

# Information Agenda

*Leveraging Information for Smarter Business Outcomes*



# Agenda



- Communications Service Providers challenges & Opportunities
- IBM Software Group
- Information Agenda overview
- Analytics
- Master Information
- Customer Experience Management case studies

**The potential is unlimited —But continued global expansion is hindered by legacy systems, processes, business models and thinking.**

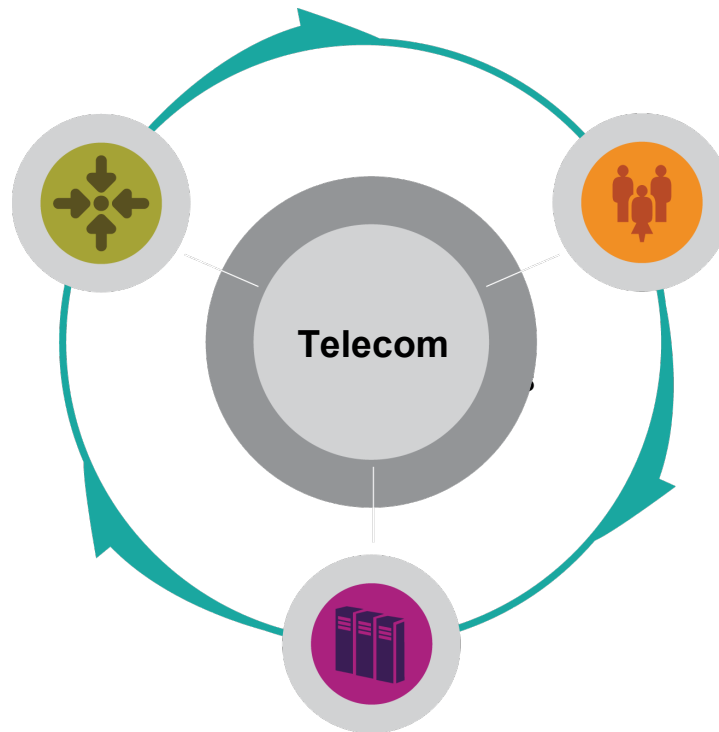
We need smarter networks, smarter processes, smarter use of data and more. Smarter telecommunications systems deliver on this potential by focusing on **three** important imperatives:

#### **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.

# Addressing Key Questions For CSPs With **Information & Analytics**

Key Questions Addressed		IBM Benefit Proof Points
<b>Increase Average Revenue Per User (ARPU) &amp; Profits</b>	<input type="checkbox"/> How can I bring products and services to market faster?	<b>\$10M</b> in additional revenue by bringing services to market faster by 2 weeks
	<input type="checkbox"/> How do I effectively market to my customer base to sell more products and services?	<b>10-15%</b> increase in cross-sell/up-sell
	<input type="checkbox"/> How do I increase customer satisfaction and loyalty?	<b>20%</b> increase in productivity for customer service representatives
<b>Lower Customer Churn</b>	<input type="checkbox"/> How do I make my campaigns more effective and increase conversion rates?	Increase campaign conversion rate from <b>4%</b> to <b>12%</b>
	<input type="checkbox"/> How do I proactively manage customer churn as opposed to reacting to loss?	Customer churn reduced from <b>19%</b> to <b>2%</b>
<b>Increase Productivity</b>	<input type="checkbox"/> How do I provide my business users and management timely access to business insight?	<b>20%</b> increase in worker productivity for reporting, finance & analysis
<b>Lower Operational Costs</b>	<input type="checkbox"/> How do I reduce the operational cost of my ERP deployment?	<b>30%</b> savings on your ERP data management costs
	<input type="checkbox"/> How do I reduce the operational costs and improve performance for growing data?	<b>30-40%</b> savings on storage costs <b>40-75%</b> increase in app. performance <b>6</b> out of Top <b>10</b> Telcos using the solution

## The Management Dilemma

Today, the codified information base of the world is believed to double every 11 hours



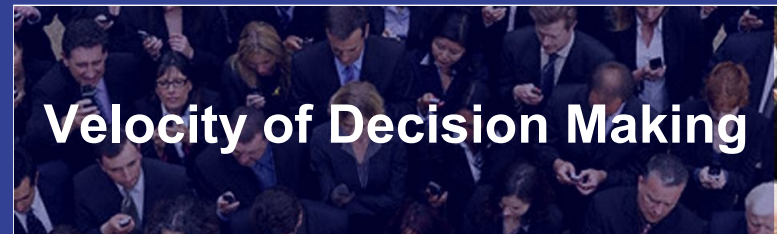
**Volume of Digital Data**

Today, 80% of new data growth is unstructured content, generated largely by email, with increasing contribution by documents, images, and video and audio



**Variety of Information**

Executives are being called upon to make more and faster decisions. Today, 70% of executives believe that poor decision making has degraded their companies' performance



**Velocity of Decision Making**

Competitive advantage requires better information access and speed

**4 in 5** business leaders see **information** as a source of **competitive advantage**

**3 in 4** business leaders say more **predictive** information would drive **better decisions**

## Successful Companies

Sense and Respond

Instinct and intuition

Skilled Analytics Experts

Back Office Decision Support

Automated



## Competitive Leaders

Predict and Act

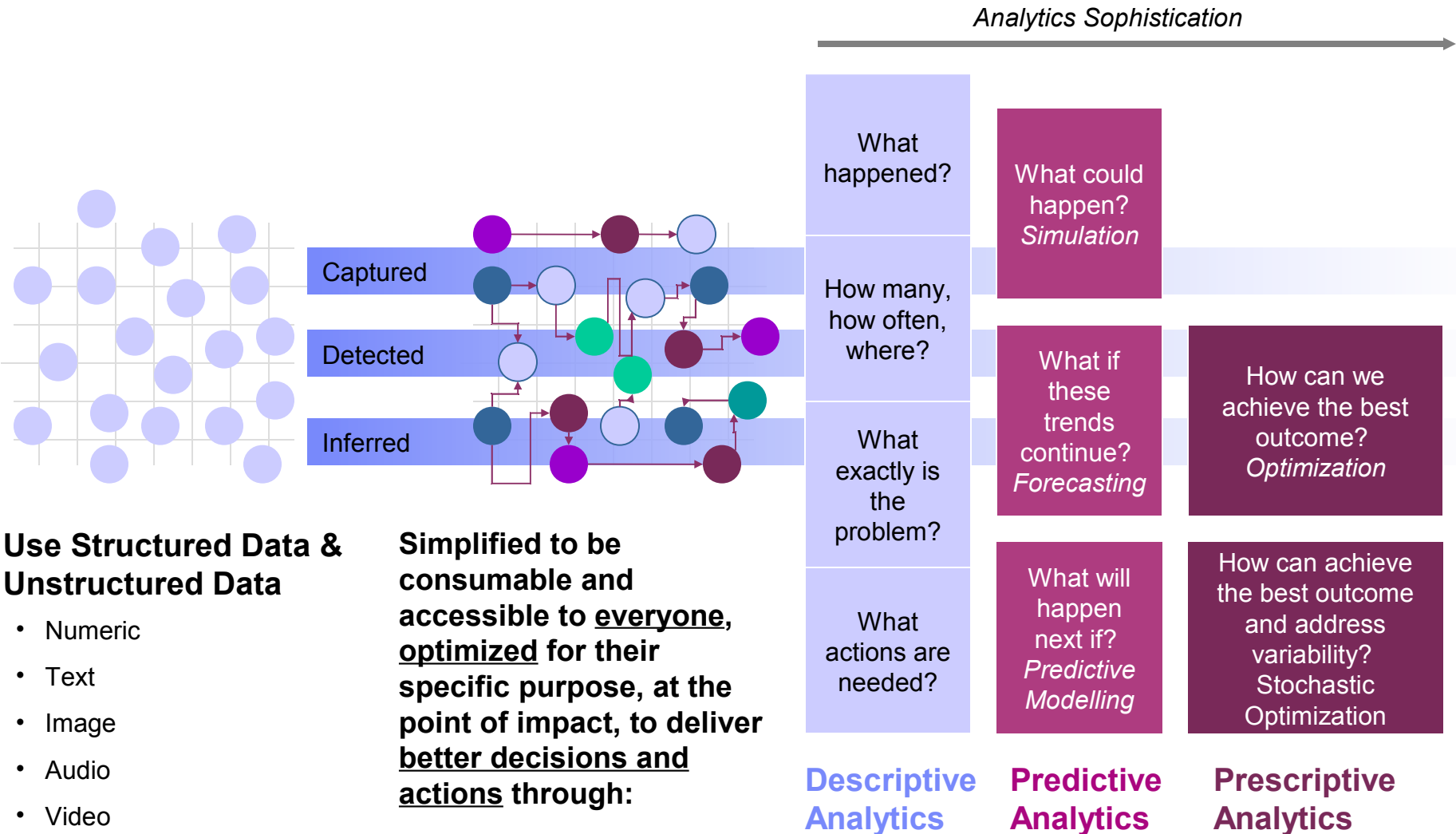
Real-time, Fact-driven

Everyone

Point of Impact Action Support

Optimized

To deliver breakaway performance, increasing the organization's level of analytical sophistication is needed – moving from descriptive to prescriptive.





... Enabling them to confidently predict, plan and act  
business to optimize outcomes.



