



# Enabling Solutions for a Smarter Planet with System z

*The future runs on System z*

**Karen Parrish**  
**Vice President**  
**SWG Industry Solutions**



# Building a Smarter Planet

*Thinking and acting in new ways to make our systems more efficient, productive and responsive*

## New Intelligence

Data is exploding and it's in silos"

*I Need Insight*

## Smart Work

New business and process demands"

*I Need to Work Smart*



## Green and Beyond

"Our resources are limited"

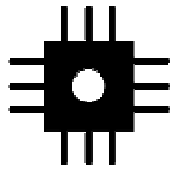
*I Need Efficiency*

## Dynamic Infrastructure

"My infrastructure is inflexible and costly"

*I Need to Respond Quickly*

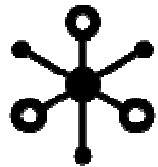
## The time to act is NOW!



Our world is becoming  
**INSTRUMENTED**



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



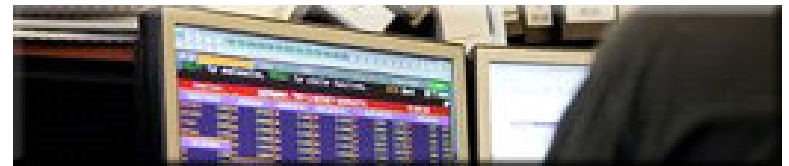
Our world is becoming  
**INTERCONNECTED**



*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”*

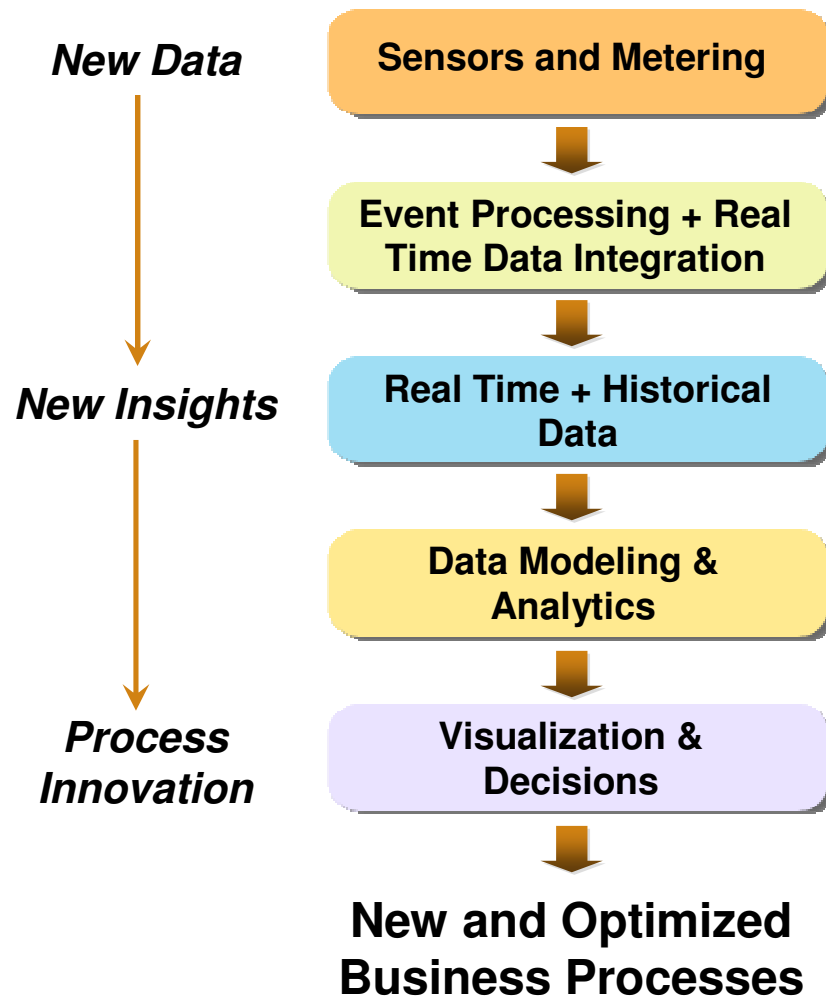


All things becoming  
**INTELLIGENT**



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

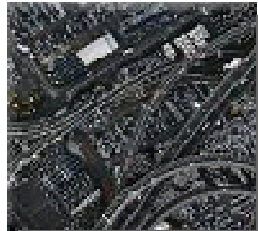
# What Does It Mean to Be Smarter?



