

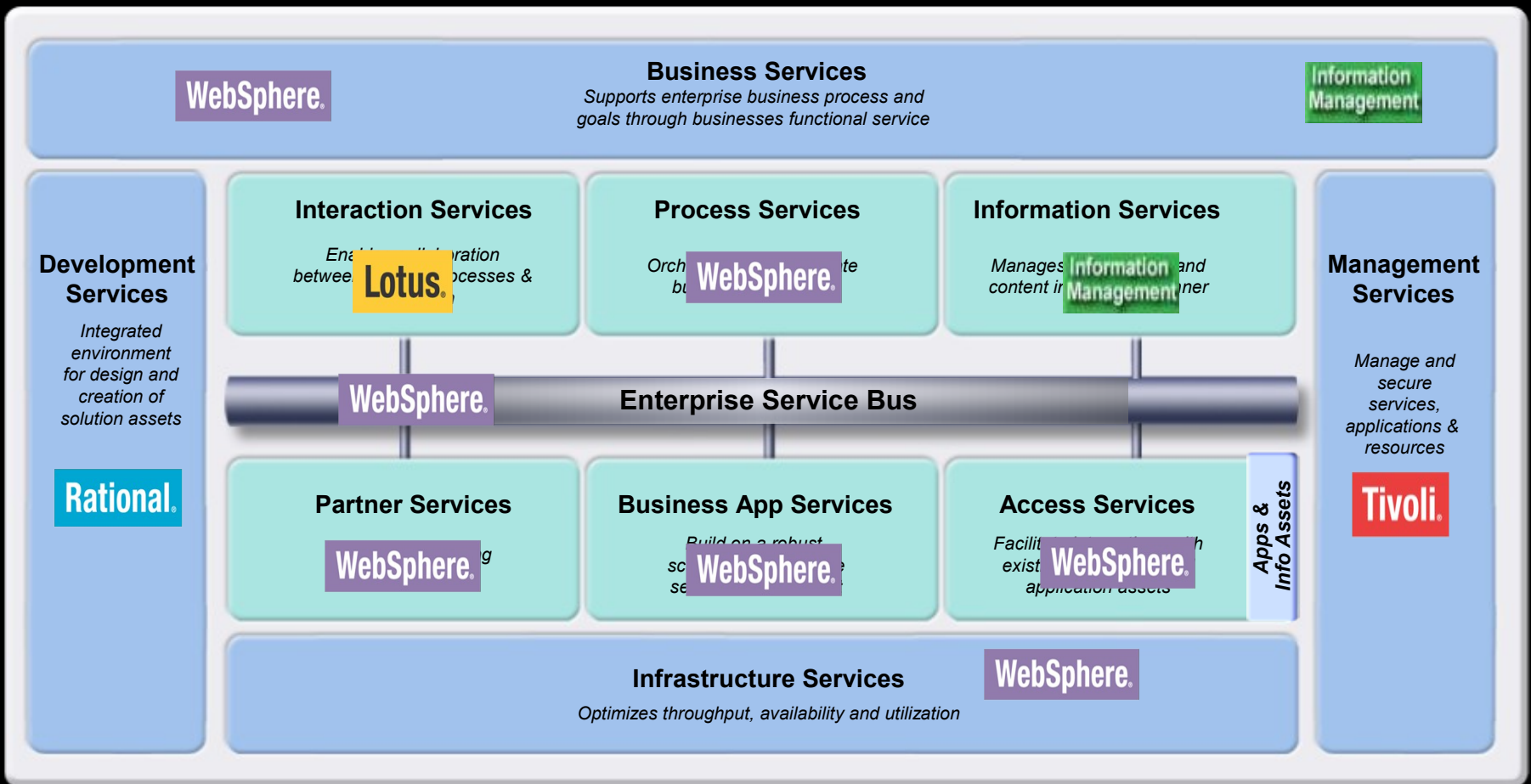
A satellite view of Earth from space, showing the curvature of the planet, blue oceans, and white clouds. The image is used as a background for the slide.

The POWER 3: JRules (ILOG), Business Event Process and Business Process Management

**Andrew Howarth
Jason Browne
Richard Brown
WebSphere & ILOG
3rd March 2009**



WebSphere the backbone of your SOA Platform: The Broadest and Deepest Portfolio



Supported by market leading professional services and hardware infrastructure



Business Drivers : Agility

Control, Visibility, Transparency

Process Management focused on efficiency is now not enough

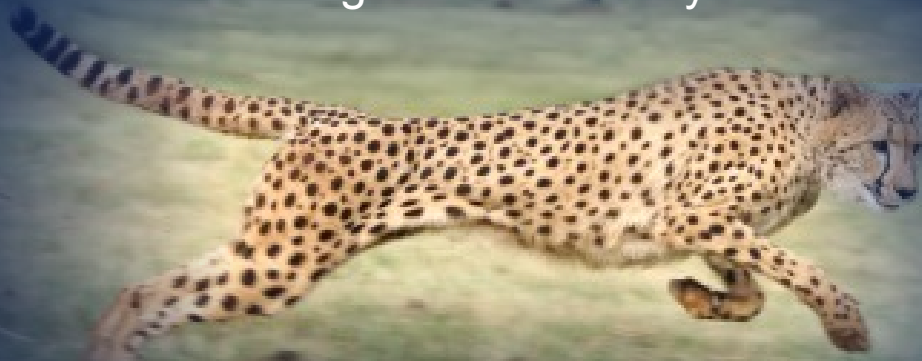
Operational excellence requires process agility, that is the ability of a business to change its operations and adapt to continuous change



