Smarter Commerce : Leveraging on Business Process and Business Rules

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WS BPM and BRMS Manager
APAC

The new economy has created the most challenging environment retailers have seen in decades

91%

Customers spending less in some discretionary areas. Approximately 59% of customers have less discretionary budget

$1.2 trillion

Value of excess merchandise stockpiled in supply chains configured for long lead times—forcing retailers to make significant bets on inventory.

$93 billion

Total sales missed each year because retailers don't have the right products in stock to meet customer demand.

Process Efficiency is *THE* top priority

$$ Billions Lost Each Year in Process Inefficiencies

"…in a recent McKinsey survey, 444 IT executives said that their **top priority** among all IT-investment areas was to **improve the efficiency of business processes…**"

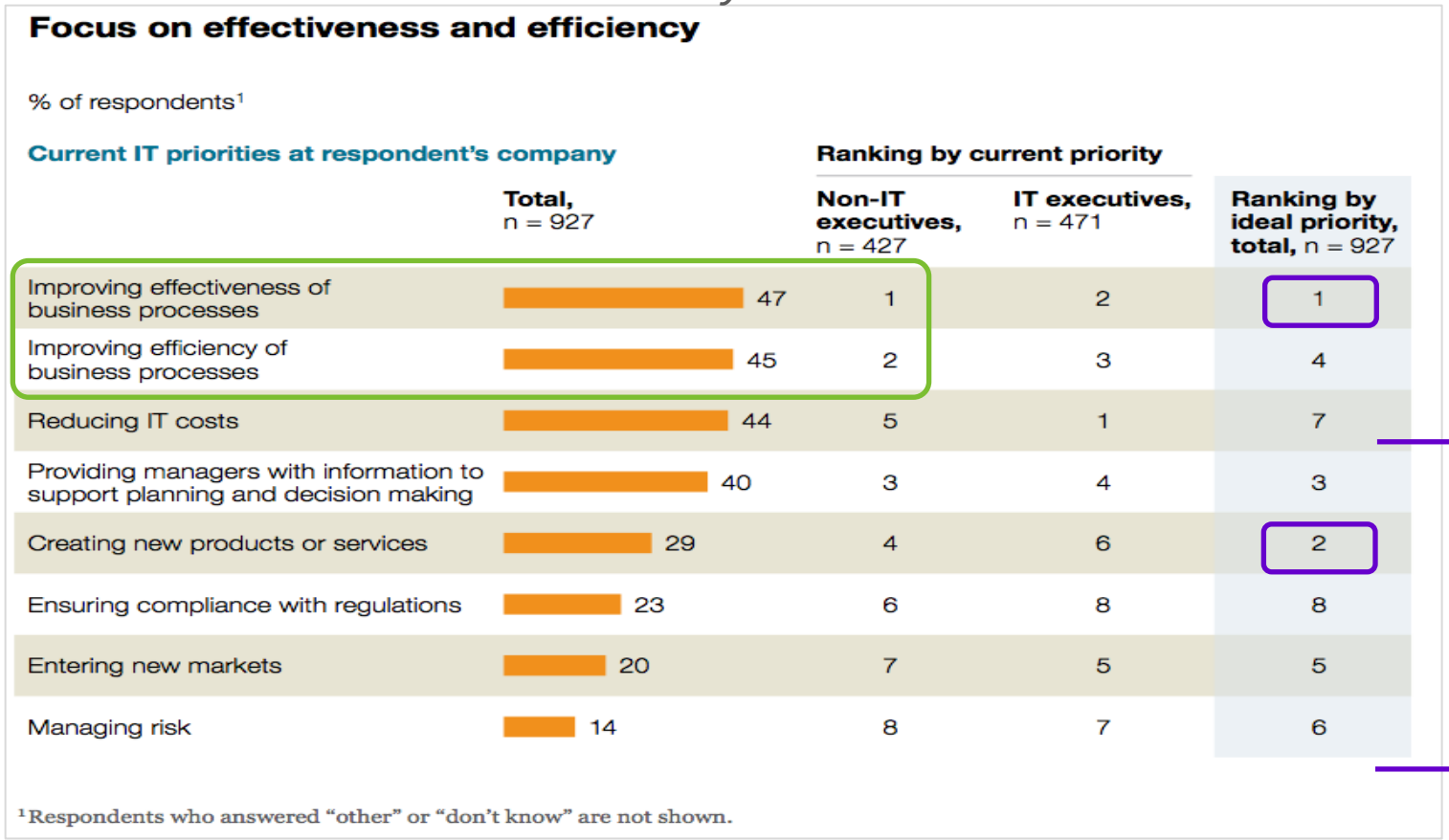
**Source: A better way to automate service operations; McKinsey Quarterly, July 2010

*Source: Tech CEO Council Report Oct 2010: "BPM improvements can be expected to yield savings of up to 5% of sales"; CNN Money U.S. Fortune 500 Revenues, May 2010

**Source: McKinsey & Company *The Case for Government Reform 2009*.

McKinsey Global Technology Survey: Process is Still King

Process effectiveness and efficiency ranked #1 and 2 overall



Focus on effectiveness and efficiency

% of respondents[1]

Current IT priorities at respondent's company	Total, n = 927	Ranking by current priority: Non-IT executives, n = 427	IT executives, n = 471	Ranking by ideal priority, total, n = 927
Improving effectiveness of business processes	47	1	2	1
Improving efficiency of business processes	45	2	3	4
Reducing IT costs	44	5	1	7
Providing managers with information to support planning and decision making	40	3	4	3
Creating new products or services	29	4	6	2
Ensuring compliance with regulations	23	6	8	8
Entering new markets	20	7	5	5
Managing risk	14	8	7	6

[1] Respondents who answered "other" or "don't know" are not shown.

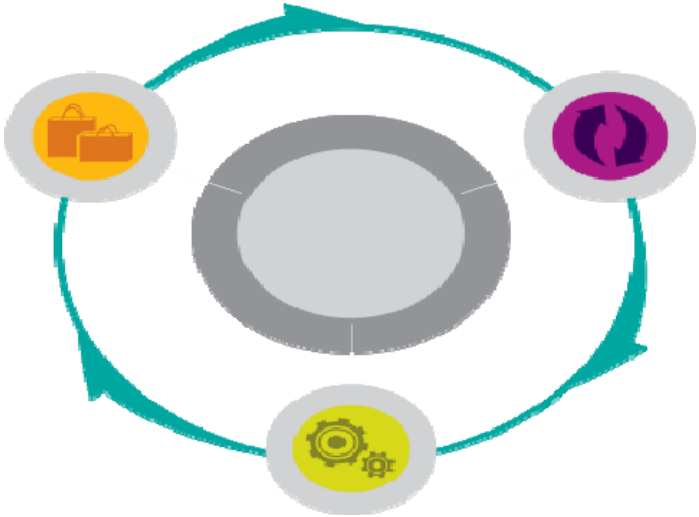
Even in strategic intent, respondents ranked process above creating new products and services

McKinsey 2011 Technology Survey of 927 IT and non-IT Executives, December 2011

https://www.mckinseyquarterly.com/High_Tech/Strategy_Analysis/A_rising_role_for_IT_McKinsey_Global_Survey_results_2900

Three Strategic Imperative for Smarter Commerce

DELIVER a SUPERIOR SHOPPING EXPERIENCE



CREATE CUSTOMER-CENTRIC MERCHANDISING AND SUPPLY CHAIN

DRIVE OPERATIONAL EXCELLENCE

Yet - IT Complexities drive up costs

And Make Smarter Commerce Implementation More Difficult

- Hard-coded links between applications
- Inability to deliver a personalized experience
- Duplicate systems and redundant processes
- Data and information difficult to access real-time
- High degree of manual intervention in processes

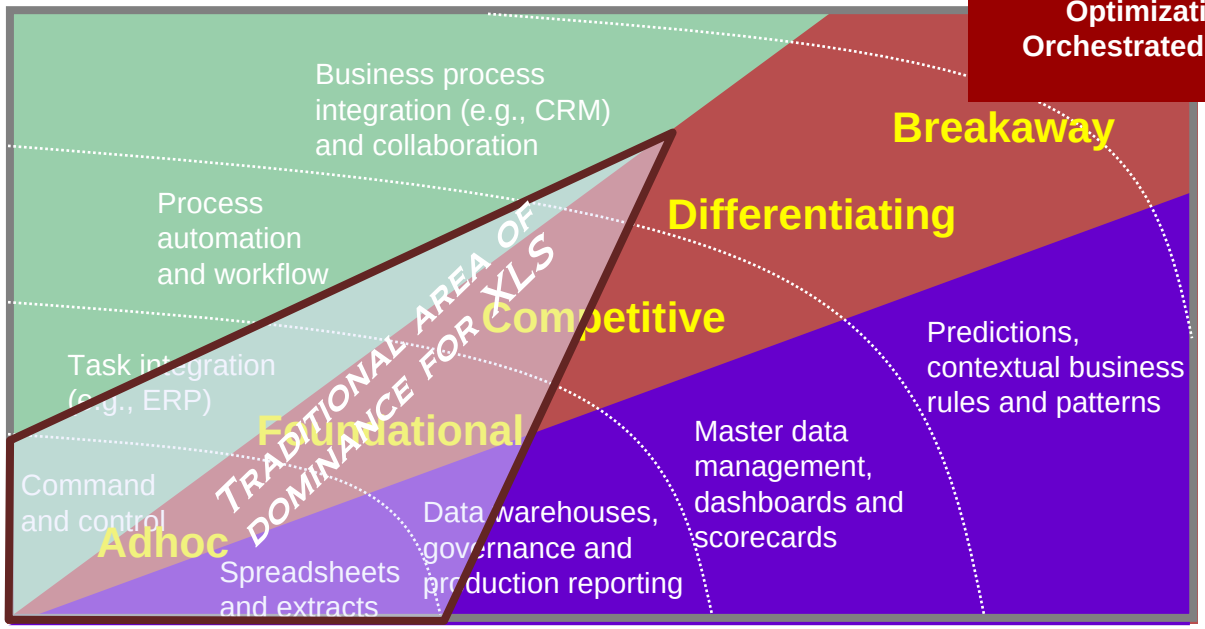
Retailers usage of various process management approaches is rapidly segmenting those who will prosper from those who will be challenged to keep up with market share growth

Prescriptive, real-time, multi enterprise process management leveraging Advanced Analytics, Optimization with Orchestrated Execution

Business operations maturity

How the business applies information to achieve its goals

- Policies
- Business Processes
- Organization

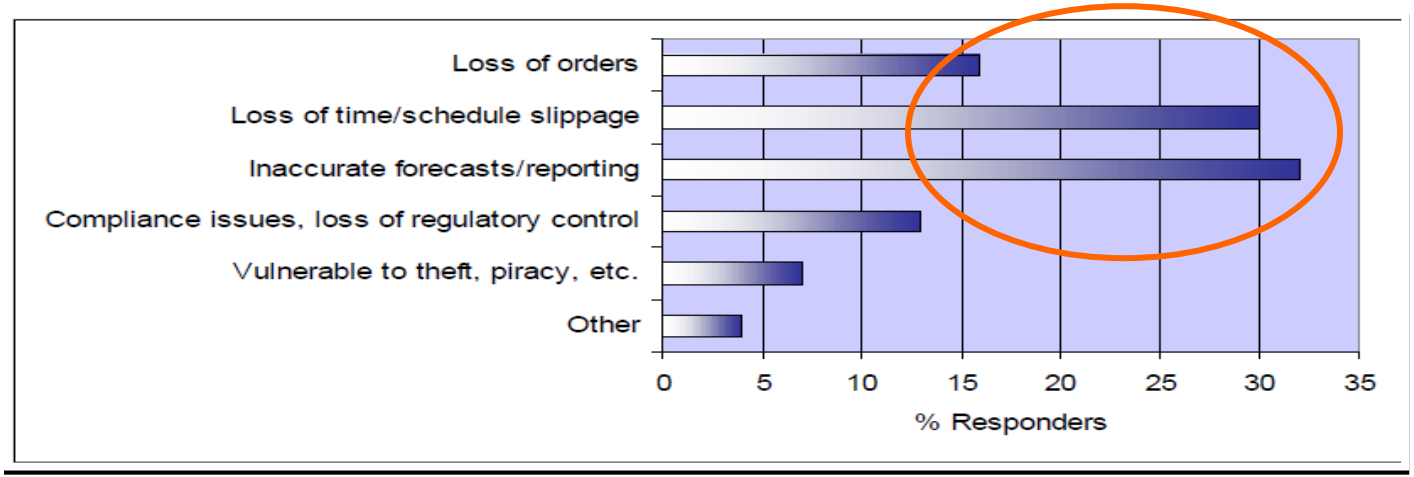


Source: *Breaking Away with Business Analytics and Optimization: New intelligence meets enterprise operations* available in late 2009 at www.ibm.com/gbs/intelligent-enterprise.

In Retail, few areas are more at risk from disconnected processes than Merchandise Management

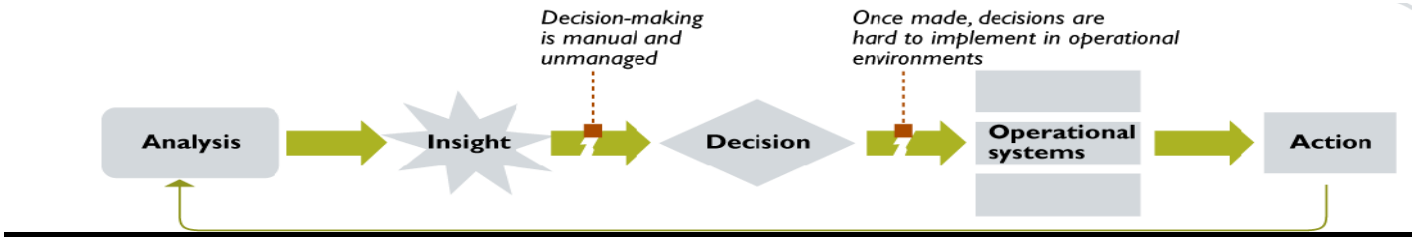
A lack of process automation poses which of the following risks?

Survey of Critical Supply Chain Trends – December 2009 – Gatepoint Research



High volumes of variables expand risk exposure, compounded decision by decision

James Taylor - ©2009 Decision Management Solutions

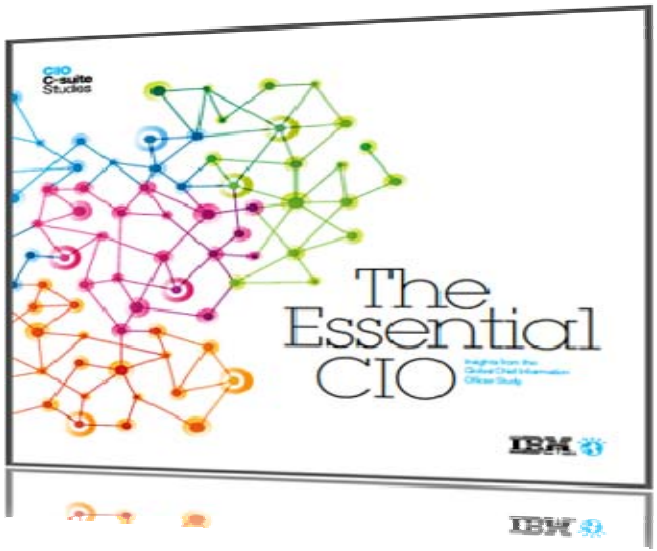


Transformation and Growth Require Better Decisions

CIOs recognize that effective decision automation is key to success

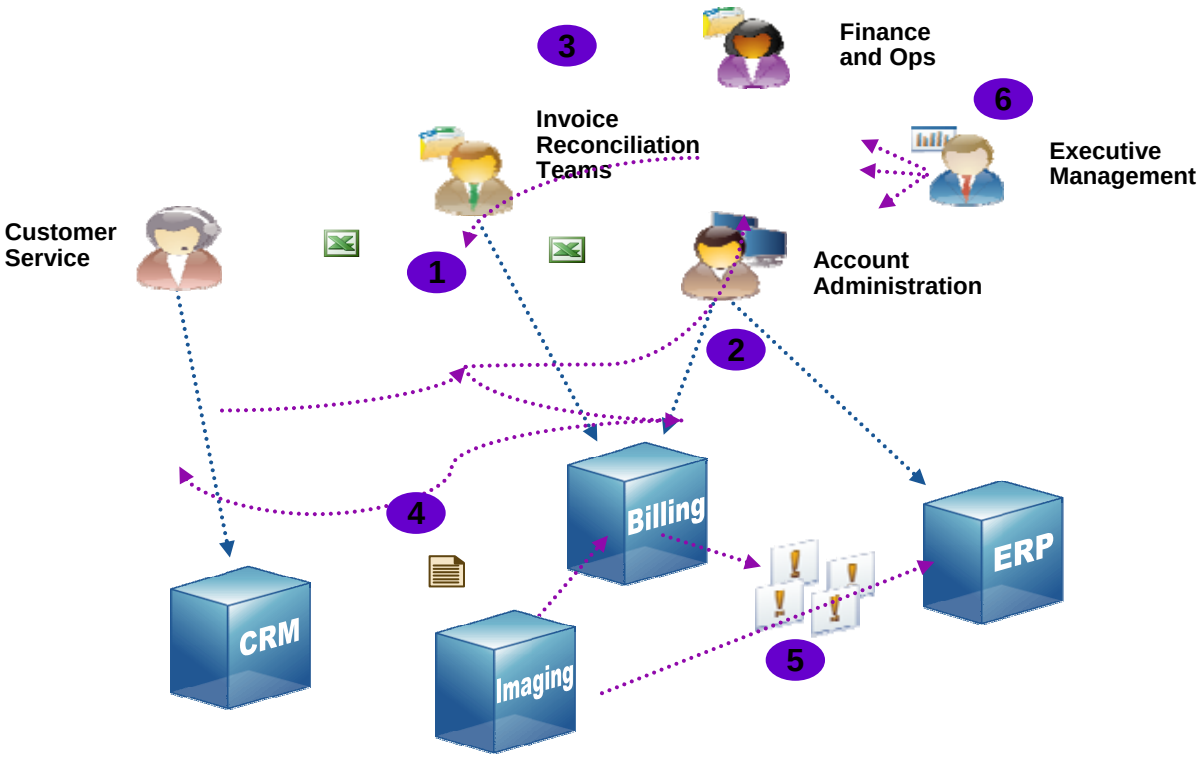
75% of CIOs with mandates to transform the business are looking to "drive ***better real time decisions***."