- Data collection
- Data Integration
- Comparison of historical data, with newly collected data
- Data modeling and analytics to create insights from data to feed decision support and actions

*Leading businesses today are benefiting from new sensor data when combined with IBM's business process management, event processing and business optimization capabilities*

# IBM is helping clients from many industries implement Smarter Industry Solutions



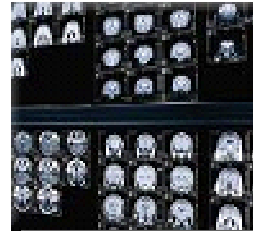
**Smarter Roads**



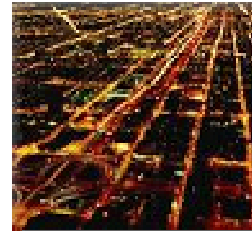
**Smarter Oil & Gas**



**Smarter Food**



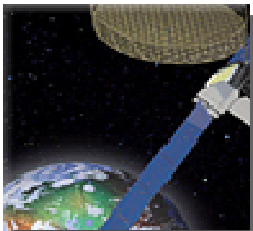
**Smarter Healthcare**



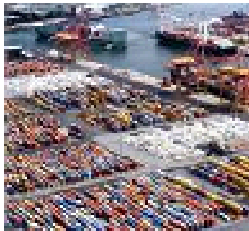
**Smarter Utilities**



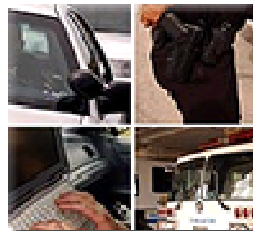
**Smarter Retail**



**Smarter Telco**



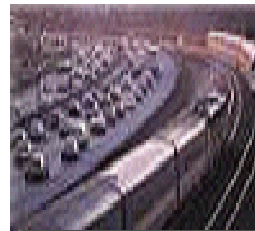
**Smarter Supply Chains**



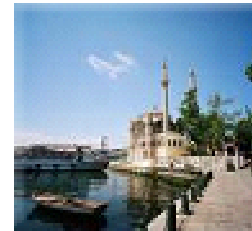
**Smarter Public Safety**



**Smarter Money**



**Smarter Transportation**

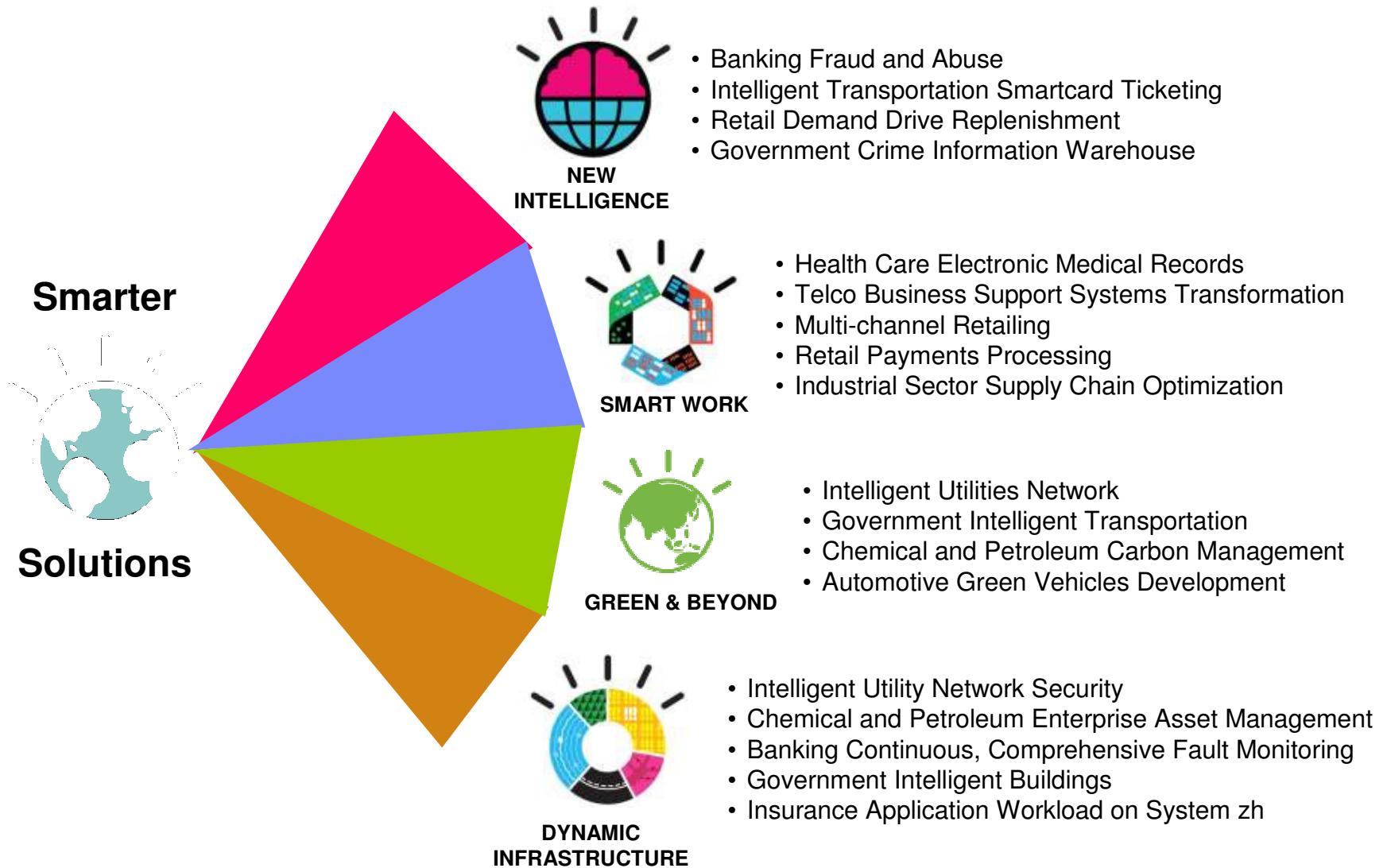


**Smarter Cities**



**Smarter Products**

# Examples of IBM Smarter Industry Solutions



# Software is critical to enabling Smarter Solutions

- Software is increasingly viewed as a *strategic business asset*
- *Software* necessary to:
  - Deliver a more energy efficient world
  - Take advantage of information base explosion
  - Communicate with a trillion devices
  - Drive on-going product differentiation
  - Serve new global markets
- 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*



*Innovation for a Smarter Planet*

# IBM Software unleashes the power of System z for the most demanding Smarter Industry Solutions

- Build, deploy and run applications in a *proven, secure and flexible* environment
- *Modernize mainframe applications* and information for new business processes
- Integrate and transform any data and content to *deliver information when and where you need it*
- Deliver a *point of personalized interaction* with applications, content, processes and people
- Improve business responsiveness with *end-to-end integration* across and beyond the enterprise