### Enhance Customer Understanding

- Customer Churn
- Marketing Spend
- Sales Productivity



### Optimize Real-Time Decisions

- Trading Advantage
- Fraud Protection
- Health Monitoring



### Foster Collaborative Decisions

- Customer Service
- Channel Management
- Loan Origination

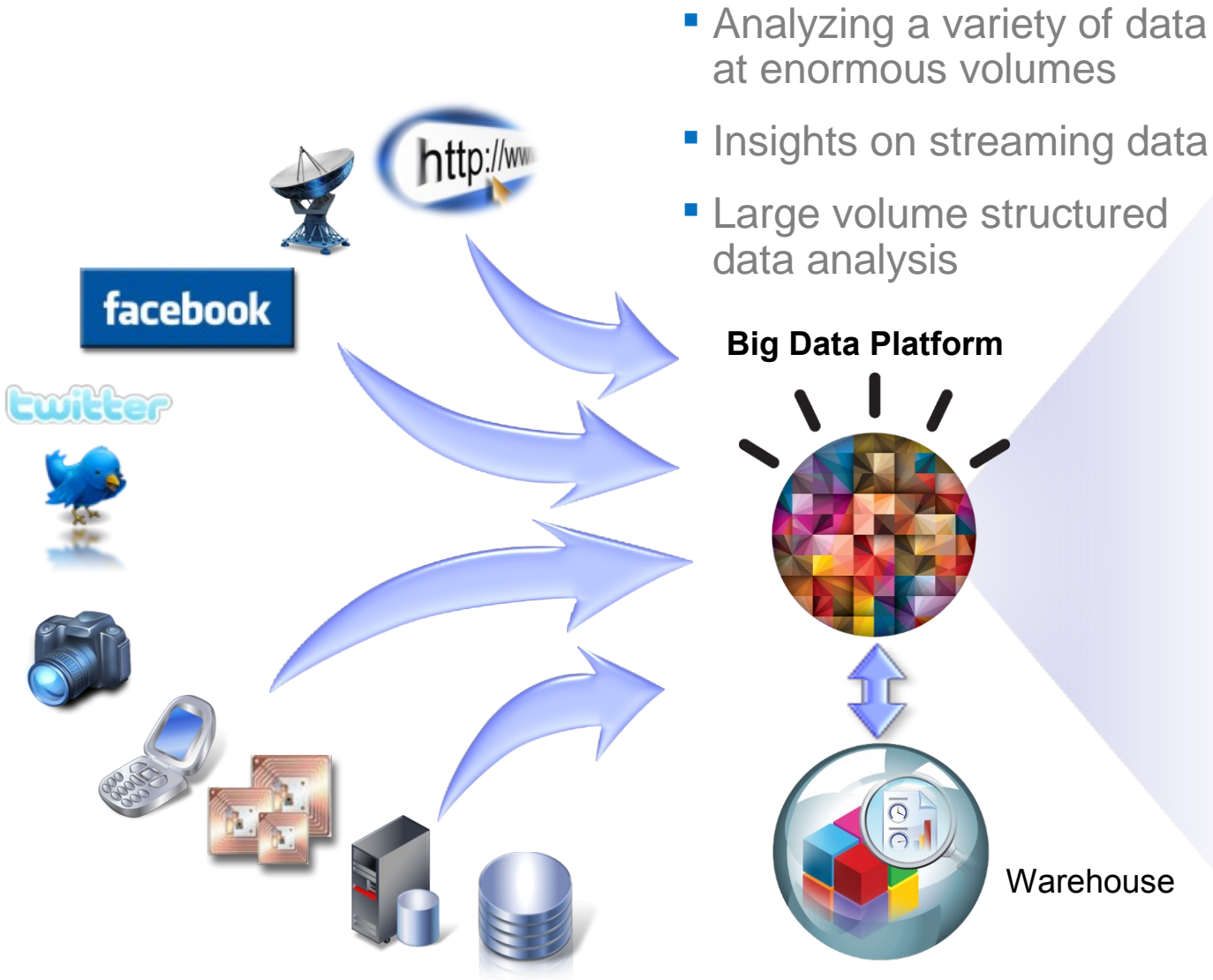


### Enable Enterprise Visibility

- Risk Management
- Demand Visibility
- Strategy Alignment



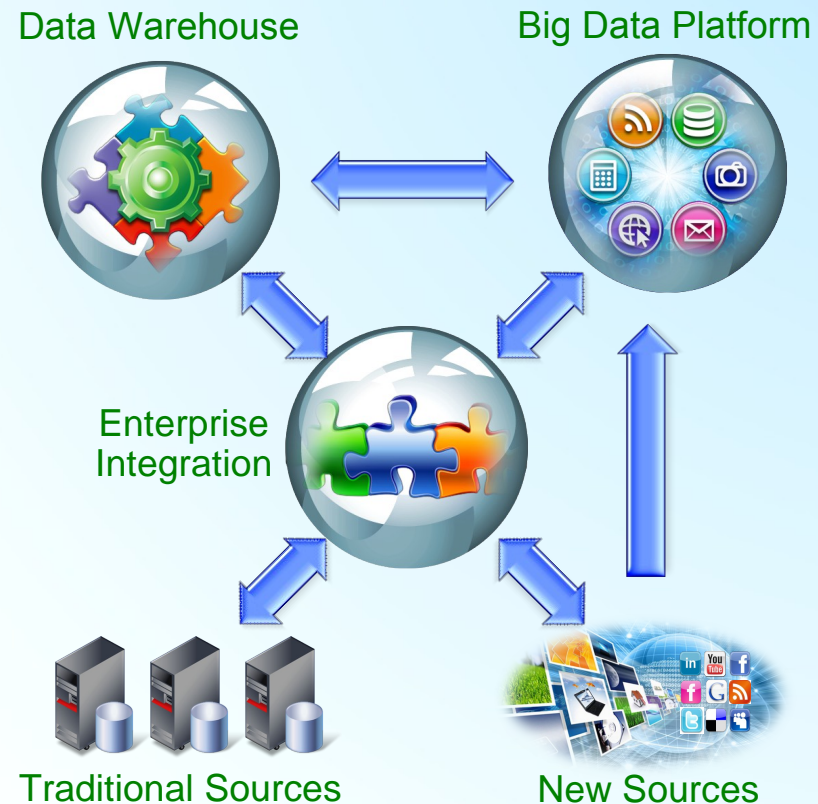
Bring together any data source, at any velocity, to generate insight



## ...But Can't Do It Alone

### What does Big Data mean for your Information Architecture?

- Big Data will be a permanent part of your information architecture
- It cannot be a silo – it must be fully integrated in order to leverage its value
- It must be easy to deploy and integrate



# Merging the Traditional and Big Data Approaches

## Traditional Approach

### *Structured & Repeatable Analysis*

#### Business Users

Determine what question to ask



#### IT

Structures the data to answer that question



Monthly sales reports  
Profitability analysis  
Customer surveys

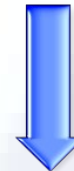
## Big Data Approach

### *Iterative & Exploratory Analysis*



#### IT

Delivers a platform to enable creative discovery



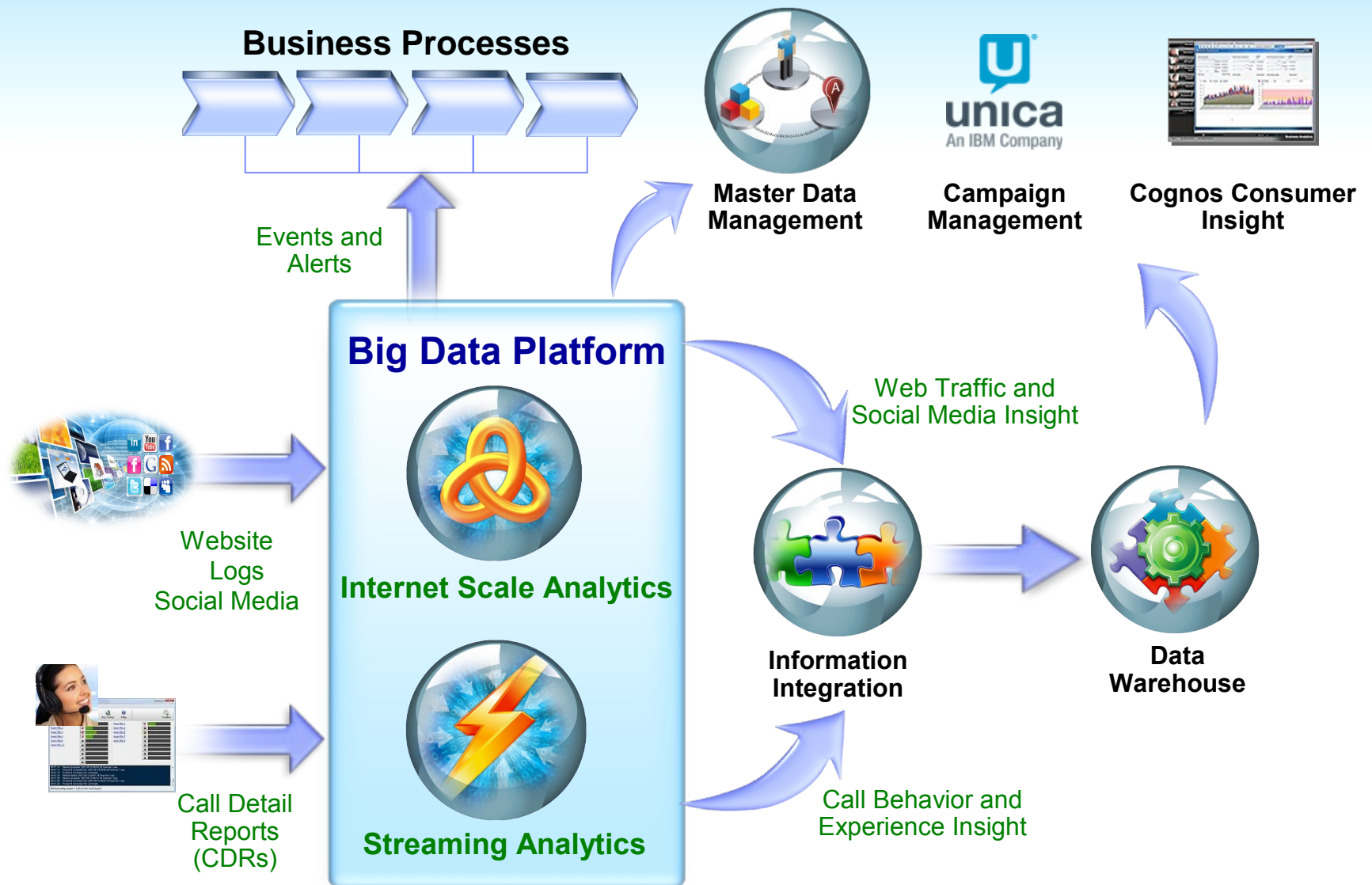
#### Business

Explores what questions could be asked



Brand sentiment  
Product strategy  
Maximum asset utilization

# One Example - The 360° Multi-Channel Customer Sentiment Analysis



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# Turning Information into Insights