72% of CIOs with mandates to expand cross-enterprise growth are leading the charge to "drive ***better real time decisions***."



Source: IBM Global CIO Study 2011

Typical Process Problems Without BPM and WODM



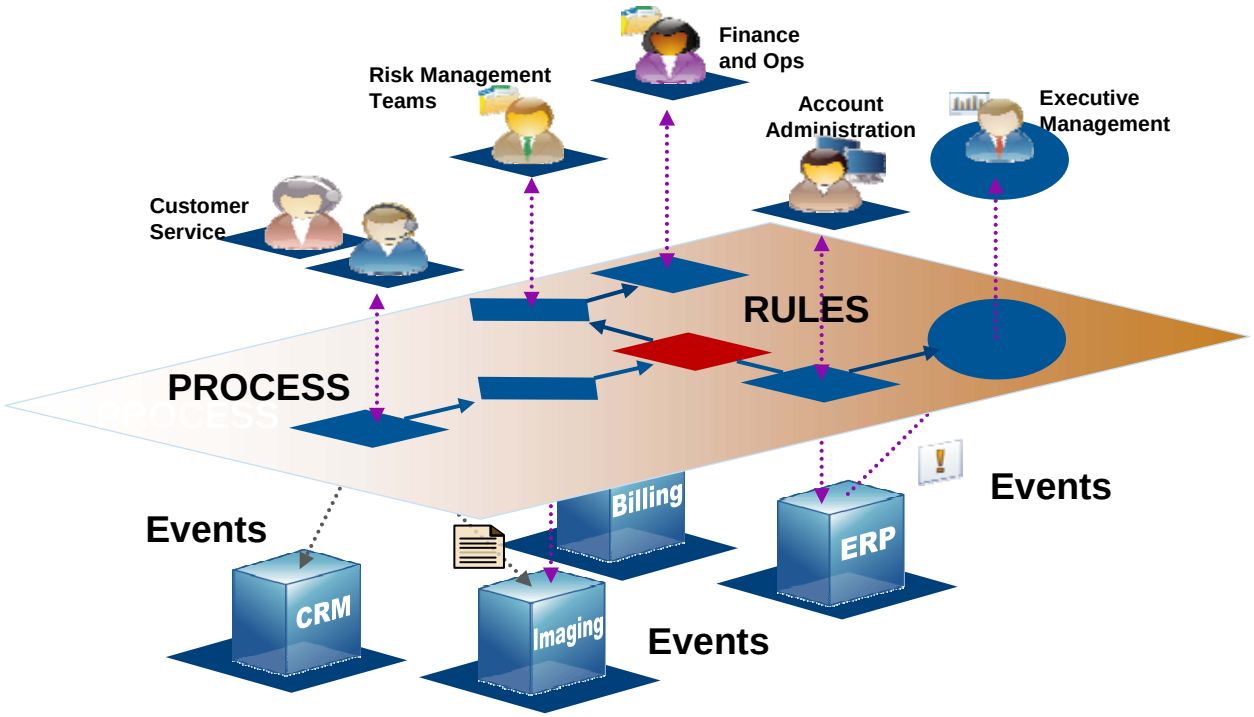
1. Informal Tasks and Communication (ex Paper or email)
2. Inefficient Working Environment Spans Systems
3. Inconsistent Prioritization
4. Incomplete or Inaccurate Data Flow Between Systems
5. Lack of Control Over System and Business Events (Exceptions)
6. Poor Visibility Into Process Performance

Customer Problem:

- Cannot Grow Efficiently
- Customer Satisfaction

10

Process & Decision Management Bring Order to the Chaos



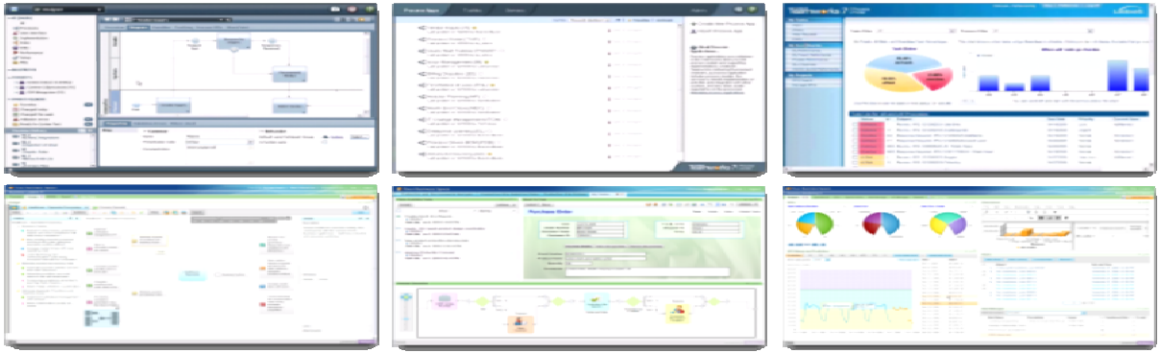
1. Automate workflow & decision making
2. Reduce errors and improve consistency
3. Standardize resolution across geographies
4. Leverage existing systems and data
5. Monitor for business events and initiate actions
6. Real-time visibility and process control

Customer Benefits:

- Huge Reduction in Manual Work, Errors
- Faster, More Consistent Issue Resolution
- Easier to Manage the Business

Empower business users throughout the process lifecycle

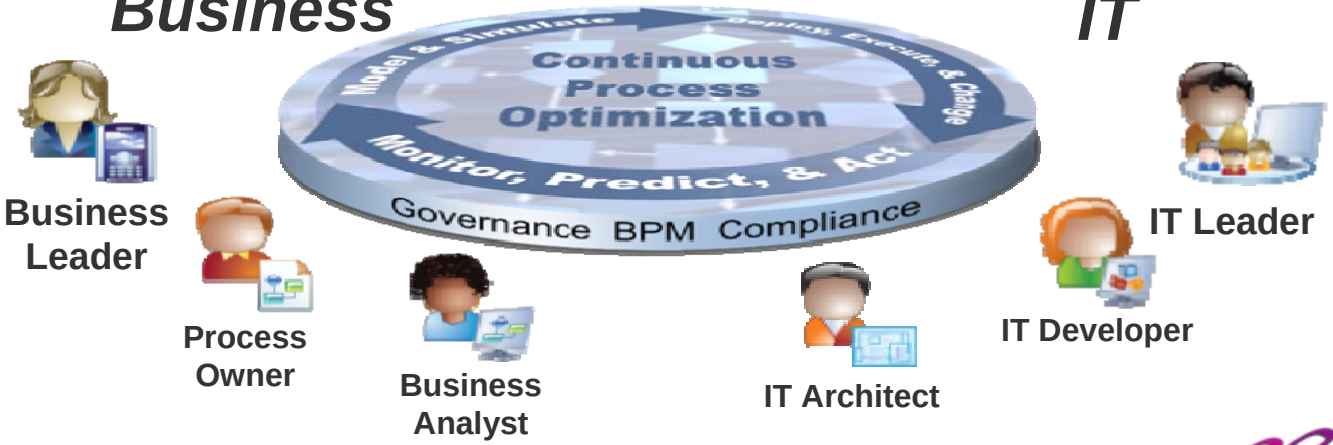
Role-based tools increase alignment with IT



Empower Users

Business

IT



IBM Business Process Management

Visibility, Collaboration & Governance to Effectively Manage Change

VISIBILITY

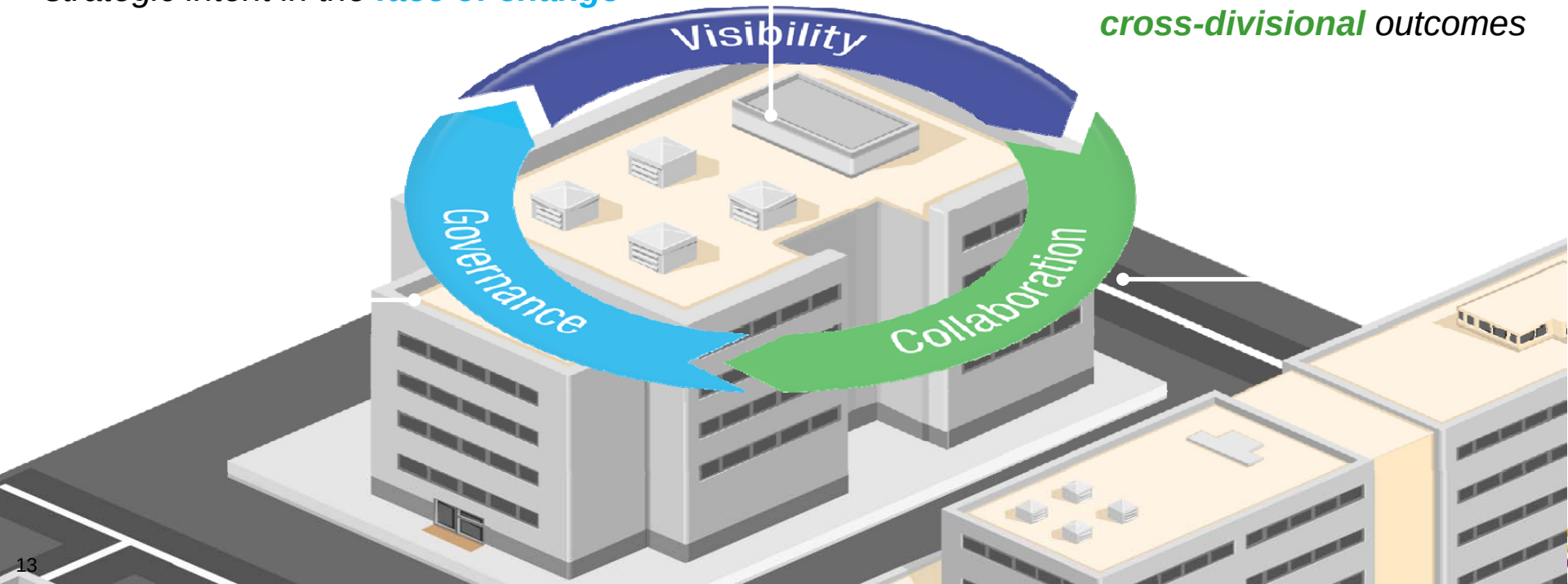
*Achieve **clearer line-of-sight** to business operations*

GOVERNANCE

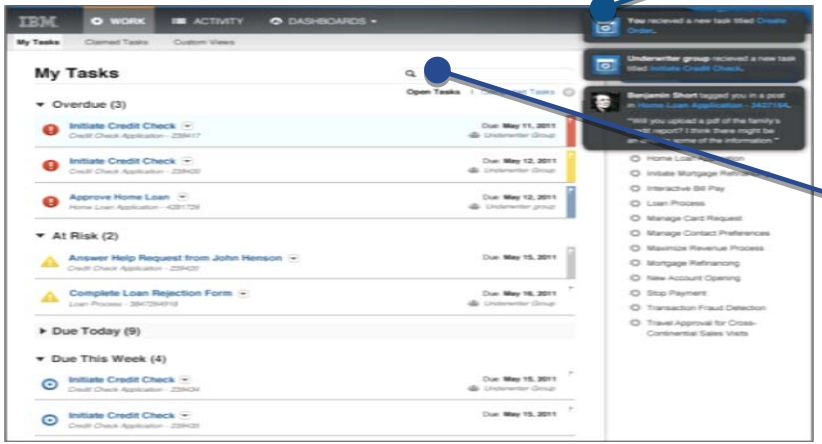
*Align business operations with strategic intent in the **face of change***

COLLABORATION

*Foster **cross-functional** and **cross-divisional** outcomes*



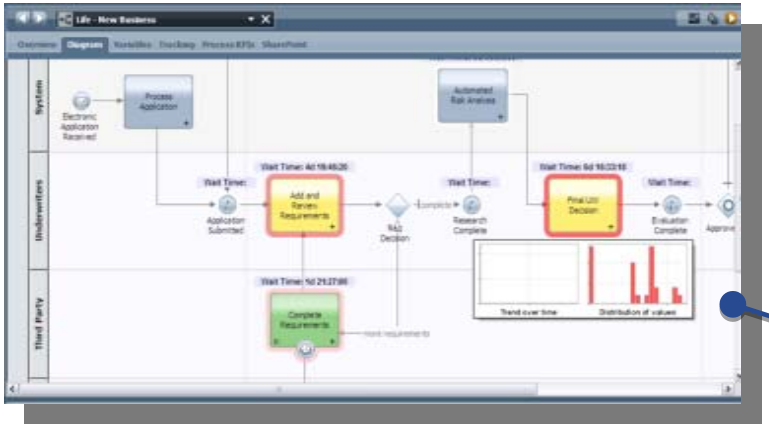
Achieve clearer line-of-sight to business operations



Process Portal notifies business users of actions required

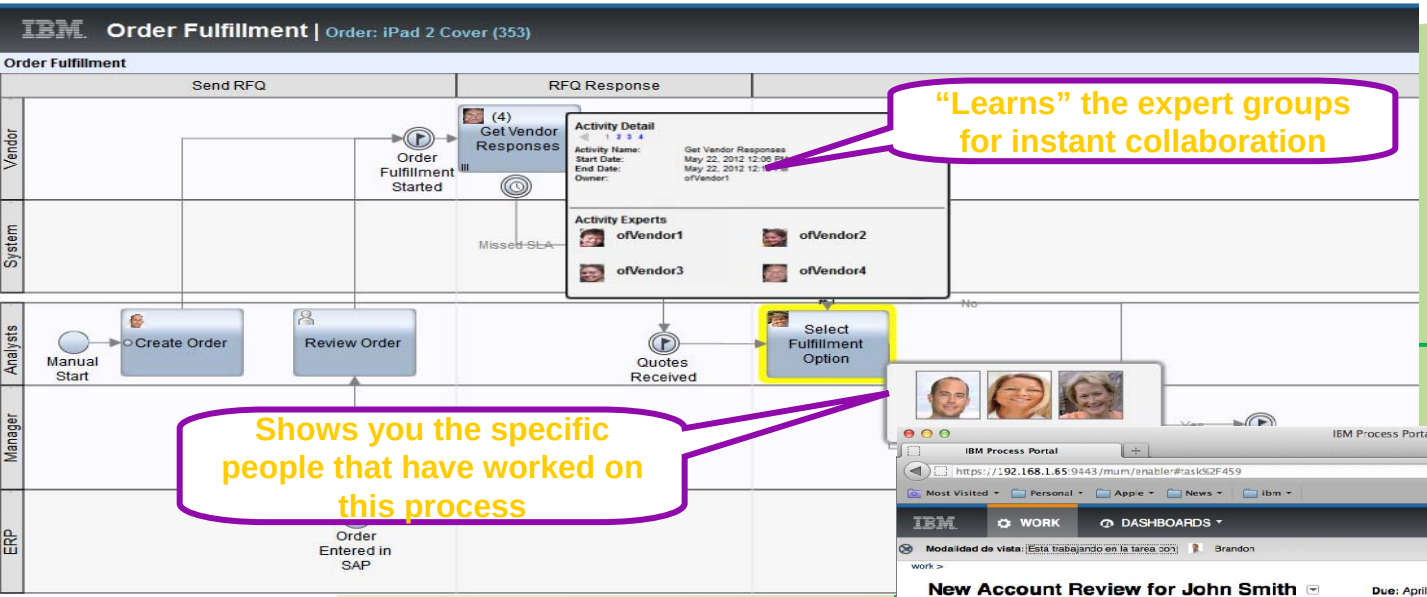
Full Google-like search finds what you need quickly

Intelligent Dashboards "learn" what is at risk of going overdue into the future



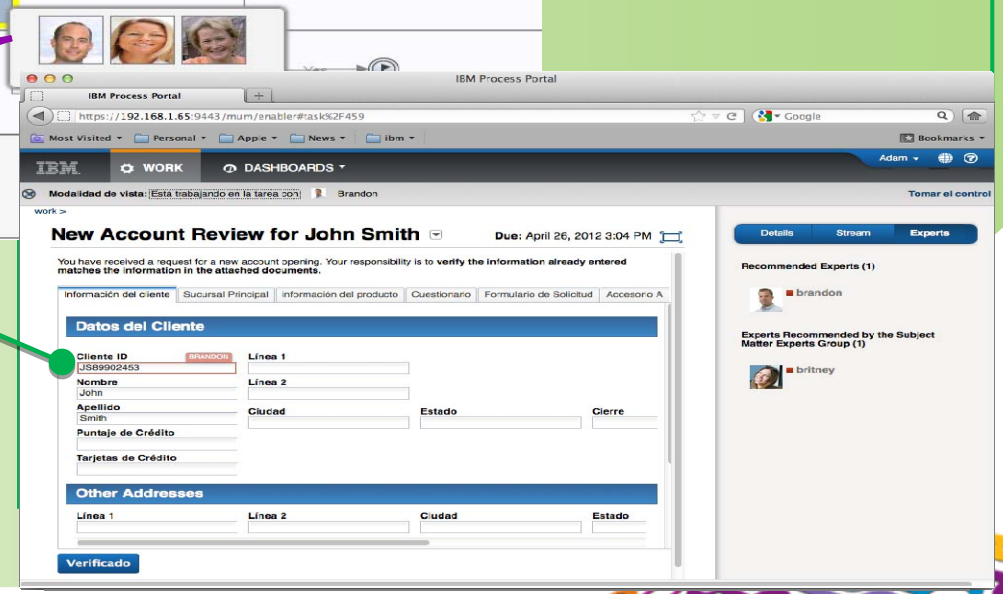
Process Optimizer "Heat Maps" for Insight into hot spots, bottlenecks and key optimization patterns