## Information Management

**Lotus.** software

**Rational.** software

**Tivoli.** software

**WebSphere.** software



# RioCard lowers costs and improves satisfaction with Smarter Ticketing on z!



## Client Challenges

Issuing, checking, and validating tickets for ten million travelers a day was becoming increasingly expensive, complicated and frustrating for passengers

## Solution

A complete electronic ticketing system based on a reusable, rechargeable smartcards

Validation points on buses, in the subway and in train stations able to read over 2 million passes daily



**"The IBM System z, DB2 and WebSphere solution has helped us to deliver lower ticketing costs and better manage information, meeting all our goals for the RioCard program."**

Arthur Soares, Fetranspor

## Smarter Business Outcomes

- Cut ticketing costs by 1.5% and saves \$500,000 monthly
- Faster ticketing and travel for passengers
- Revenue distributed to the 239 companies that comprise Fetranspor in 24 hours versus 3 to 4 days

# Airbus deploys a highly instrumented Smarter Supply Chain



## Client Challenges

- Need to ramp production to meet demand
- Manage production across multiple locations worldwide
- Ability to execute strategic shifts in business

## Solution

Value Chain Visibility Initiative leveraging RFID technology to create a corporate wide end-to-end approach across all business units



## Smarter Business Outcomes

- Automated 100% of data entry, resulting: 75% reduction in physical handling
- Reduced inventory levels through better visibility and more reliable automated processes
- Optimization of external and internal deliveries throughout the supply chain
- Integration of parts tracking into aircraft parts lifecycle management processes

# MVV Energie improves electrical grid efficiency

## Client Challenges

Due to the rise of alternative energy (e.g., solar and biomass), MVV needed to manage a variety of different energy sources

Lacked a real-time monitoring and management system to track availability of energy across the city

## Solution

Created a virtual marketplace that would offer unfettered access to make trades and purchases of not only energy, but also associated services (e.g., distribution and trading) with other organizations