Position for Success, Not Just Survival

The Cheetah

Fastest Animal - 113 kph
Low genetic variability

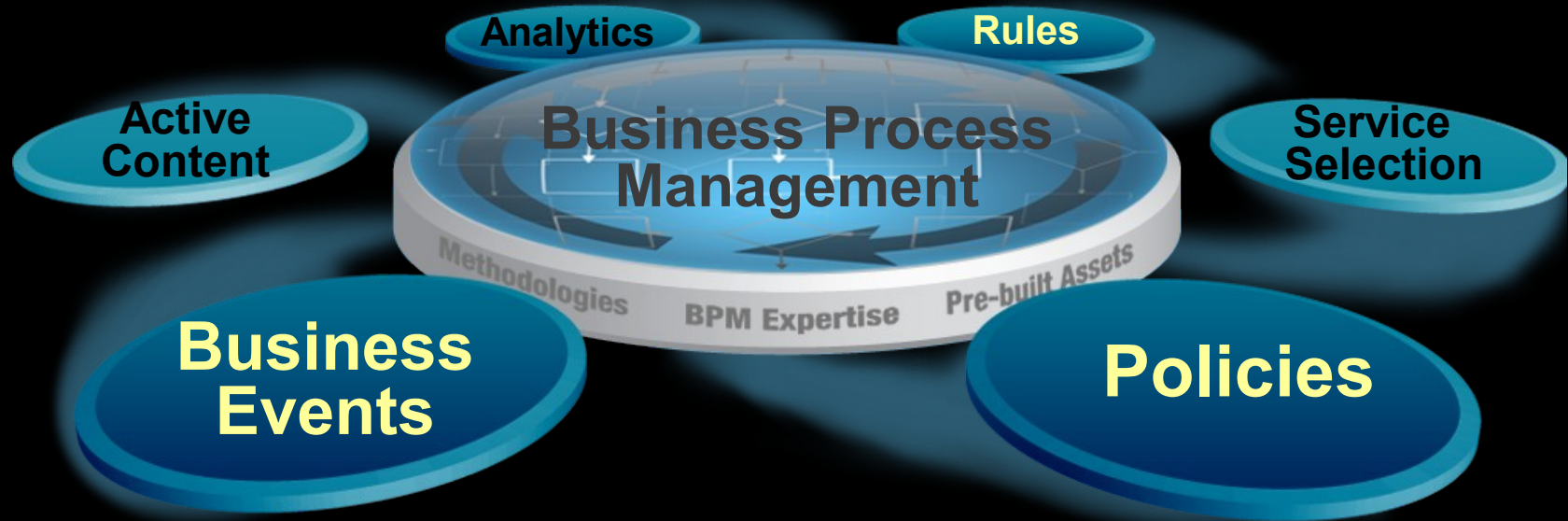


Cheetah population has decreased
to 76% of their historic range in Africa

Agility

Cost Optimization

Processes respond faster to changing needs when supported by Agility Enablers



IBM's BPM Suite is unique in enabling all ***Six Agility Enablers***

Organisations leverage points of agility for greater control

Business Logic

Adoption Patterns

Business Rules



Business decision in real time give flexibility

Business Events



Transforms insight into action, business visibility and transparency

Business Services



Adapt and Respond Dynamically, policy flexibility

Use Policies and Rules to Make Process Changes without IT Rework

- Reduce the time and cost of change
- Increase revenue and lower costs

Analytics

Sales goals
are at risk



Rules

Modify product
offerings

Policies

Change in-flight
sales promotions

“Close the gap”
between changes
and the time and
cost it takes to
implement them

***Direct Deploy
Now***

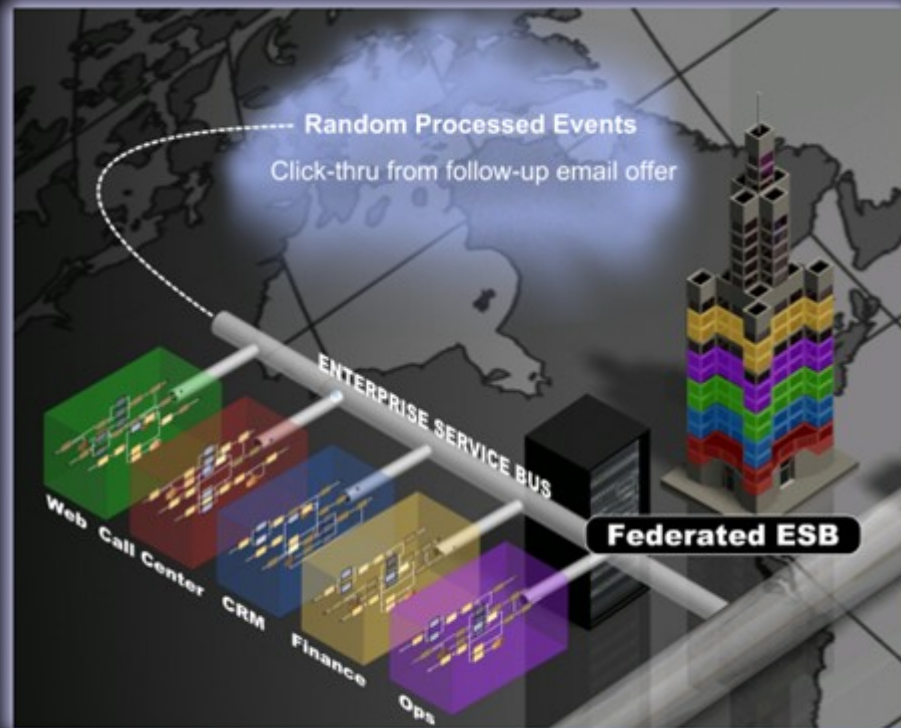


What's
New?

*WebSphere Business Services Fabric &
ILOG Business Rules Management*

Capture Actionable Insights from Business Events

Business Event Processing



- Leverage insights for smarter decisions
- Quickly react to threats and opportunities
- Reduce costly exceptions

What's
New?

WebSphere Business Events

18% of Insurance Payments go to Fraudulent Claims

Jason Browne

Process Management focused on efficiency is now not enough

Operational excellence requires process agility, that is the ability of a business to change its operations and adapt to continuous change



ILOG Lines of Business

Expanded Value for IBM clients

Powerful Business Rule Management System

Adapt and respond dynamically, automating process-based decisions with business rule management



Advanced Suite of Optimization Tools

Produce the best possible action plans & schedules, enhancing abilities to explore alternatives, understand trade-offs, and respond to changes in business operations

Efficient Supply Chain Management

Optimize supply chains, design & planning tools for improved efficiency and productivity

Innovative Visualization Tools

Transform insight into action, enhancing collaboration for smarter role-based business decisions



Business Rules are Everywhere

Government

E-government
 Pension / Benefit eligibility
 Homeland Security
 Border control – Profiling and risk assessment

Telecom

Revenue assurance
 CRM and Billing
 Network and Service Management
 Storage Management
 Media Management

Banking

Loan origination, underwriting and servicing
 Credit decisioning
 Campaign management
 Fraud prevention, detection and reporting
 Payments validation, routing, pricing

Capital Markets

Asset management
 Automated trading and pricing
 Crossing (trade matching)
 Trade order management
 Compliance (AML, SEC, Basel II, SOX)
 Reconciliation and settlement

Insurance

Underwriting
 Claims Processing
 Rating / Billing
 E-insurance
 Product Recommendation
 Compliance
 Endorsements

Retail

Pricing/Revenue Management
 Promotions and Loyalty Programs
 Commissioning systems



Business change drives IT agility

Decisions used in operations = “business rules”

Where Business Rules Exist

```
#ifdef __WIN__
/*
 Before performing any socket operation (like retrieving hostname
 in init_common_variables we have to call WSASStartup
 */
{
 WSADATA WsaData;
 IF (SOCKET_ERROR == WSASStartup (0x0101, &WsaData))
 /* errors are not read yet, so we use english text here */
 my_message(ER_WSAS_FAILED, "WSASStartup failed", MYF(0));
 unreag_abort(1);
 }
}
#endif /* __WIN__ */

if (init_common_variables(MYSQL_CONFIG_NAME,
                        argc, argv, load_default_groups))
 unreag_abort(1); // WTI1 do exit

init_signals();
if (!opt_specialflag & SPECIAL_NO_PRIOR)
 my_thread_setprio(pthread_self(), CONNECT_PRIOR);
```

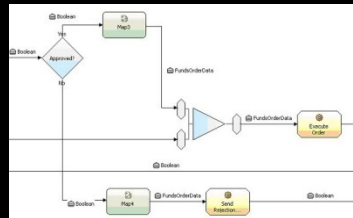
Applications



Documents



People



Processes

Issues

- **Rules are hidden in code or isolated within the organization**
- **Changes are hard to track and maintain over time**
- **Rules used by systems have to be programmed and require IT resources**
- **Duplication and multiple versions of the same rules**
- **Lack of auditability, traceability**
- **Decision changes cannot be easily tested or simulated**