## Enterprise Content Management



## Enterprise Marketing Management



## Business Analytics



## Information Integration Data Warehouse Master Data Management



## Data Management



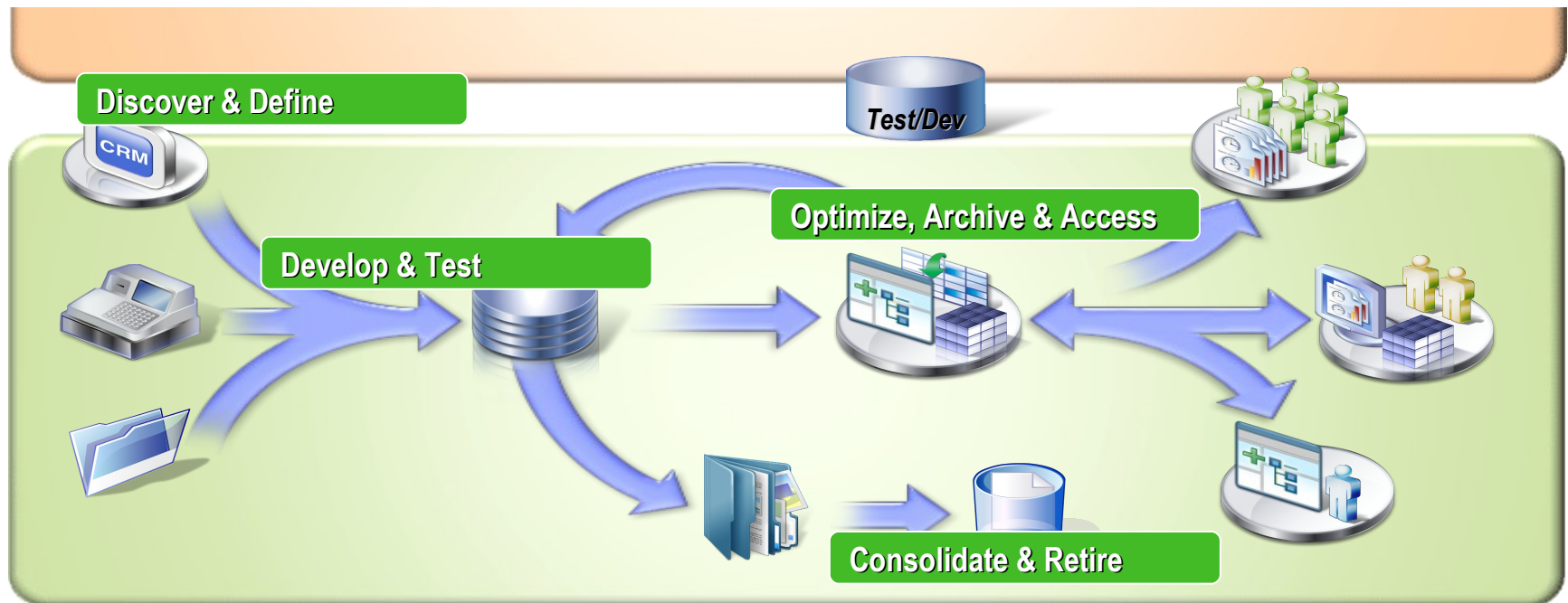
## Information Governance





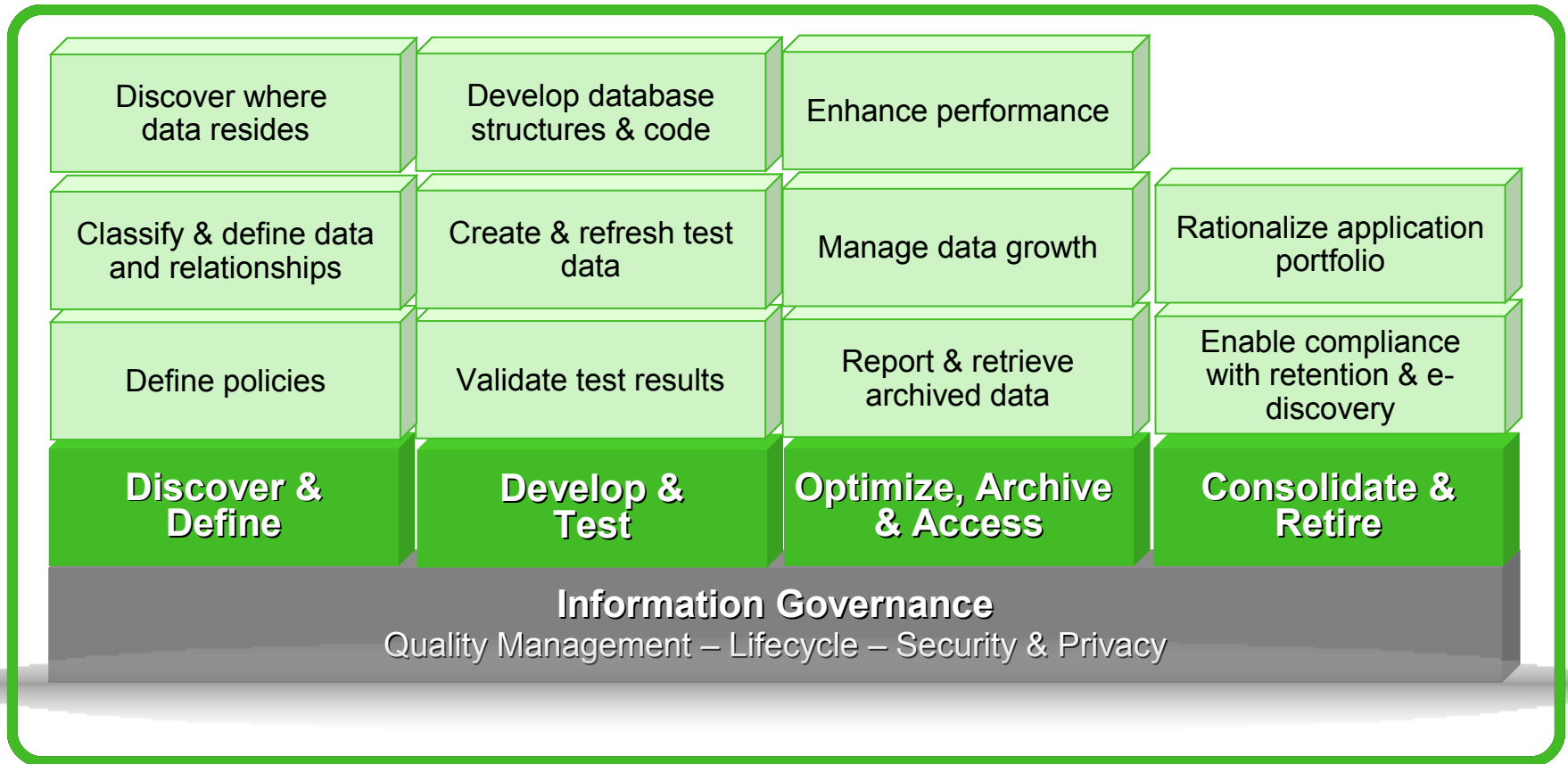
# Managing the Lifecycle of Data in the Information Supply Chain

- Understanding the “what & where” of enterprise data
- Developing models and code to store and access enterprise data including the configuration of data for test environments
- Optimizing performance through identification of bottlenecks and building the right strategy for managing applications and data growth
- Implementing a consistent process for retiring or consolidating applications





# Streamlining the Management of Data Across its Lifecycle



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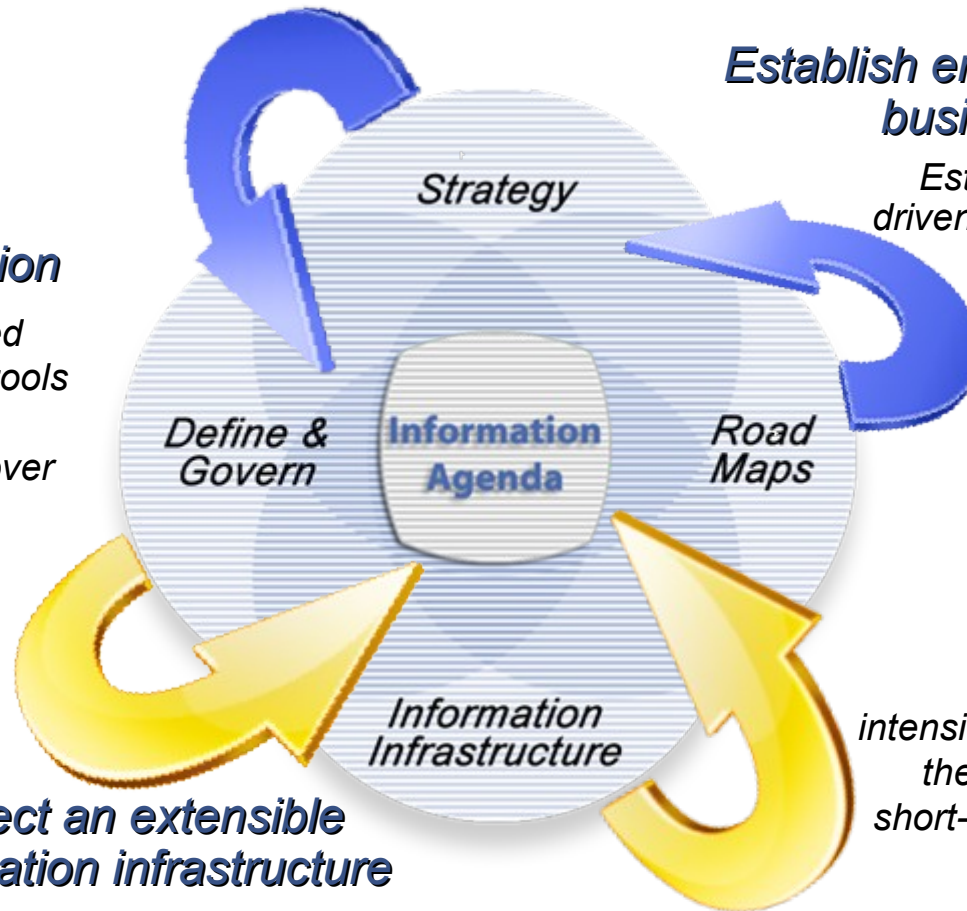
## Information Agenda : a Proven Approach to Smarter Business Outcomes