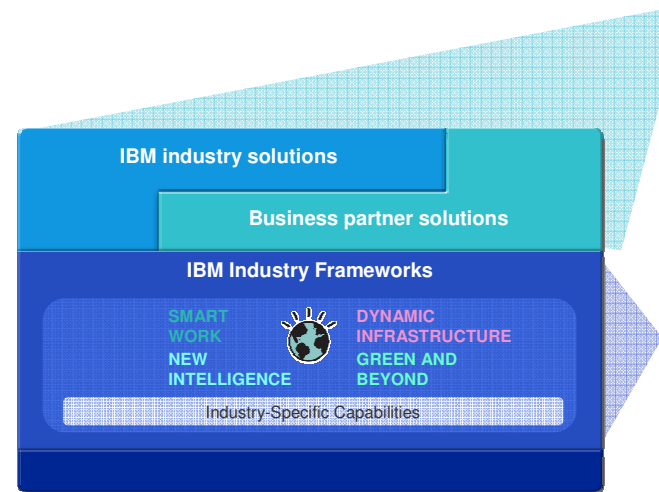
## Smarter Business Outcomes

- Delivers increased transparency within the grid, allowing energy companies to better monitor power levels and set appropriate prices
- Keeps users informed regarding available energy, enabling them to better control usage and avoid high cost overages
- Improves overall grid efficiency and lowers costs and waste by cutting energy usage by five to 7%

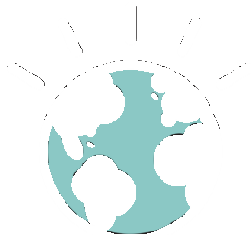
# IBM Industry Frameworks help you deploy Smarter Industry Solutions

- Increased flexibility
- Faster time to value
- Reduced risk
- Industry-specific skills and offerings
- More modular offerings and solutions
- Cost containment

**Industry Solution**  
addresses a business issue through industry and subject matter expertise



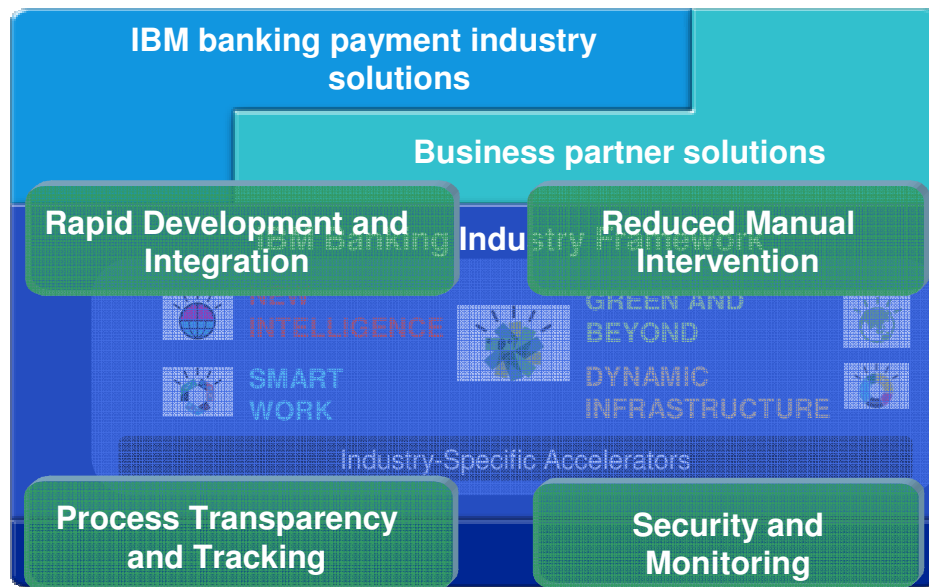
**Industry Framework**  
a software platform based on business specific usage patterns



**Delivering the business value of IBM software for your project's requirements**

# Frameworks provide IBM market-leading middleware capabilities in an industry context

*While creating an agile foundation for future growth*



**IBM Payment Framework For Financial Services**

A framework provides...

- An approach to align technology with business needs
- 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 and services from IBM business partners**

# Frameworks are implemented through projects

## Example – Banking Payments Projects

<b>SEPA Compliance</b>	<ul style="list-style-type: none"> <li>Restructure payments operations to comply with the European SEPA Direct Debit and SEPA Credit Transfer schemes</li> </ul>	<b>Framework Partners</b>
<b>SWIFTNet Modernization</b>	<ul style="list-style-type: none"> <li>Modernize and upgrade your SWIFTNet operations for more efficient processing of high volume payments messages</li> </ul>	
<b>Payments Process Efficiency</b>	<ul style="list-style-type: none"> <li>Drive efficiency in payments processing with business process management</li> </ul>	
<b>Corporate Services</b>	<ul style="list-style-type: none"> <li>Integrate with your corporate customers' treasury operations to reduce working capital requirements and improve supply chain management</li> </ul>	
<b>Retail Payments</b>	<ul style="list-style-type: none"> <li>Migrate to a modern, more secure platform for ATM, mobile, and card switch functionality</li> </ul>	
<b>Digital Payments Conversion</b>	<ul style="list-style-type: none"> <li>Migrate from paper-based to digital processing capabilities to reduce costs</li> </ul>	

Allowing System z clients to tackle smaller pieces of an industry solution with a faster payback!