The Smarter Approach: Facilitating Change with BRMS

Where Business Rules Exist


```

#Ifdef __WIN__
/*
Before performing any socket operation (like retrieving hostname
in init_common_variables we have to call WSASStartup
*/
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WSADATA WsaData;
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if (init_common_variables(MYSQL_CONFIG_NAME,
                        argc, argv, Toad_default_groups))
unireg_abort(1); // Will do exit

init_signals();
if ((opt_specialiflag & SPECIAL_NO_PRIOR))
my_thread_setprio(pthread_self(),CONNECT_PRIOR);
                
```

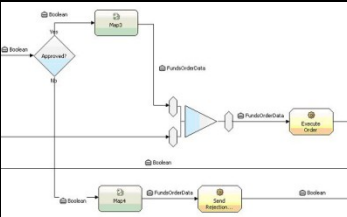
Applications



Documents




People

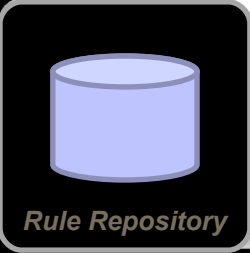


Processes

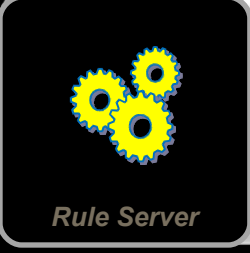
Business Rule Management System



*Rules are
Defined,
Analyzed
and
Maintained*



*Rules are
Managed
and
Stored*



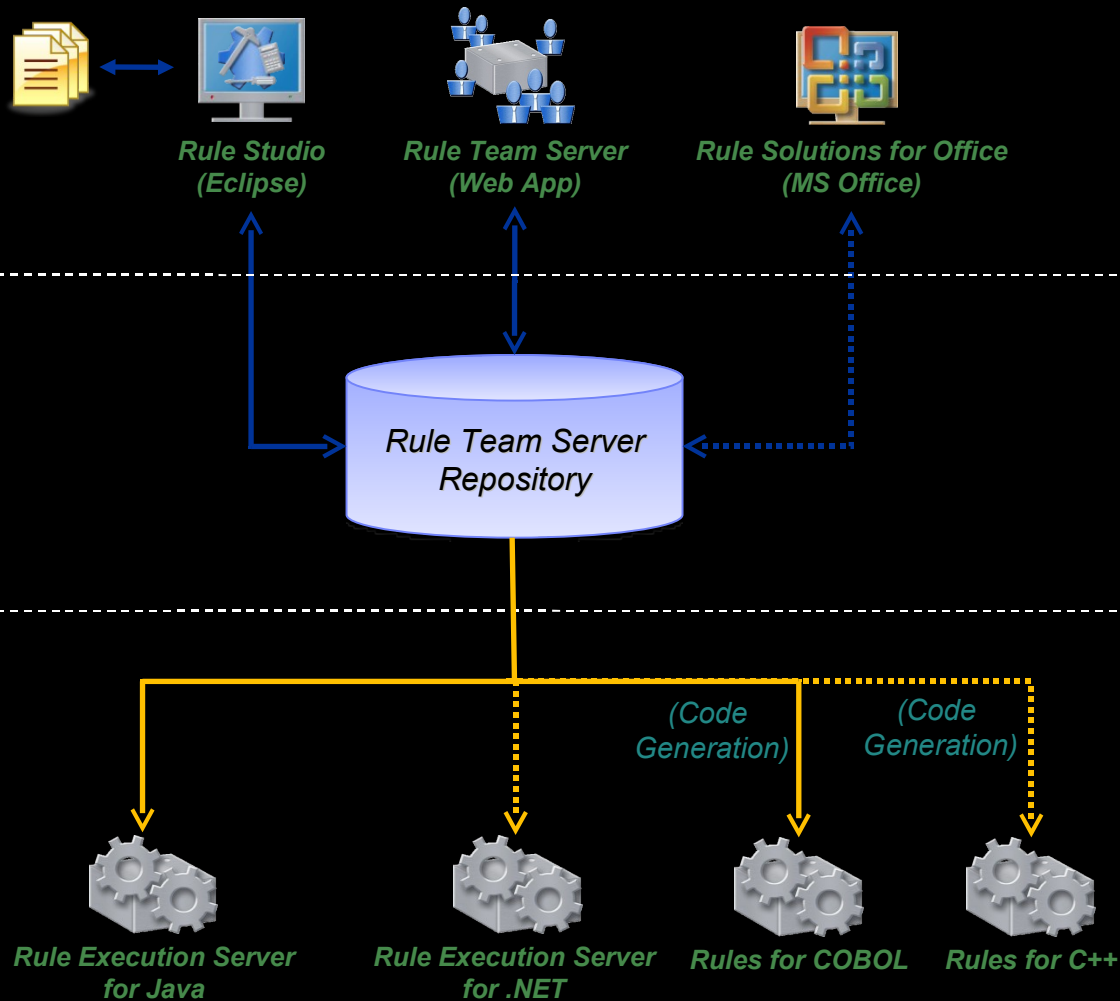
*Rules are
Deployed,
Executed
and
Monitored*

```

if
all of the following conditions are true :
    - the age of the driver is between 18 and 21
    - the number of accidents the driver has been involved is at least 1
    - the number of traffic tickets the driver has received is at least 1

then
add a $ 8 surcharge to 'Auto Quote Response' , reason: "Young driver surcharge" ;
                
```


JRules Key Technologies



Rule language technology

- Business vocabulary and syntax
- Multi-locale
- Generic, multi-platform and modular

Rule repository technology

- Robust and secure
- Collaborative
- Governance support: meta-data, permissions, versioning, queries, etc.

Rule execution technology

- Platform-neutral
- Fast
- Standard based
- Fully managed

Hiscox: Underwriting (Specialty Lines)

Situation

- Unable to meet speed to market objectives and deliver new products faster
- Underwriters specifying products in Excel which was then translated into code by IT leading to misinterpretation and overall lengthy deployment process across channels
- Unable to accurately assess risk and subsequently assign the right rate consistently

Goals

- Improve speed to market, transparency and consistency
- Empower business analysts with the ability to test, create and maintain rules across product lines and channels

Solution

- ILOG BRMS used to drive dynamic questionnaire (determine what questions to ask applicants based on profile), risk assessment, rating and referrals, endorsements (clauses that need to be added to policy)

Benefits

- Introduce new products in 4 weeks versus over 6 months
- Proactively segment unacceptable business and improve pass-through-rate
- Deliver quotes and underwrite policies in real-time
- Perform 'what if' scenarios to drive a profitable book of business



Grupo Santander (ISBAN)

Decisioning platform for SOA

Situation

- Grupo Santander is the 10th global largest financial institution by market capitalization
- Operates in 40 countries with different regulatory frameworks, 130000 employees, 60 M customers
- Business strategy: customer focus
- Efficiency ratio around 43% in 2006, one of the best industry ratios WW
- Industrialization of banking operations separating back-office processing operations and distribution operations
 - Huge economies of scale thanks to a “flat” back-office paradigm
 - IT management for cost efficiency

