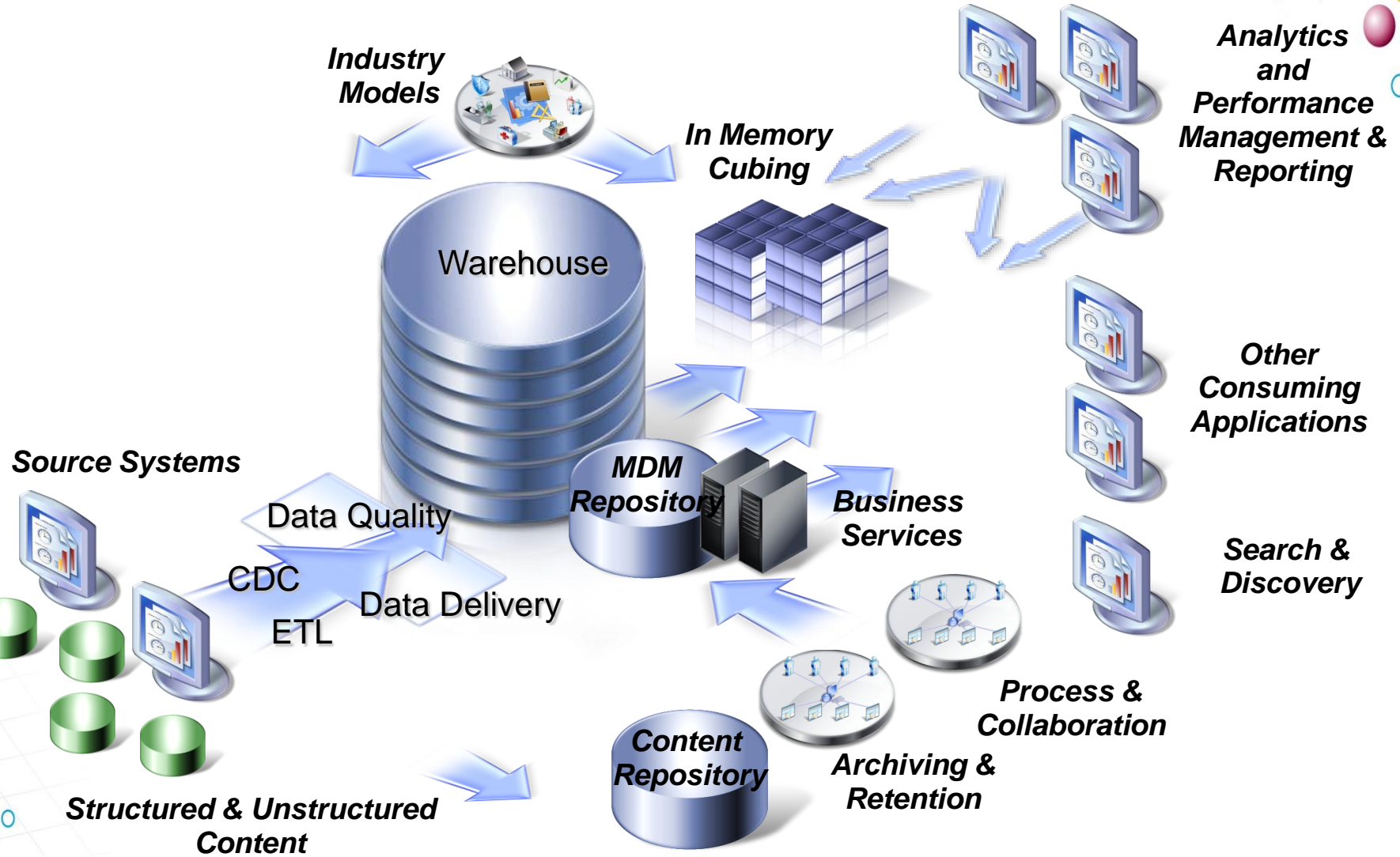
Comprehensive industry knowledge and analysis

- **100+ IBM Centres of Excellence Worldwide**
 - Proven expertise in reliability, security, interoperability & scalability
 - 15,000+ subject matter experts
 - Industry Solutions Labs leveraging IBM Research
 - Customized briefings and training
 - Proof of Concepts