Foster cross-functional and cross-divisional outcomes



"Learns" the expert groups for instant collaboration

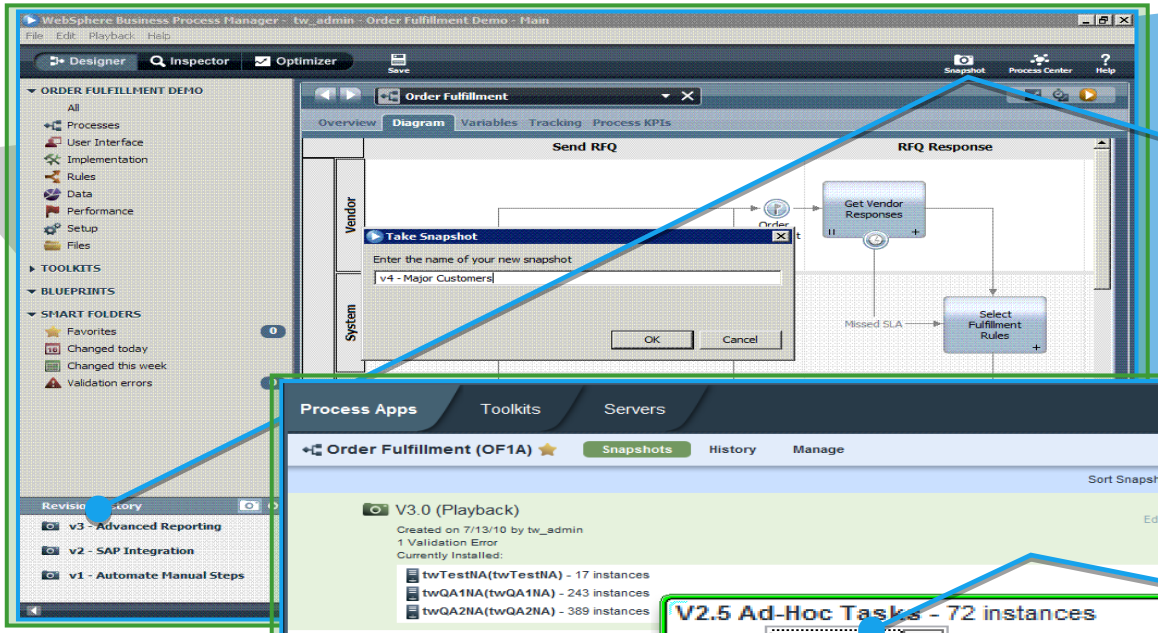
Shows you the specific people that have worked on this process

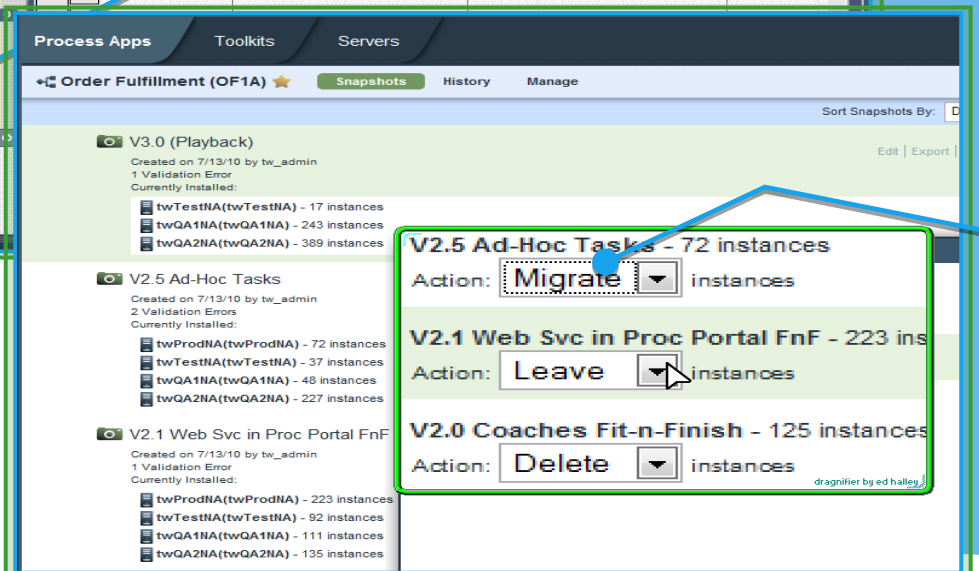


See remote expert edit your screen, with inline highlights, while they are clicking between fields (even in multiple languages)

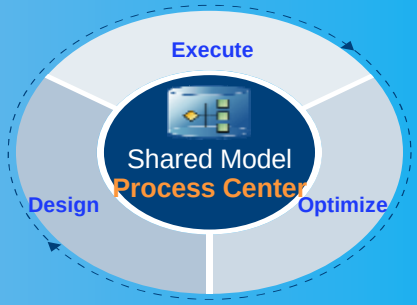
BW Collab | PD Collab | Portal Collab

Align business operations with strategic intent in the face of change



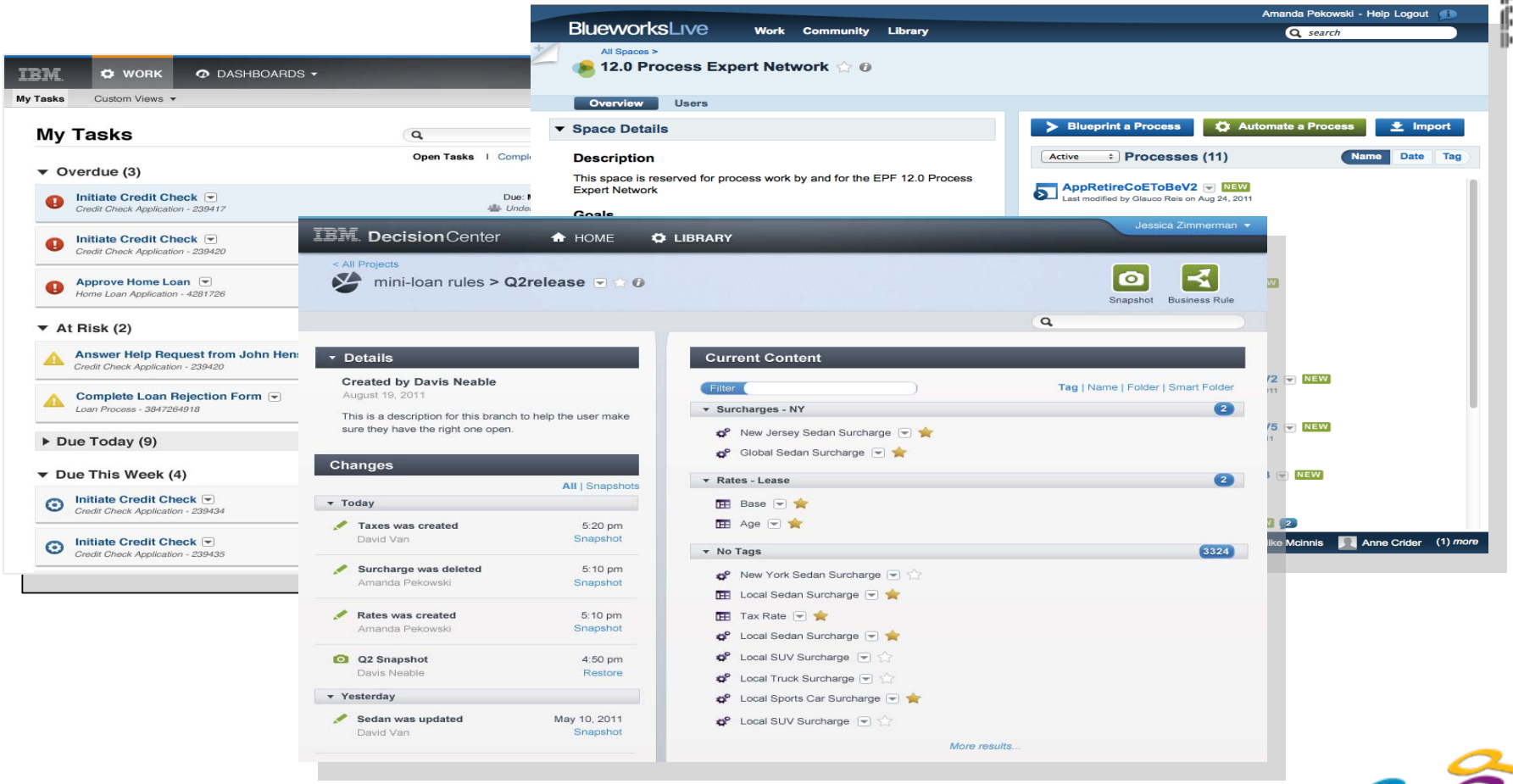


Snapshot versions provide easy change management



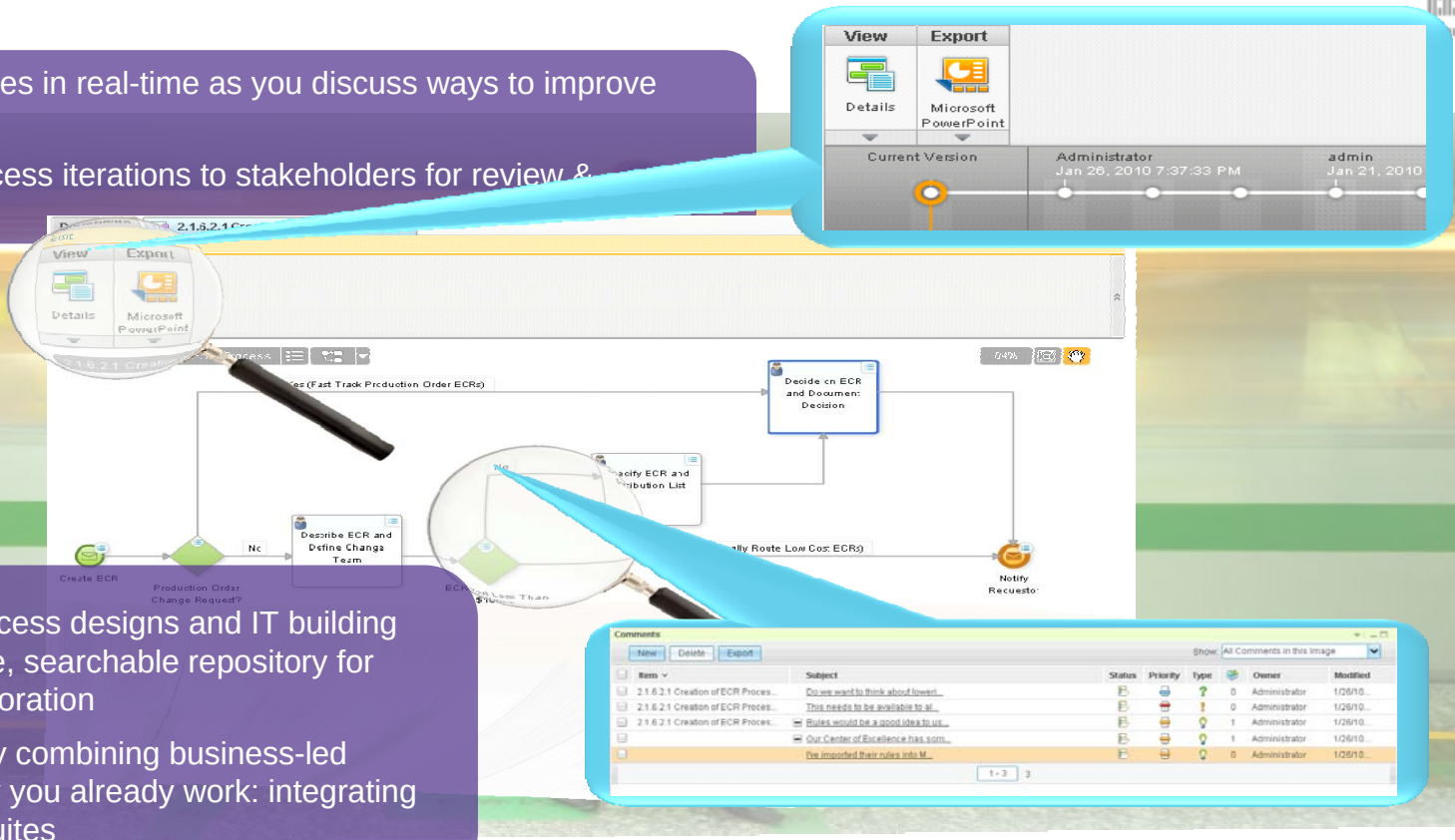
Hot-deploy new versions for version-to-version changes to "In-flight" processes

Engaging the Business Users



Making People More Effective
Enabling business users to invoke process changes

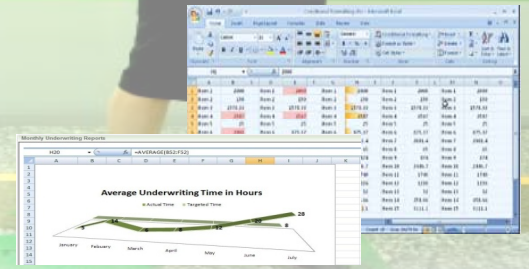
- Scheme with colleagues in real-time as you discuss ways to improve processes
- Publish results of process iterations to stakeholders for review & feedback

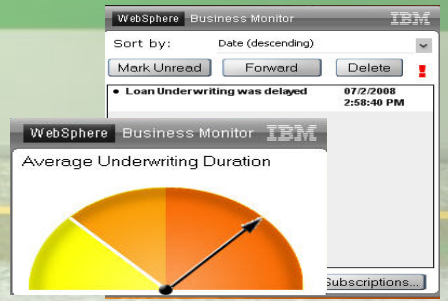


- Reuse & govern process designs and IT building blocks using a single, searchable repository for business & IT collaboration
- Boost productivity by combining business-led change with the way you already work: integrating directly with office suites

Making People More Effective
Monitoring and invoking process changes through multiple channels

- The world is getting more connected – needing access to information from anywhere to manage their business
- IBM BPM currently provides this multi-channel support, including lightweight Web interfaces, desktop gadgets, and mobile support
- View KPIs, metrics, task assignment, and more through the mobile interfaces
- Manage processes on the go



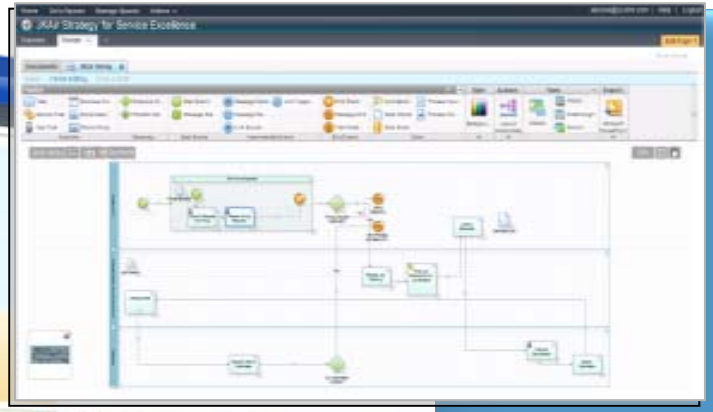


Making People More Effective
Managing human tasks and workflow

- Flexible allocation of work maximizes human resources and manages time constraints
- Rebalance and optimize team-based work with changing business conditions

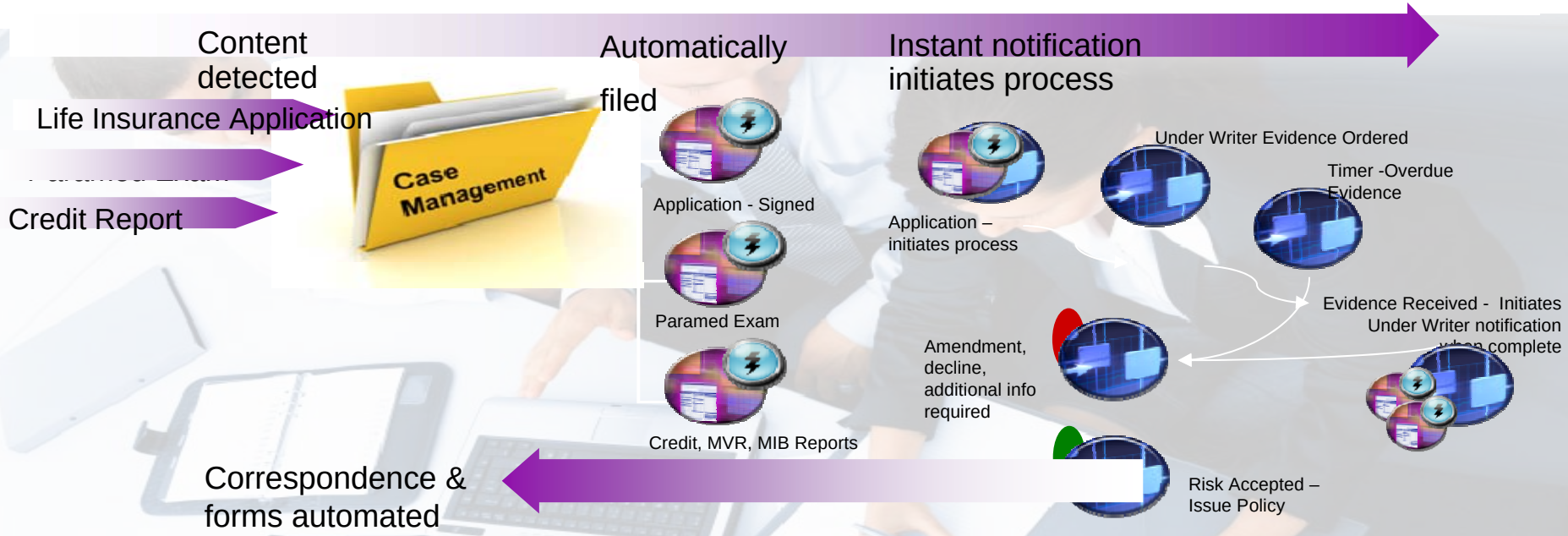
- Adjust processes "in-flight" to enable smart collaboration between knowledge workers
- Quickly customize your end user experience and integrate documents, images, or third party visualizations (e.g., gadgets)