Goals

- Have a single core banking platform across all banks of the group to standardize processes and create product factories, i.e. back-office systems able to process the products for various distribution channels - under different brands – or for different packages
- Define a reference architecture model to be reused across projects, select the best-of-breed stack of software to support a “customer-focused end-to-end business process oriented organization”
- BRMS to maximize
 - Adaptability of platform across all banks to changes in regulations and market conditions
 - Reusability of rule-based decision services

Solution

- Integration of ILOG JRules in their SOA infrastructure (BANKSPHERE)
- ISBAN and ILOG PS adapting ISBAN methodology to business rules lifecycle management:
 - Standardization of development processes and documents
- First decision service (now in production): customer document management to determine which forms should be filled by customers for any type of interaction with a bank of the group

Benefits

- Improve IT strategic focuses:
 - Time-to-market
 - Flexibility
 - Software quality
- Exploit opportunities to further improve cost efficiency



Success At Department of Work & Pensions

Situation

- Complex decisions, large transactional volume, significant operational overhead
- Regulatory compliance and cost of maintenance of business logic

Goals

- Build a customer-centric IT infrastructure
- Improve business rule management across the enterprise
- Streamline assessment and payment of a range of social benefits for over £96 billion.

Solution

- JRules solution servicing five key areas: Entitlement determination, Inheritance & Conversion, Hospitalisation, over & under payments ...
- Integrated with existing infrastructure (Siebel, WAS...)

Benefits

- Centralized business rule management
- Accelerated regulatory compliance
- Operational efficiency and costs savings
- Standards Based



Thames Water: Automating Conveyancing Services

Situation

- The company needed to reduce costs, provide faster, more reliable service, and be able to implement new policies and regulations quickly

Goals

- Streamline the processing of 250,000 conveyancing requests every year
- Overall improve Thames Water data and maps, increase revenue and deliver better service

Solution

- The 'Asset Data Services Decision Making Engine' BRMS based system enables the utility to centrally process data
- Centralized business rules used to implement decisions, and policy managers able to update the rules directly through an easy-to-use interface.

Benefits

- Expected savings of more than £3 million (US\$5.4 million) from automating the service's manual processes and reassigning the 30 employees once responsible for implementing the processes.
- Expected additional income of £1.4 million (US\$2.52 million) over the next five years from detecting and properly charging unbilled properties
- Real-time compliance with policies and regulations
- Faster customer service through halved response time (two days instead of four)
- More accurate and reliable information given to customers through consistent application of policies and regulations



JRules BRMS



Intuitive Rule Authoring

Business Action Language Rule

The screenshot displays the ILOG Rule Team Server interface. The top navigation bar includes the ILOG logo, the text "ILOG Rule Team Server", and a user profile "rtsAdmin Sign Out". Below this is a secondary navigation bar with tabs for "Home", "Explore", "Query", "Compose" (selected), "Configure", "Admin", and "COBOL". On the right of this bar are links for "Options | About | Print View | Help".

The main content area is titled "Compose" and shows the rule name "Loan Rules - Decline High LTVs (Action Rule)". A left-hand sidebar lists six steps: "Step 1: Properties", "Step 2: Content" (highlighted), "Step 3: Tags", "Step 4: Override Rules", "Step 5: Documentation", and "Step 6: Version Information".

The "Content" section of the rule is displayed as follows:

```
[definitions]
if
  the LTV of the loan [±] is at least ▼ 0.85 [±] ✘
  and the age of the customer [±] is less than ▼ 21 [±] ✘
  and the employment status of the customer is Part Time ✘
then
  set the decision to: Decline because: ▼
  LTV of 85% or more is not allowed for young Self Employed category. [±] ✘
[else]
```

At the bottom right of the interface, there are four buttons: "Cancel", "Previous", "Next", and "Finish".

Intuitive Rule Authoring

The screenshot shows the ILOG Rule Team Server web interface in a Windows Internet Explorer browser. The browser address bar shows the URL: `http://localhost:8080/teamserver/faces/compose/composeDecisionTable.jsp`. The page title is "ILOG Rule Team Server". The navigation menu includes "Home", "Explore", "Query", "Compose", "Configure", "Admin", and "COBOL". The "Compose" step is selected, and the sub-page is titled "Loan Rules - LTV Margin (Decision Table)".

The left sidebar shows a sequence of steps: Step 1: Properties, Step 2: Table (selected), Step 3: Tags, Step 4: Override Rules, Step 5: Documentation, and Step 6: Version Information.

The main content area is titled "Table" and contains a "Decision Table" editor. The editor shows the following action: "Action: add a Margin of value: 0.1 [±] with Reason: LTV between 51 and 60% [±]". Below the editor is a table with 4 columns: "LTV Range" (with sub-columns "<min>" and "<max>"), "Cost", and "Add Margin" (with sub-column "Reason").

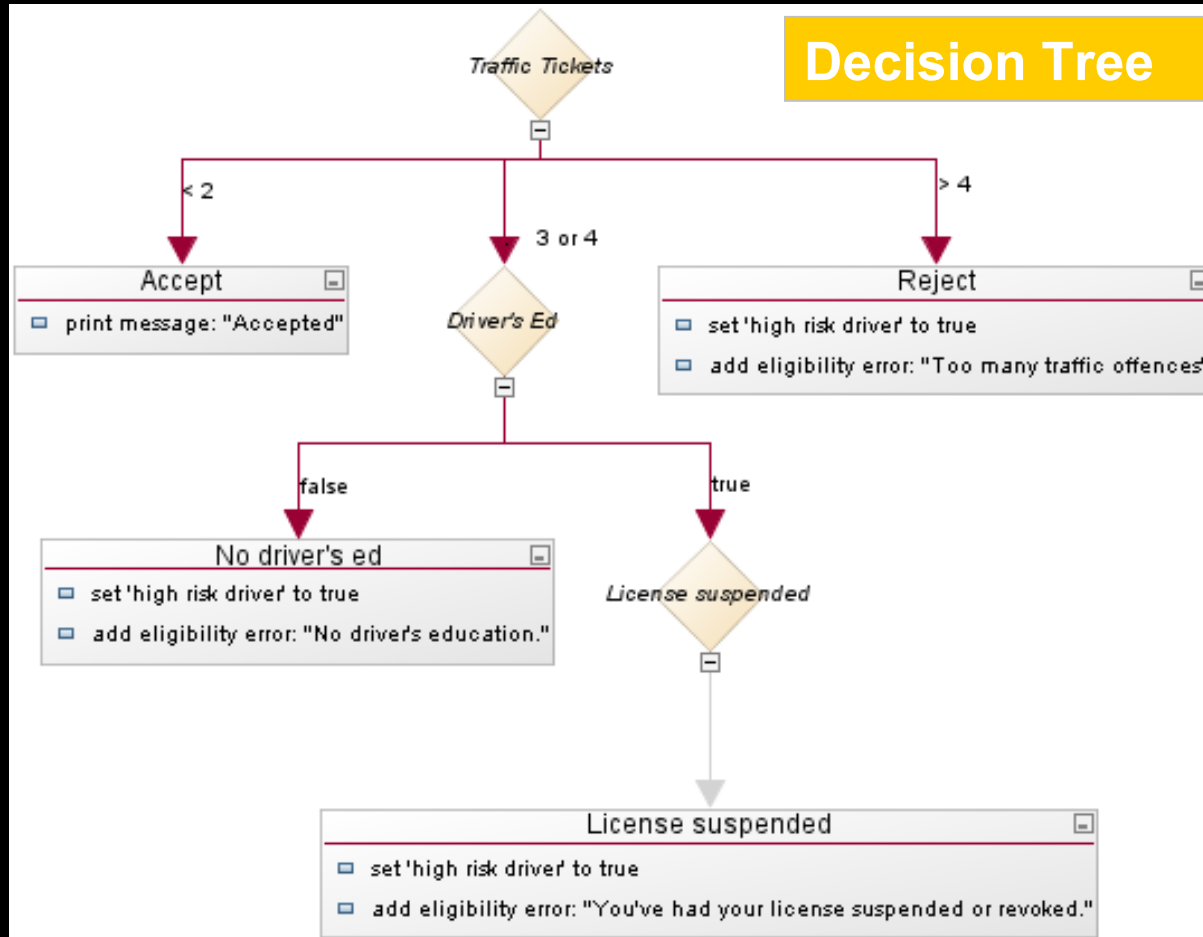
	LTV Range		Add Margin	
	<min>	<max>	Cost	Reason
0	0.1	0.5	0	LTV between 10 and 50%
1	0.5	0.6	0.1	LTV between 51 and 60%
2	0.6	0.85	0.2	LTV between 61 and 85%
3	0.85	0.95	0.5	LTV between 86 and 95%