# Banking Payments Example on with ACI

## System z Retail Payments Project

### Client Issue

- Financial institutions need to ensure that high-volume electronic payments are processed reliably and safely, 24 hours a day

### Solution

Comprehensive electronic payments processing solution:

- Improves ROI by leveraging resources-both human and infrastructure-through system rationalization
- Speed time to market for product and service introductions
- Enhance efficiencies with integrated, enterprise-wide solutions
- Provide high availability and scalability to meet increasing demands



### Framework Components

- IBM SOA Foundation Products (WMB, WPS, WTX)
- WebSphere Monitor
- IFW
- DB2 pureXML (ISO 20022 Pack)
- Tivoli CAM for SOA, Omegamon
- Rational Software Architect, RSM
- z/OS



# Example Payments & Securities Accelerators



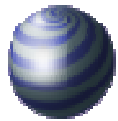
**WebSphere Business Integration for Financial Networks**

Product that provides a single window to SWIFTNet services and reliable processing of high volume messages



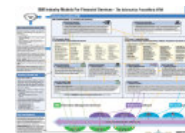
**EPP Assets**

Assets that, when used in combination with SWG services and other framework products, allow you to build an enterprise payments hub that provides transaction-level visibility to payments



**WTX Industry Packs**

Industry packs used with WebSphere Transformation Extender that enable data transformation to industry standards (e.g., NACHA, SWIFT, FIX)



**IFW / BDW Process & Data Models**

Common banking process and data models to help speed definition of requirements and implementation



**pureXML™ Payments Bundles**

Industry bundles used with pureXML that provide efficient XML data management to industry standards (e.g., SWIFT, FIX, FpML, TWIST )



**WebSphere Banking Payments Pack**

SOA-based services templates that allow you to develop business services faster for payments processes, speeding application development



# Payments Hub will deliver efficiency and time-to-market for Major Canadian Bank



## Client Challenges

Inefficient Silo'd payment process and channels impedes the bank's ability to speed new services to market

## Solution

Leverage the power and scalability of the System z to implement a payments hub for their Retail and Wholesale Payments business that modernizes their current point-to-point solutions



## Smarter Expected Outcomes

- Speed new services to market (Example - Global Remittances for retail clients)
- Ability to quickly deliver higher profit customized wholesale payment services
- Adopt to Payment Standards and new bank policies fast and efficiently
- Increased transaction visibility, transparency and tracking
- An infrastructure to progressively modernize their 25 year old legacy applications

# System z can help integrate and deliver vital customer data where and when its needed

## Customer Care & Insight Projects

<b>Customer Information Optimization</b>	<ul style="list-style-type: none"> <li>Create common data definitions, a common data warehouse, and integrate sources of disparate data to create an enterprise view of the customer</li> </ul>
<b>Customer Insight Optimization</b>	<ul style="list-style-type: none"> <li>Use business analytics to optimize insight at the point of interaction and better understand customer needs and preferences</li> </ul>
<b>Service Process Optimization</b>	<ul style="list-style-type: none"> <li>Leverage customer insight to optimize service processes including case management, dispute management, and event-based decision-making</li> </ul>
<b>Sales Process Optimization</b>	<ul style="list-style-type: none"> <li>Leverage customer insight to optimize sales processes such as account opening, lending, cross/up-selling, and dynamic product bundling</li> </ul>
<b>Marketing Process Optimization</b>	<ul style="list-style-type: none"> <li>Leverage customer insight for customer segmentation, targeted marketing communications and campaign management</li> </ul>
<b>Compliance Process Optimization</b>	<ul style="list-style-type: none"> <li>Leverage customer insight for customer identification, and customer preference processes</li> </ul>
<b>Multi-Channel Transformation</b>	<ul style="list-style-type: none"> <li>Transform your front office channels including branch, internet, call center, kiosk, ATM and mobile</li> </ul>



Industry Framework capabilities for Customer Care and Insight *reduce project risk* and *shorten time-to-value*

# Example Customer Care and Insight Accelerators



## Banking Data Integration Accelerators

- Detailed design templates for accelerating data warehouse development



## Account Opening Scenario

- Best practice business and technical patterns for an account opening SOA-based solution



## Banking Performance Blueprints

- Pre-defined data, process and policy models for enterprise planning, and financial management and control