BPM Collaboration
Capture Business Intent and Collaborate



- Immediately enable Web-based collaboration on business process design with business authoring and model sharing tools
- Capture business intent to guide BPM efforts with widgets for business leaders including strategy maps, process maps, and capability maps
- Scope and refine aspects of process activities easily, creating simple process and collaboration diagrams by leveraging BPMN 2.0
- Capture business vocabulary, organizational models, and value stream mapping

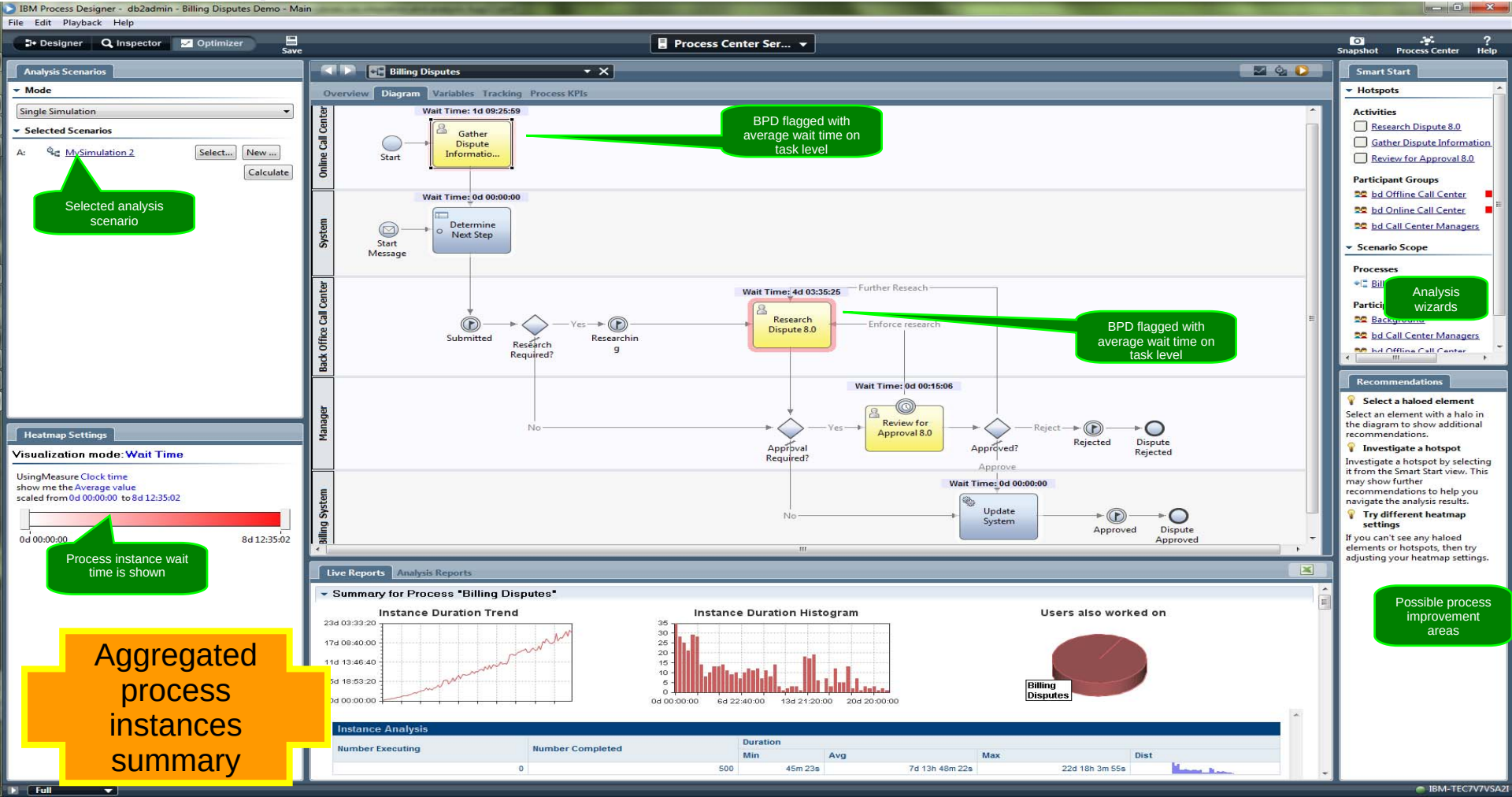
Leverage Active Content in Your Automated Processes
Case Handling



- Transforms execution model to eliminate time waiting or checking for documents and information
- Reduces errors and rework
- Enables regulatory compliance

22

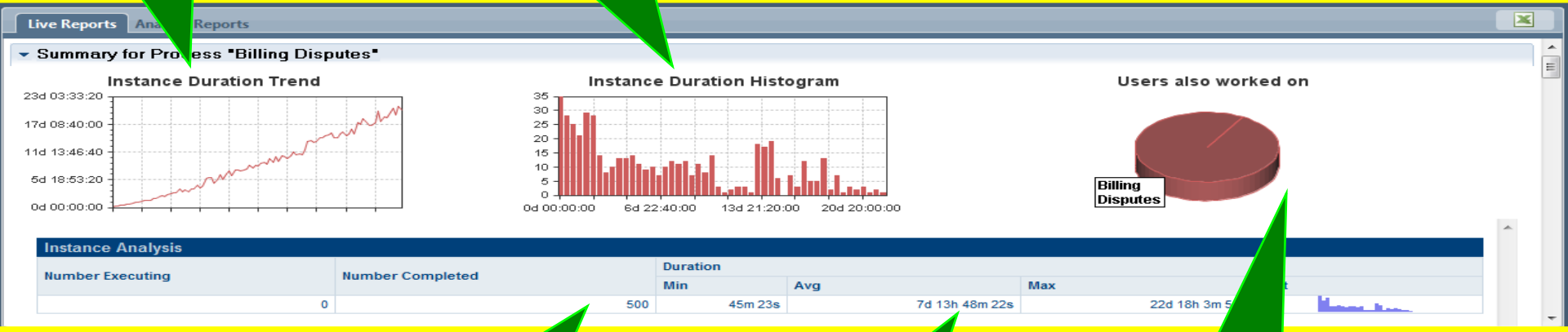
Process Optimisation



Optimisation – Aggregated process instances simulation results (wait time)

This graph shows that the process instance duration is increasing: The later a specific process instance was started, the longer it took for completion. This is just because all the resources available are busy with process instances started earlier.

This graph shows the distribution of process instances completion time.



Aggregated process instances summary

All process instances simulated (500 in total) were completed in the given timeframe

On everage, process instance overall execution time was about 7 days, with heavy variations

In this simulation, all resources only worked on this process.

Process Orchestration and Decision Automation

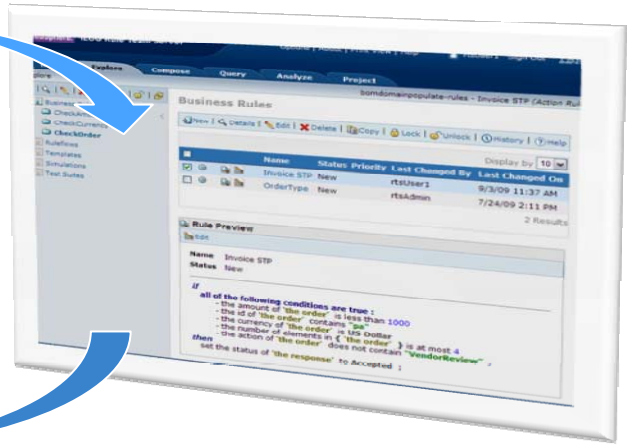
Process Management

- Defines and orchestrates the end-to-end process
- Combines automatable and human elements
- Is fundamentally concerned with operational efficiency of the organization

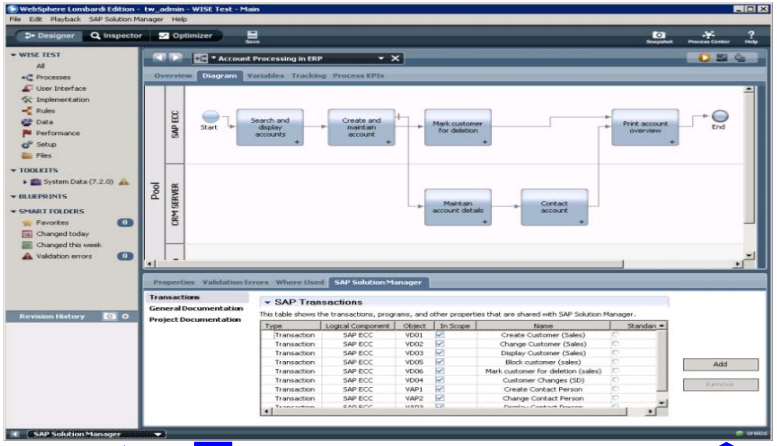
Operational Decision Management

- Defines and executes specific decision points in processes and applications
- Is focused on automating and improving decisions
- Is fundamentally concerned with the operational intelligence of the organization

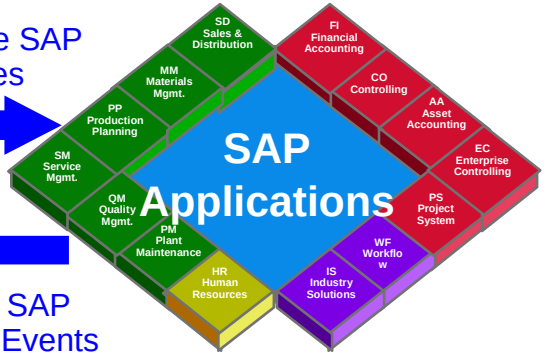
Notify
and invoke
Instantiate
and
respond



IBM BPM V8 Integrates Seamlessly with SAP



Orchestrate SAP Services

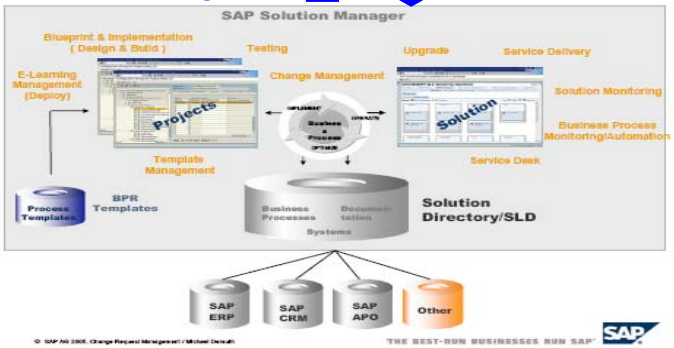


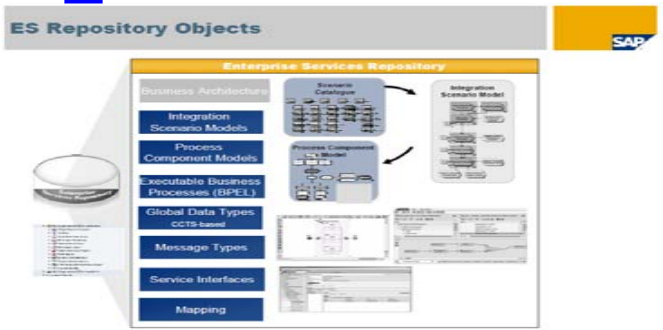
Monitor SAP Business Events

Download processes from Solution Manager

Upload processes to Solution Manager

Retrieve Enterprise Service Definitions





IBM BPM for SAP Capabilities

Process Discovery and Monitoring	Mine SAP business events to discover actual processes and act in real time to business challenges
Process Blueprinting	Use an iterative, experiential-based approach to accelerate traditional SAP blueprinting
Guided Workflow	Interactively guide end users through SAP screens to improve productivity, visibility and consistency
Process Integration and Orchestration	Optimize process steps to improve cycle time, manageability and visibility of key processes
Decision Automation	Automate complex decision making to reduce bottlenecks and improve business outcomes
Process Automation	Dramatically reduce the cycle time of high volume processes by reducing/removing human interaction

Customer Success Spans Industries and Applications

Retail

Financial

Transportation

Manufacturing

Government

Healthcare

Insurance

- Customer Retention
- Customer Service
- Marketing/Sales Interactions
- Detect repeated late supplier delivery
- Order fulfillment tracking and alert
- Detect out of bounds quality testing and fault diagnostics
- And More…

- Sense and respond
- Detect complex patterns over time
- Detect patterns that do NOT occur
- Processing logic changes frequently
- Time-to-deployment is critical
- LOB maintaining logic is desired

Telecom

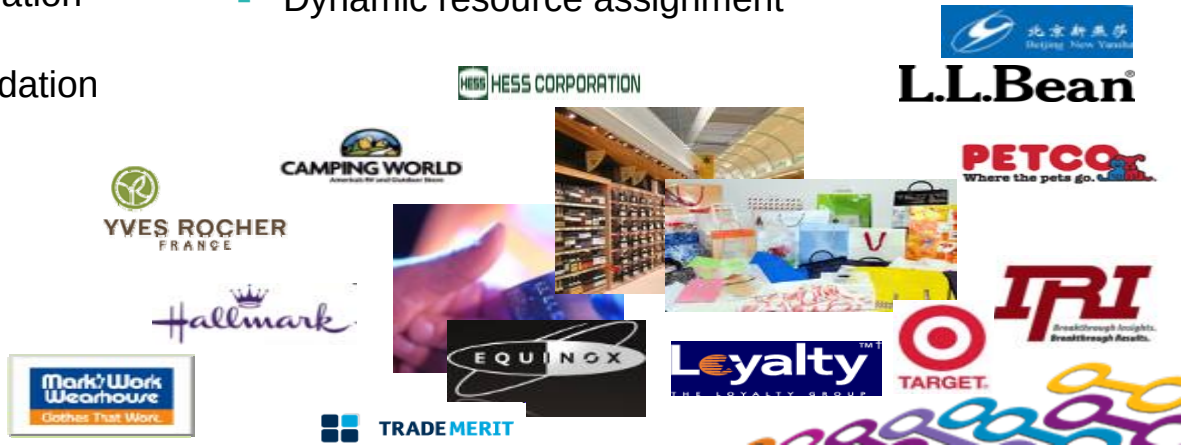
Utilities

Sense and Respond Process is Applicable to Applications Across Industries

There are many starting points..

- Order management
- Multi-channel pricing automation
- Loyalty & promotions management
- Online shopping, offer configuration
- Contract management
- Sales network/dealership compensation
- Marketing & financing program validation
- Fraud detection & management
- Decision checking & automation
- Workforce compliance

- Multi-channel pricing automation
- Revenue management
- Infrastructure management & monitoring
- Cost & margin consolidation
- Process generation & resource assignment
- Dynamic process routing
- Product qualification & quality recommendations
- Dynamic resource assignment



IBM customers are realizing benefits today!