### **Align people, process & information**

*Discover & design trusted information with unified tools and expertise to sustain competitive advantage over time...*

### **Architect an extensible information infrastructure**

*Deploy open and agile technology and leverage existing information assets for speed and flexibility...*



### **Establish end-to-end vision & business-driven value**

*Establish an information-driven strategy & objectives to enable business priorities...*

### **Accelerate projects for short & long-term ROI**

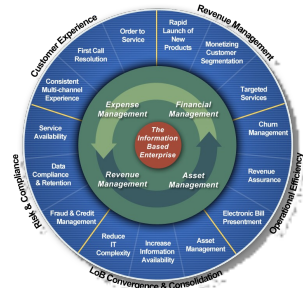
*Accelerate information-intensive projects aligned with the strategy to speed both short-term & long-term return on investments...*

**Information Agenda is a consultative approach** for helping senior Business & IT levels to clarify their information strategy and resulting business value & then define the right approach to execute.

# Industry Specific Information Agenda Accelerators

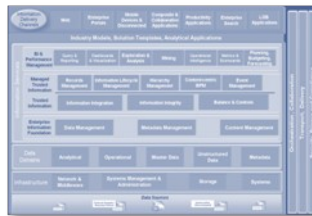
Proven consulting and technical tools to accelerate the process

## Industry Specific Business Optimization Maps



*Establish a business driven information strategy by identifying business objectives that can be optimized with information and relevant IT projects*

## IOD Workshops & Reference Architecture



*Accelerate development of future state design, identification of key information requirements and gap analysis*

## Data Governance Best Practices & Maturity Model



*Establish policies and procedures to drive consistency around how information is defined and used across the enterprise*

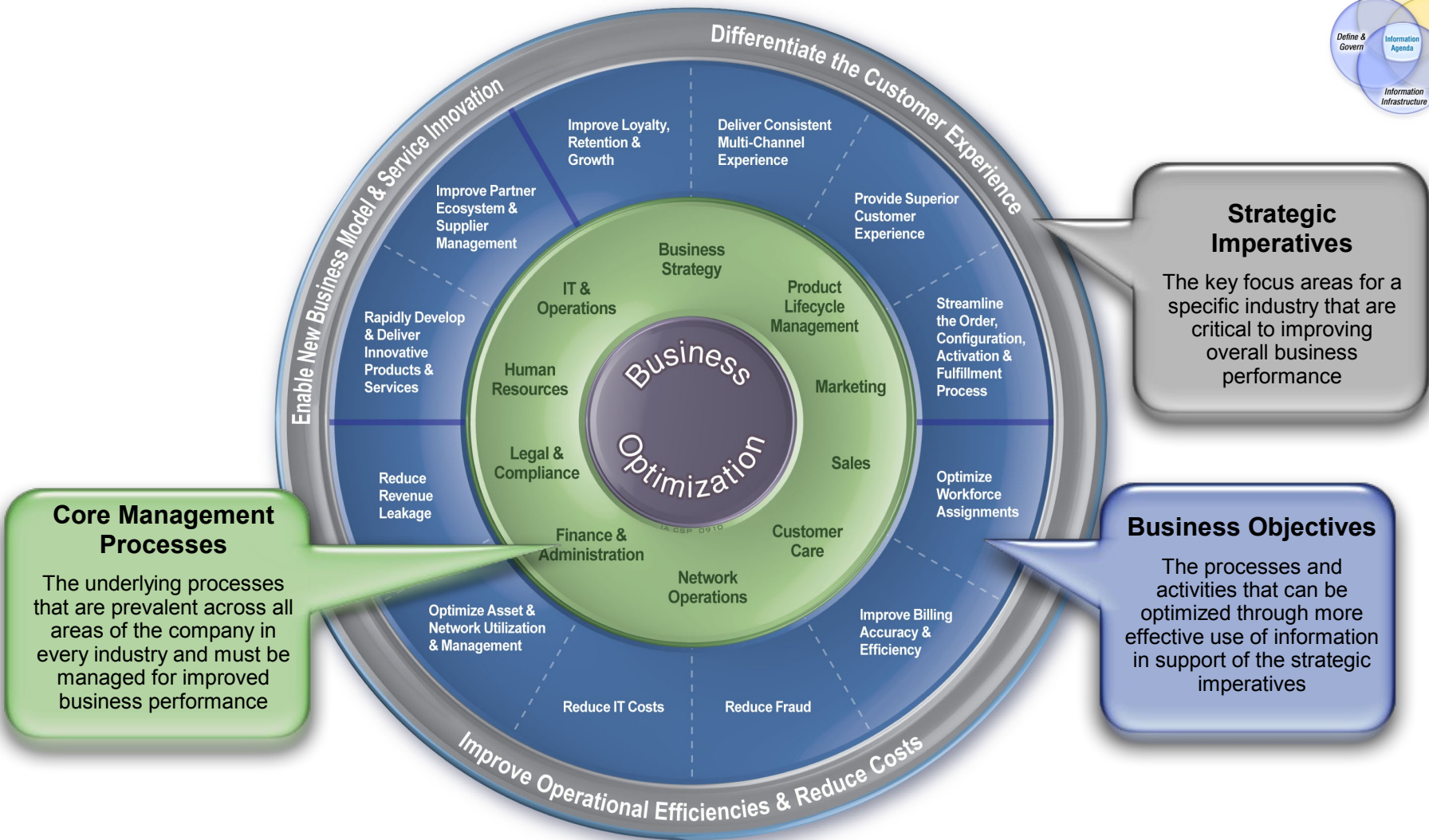
## Maturity Model, Guides & Roadmap Templates



*Assess business value, dependencies and prioritization of projects to drive successful execution*

# Business Optimisation Maps are at the Core

## Using Accelerators to drive results





# Communications Service Providers

## *Business Optimization Map*



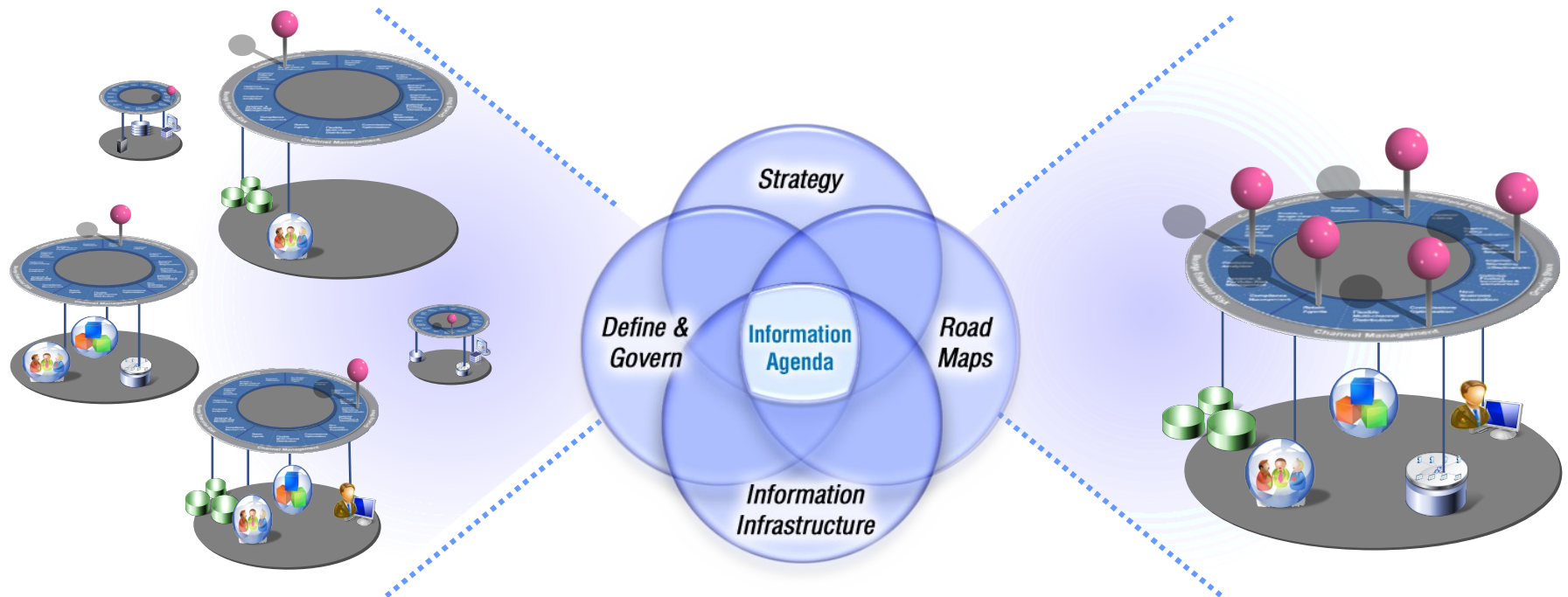


		Business Str	Product Lifecycle M	Marketin	Sales	Customer C	Network Oper	Finance & Admini	Legal & Comp	Human Reso	IT & Operat
Enable New Business Models & Service Innovation											
	Rapidly Develop and Deliver Innovative Products & Services										
	Improve Partner Ecosystem & Supplier Management										
Differentiate the Customer Experience	Improve Loyalty, Retention & Growth										
	Deliver Consistent Multi-Channel Experience										
	Provide Superior Customer Experience										
	Streamline the Order, Configuration, Activation & Fulfillment Process										
Improve Operational Efficiencies & Reduce Costs	Reduce Revenue Leakage										
	Optimize Asset & Network Utilization & Management										
	Reduce IT Costs										
	Reduce Fraud										
	Improve Billing Accuracy & Efficiency										
	Optimize Workforce Assignments										