## WebSphere Multichannel Bank Transformation Toolkit

- Proven pattern and capabilities to accelerate the creation of integrated retail delivery applications



## Customer Identification Solution

- Provides business services for accelerating customer on-boarding and maintenance processes



## Sonata

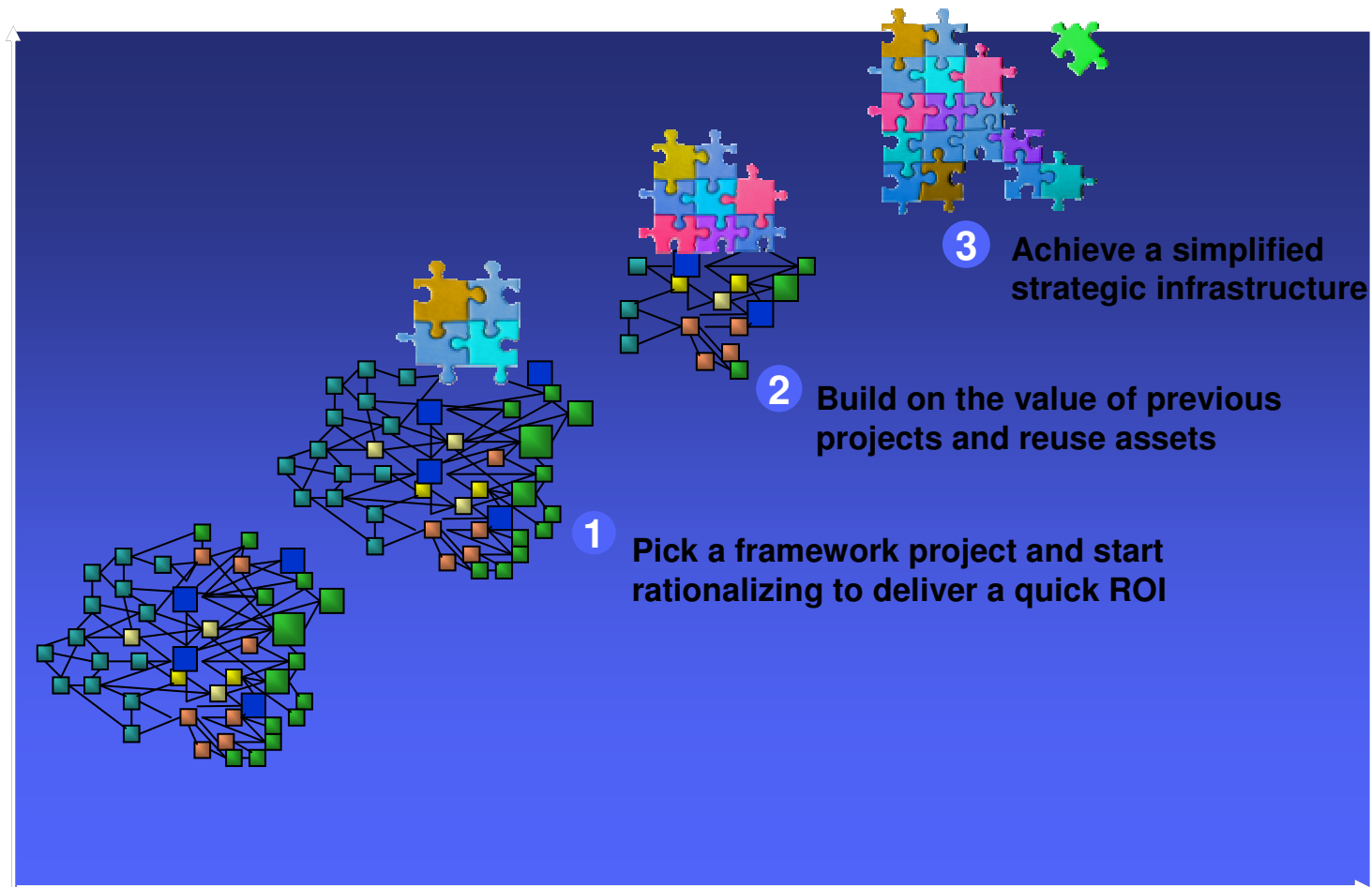
- Provides a rapid prototype & development environment for an integrated front office desktop



## Common Business Language Services Accelerator

- Process and integration models provide a higher order composite services in relation to Master Data Management Server