At the bottom of the table editor, there are buttons for "Cancel", "Previous", "Next", and "Finish". The status bar at the bottom of the browser shows "Local intranet" and "100%" zoom.



Intuitive Rule Authoring

Express rules as originally intended through intuitive graphical rule editors



Intuitive Rule Authoring

Ease of development and management with the Scorecard Wizard

The screenshot shows the Eclipse IDE interface for the 'Rule - RiskScorecard' project. The main editor displays a 'Scorecards' table with the following data:

Attribute	Range	Score	Reason Code
Base Score		0	
age	< 18	15	
	18 ≤ age < 26	30	
	26 ≤ age < 35	60	
citizenship	≥ 35	90	
	Citizen	50	
	Resident Alien	20	
	Non-Resident Alien	10	
creditGrade	AA	100	
	A	80	
	B	70	

The 'Scorecard Properties' dialog box is open, showing the 'Current Reason List' set to 'RiskReasons'. The list contains the following items:

Priority	Name	Code	Description
1	Low Age	Low Age	Low Age
2	Resident Alien	Resident Alien	Resident Alien
3	Poor Grade	Poor Grade	Poor Grade

Buttons for 'Add', 'Delete', 'Up', and 'Down' are visible on the right side of the dialog.

Coming soon in JRules 7 ...

Using Familiar tools for Rule maintenance MS Excel & Word

State	Age Min	Age Max	Accepted	Message
New York	≤ 20		False	The customer's age is below the minimum
	21	65	True	The customer is eligible to receive the offer
	≥ 66		False	The customer's age is past the maximum
New Hampshire	≤ 22		False	The customer's age is below the minimum
	23	69	True	The customer is eligible to receive the offer
	≥ 71		False	The customer's age is past the maximum
Rhode Island	≤ 20		False	The customer's age is below the minimum
	21	71	True	The customer is eligible to receive the offer
	≥ 71		False	The customer's age is past the maximum
Massachusetts	≤ 20		False	The customer's age is below the minimum
	21	89	True	The customer is eligible to receive the offer
	≥ 90		False	The customer's age is past the maximum

Default Special Offer: Pricing

Author: Beatrix Creation Date: 7/5/2007	Last Modification Author: Beatrix Last Modification Date: 8/1/2007
--	---

```

definitions
    set 'the percentage' to 10 ;
if
    the.rental.agreement qualifies for the "Default" offer
then
    set the rental agreement "Default" discount to 'the percentage' ;
    set the rental agreement "Default" price to the rental agreement "Base" price * ( 1 - 'the percentage' / 100 ) ;
    display the message: "The Default special offer corresponds to a 10% rebate on the Base offer price."
    
```

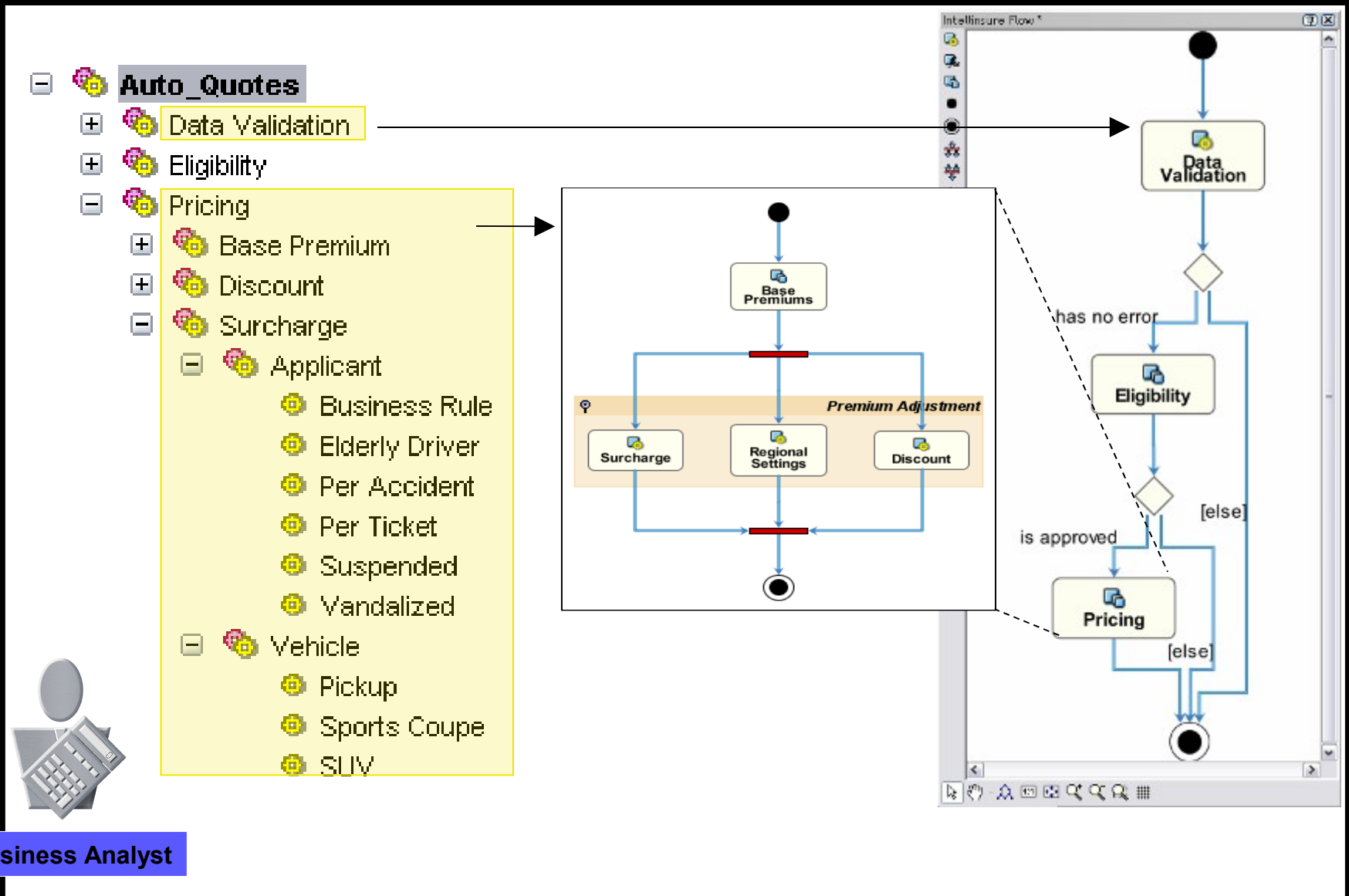
Documentation: This business rule defines the price of the Default special offer. The Default special offer corresponds to a 10% rebate on the Base offer price.