## Establishing an Information Agenda:

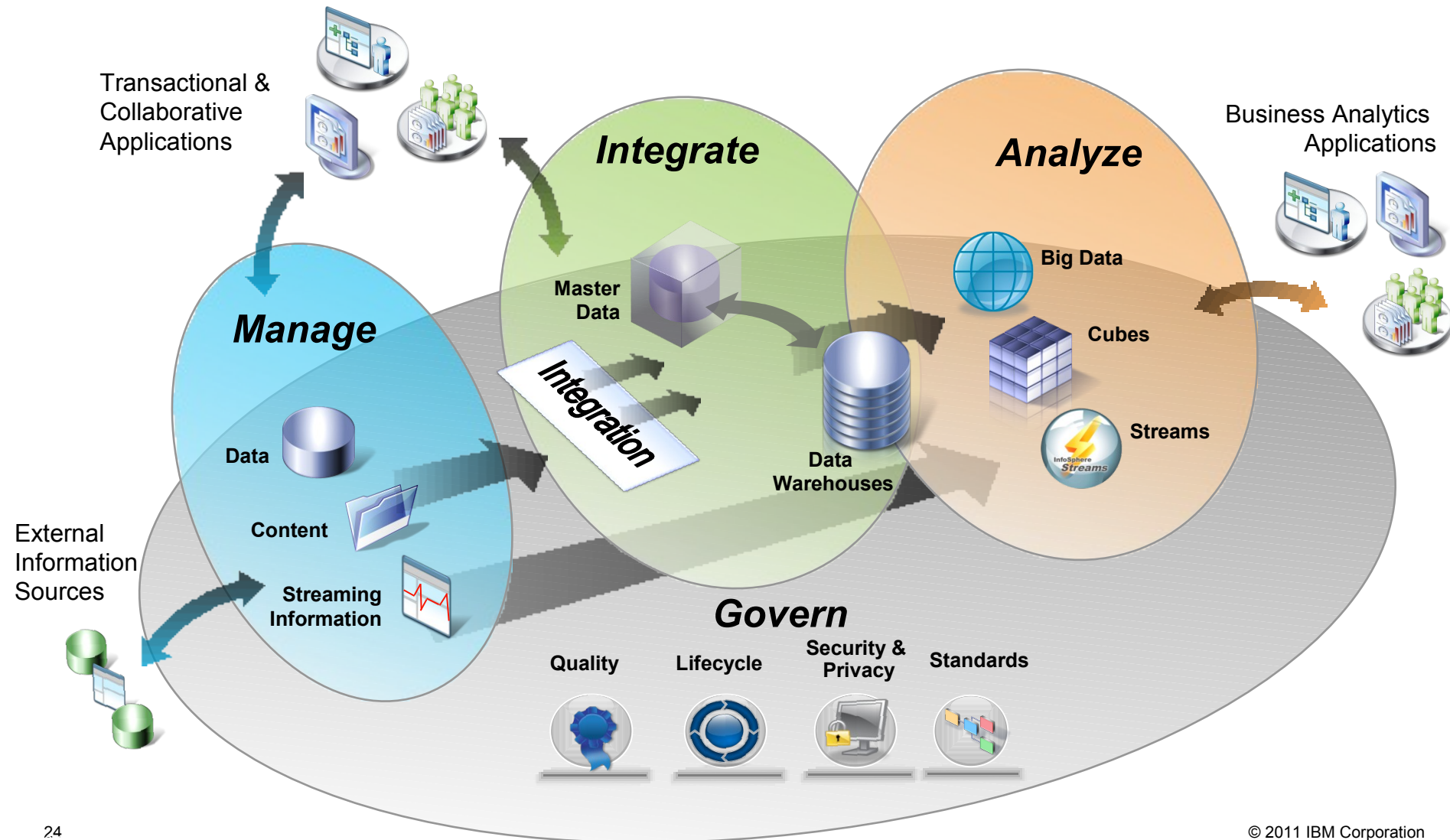
*An Information Agenda builds the alignment between Business and IT that is critical to fulfilling the potential of reusable, interoperable and extensible IT components and master data.*

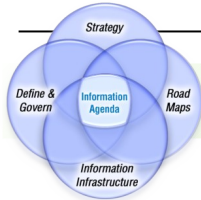


*Multiple highly justified but  
non aligned projects*

*Integrated program of projects  
capitalizing on common enterprise  
information and technology*

# IBM Information Management enables Customer Experience Analytics Solution for CSPs to bridge the information gap...





# Information Agenda Business Outcome Based Approach

**Information Agenda** provides a fast track approach to accelerate Business Analytics and Information-enabled Transformation

Days	Phase	Deliverables
2 to 3	<b>IA Roadmap Workshop</b> <i>Dynamic BOM, IA Business Maturity Assessment and KPIs</i>	<p>Closing the gaps can be started by initiating low/no cost 'Quick Hits' while planning for the overall program toward Business Optimization</p>
1 to 2	<b>IA Information Governance Workshop</b> <i>Data Maturity Model, Best Practices</i>	<p><b>Maturity assessment showing the current governance maturity level, recommendations for improvement and an actionable roadmap</b></p>
3 to 5	<b>IA Solution Workshop</b> <i>Business Use Cases, Reference Architectures, ROI Models</i>	<p><b>Complete business case for budget capture, approval, architecture plans and a project timeline</b></p>

# What's being attempted to do

as revealed by insights gained in conducting Information Agenda roadmap workshops

1

**DO MORE  
WITH LESS**

## Lower Cost of Data

- The costs of managing and providing data are high and growing

## Worker Productivity

- Cost cutting is reducing staffs to a level that puts pressure on meeting requirements

## Prioritization

- Focus attention on the most profitable customers, agents, channels

2

**FOCUS ON  
THE  
CUSTOMER**

## Know the customer

- Lack of a unified view of customers across divisions, subsidiaries, etc.

## Optimized Access

- Need to provide a personalized blend of access points to support customers needs

## Take Proactive Action

- Seek and gain advantage by being able to predict customers needs and actions.

3

**INNOVATE**

## Advanced Analytics

- Across the industry, analytics is being applied. Take it to the next level

## Product Innovation

- Lower premiums may not be enough to secure customers in today's market

## Optimize Distribution

- Today's customers and agents want access on their terms – not the carriers

4

**PROTECT  
THE  
ENTERPRISE**

## Compliance & Reporting

- Regulatory reforms are creating an increasingly complex reporting & compliance landscape

## Risk Management

- Increasingly complex and integrated exposures can pressure capital reserves

## Fraud & Abuse

- Reducing fraud, subrogating losses, and avoiding errors improves results

# IBM offers a comprehensive array of framework, industry solutions, enabling tools and techniques to deploy an Information Agenda

## 1

### DO MORE WITH LESS

#### Lower Cost of Data

Information Management Foundations  
Legacy Modernization

## 2

### FOCUS ON THE CUSTOMER

#### Know the customer

Single View of Customer

## 3

### INNOVATE

#### Advanced Analytics

Underwriting Optimization  
Smart Claims

## 4

### PROTECT THE ENTERPRISE

#### Compliance & Reporting

Executive Insight  
Risk & Compliance  
Solvency 2

#### Worker Productivity

IBM Case Management  
Work Optimization  
New Business Streamlining

#### Optimized Access

Self Service  
Campaign & Customer Interaction

#### Product Innovation

Product Development  
Agile Policy Administration

#### Risk Management

Financial Planning & Performance  
Operational & IT Risk

#### Prioritization

Customer Analytics

#### Take Proactive Action

Cross-Sell & Up-Sell

#### Optimize Distribution

Channel Transformation  
Agency Collaboration

#### Fraud & Abuse

Fraud Analysis & Prevention

actions.

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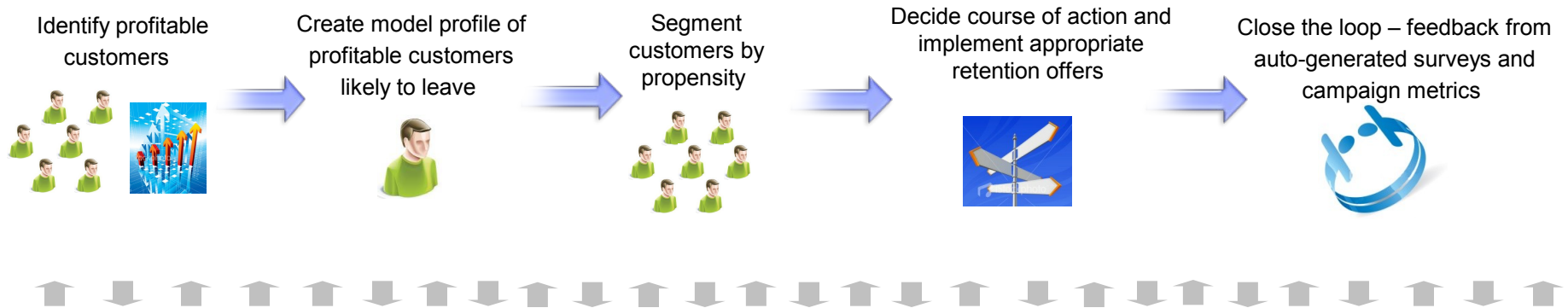