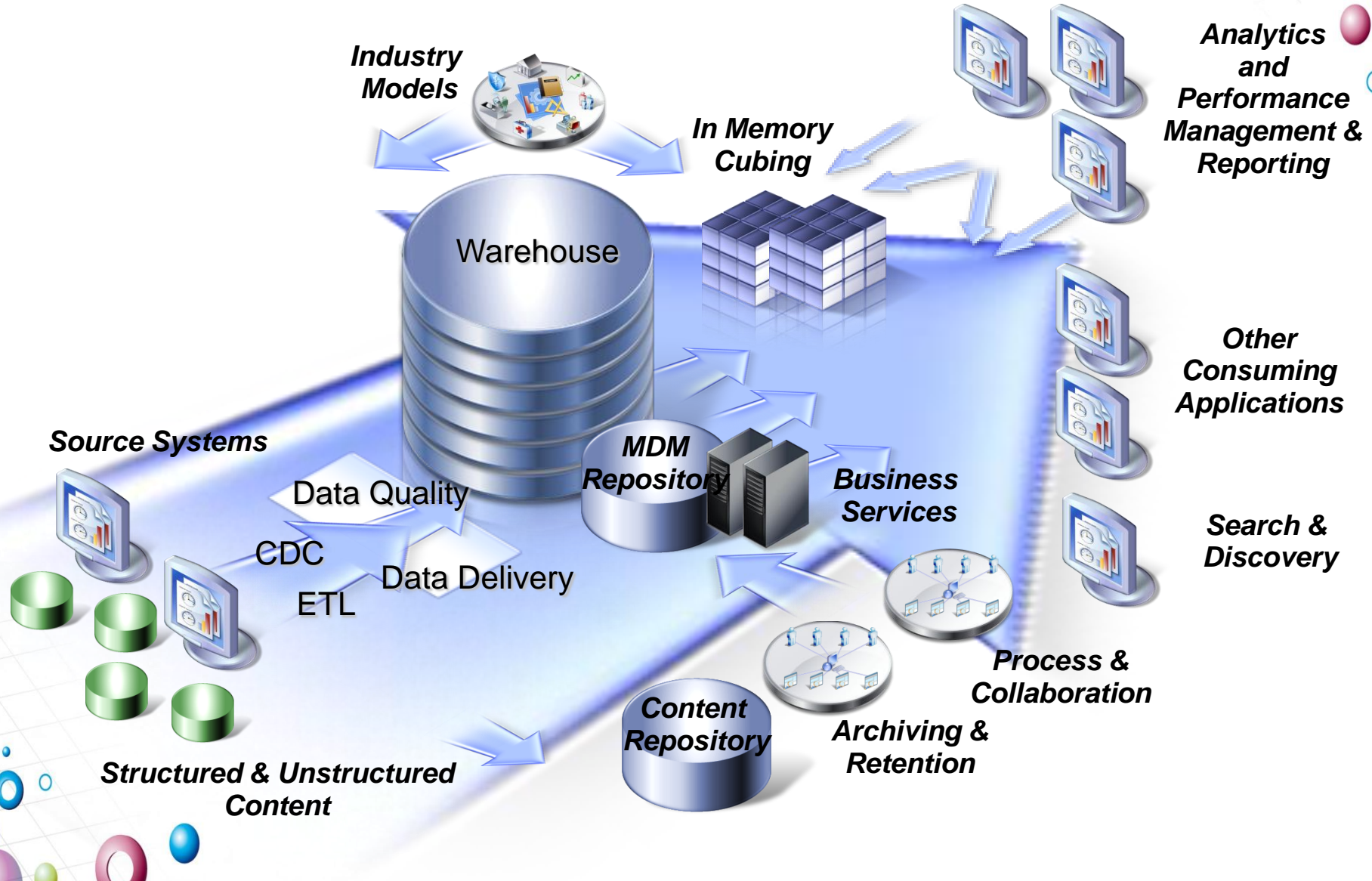
IBM Centres Include:

Global Telecom Solution Centre
Industry Solutions Laboratories
Institute of Business Value
Technology & Interoperability Centres
Research Innovation Centres
Proof of Concept Centres
Centres for Business Optimization
Customer Benchmark Centres
Design Centres for On Demand
Development & Integration Centres
Deep Computing Centres
High Availability Centres
Globalization Laboratories
Business Continuity Centres
Global Simulation, Test & Performance Centres

The Information Agenda Helps Clients Determine What's Required to Bridge the Gaps in their Info Mgmt Landscape to Improve Business Outcomes



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Thank
YOU



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