Long Term Special Offer

This section defines eligibility and pricing for the Long Term special offer.

Visual decisioning process

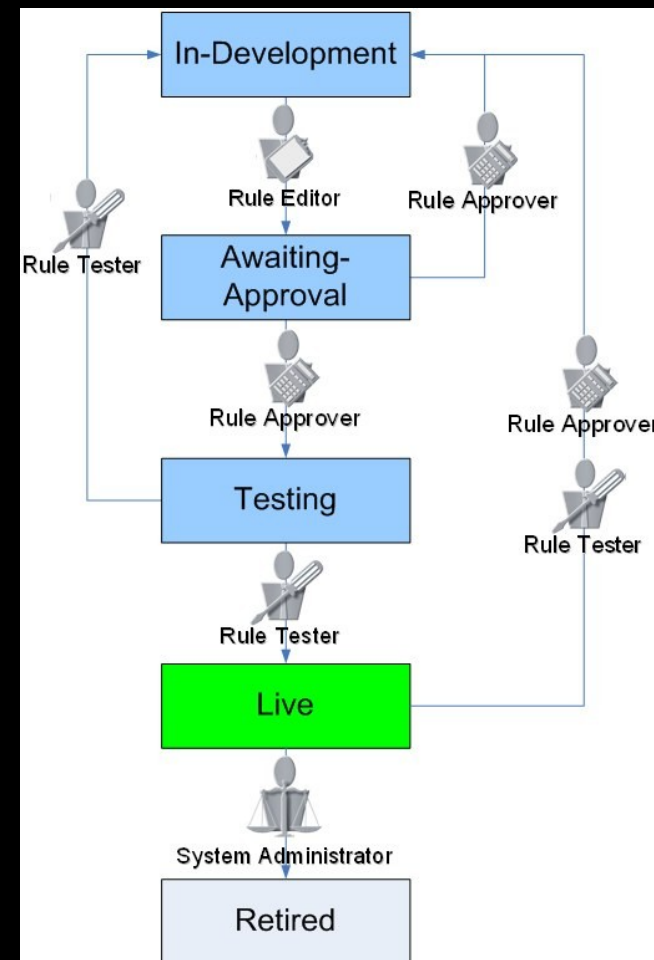


Security and Rule Governance

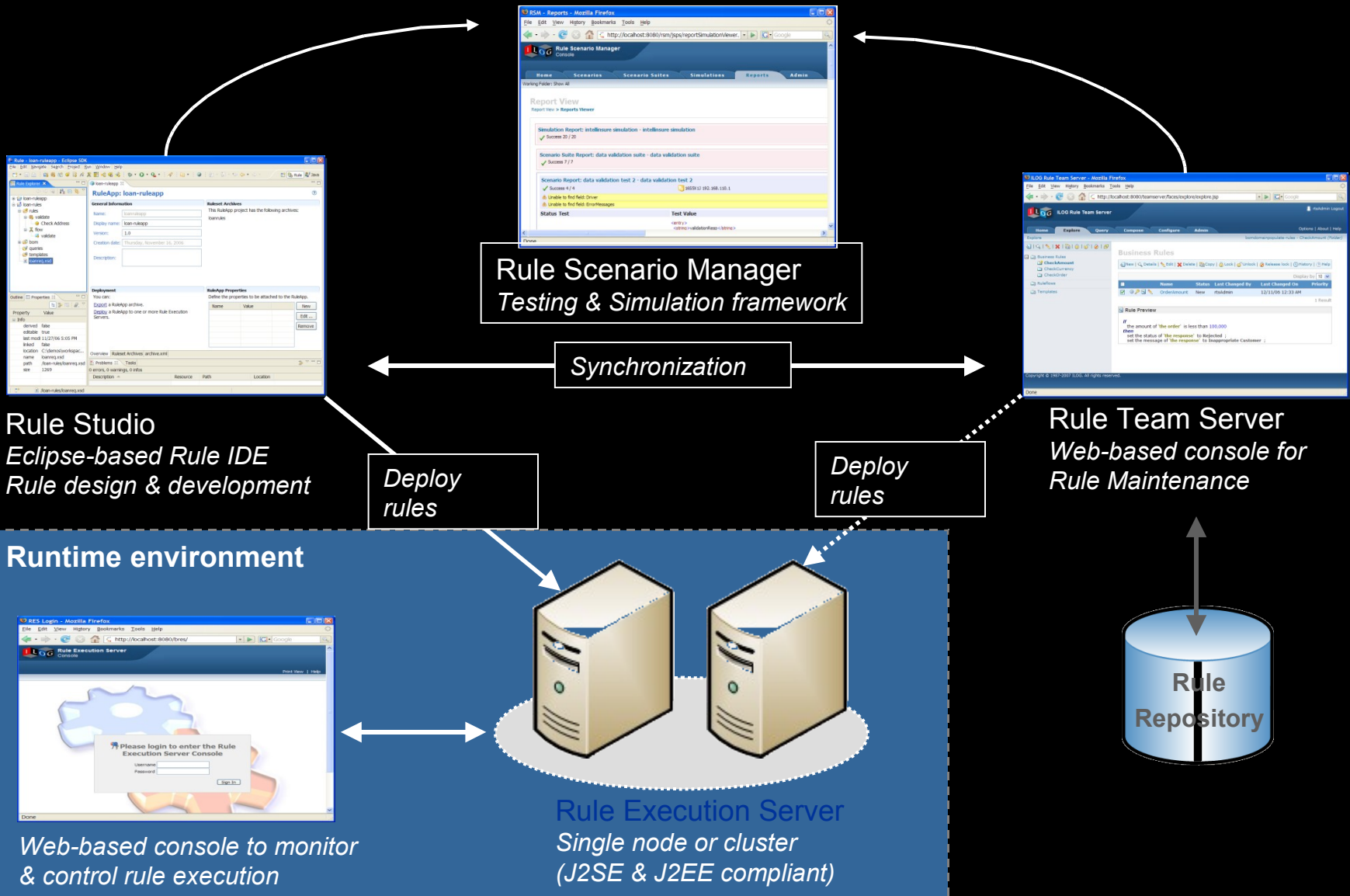
- Authentication, Authorisation & Security
 - Fine-grained permission management