# Better business outcomes are supported by implementing key business solutions and information capabilities

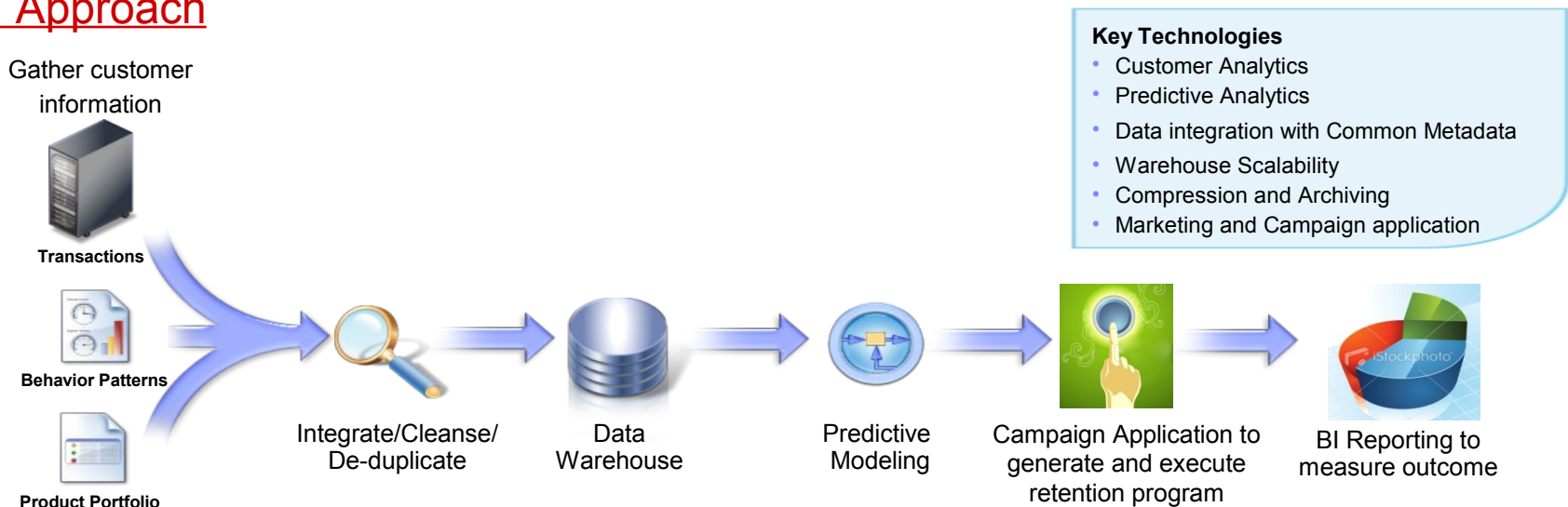
**Solution Example:** *Customer Analytics and Service Optimization*