Only IBM has the vision, market-leading capabilities and world class services to deliver transformational results

- Multi-channel inventory location – *reduced order lead times by **92%***
- Promotions & loyalty management – *increased sales by **30%***
- Vendor on-boarding – *improved time to value by **80%***
- Vendor trade fund management – *improved cash flows and margins*
- Merchandise calendar planning – *improved effectiveness by **20-25%***
- Fraud detection & management – *streamlined case management in **hours vs. days***
- Workforce compliance – ***100%** compliance with federal, state & union guidelines*
- Contract management – **20%** processing cost reduction & increased revenues
- Order management – **80%+** straight thru processing
- Marketing & financing program – instant approval & program roll out in **2 days vs. 1 month**

Six Common Adoption Patterns with High LOB Value

1

Vendor On-Boarding

2

Vendor Trade Funds

3

Expense Approval

4

Promotion Execution

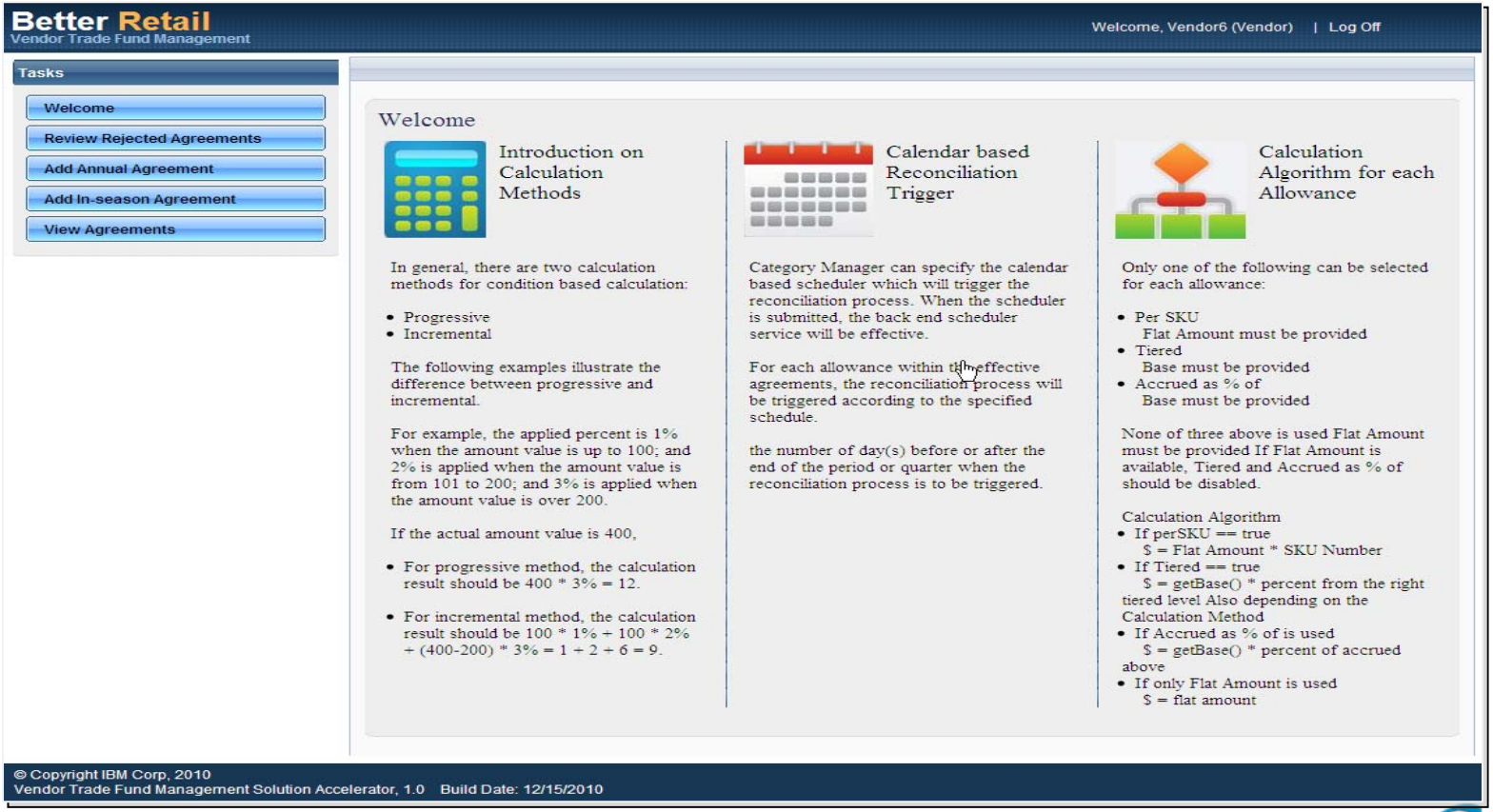
5

Promotions, Loyalty, Cross-sell & Up-sell

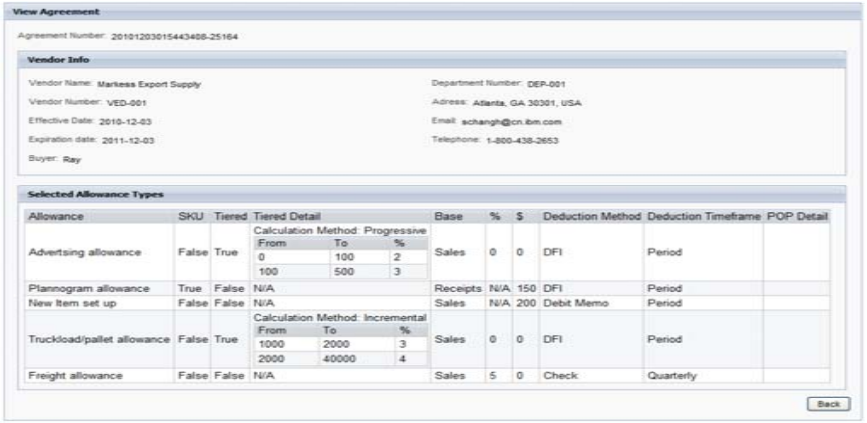
6

Multi-Channel Demand-Driven Inventory Locator

In action…
Vendor trade fund management



In action…
Process control & visibility



View Agreement

Agreement Number: 20101203015443408-25164

Vendor Info

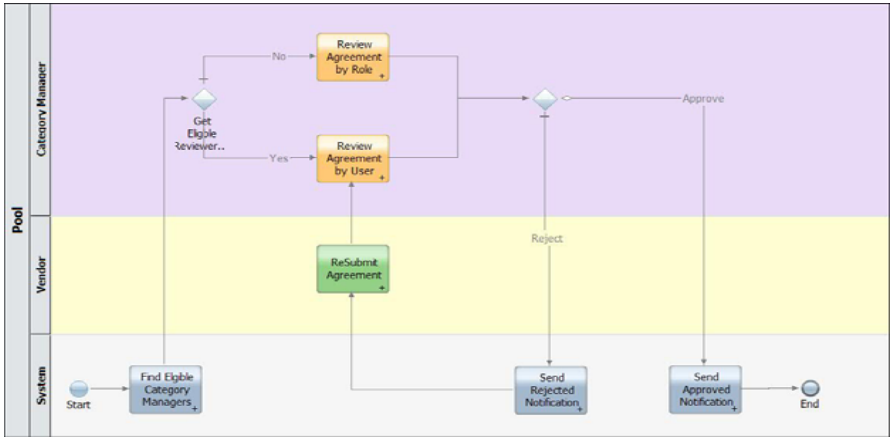
Vendor Name: Markess Export Supply
Vendor Number: VED-001
Effective Date: 2010-12-03
Expiration date: 2011-12-03
Buyer: Ray
Department Number: DEP-001
Adress: Atlanta, GA 30301, USA
Email: schangh@cn.ibm.com
Telephone: 1-800-438-2653

Selected Allowance Types

Allowance	SKU	Tiered	Tiered Detail	Base	%	$	Deduction Method	Deduction Timeframe	POP Detail
Advertsing allowance	False	True	Calculation Method: Progressive From: 0, To: 100, %: 2 From: 100, To: 500, %: 3	Sales	0	0	DFI	Period	
Plannogram allowance	True	False	N/A	Receipts	N/A	150	DFI	Period	
New Item set up	False	False	N/A	Sales	N/A	200	Debit Memo	Period	
Truckload/pallet allowance	False	True	Calculation Method: Incremental From: 1000, To: 2000, %: 3 From: 2000, To: 40000, %: 4	Sales	0	0	DFI	Period	
Freight allowance	False	False	N/A	Sales	5	0	Check	Quarterly	

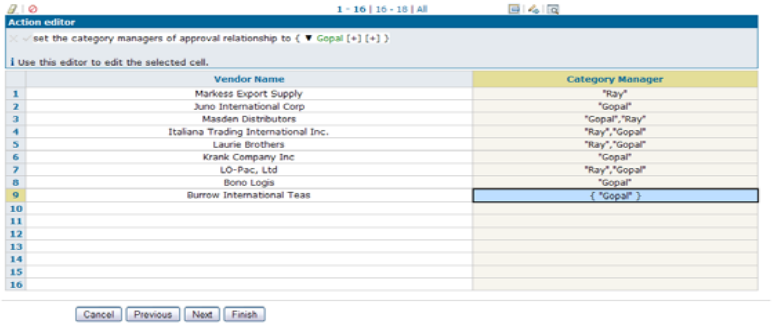
Back

Store all the details of an annual or in-season agreement for easy reference

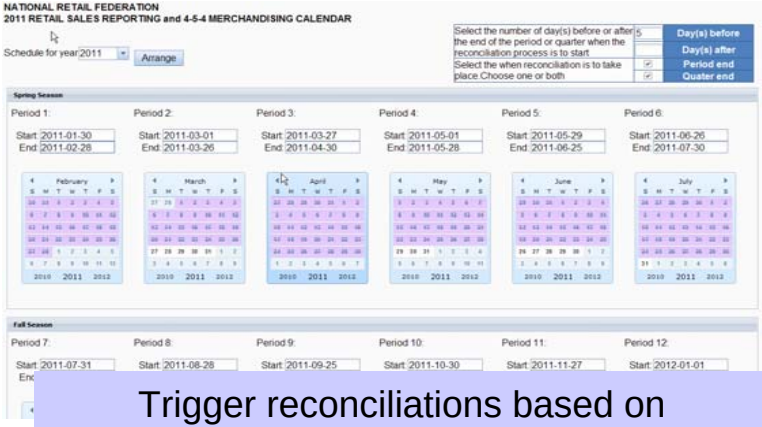


Control the end-to-end process for greater efficiency. Change it when needed.

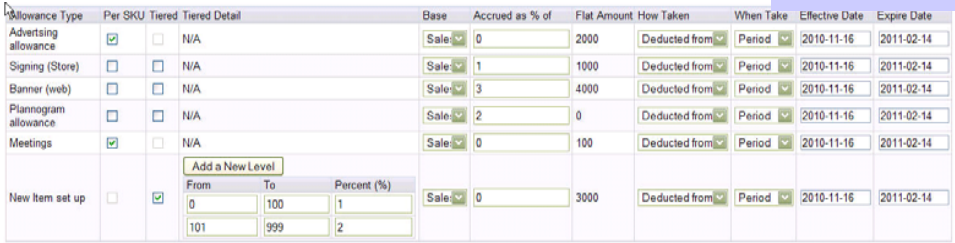
In action…
Business rule-driven activities & actions



Name an approving category manager for each vendor agreement



Trigger reconciliations based on merchandising calendar



Define algorithms for automatic allowance calculations

Yansha: one of China's largest regional retailers

increases its competitive edge by optimizing it's supply chain's efficiency & profitability

Challenge

•Maintain leadership position by increasing competitiveness against new competitors in increasingly deregulated Chinese retail industry

•Needed to transform the way it does business with supply chain process through adoption of new business processes, automation & business intelligence.

Results

- Reduced order lead time *from 2.5 days to 4.5 hours*
- Improved order acknowledgement rate *from 80 to 99 percent*
- Reduced order error rate from 9 to 1 percent
- Achieved ROI in nine months

"This solution will help us build an information platform together with our suppliers in their internal information system. Exchanging our data and interacting closely will enable us to respond to the market appropriately."

Mr. Ai Jie Ma, Director of Yansha Technical and Information Department

Skechers: a Global Leader in the Lifestyle Footwear

relies on BPM to adapt to rapid growth

Challenge

•Fast growth left Accounts Payable with lost and duplicate documents

•Needed to improve ability to determine invoice status and burdened with financial audits

Results

- Invoices are centrally processed and status is immediately available
- Consistent, auditable processes easily controlled and monitored
- Reduced staff needs

Saved paper storage and handling

Future expansion to automate purchasing, collections & other areas will deliver additional ROI

The system allows us to conform to SOX controls, process invoices faster with fewer errors, and position ourselves so that we can handle volume increases without adding to the headcount, which we would not be able to do using old methods of processing."

Daphne Sumner - Accounts Payable Manager, Skechers USA

WODM and IBM BPM
Example Use Case: Inventory Management

Business Problem: Improve on-time delivery of orders. Timely fulfillment depends on:

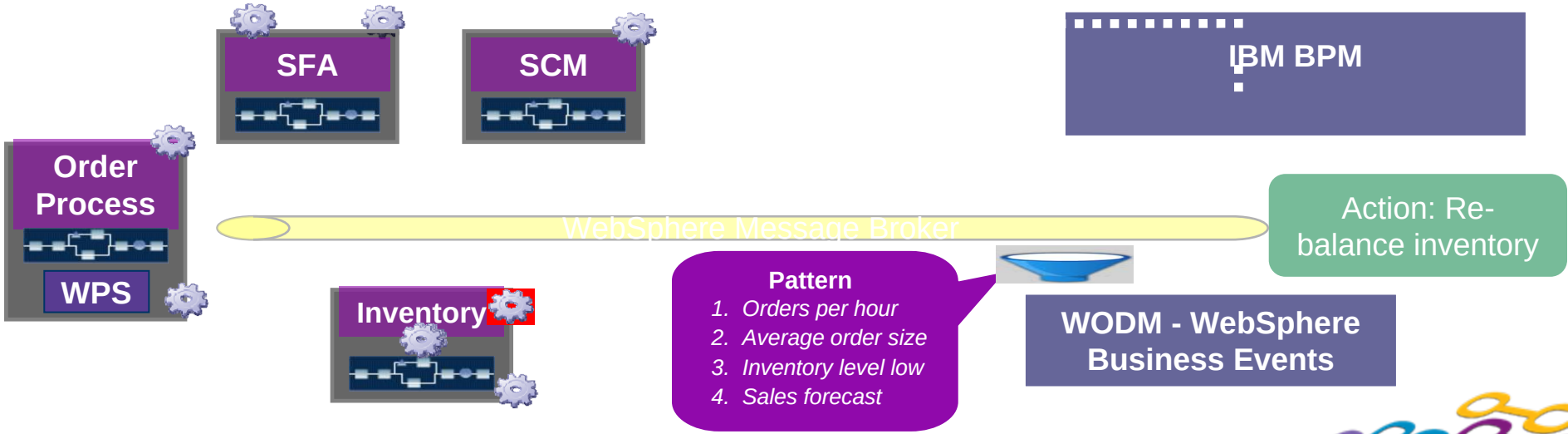
- Changes in inventory thresholds
- Deliveries or delays of shipments to restock warehouses
- Size of new orders received

Solution:

- WebSphere WODM
- WebSphere IBM BPM

Benefits:

- Refine product demand vs available



NKD Germany: Management, Logistics and Retail Stores

saves time and improves business agility

Challenge

•NKD needed to improve integration of business processes and information across German & Austrian stores

•Needed to reduce costs improve ability to react more quickly to changing needs of retail clothing industry

Results

- Reformed business processes through integrating 30 business processes and modeled two primary business processes (incoming goods)
- Communicated changes with worldwide suppliers to enable them to react more quickly to changing needs of the industry

"Our existing Bonaport modeling software couldn't offer enough flexibility and scalability to meet our needs. IBM WebSphere Modeler software gives us the opportunity to model and simulate business processes and react quickly to changing consumer patterns"

Peter Pfeffer, NKD

Leading Home Appliance Retailer

cuts vendor on-boarding time from 6 weeks to 7 days

Challenge

- A large retailer needed to automate the vendor on-boarding process to quickly source products at optimal prices
- Required an efficient process for sourcing products offered via multi-channel selling environment
- Needed to rapidly expand the number of vendors and on-board them quickly to meet needs of business

Previous solution was manual, paper-based, time intensive and error prone

Solution

- New solution involved automation of business processes & electronic forms
- Now products and new vendors can be on-boarded efficiently in less time
- Automated solution **slashed time required for vendor on-boarding from 6 weeks to 7 days**, improving efficiencies, cutting costs and increasing sales

Results

- Vendor on-boarding solution is more flexible now to facilitate **faster response to customer demands**
- **Faster time-to-market** for new vendors and new products
- **Reduce vendor on-boarding time from 6 weeks to 7 days**
- **Cut internal administrative costs** by shifting work to vendors

Mark’s Work Wearhouse: Leading Clothing Retailer

Realized ROI in less than 6 Months
Estimated $250K savings per month & achieved $4M additional revenue in 10 weeks

Challenge

- Needed to efficiently source inventory to respond to customer demand
- Required automation of time intensive manual processes involving verification of merchandise on 450 inventory screens, placing multiple phone calls and capturing information via fax and e-mail
- Employees had to re-enter data manually via paper forms and lacked critical information required to serve customers
- Time intensive product verification and order preparation processes and lacked order status information
- Inefficient system did not tracking information sufficiently and was costly to execute

Results

•Automated multi-channel inventory locator process provided enhanced visibility into inventory location

•Employees can efficiently source, track and fulfil product and order requests with automated acknowledgement, verification and shipping alerts

•Service enablement of existing legacy inventory systems

•Transformed paper forms into dynamic web application allowing routing of transactional data automatically to back-end systems

Proven Benefits

•Phase 1 into production in less than 4 months

•30% increase in revenue over previous manual solution

•Reduced costs and increased sales

•Staff now have more time to focus on the customer

Petco: Pet Food, Pet Supplies and Pet Products

Increases efficiency by automating accounts payable processes

Client Pains

- Time-consuming manual invoicing process was causing inefficiencies in Accounts Payable department

  Legacy process was unreliable, slow and made it difficult to track invoice progress

- Process changes were difficult and impacted customer service levels

Benefits

- Agile retail invoicing solution improved the Accounts Payable process

  Reduced invoice processing times ***from hours to seconds***

- Realized ROI in ***2 months***

- ***30% reduction in time*** spent from development to production

  Company plans to replicate the solution in business processes across the organization

Organic Grocer: with International Presence

Increases efficiency by automating accounts payable processes

Challenge

- **Rapid Growth:** Unable to keep pace with the hiring needs of their rapid growth.
- **High Response Times:** Unable to ensure consistent and timely response to HR events.
- **Automatic Task Generation:** Needed to automatically route requests that required approval to the appropriate manager.

Results

- ***90% reduction in time spent*** managing the process

  400% increase in speed of completion of requests in human resources department
- Deployed to 500 users in 90 days

This US based customer has been a Lombardi customer since Q3 of 2004.

This customer is the world's leading organic grocer. They concluded that BPM could be implemented faster and cheaper for their diverse process management requirements than any other alternative-including Oracle.

Home Improvement Chain

Increases efficiency by automating inventory replenishment process

Challenge

- Error prone manual process was in place to determine when to accurately replenish products
- High volume of items to be processed including 100,000+ possible SKU combinations
- Data was very hard to sift through
- Seasonal and regional variants exist when restocking shelves, which made it hard to combine orders

Results

- Application sits over top of several existing systems to catch exceptions
- Supply chain team can now easily focus on the most important items to replenish
- Ensures that the right product is on the right shelf at the right time

This US based company has been a Lombardi customer since Q1 of 2009.