<input type="checkbox"/>	PERMISSION	TYPE	PROPERTY	VALUE
<input type="checkbox"/>	▲ ▼ Create	Action Rule	-	Yes
<input type="checkbox"/>	▲ ▼ Create	Smart View	-	Yes
<input type="checkbox"/>	▲ ▼ Create	Folder	-	Yes
<input type="checkbox"/>	▲ ▼ View	Action Rule	-	Yes
<input type="checkbox"/>	▲ ▼ Update	Action Rule	*	Group
<input type="checkbox"/>	▲ ▼ Update	Action Rule	Status	No

- Rule Execution Server (RES) utilizes J2EE-standard role based security
- Utilise any role/permission service via API (LDAP, RDBMS...)
- Rule life cycle
 - Control rule validation & promotion to the live environment
 - Tailored to fit your process



ILOG JRules Solution Lifecycle



Business Rules Key Benefits

- Agility – faster time to market
 - Business users, as well as IT, gain control over tactics and strategies that impact products and customers
 - Business policy changes can be deployed instantly
 - Rules reuse
- Transparency and control
 - Prove Regulatory Compliance
 - Rules clearly describe associated policies
 - Audit trail of exactly who changes were made to the rules and when
 - Runtime trace of what rules fired and why
- Cost reduction
 - Business analysts can directly create/update rules
 - More efficient user interface for maintaining policy
 - Cost reductions especially dramatic during maintenance

Business Drivers : Business Events

Empowering the Business to Sense and Respond

Richard Brown

Process Management focused on efficiency is now not enough

Operational excellence requires process agility, that is the ability of a business to change its operations and adapt to continuous change



Goal: Sense and Respond to Actionable Situations at the Right Time

Mitigate Risk and Identify Opportunities



Through earlier and more intelligent insight

Greater Agility



Real-time Discovery and Response to Actionable Situations

Solution: Business Event Processing

What is...

...a Business Event?

Any electronic signal (message) indicating a change in the state of the business has occurred

...Business Event Processing?

The ability to sense when an event or event pattern has occurred (or not occurred) – indicating an actionable business situation – and to coordinate the right response (action) at the right time.

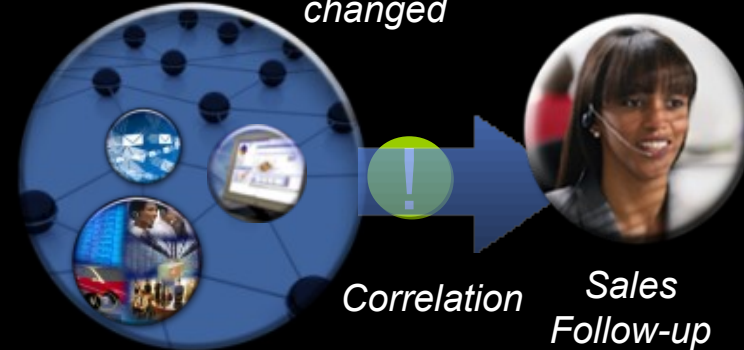
A call to the help desk



A sale is made

A New Location is Detected

A PIN is changed



Correlation

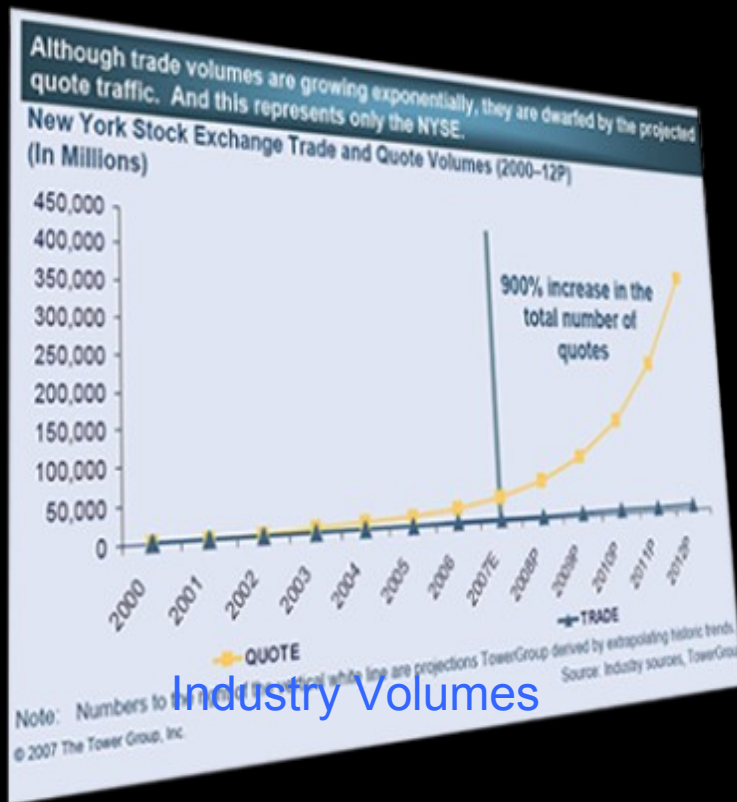
Sales Follow-up

Multiple Product Inquiries

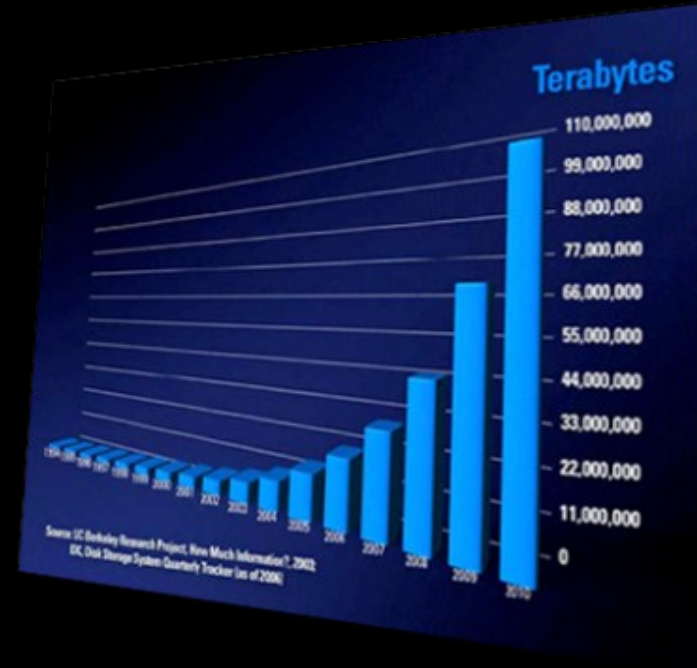
“Events...pass silently back and forth...as unrelated pieces of communication. They are a source of great power, for when they are correlated, they yield a wealth of information.”

-Dr. David Luckham, Professor Emeritus, Stanford University

An Explosion in Event Volumes is Occurring, Driving the Need for Increased Insight and Response



Industry Volumes



Total Data World Wide

60% of CEO's say they want to better leverage information

Successful Companies Sense and Respond to Opportunities and Risks

Cross-Sell/Up-Sell: Abandoned shopping carts present a sizeable opportunity to online retailers.