**Use Case:** *Use predictive analytics to proactively target profitable customers likely to churn*

## Business Approach

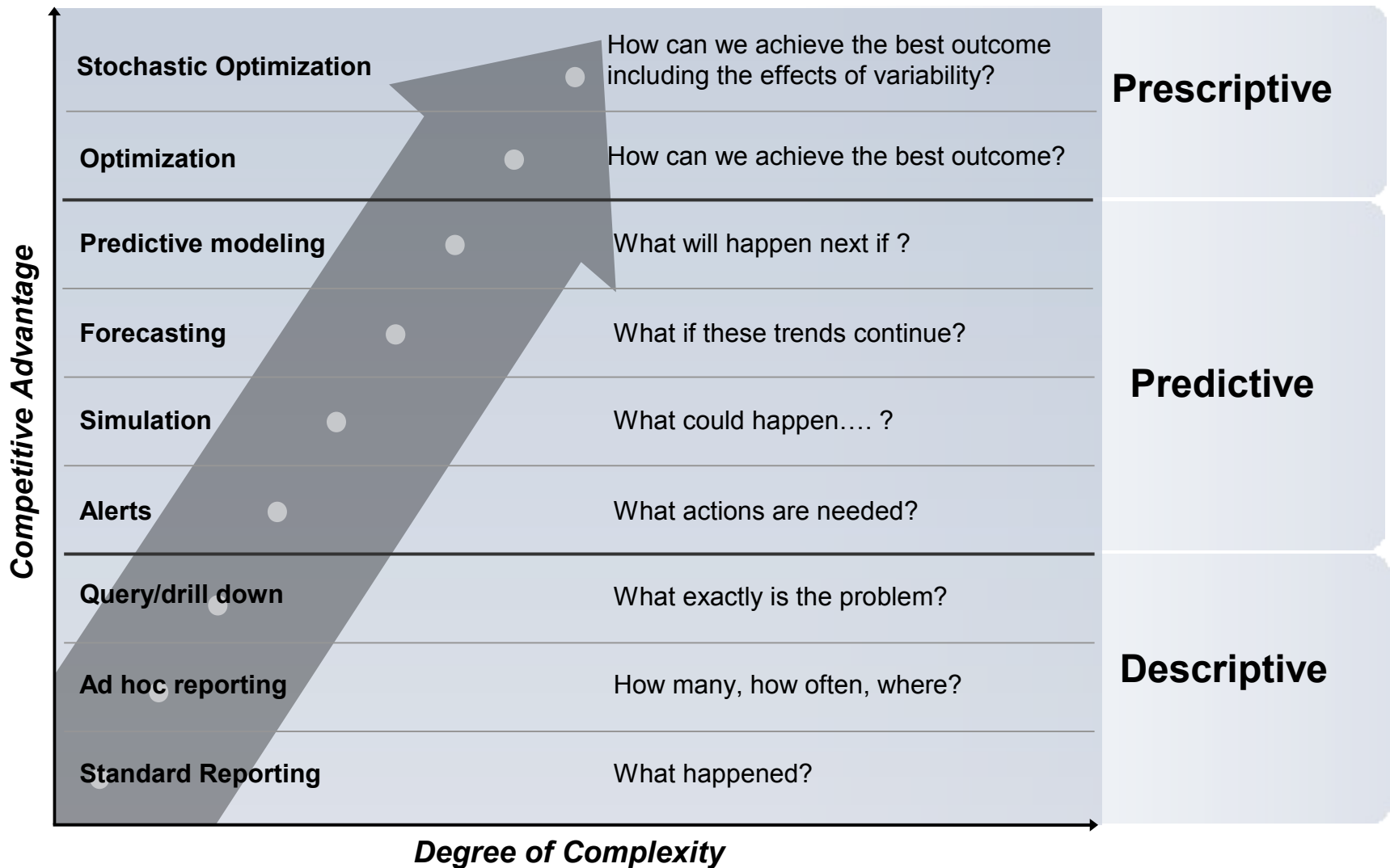


## IT Approach

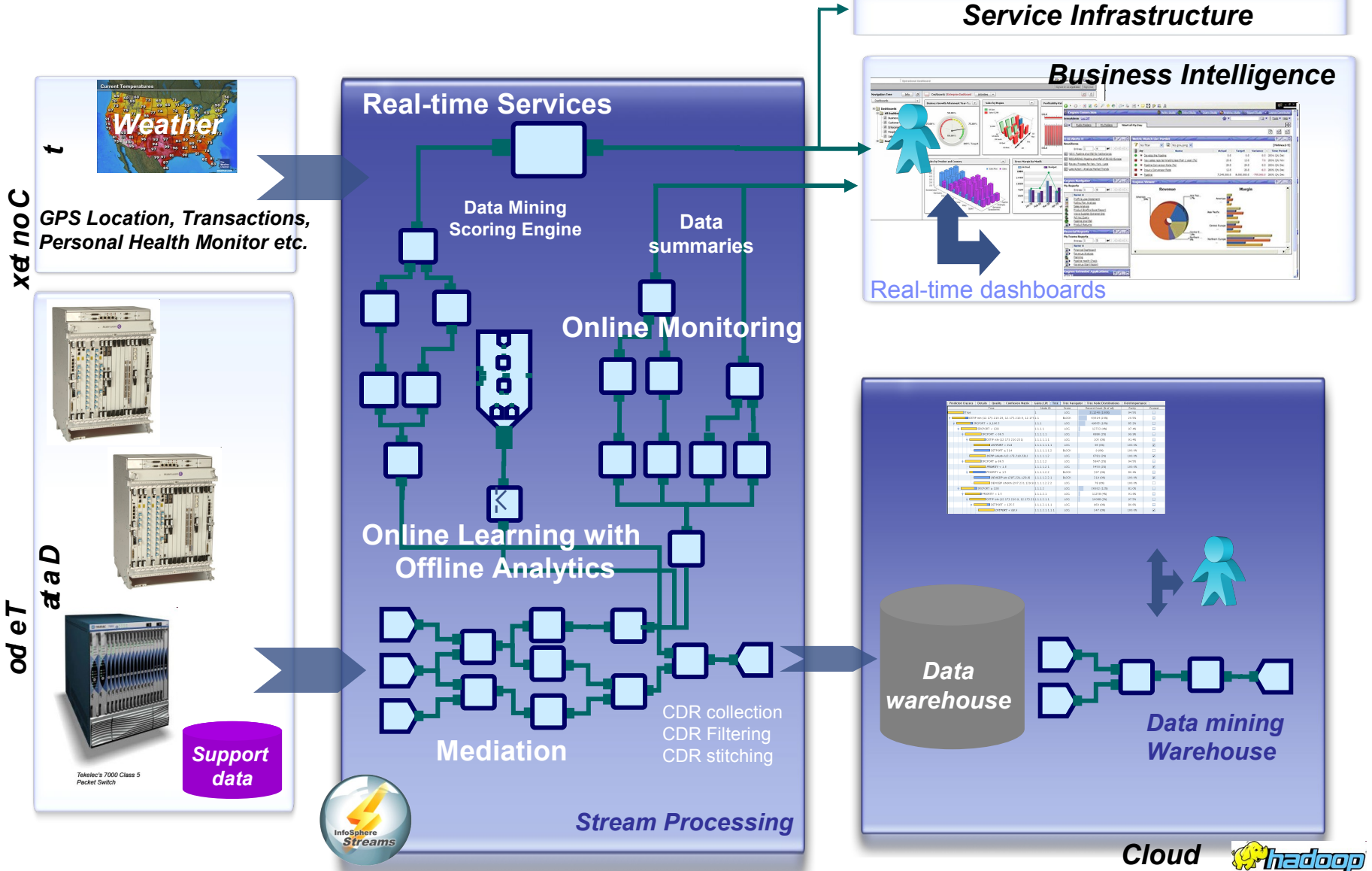


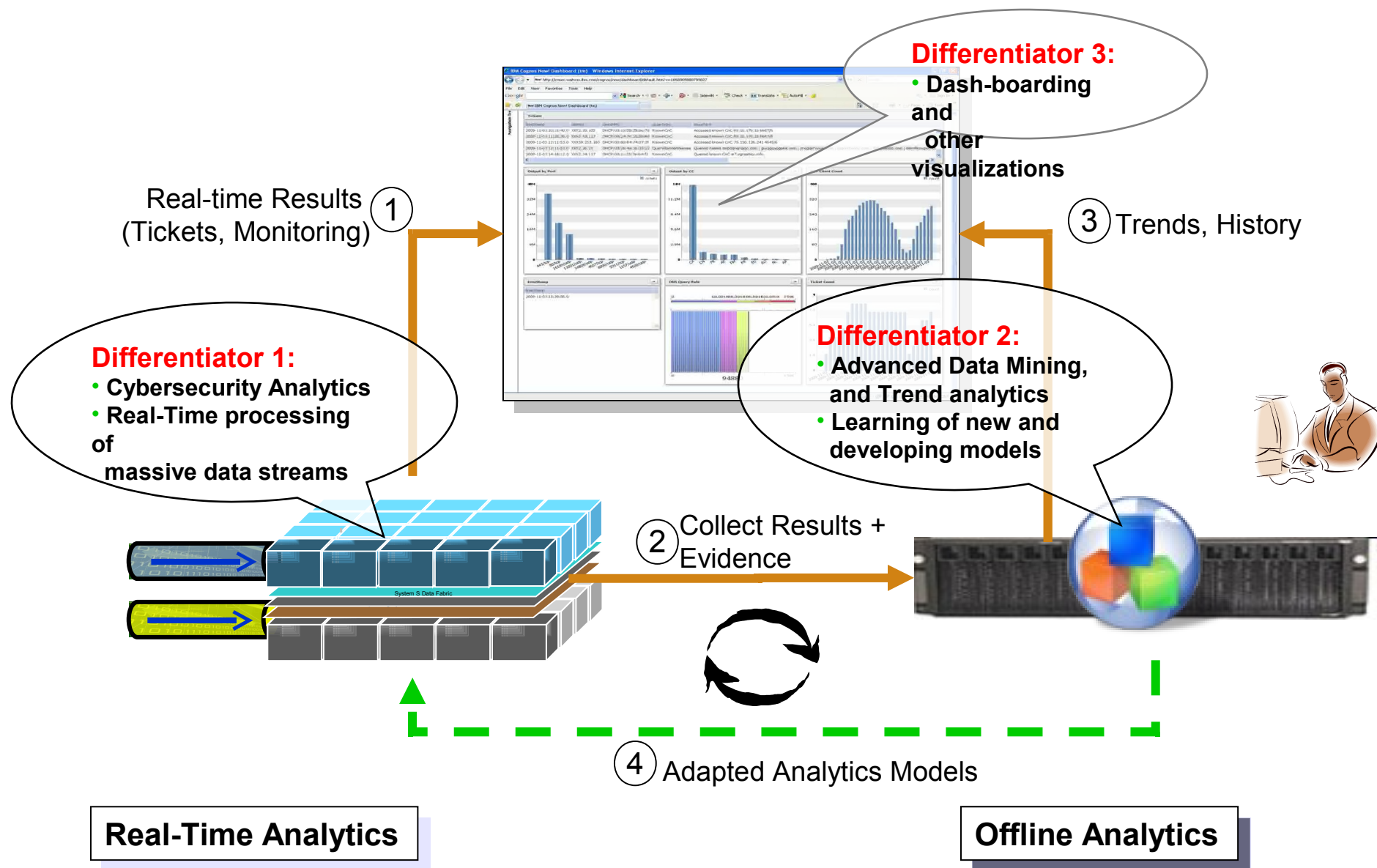


# Smarter Analytics



# Stream Processing Architecture





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# What is Master Information?

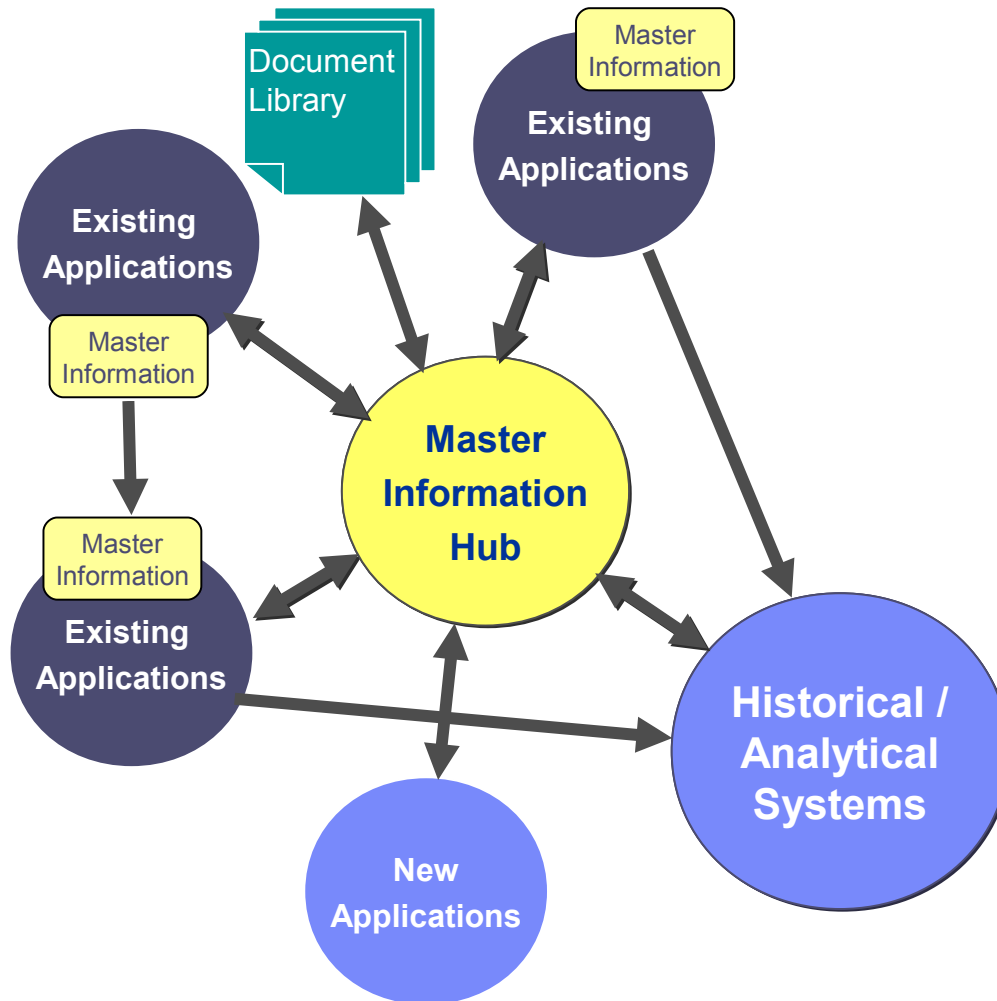
- **Definition of Master Information**

- Any operational data that needs to be managed and distributed across the operational systems
- It can be master, reference or transactional data

- **Benefits of managing master information**

- Ensure consistent master information across transactional and analytical systems
- Addresses key issues such as data quality and consistency proactively rather than “after the fact” in the data warehouse
- Decouples master information from individual applications
- Becomes a central, application independent resource
- Simplifies ongoing integration tasks and new app development

# Management of Master Information

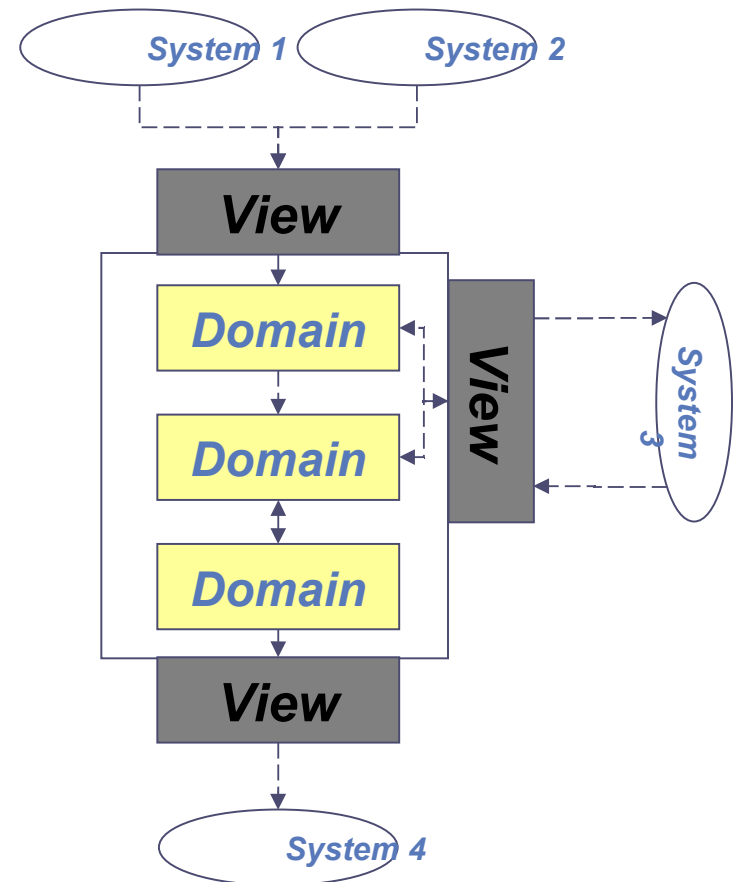


- Applications need Master Information to operate correctly
- Applications can share Master Information directly
- Data Warehouses traditionally provide the aggregated view
- Master Information Hubs provide aggregated views of Master Information for operational systems
  - Existing applications
  - And new applications
  - And content management systems