This customer is a large retailer in the US specializing in home improvement. They also have a very successful services business for the installation of its many products.

Major French Beauty Supply Retailer

Meets its customers' expectations by better understanding their needs

The Challenge

- Paper-based loyalty program offered limited visibility into buying activities of customers
- Manually driven processes were slow to capitalize on sales opportunities
- Customers and store staff frequently found promotions confusing and difficult to use

The Solution

- New loyalty program captures sales data in real time, enabling the organization to quickly react to trends
- The solution automates rewards and promotion management so customers are offered targeted promotions
- Personalized offers in real time at the point of sales
- Loyalty cards to achieve 85% recognition rate of shoppers

Real Results

- Real-time visibility into sales trends and customer buying patterns, increases overall business flexibility
- Automated promotions system leads to improved customer satisfaction
- Standardized promotions efforts across 1,500 retail locations, simplifies management and cutting costs

French beauty retailer

A complex & volatile set of promotional offers

- 2+ promotional cycles per month on a given catalog segment
- 50+ promotional offers per cycle

- Store promotion
  - Mother's Day Offer: -30% on Eau De Toilette
  - Sunshine Offer: 1 sunshine lipstick offered for any solar cream purchase
  - 1 loyalty point for $1 spent
- "All Boxes » offer
  - A surprise gift for any purchase ≥ $50
- "Happy Hour" offer
  - +5 loyalty points from 2:00PM to 4:00PM
- "Radio" offer
  - Say the "magic word" and get 5% discount
- "Partner" offer
  - $5 discount on all skin care products
- "Direct marketing" offer
  - 1 moisturizer offer for any day care & night care product purchase
  - 1 necklace for any purchase ≥ $35
  - +3 loyalty point on any lipstick purchase

  …

French Beauty Retailer

Need for customized loyalty program & personalized recommendations

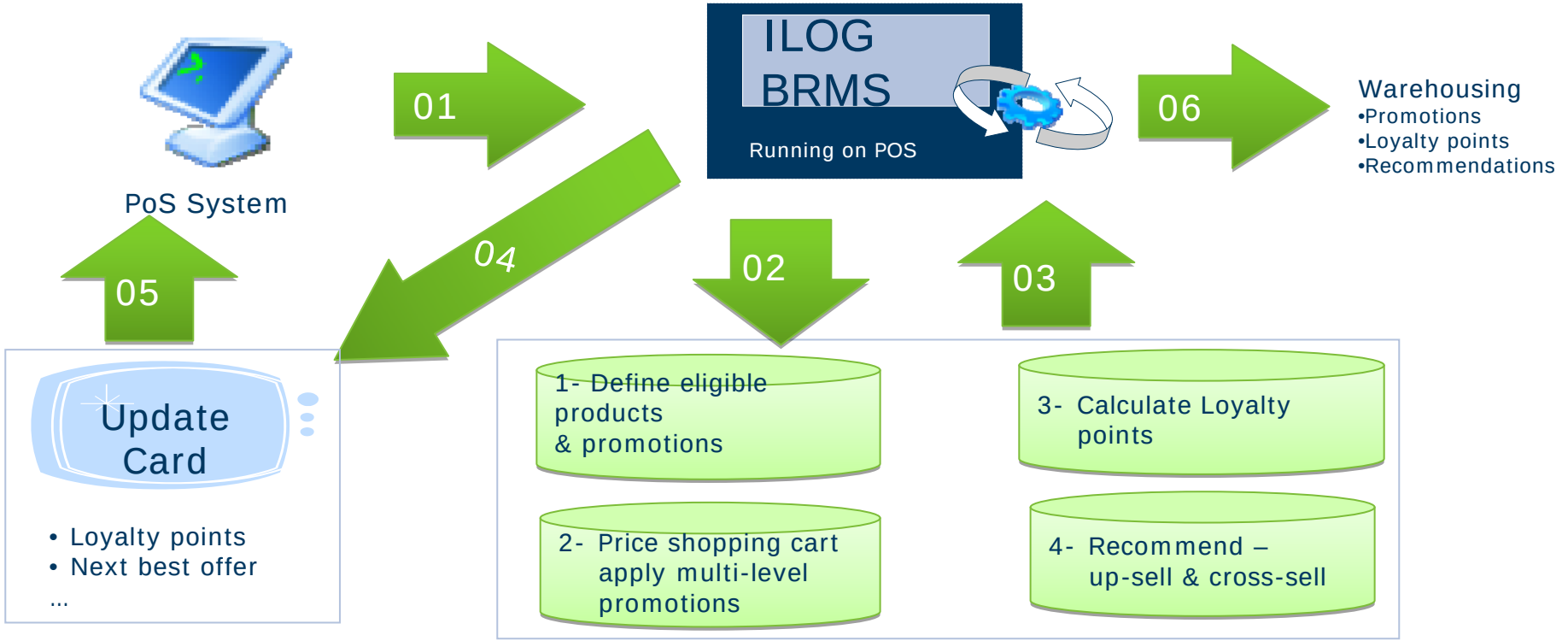
20M customers
85% identification rate

Loyalty points

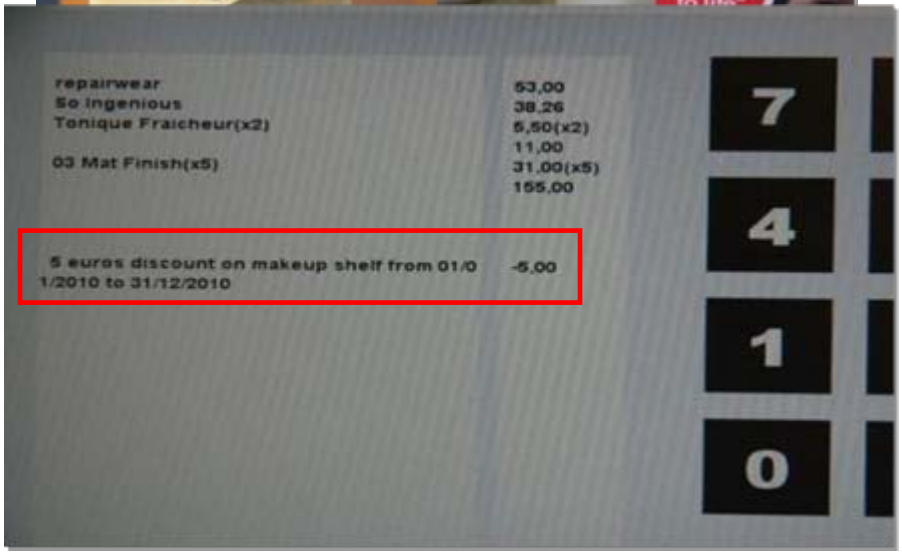
Recommendations
& customized promotions

French beauty retailer

Real Time Promotion/Loyalty & Up-sell/Cross-sell



In action at our retail solution centers…



Promotional Branding Company

Streamlines Order-to-Cash Process

Challenge

- **Training Required Weeks:** Only industry experts could be hired because they required extensive training on the process which was costly.
- **Lengthy Cycle Times:** Once a customer placed an order it took 60 days to process and ship.
- **High Volume of Orders & Multiple Processing Systems:** They received 100+ orders per day and had 3000+ active orders at any given time. These needed to all be maintained across Salesforce.com and their sales support teams.

Results

- Training time reduced from a **few weeks to just 2 days**
- Order-to-Cash **cycle time reduced from 60 days to 27 days**
- Now capable of **handling 10x their previous volume**

"…rapid growth despite the recent economic conditions is validation that the promotional products industry is ready for innovation. This investment demonstrates our confidence that their technology platform will enable them to rapidly scale their business."

Thomas Ball, Partner Austin Ventures

Retail Giant Deploys a BPM Program

Improves efficiencies and streamlines core business process

Challenge

- **Manual Process:** Needed to streamline a previously paper-based Accounts Payable process.
- **Time Consuming:** The time involved in creation and maintenance of items sold was high.
- **Unmanaged Processes:** The filing and processing of insurance claims was not optimal.
- **Unleveraged Processes:** There was no easy way to leverage best practices across the IT and Analyst teams.

Results

- Single development environment leverages process knowledge across teams

  Continually improving processes quickly gives Business Analysts visibility into process performance
- Quickly on-boarded users

This company is one of the largest company in the world, serving customers and members more than 200 million times per week at more than 8,416 retail units under 53 different banners in 15 countries.

Customer Success Spans Industries and Applications

Government

Retail

Financial

Transportation

Manufacturing

Healthcare

Insurance

- Loan Processing
- Customer Acquisition
- Customer Retention
- Identity Theft
- Fraud Detection / Claims
- Regulatory Compliance
- Customer Service
- Marketing/Sales Interactions
- And More…

- Sense and respond
- Detect complex patterns over time
- Detect patterns that do NOT occur
- Processing logic changes frequently
- Time-to-deployment is critical
- LOB maintaining logic is desired

Telecom

Utilities

Precision Marketing - Product Up-Sell/Cross-Sell

Business Challenge: In order to maximize revenue opportunities in a challenging economic climate, banks require the ability to identify and focus on profitable customer relationships, exploit new customer segments, and market new products and capabilities to those customers.

Solution: **WODM can detect patterns of c**ustomer account activity, including the use of new banking products or changes in deposits, loan payments, or withdrawals and, alert appropriate personnel or initiate BPM processes to conduct marketing or sales campaigns. WODM can also detect key customer life events such as births or children going to college and initiate BPM processes to match customers with the best offerings for their needs or provide notifications or alerts to appropriate personnel.

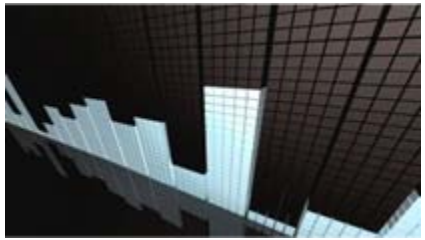
Results:

- ✓ Identification of key customer opportunities
- ✓ Improved customer relationship and satisfaction
- ✓ Targeted marketing of new product offerings

Precision Marketing is about identifying when it is appropriate to communicate with a customer. **Customer Behaviors** & **External Business** Events identifies a change in a customer needs / situation

Business events describe things are **happening.**

a customer **deposit** large amount of cash over 1 week



the base rate **changed**

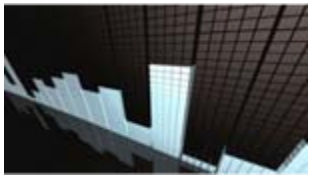
a customer **withdrew cash**

Consecutively over 2 weeks

Knowing something **has happened** can help decide **what should happen next.**

Proactive and Real Time Business Proposition

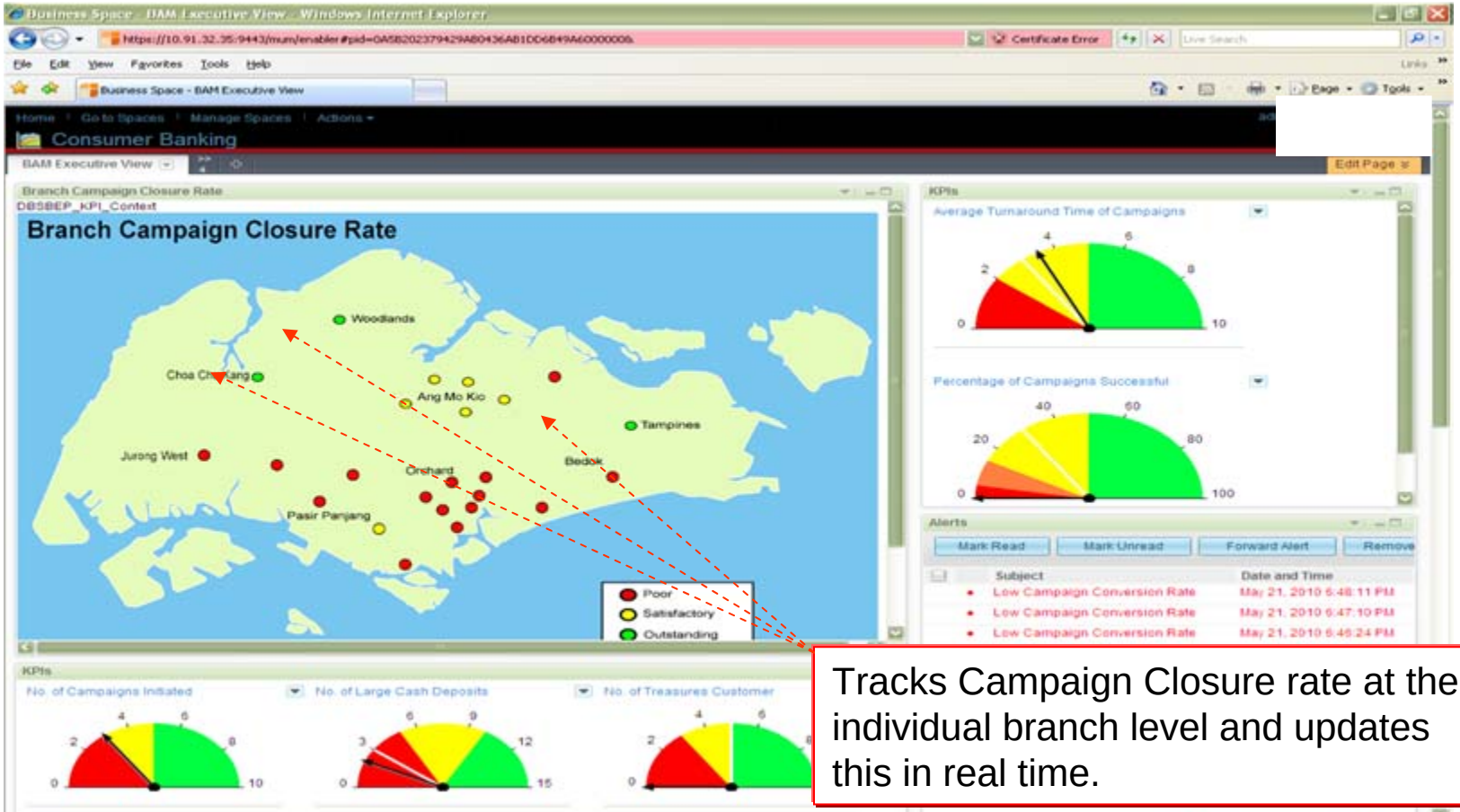
deposit



went down

withdrew cash consecutively over 2 weeks

Responding to Change - Real Time Measurements



Tracks Campaign Closure rate at the individual branch level and updates this in real time.

Responding to Change - Real Time Measurements

Tracks the KPIs and alerts from an iPhone & Blackberry

Responding to Change : Metrics of Measurements

- **Business Metrics – Slice and Dice**
  - % Conversion Rate
    - By Customer Profile
    - By Product Category
    - By Region
    - By District
    - By RM
    - By Channel
    - By Amount

- **Business User**
  - Product Manager
  - Program Manager
  - Business Owner
  - Sales Director

Personalized Marketing and Customer Loyalty

Business Challenge:
Credit card processors are being challenged by merchants to enable new channels for merchant promotions to their members

Solution: WODM enable merchants to publish promotional products to the card processor which are correlated to card members opt-in for products of interest. When correlated, the processor sends a product promotion notification to the member via SMS or email alerts and providing a mechanism for the member to immediately purchase using processor's card.

- ✓ Increased merchant revenue
- ✓ Increased credit card use
- ✓ Increased merchant and card loyalty

ILOG Rule Team Server - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address http://localhost:8080/teamserver/faces/explore/details.jsp?project=Rules&baseline=current&id=brm.DecisionTable%3A62%3A62&locale=en Go Links IBM Business Transformation Homepage

WebSphere. ILOG Rule Team Server

Options | About | Print View | Help rtsAdmin Sign Out IBM.

Home | Explore | Compose | Query | Analyze | Project | Configure

Explore > Details

Rules - Account Strategy *(Decision Table)* - permalink

Account Strategy *(Decision Table)*

New | Edit | Delete | Copy | Lock | Unlock | Release lock | History | Help

Properties

Name	Account Strategy
Status	New
Priority	
Expiration Date	None
Effective Date	None
Locale	English (United States)
Categories	
Template	
Active	True
Folder	/Cross-Sell Up-Sell Product R...
Group	
Created By	rtsAdmin
Last Changed By	rtsAdmin
Last Changed On	Oct 22, 2009 6:41:09 PM EDT
Created On	Oct 22, 2009 6:41:09 PM EDT
Type	Decision Table

Customer Profile

Age: 35

Credit Grade: A

Table

	Marketing Strategy	Rank	C
1	Acquire Customer	1	Overdraft
2		2	Visa
3		3	Unsecured RCL
4		4	Installment
5		5	Mortgage
6		6	HELOC
7		7	Secured RCL
8	Block Competition	1	Unsecured RCL
9		2	Visa
10		3	HELOC
11		4	Installment
12		5	Overdraft
13		6	Secured RCL
14		7	Mortgage
15	Increase Wallet Share	1	Visa
16		2	Unsecured RCL
17		3	Installment
		4	Secured RCL
		5	HELOC
20		6	Overdraft
21		7	Mortgage
22	Mitigate Risk	1	Installment
23		2	Overdraft
24		3	Visa
25		4	Secured RCL
26		5	HELOC
27		6	Unsecured RCL
28		7	Mortgage
29	Maximize Revenue	1	Overdraft
30		2	HELOC
31		3	Mortgage
32		4	Visa
33		5	Installment
34		6	Secured RCL

Done Local intranet

Points Redemption – Greater Precision

Branches

ATMs

Call Centers

Internet

Mobile Banking

iPod Touch 8GB
13500 Points

Jawbone Icon Bluetooth Headset
6000 Points

JBL On Time Micro
13000 Points

Harman Kardon Soundsticks III
9000 Points

iPod Shuffle 2GB
3500 Points

Bang & Olufsen A8 Earphones
9500 Points

Only require 12800 Points between 1 Dec to 31 Dec

Only require 5000 Points if average credit card spending of last 3 months exceed 30,000 SGD

Only require 3000 Points if customer's deposit exceeds 100,000 SGD.