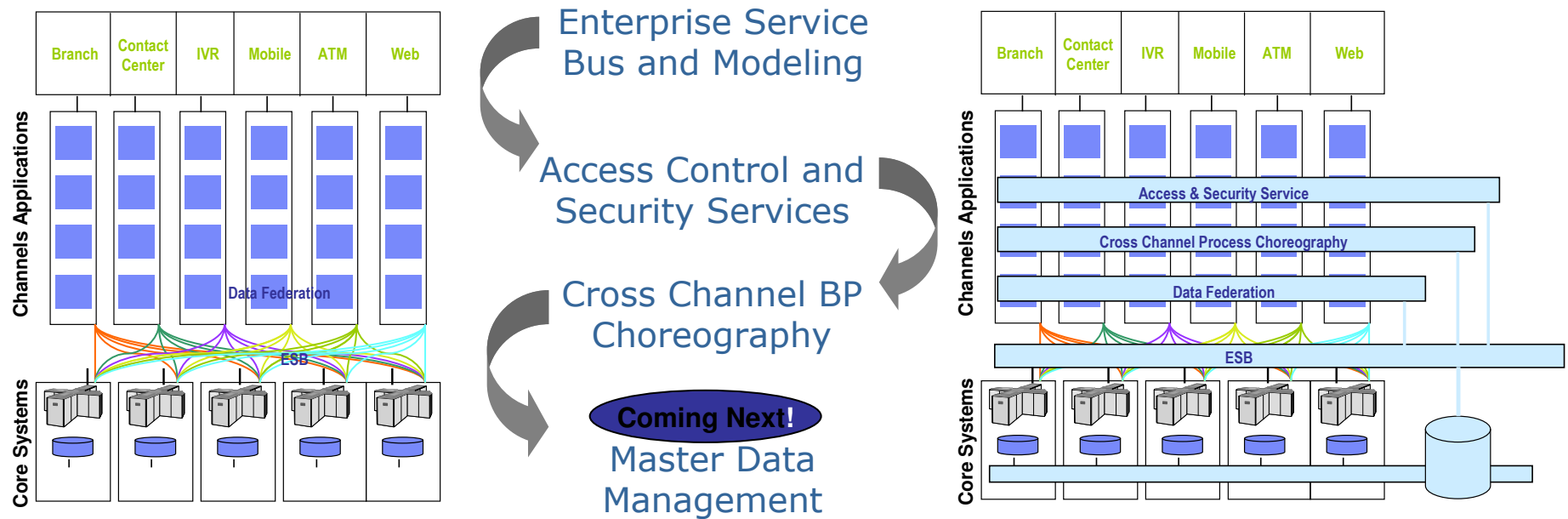
# Each project delivers value and enables growth



Increasing reuse and business agility along the way!

# BNi Delivering a seamless customer experience

Frameworks enable BNi to continuously build on prior successes....



- 70% faster in IT system development process
- 60% faster in new product *time to market*.
- 70% faster in existing product improvement.
- 50% increase in resource utilization efficiency.
- Well-directed and defined application development.
- Reduction in cases reviewed for fraud and/or errors due to compliance issues.