## Master Information Hub Views and Domains

▪ At the most course-grained level, a Master Information Hub is made up of Target-specific views and Custom-built Data Domains

- Target-Specific View
  - A set of interface implementations designed to serve particular target system(s)
  - Contains both Services and Events
  - Can be interfaces provided or required by the hub
- Data Domain
  - A collection of data related to a subject area
  - May consist of either transient or persisted objects





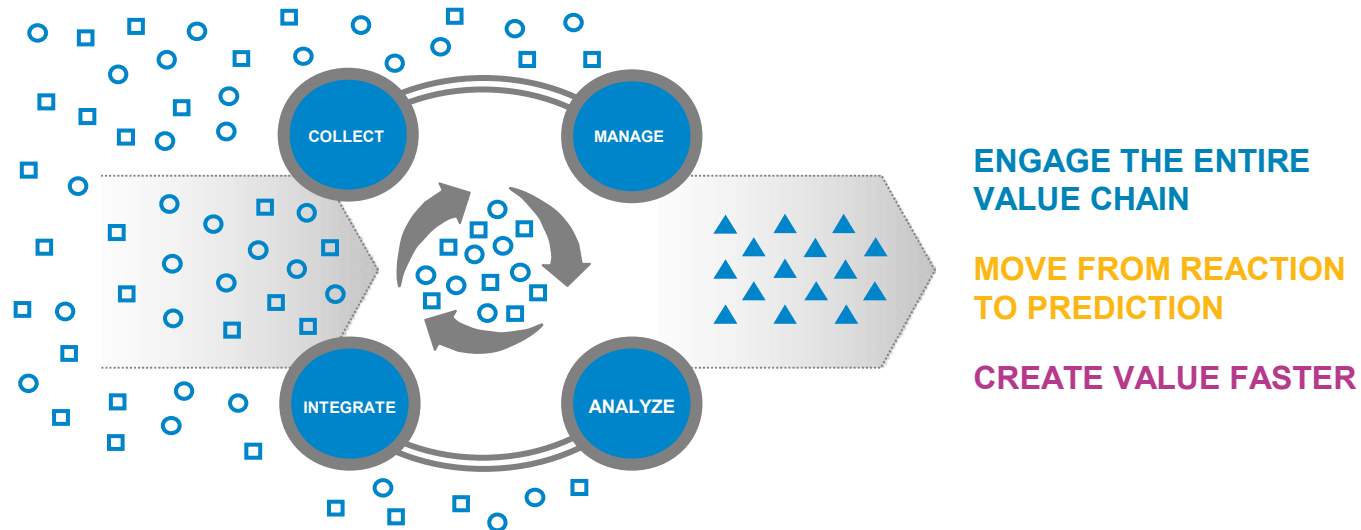
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## Gain Insight from the Information Explosion

Smarter Telecommunications companies are gaining insight from the information explosion by integrating the silos of information, and making the information available in a relevant, timely way to the business processes that require it.



### IDEA CELLULAR

CENTRALISED ALL OF THEIR DATA WAREHOUSING ACROSS A 40M SUBSCRIBER BASE AND MULTIPLE OPERATING COMPANIES INTO ONE, REDUCING OPERATING COSTS AND MAXIMISING BUSINESS VISIBILITY

### QWEST

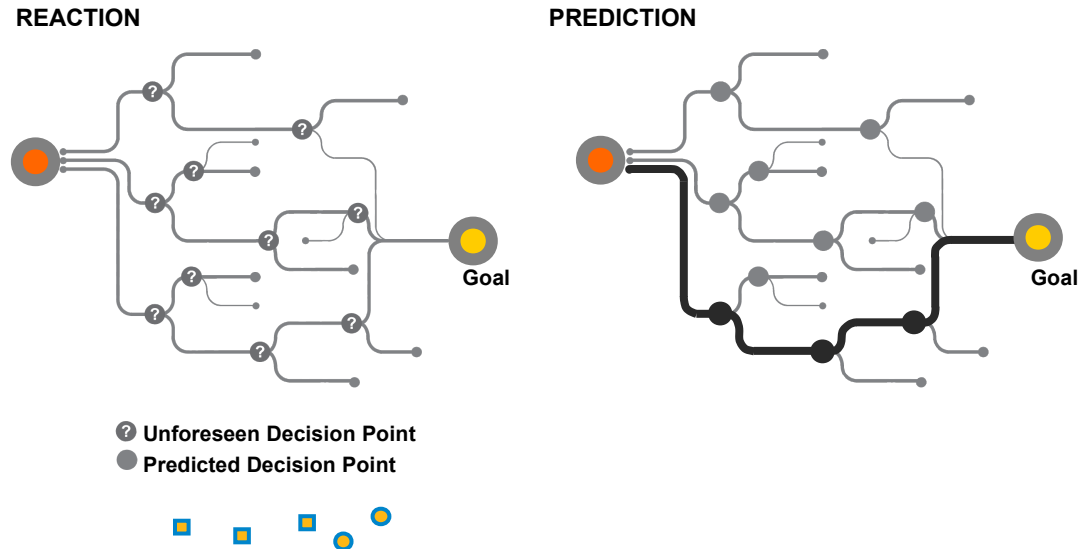
USES MASTER DATA MANAGEMENT TO UNIFY ITS VIEW OF THE THE PRODUCT CATALOGUE, REDUCING ERRORS DUE TO DATA DUPLICATION AND CREATING CROSS-SELL OPPORTUNITIES

### BANK OF AMERICA

IMPLEMENTED A TEN TO ONE RATIONALISATION IN ITS DATA WAREHOUSE ENVIRONMENT, IN A PROJECT THAT PAID FOR ITSELF THROUGH COST-SAVINGS AND EFFICIENCY GAINS

# Move from Reaction to Prediction

Understanding the business is just the beginning; predicting the future helps you to prepare better for business events, size for customer demand, and attack competitive threats.



## UPC

KEY PERFORMANCE PREDICTORS HAVE HELPED **UPC** TO BEHAVE DIFFERENTLY IN ORDER TO ACHIEVE BETTER OUTCOMES, CUTTING 20% OF OUTBOUND TELE-MARKETING COSTS IN THE NETHERLANDS ALONE

## CABLECOM

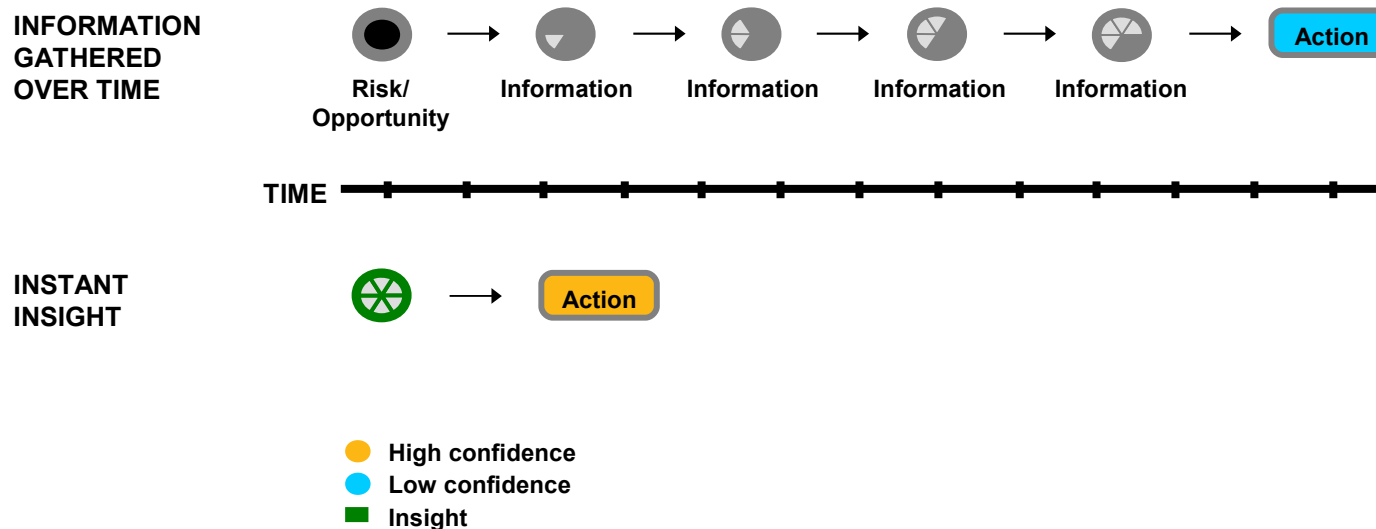
USED SPSS BASED CHURN MODELLING AND CUSTOMER EXPERIENCE PREDICTION TO REDUCE CHURN FROM 19% TO 2%, AND CONVERTED 23% OF "DETRACTORS" TO "PROMOTERS"

## TELEFONICA O2

DEPLOYED IN-HOUSE SOCIAL NETWORK ANALYTICS AND AGGREGATED WITH SPSS CHURN PREDICTION MODELLING TO SIGNIFICANTLY IMPACT ACCURACY AND TARGETING

# Create Value Faster

Real-time information means opportunities are less likely to be missed; timely data means that inefficiency can be avoided. The automation of insight generation reduces risks and improves accuracy, relevance, and time to revenue.



**GLOBE TELECOM (PHILLIPINES)**

USING DYNAMIC SEGMENTATION AND ANALYTICS TRIGGERS TO DRIVE CROSS-SELL CAMPAIGNS IN REAL-TIME IN MULTIPLE LIVE SCENARIOS

**SOUTH EAST ASIA**

IS USING DYNAMIC PROFILING AND MACHINE LEARNING TO UNDERSTAND WHEN OPPORTUNITIES FOR CROSS-SELL ARISE BASED ON BUYING PATTERNS AND OTHER RELATED INFORMATION.

**IBM RESEARCH**

HAS DEVELOPED A SOCIAL NETWORK MODEL TO UNDERSTAND HOW SOCIAL NETWORKS ARE IMPACTED BY CAMPAIGNS, FOR EXAMPLE, THOSE THAT ENCOURAGE IN-NETWORK CALLING OR TEXTING.