Only require 7500 Points if existing customer of Smart Life

Points Award – Bank Titanium Card at Fuji Restaurant

```
if
    the name of the merchant of the credit card transaction is FUJI RESTAURANT
    and the name of the credit card used for the credit card transaction is TMB TITANIUM
then
    award extra points: 5 for every 1000 THB spent on the credit card transaction ;
```

Points Award – All Cards at Fuji Restaurant during Christmas Period

```
if
    the name of the merchant of the credit card transaction is FUJI RESTAURANT
    and the date of the credit card transaction is after or the same as  12/1/2011
    and the date of the credit card transaction is before or the same as 12/31/2011
then
    award extra points: 7 for every 1000 THB spent on the credit card transaction ;
```

Points Award – All Cards at Fuji Restaurant between 2pm and 4pm

```
if
    the name of the merchant of the credit card transaction is FUJI RESTAURANT
    and the time of the credit card transaction is after or the same as 2:00:00 PM
    and the time of the credit card transaction is before 4:00:00 PM
then
    award extra points: 5 for every 1000 THB spent on the credit card transaction ;
```

Banking Fraud and Money Laundering

System to detect activity that could signify security risks or money laundering issues

Events :

- Event: A financial transaction is sent out
  - Attributes include amount, transmittal method (Fed, chips, swift, etc.)
- Event Pattern 1: multiple low fund transfer amounts get close to an investigation amount , $4999.99 when the cap is $5k, then flag the transactions as suspicious. This can occur over a period of time during the day.
- Event Pattern 2: spike in inbound transfers from a low volume account or transfers or low amount transfers close to the investigation amount

Rules :

- Classifies customers to prevent possible identity theft patterns
- Rates the risk based on customer's behavior and profile

Identified abnormal transfer activity in combination with high risk customer prompts investigation

- **Allows Risk Compliance Officers to modify patterns and policies as needed by externalizing this logic from the core application code**

Detect Money Laundering Pattern

- Multiple cash deposits
  - *“Detects multiple cash deposits on multiple branches on the same account id within the last 5 days”*
- Repeated deposit & withdrawal
  - *“Rapid sequence of deposit followed by withdrawal”*
- Loan repayment
  - *“Takes out a loan, paid almost immediately, sold the car almost immediately”*

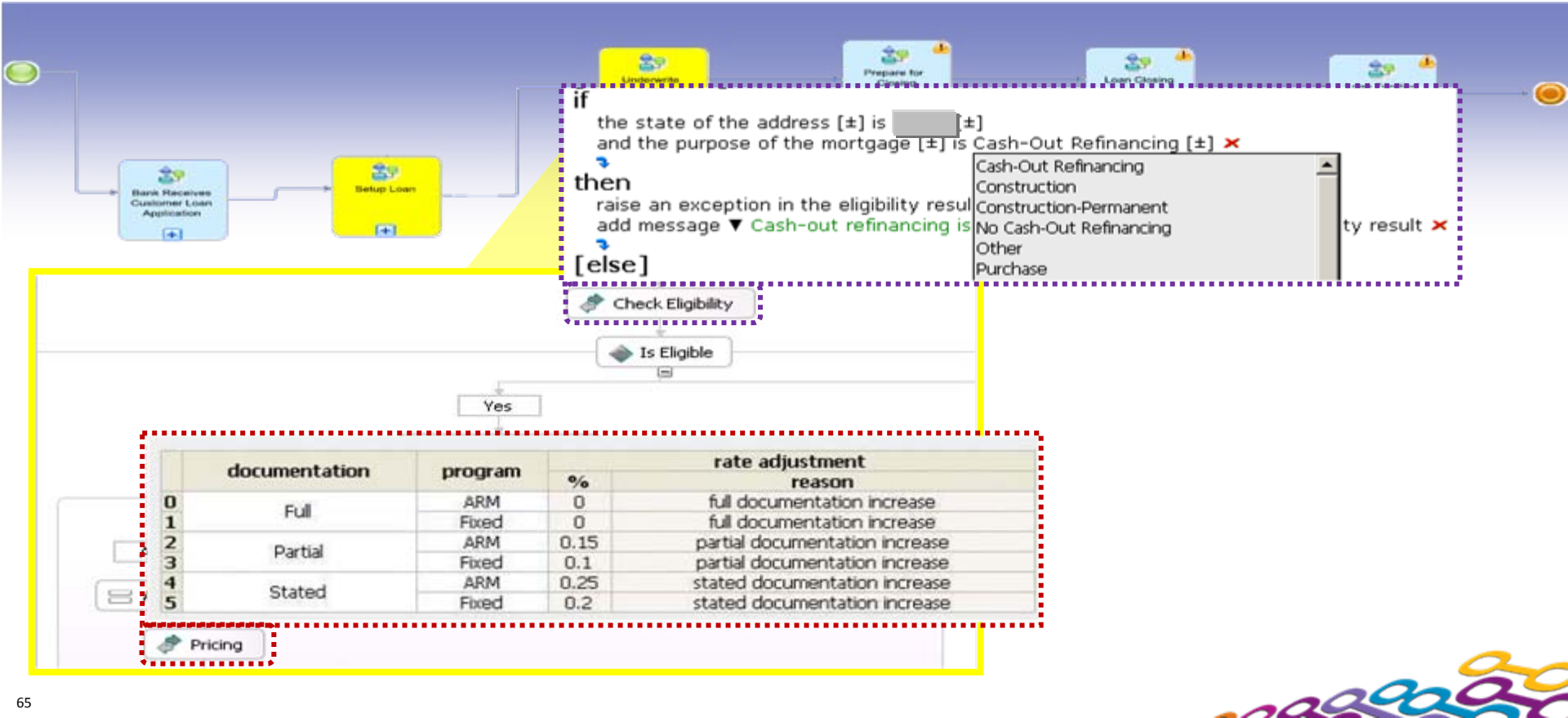
Banking : Loan Origination

Business Challenge: Consumers want faster service time, while banks face the need to focus on faster time to market to capture sales opportunity and develop the most profitable customer relationships.

Solution: BPM can streamline and automate loan processing. WODM can detect changes in macro environment, interest rates correlate that with events from risk management that to offer potential incentives, and respond to high value customer opportunities with the right governance.

Results:
- ✓ Maximizes positive loan opportunities
- ✓ Personalized customer engagement and increased satisfaction
- ✓ Shorten the loan servicing time

Loan Origination:
500 percent faster time-to-market for processing loan products



	documentation	program	rate adjustment	
			%	reason
0	Full	ARM	0	full documentation increase
1		Fixed	0	full documentation increase
2	Partial	ARM	0.15	partial documentation increase
3		Fixed	0.1	partial documentation increase
4	Stated	ARM	0.25	stated documentation increase
5		Fixed	0.2	stated documentation increase

Mortgage Lending : Loan Decisions

ARM-1-15

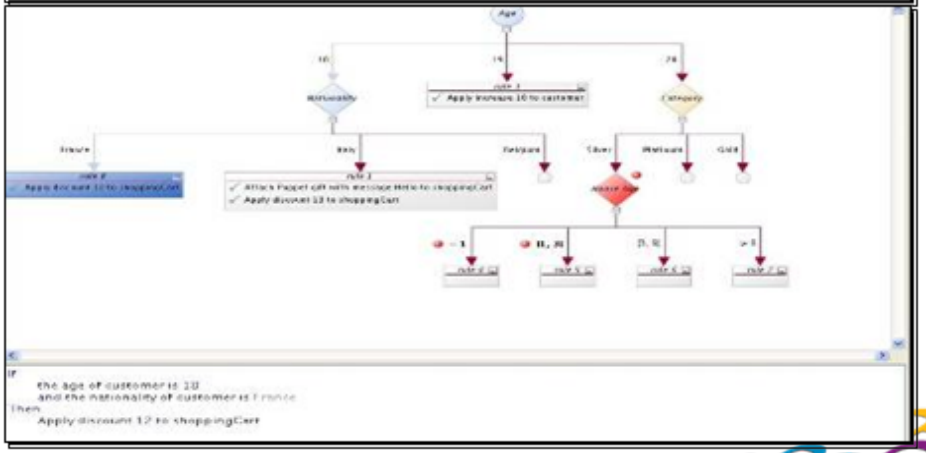
	credit score		LTV			
	min	max	min	max	base rate	reason
0	500	525	< 65		5.3	arm 1-...
1			65	70	5.31	arm 1-...
2			70	75	5.32	arm 1-...
3			75	80	5.322	arm 1-...
4			80	85	5.326	arm 1-...
5			85	90	5.329	arm 1-...
6			90	95	5.4	arm 1-...
7			≥ 95		5.5	arm 1-...
8	525	550	< 65		5.2	arm 1-...
9			65	70	5.21	arm 1-...
10			70	75	5.22	arm 1-...
11			75	80	5.222	arm 1-...
12			80	85	5.226	arm 1-...
13			85	90	5.229	arm 1-...
14			90	95	5.3	arm 1-...
15			≥ 95		5.4	arm 1-...
16			< 65		5.1	arm 1-...
17			65	70	5.11	arm 1-...

When
the state of the address of the property is : Texas

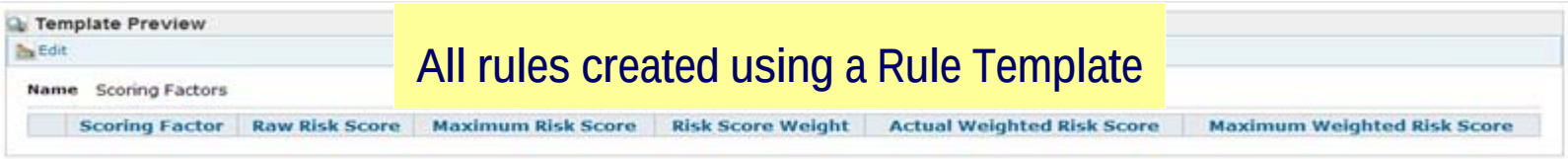
Policy
the purpose of the mortgage must not be : Cash-Out Refinancing

Otherwise
log a : Critical eligibility violation event
and set the status of the event to : Disallowed
and set the type of the event to : Customer Policy
and set the reason of the event to : Customer Restriction
and add data : Cash-out refinancing is not allowed in Texas to the event

[Else]



Risk Scoring Rules



All rules created using a Rule Template

Debt-to-Equity Ratio

Preconditions:

Definition:

	Ratio of Debt to Equity (%)		Raw Risk Score	Maximum Risk Score	Risk Score Weight	Actual Weighted Risk Score	Maximum Weighted Risk Score
	min	max					
1	0	10	3	20	10	-	-
2	]10	20]	6	20	10	-	-
3	]20	30]	9	20	10	-	-
4	]30	40]	12	20	10	-	-
5	]40	50]	15	20	10	-	-
6	> 50		18	20	10	-	-
7	*Otherwise*		20	20	10	-	-

Loan-to-Collateral Ratio

Preconditions:

Definition:

	Ratio of Loan to Collaterals Pledged (%)		Raw Risk Score	Maximum Risk Score	Risk Score Weight	Actual Weighted Risk Score	Maximum Weighted Risk Score
	min	max					
1	0	20	5	30	15	-	-
2	]20	40]	10	30	15	-	-
3	]40	60]	15	30	15	-	-
4	]60	80]	20	30	15	-	-
5	> 80		25	30	15	-	-
6	*Otherwise*		30	30	15	-	-

Customer Success Spans Industries and Applications

Retail

Financial

Transportation

Government

Manufacturing

Healthcare

- Underwriting
- Customer Acquisition
- Customer Retention
- Identity Theft
- Fraud Detection / Claims
- Regulatory Compliance
- Customer Service
- Marketing/Sales Interactions
- And More…

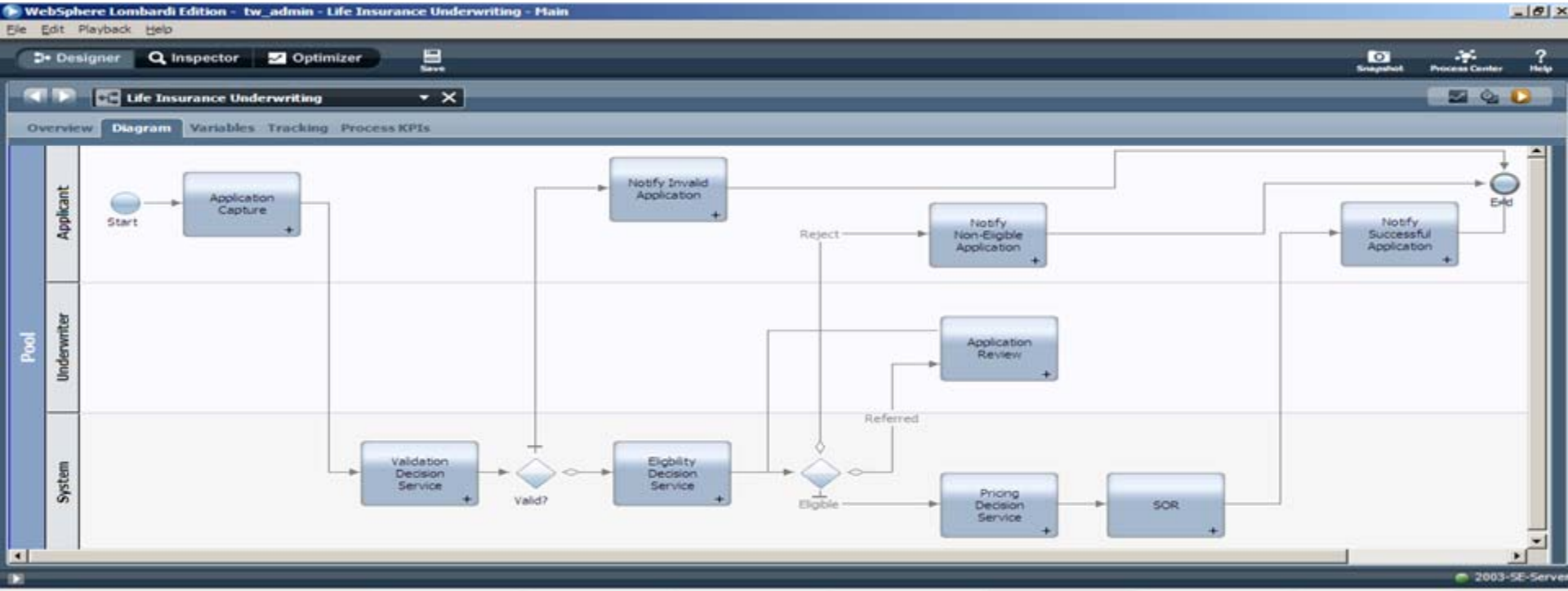
Insurance

- Sense and respond
- Detect complex patterns over time
- Detect patterns that do NOT occur
- Processing logic changes frequently
- Time-to-deployment is critical
- LOB maintaining logic is desired

Telecom

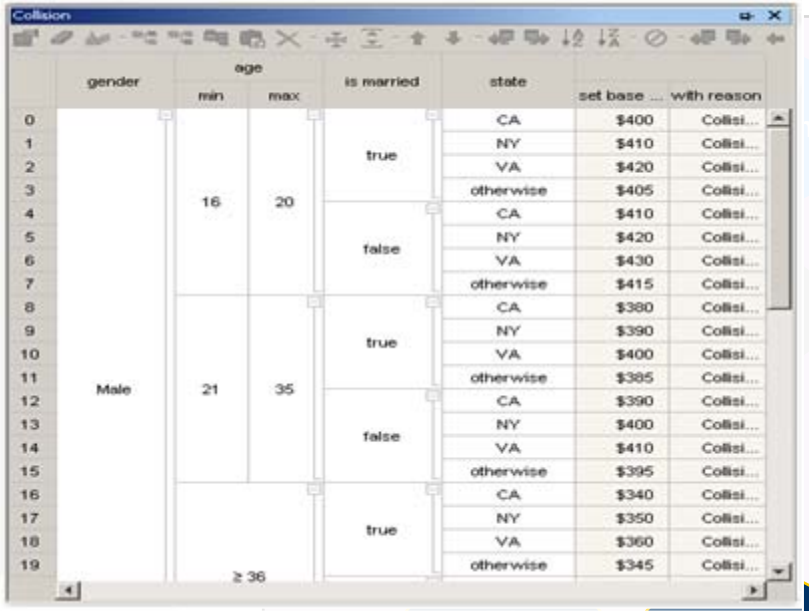
Utilities

Agility in Life Insurance Underwriting Business Process



Scenario : Auto Pricing Template

Example: Automated Pricing



Rate sheet sample

Rate adjustment sample

If

the driver of the car insurance request state of residence is : CA
and the driver of the car insurance request has completed a driver's ed course

Then

give the quote item a : 11 % [±] discount on the base price with reason :
Educated driver discount

Pricing (Payment Plans Fees)

Rate Adjustments

Base Pricing (Rate Sheets)

BRMS-based Decisioning Service

IF Insurance Streamlines Claims Process

Increases productivity and responsiveness with BPM and BRMS

Challenge:

- Claims process was too long, resulting in lost productivity and poor customer satisfaction
- Increase efficiency by streamlining claims processes

Benefits:

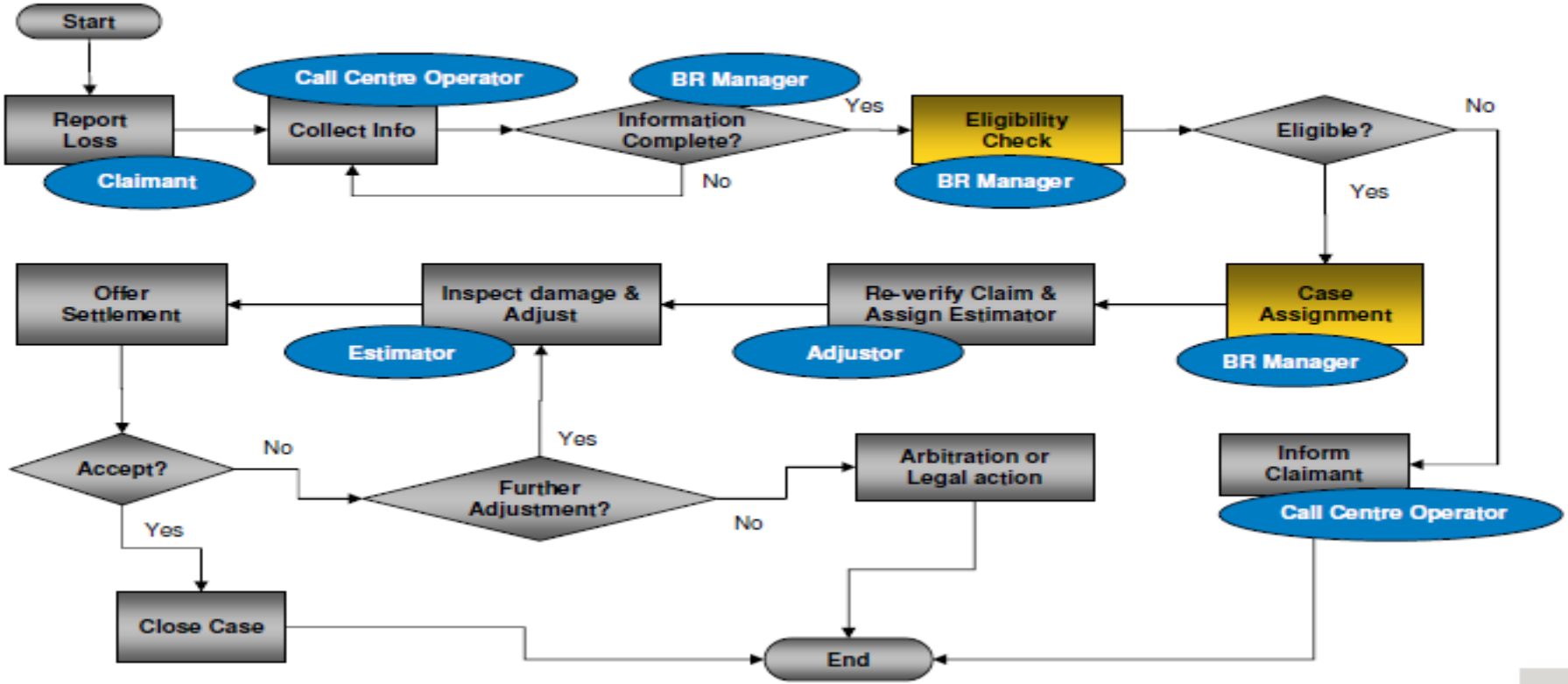
- Decreased the cost of claims
- Increased of customer satisfaction through faster turnaround
- Substantial savings of employee work
- 3 out of 5 private claims are settled in the same day they are received***!***

BPM and Decision Management Solution

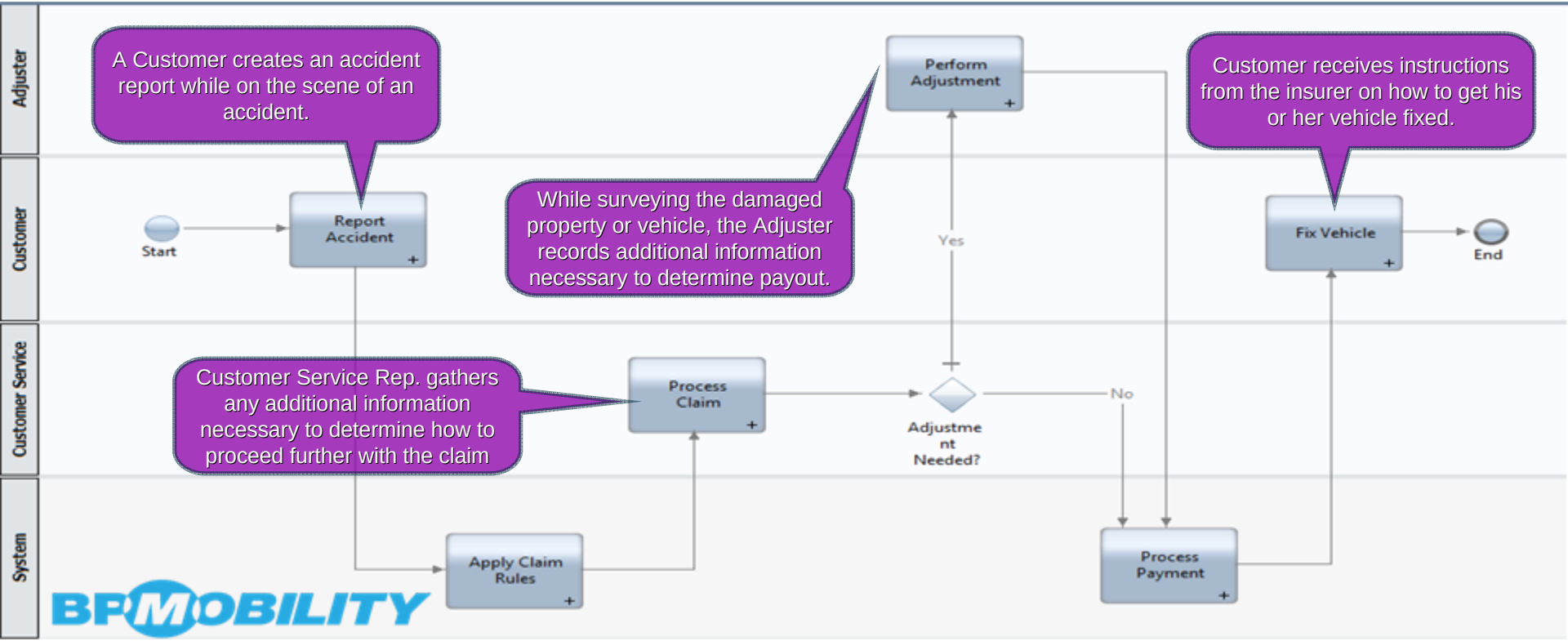
- *The automated claims processes are expected to increase revenue by between SEK85 million and SEK100 million each year.*
- *More responsive to business and market changes, improving internal communication and productivity.*

The SOA approach will enable it to reduce time to market for new processes and realize an easy migration to other base systems.

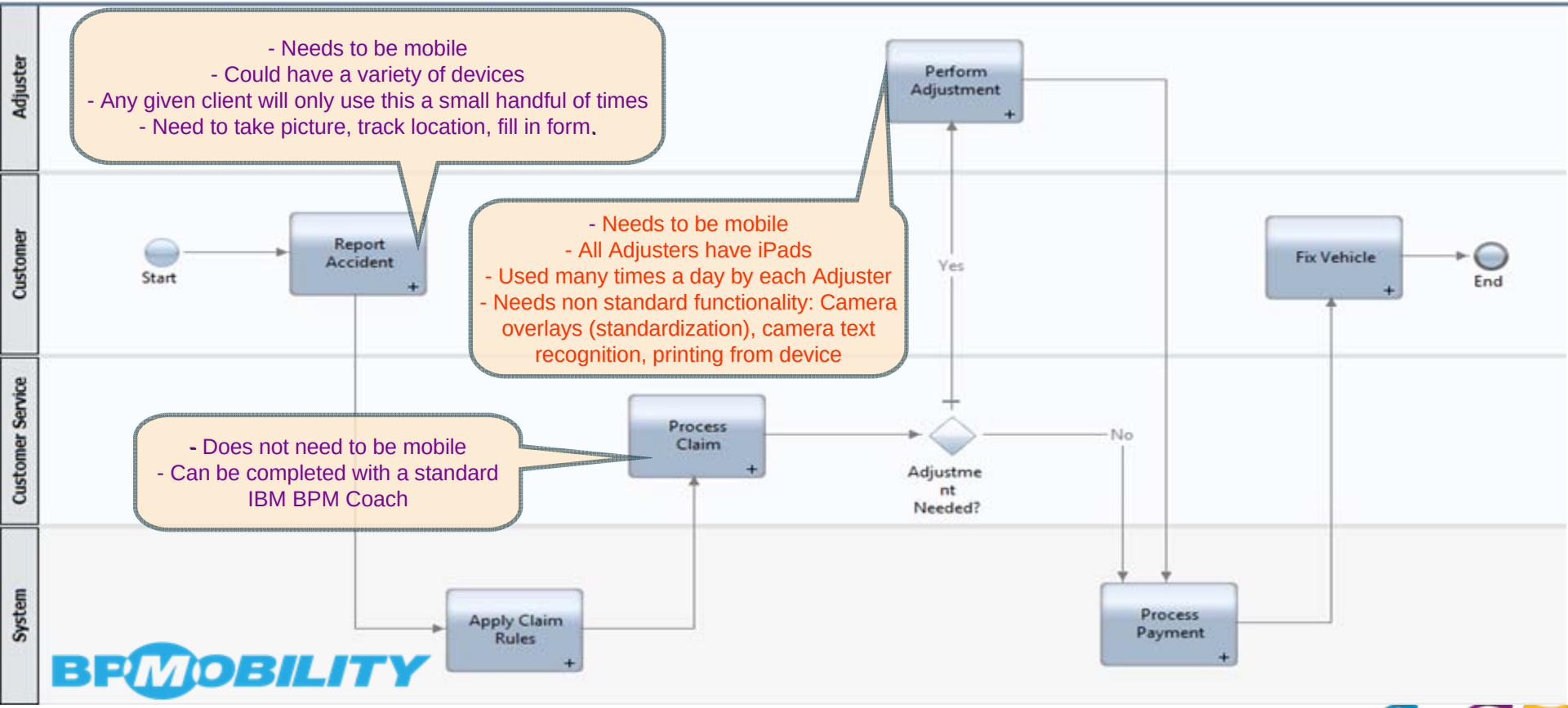
Insurance Claim Case Assignment



Insurance Claims *Overview*



Insurance Claims *Key Considerations*

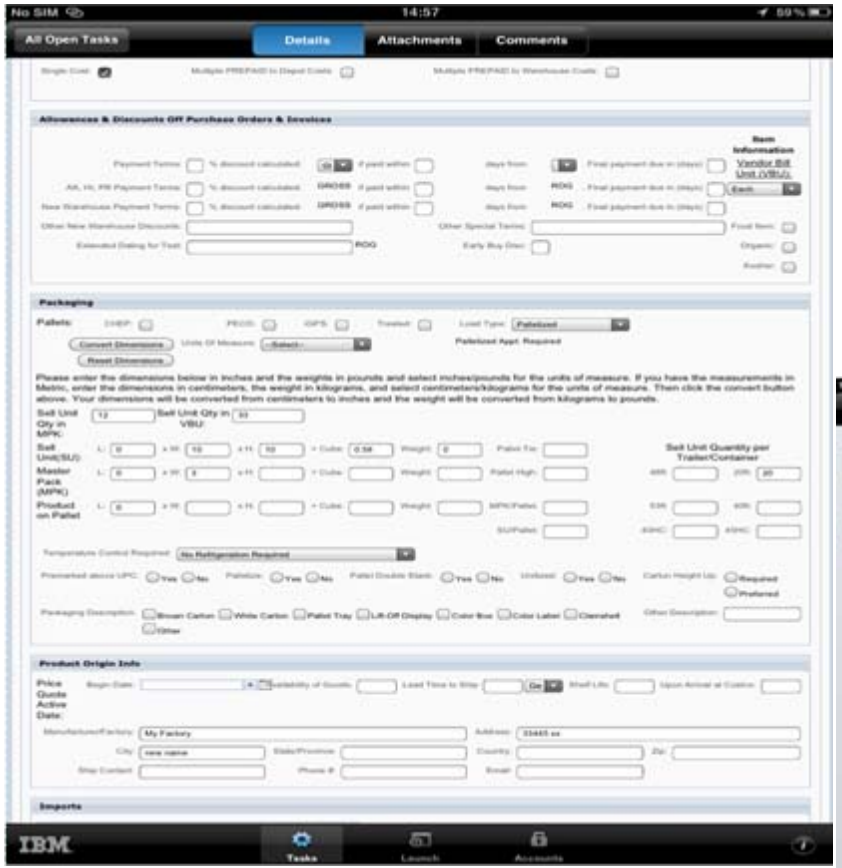


IBM BPM for Mobile : Insurance Claims

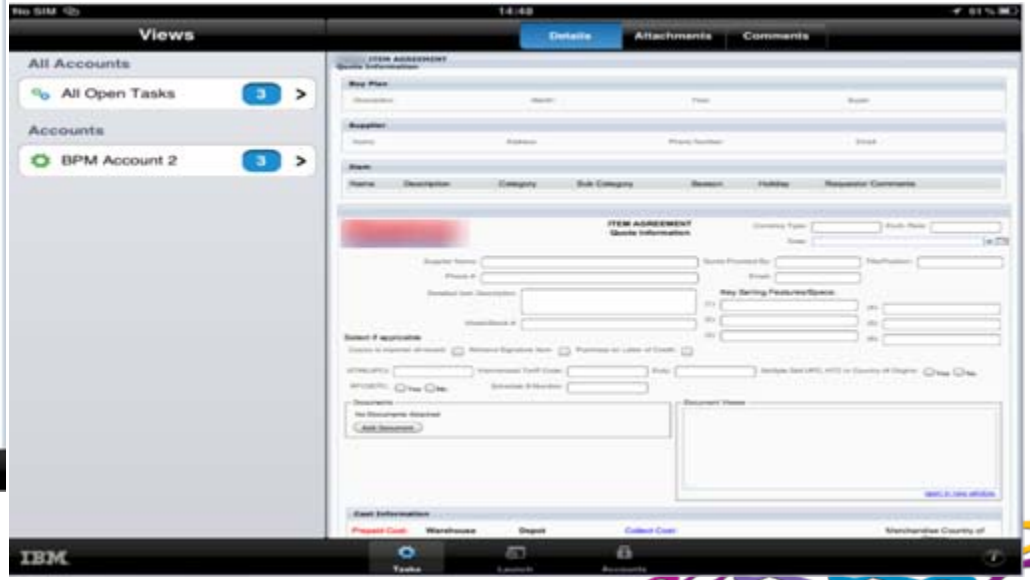
IBM BPM for Mobile : Insurance Claims

IBM BPM for Mobile : Insurance Claims

IBM BPM for Mobile : Insurance Claims



- Full orientation support
- Pan and zoom gesture support
- Add documents or comments without losing coach context



Business Rules for Claims Processing

- Claims Eligibility
- Fraud Score
- Claims Assignment

Eligibility rule

if

all of the following conditions are true :
- the number of accidents **the driver** was involved in is more than 1
- the vehicle type of **the vehicle** is **Sports/Performance Vehicle**
- **'the quote request'** is a single car policy
- the number of days **the previous policy** has lapsed is more than 30
- the number of years in current residence is at most 1 ,

then

n HRP-003" ;

	Policy Age (Days)	Claim Last 3yrs	Claim Amount min	Claim Amount max	Score
0	60	false	< 5,000		15
1			≥ 5,000		10
2		true	< 5,000		20
3			≥ 5,000		15
4	180	false	< 5,000		10
5			≥ 5,000		5
6		true	< 5,000		15
7			≥ 5,000		10
8	360	false	< 5,000		5
9			≥ 5,000		5
10			< 5,000		10

If

the fraud score of the claim is greater than : 50 [±]

Then

send the claim for investigation; reason: : Fraud scored exceeded maximum allowed.

Else

assign the claim for processing

Sample Applications

Banking

- Loan origination
- Credit decisioning
- Marketing campaign management
- Payments
- Accounting
- Alerts & notifications
- Fraud detection
- Money laundering
- Regulatory compliance

Insurance

- Claims processing
- Underwriting
- Quoting
- Rating
- Commissioning
- Cross-sell and up-sell
- Fraud detection and management
- Multi channel marketing

Public Sector

- Claims processing
- Benefit eligibility and entitlement
- Fraud detection and management
- Screening and targeting
- Infrastructure monitoring
- Border security
- Tax filing
- Collection management

Health Care

- Claims fraud detection
- Patient readmission reduction
- Treatment protocol compliance
- Bedside monitoring
- Therapy delivery management
- Eligibility determination
- Fee calculation

Telecom

- Offer configuration
- Order management
- Fraud detection and management
- Loyalty programs
- Network monitoring
- Real-time marketing
- Revenue management
- Real-time mobile user campaign management
- Usage analysis
- Fault diagnosis
- Intelligent call routing

Transportation

- Promotions management
- Loyalty programs
- Customer service
- Billing
- Contract management
- Real-time service crew scheduling
- Real-time location awareness
- Improved customer service
- Regulatory compliance

Retail

- Campaign management
- Order management
- Pricing
- Shopping cart abandonment
- Event-based marketing
- Marketing cross-sell/up-sell
- Loyalty program management

Manufacturing & Utilities

- Order management
- Billing
- Contract management
- Warranty claims management
- Supply chain management
- Production management
- Waste reduction
- Warranty claims management
- Equipment failure detection
- Outage

Athletes Performance

Visa Europe

Texas Education Agency

Premier Healthcare

Horizon Healthcare

VKB

WorkSafe Victoria

Al Hilal Bank

Visit the Decision Management YouTube Channel: http://www.youtube.com/user/ibmdecisionmgmt

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