# Industry Frameworks are at work today...

*across clients, industries, partners and geographies*

**Retail Integration Framework**  
*Retail*

**Service Provider Development Environment**  
*Telecommunications*

**Customer Care and Insight Framework**  
*Banking*

**Product Development Integration Framework**  
*Automotive, Aerospace & Defense*

**Payments Framework For Financial Services**  
*Banking*



**Information Integration Framework**  
*Chemicals & Petroleum*

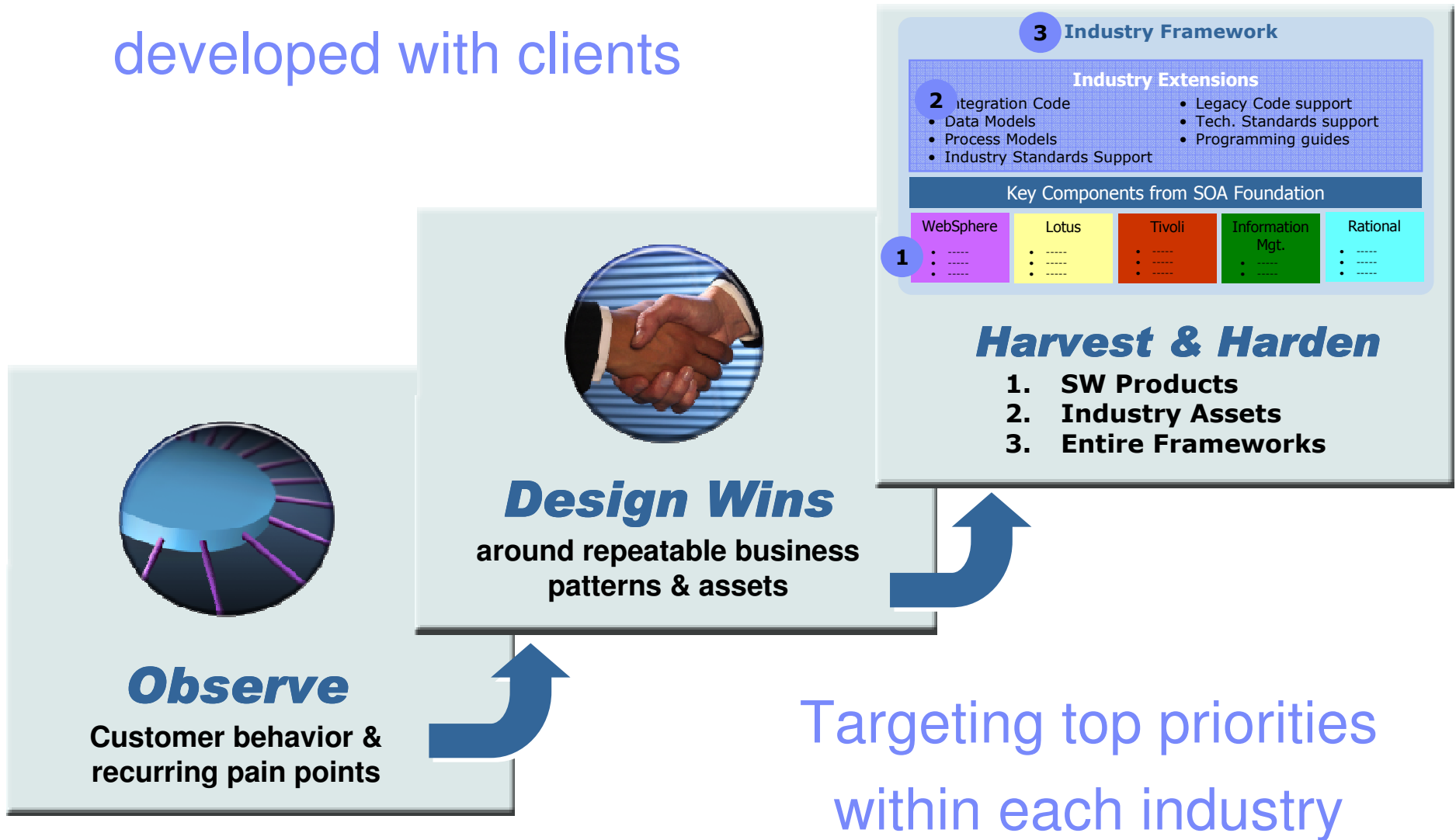
**Insurance Process Acceleration Framework**  
*Insurance*

**Solution Architecture for Energy and Utilities Framework**  
*Energy and Utilities*

**Health Integration Framework**  
*Healthcare*

**Network Centric Operations Framework**  
*Government*

# Industry Frameworks are developed with clients



# Guang Dong Hospital leverages Smarter Health Record for *Patient-Centric* care



## Client Challenges

Compliance with Chinese medical reform plan that included a resolution to provide universal medical coverage and common care standards to all citizens by 2011

Ability to share or transfer records between five Guang Dong's locations



## Solution

An easily shared electronic records system that integrates complex medical information into a standardized, cohesive record bound to individual patients.

***"We are committed to maintaining our exacting standards, and IBM's CHAS technology is helping us do just..."***

Mr. Lv Yubo, president,  
Guang Dong Hospital

## Smarter Business Outcomes

- Improved quality of care
- Increased insight into medical history and improved diagnosis processes
- Ability to share patient information within the hospital and eventually with other facilities
- Enables medical personnel to study which treatments work best for particular diseases



# City of Atlanta speeds delivery of services

## Enterprise Modernization done 'Rationally'



### Client Challenges

Internet Savvy Citizens Demand Greater Services

Huge investment in legacy applications  
*Over 300B lines of code*  
*Aging developer base*

### Solution

Extended reach of systems and applications to the Internet with Web 2.0  
 Then enriched those services with Web 2.0 mashups

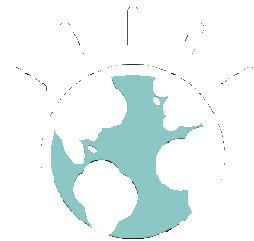


### Smarter Business Outcomes

Green Screen applications modernized for the Internet  
 Greater collaboration increasing developer efficiency  
 Faster delivery of new services

C L E A R   B L A D E





# Let's Build a Smarter Planet

## Together

Thank You