Increase Sales

Extending Reach



Remote Health Care: Monitor patients' vital signs from home, red-flagging health problems

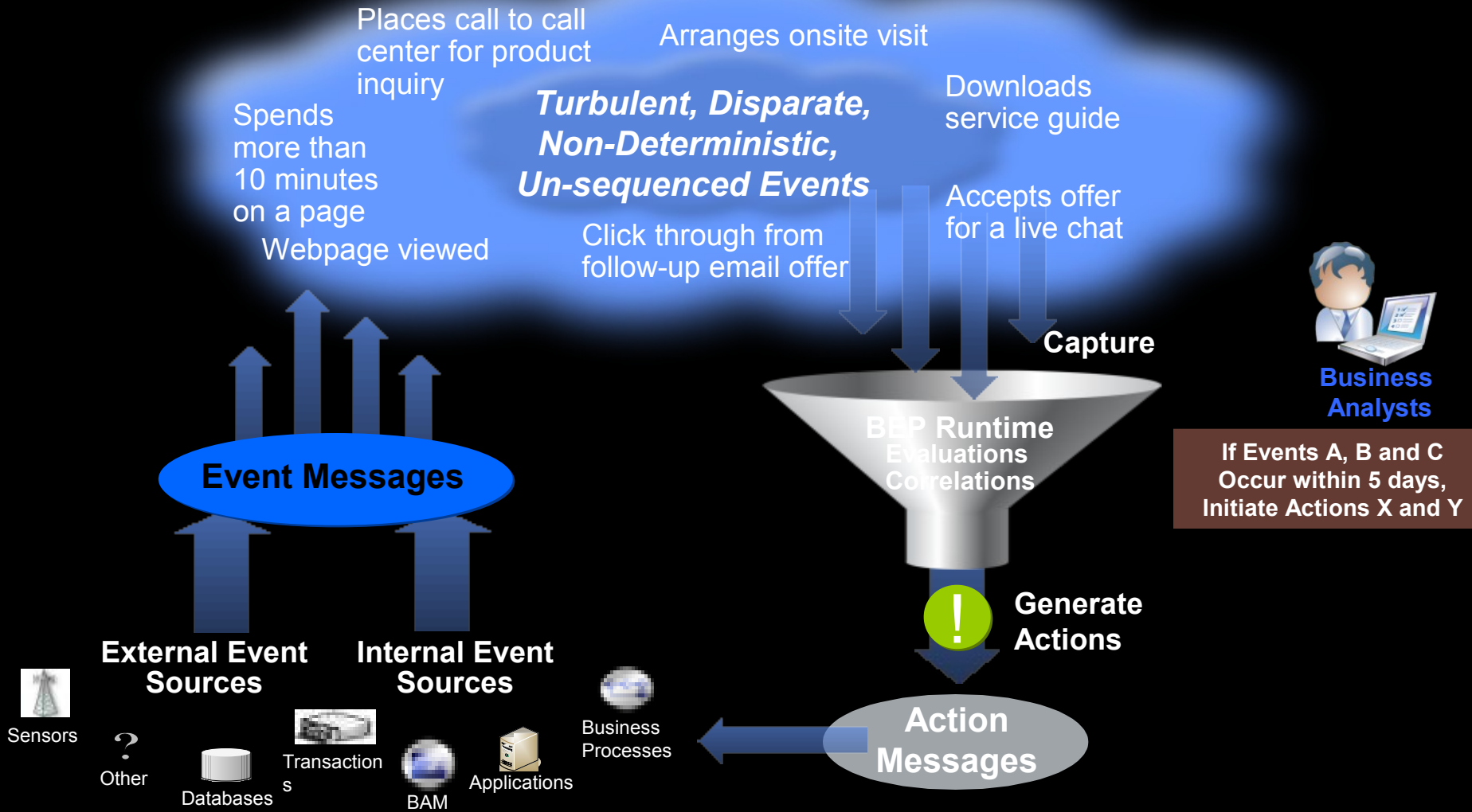
Fraud

monitoring for suspicious patterns of diverse activities and the ability to continually and quickly adjust for interesting patterns.



Mitigate Risk

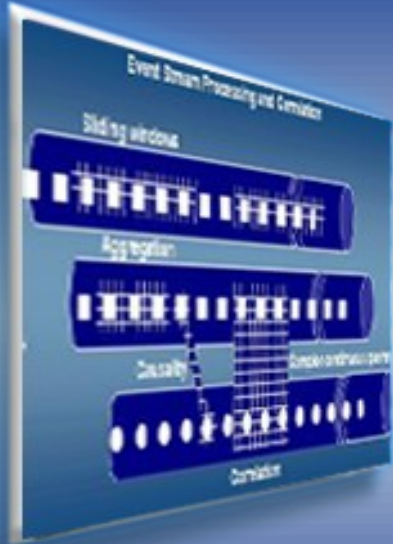
Correlation of business events from different sources, at different times



WebSphere Business Events

A Convergence of Power and Ease of Use

WebSphere Business Events



Complex Event Processing

Business User Interface



Business Logic Derived Events

WebSphere Business Events: Design Data



IT Developer

The screenshot displays the AptSoft Director Data Designer interface. The window title is "2404 - AptSoft Director™:Data". The menu bar includes "File", "Edit", "View", "Insert", "Tools", and "Help".

The interface is divided into two main sections: "Data Sources" and "Touchpoints".

Data Sources: Under "Intermediate Objects", a "Customer" data source is defined with the following attributes:

- ID
- FName
- LName
- Name
- Amount
- PreviousAmount
- ChangeBy
- ChangeByOperator
- EventCounter

Touchpoints: The "Touchpoints" section shows a tree view of database and JMS actions. The right pane displays the attributes for the selected touchpoint:

- name
- amount
- previous_amount
- change_by
- change_by_operator
- event_counter
- stop_after
- stop_event_updates



Defining the Object Model

Sources, Sinks, Events, Actions and Connectivity



IT Developer

Configure email connection

Right mouse button

Configure MQ connection



Define Business Interactions

Event processing logic using drop-down, point & click

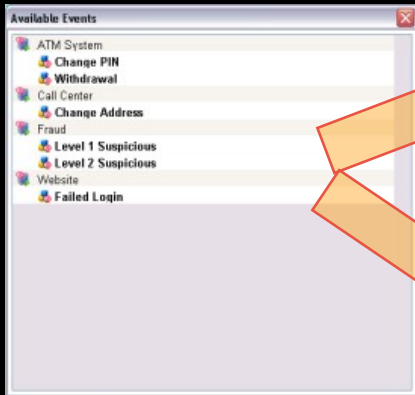


Business User



Business Analyst

Building Blocks



Condition UI

Large Transaction Checks if
Transaction.Amount Is Greater Than or Equal To 1000

Data Value

Recent PIN Change Checks if
Occurrences Of Change PIN Within 1 day Is Greater Than 0

Event Pattern

Interaction UI

Watch for Suspicious Activity Related by Customer.Customer ID

In response to Withdrawal from ATM When

Where Large Transaction and Recent PIN Change

Then Deny Transaction on Transaction Server

Then Investigate Activity on Investigations

Event

Conditions

Actions

With building blocks created, Business takes over



Visualizing EventFlows

The Relationship Among Business Policies



Process Analyst

EventFlows: Drag & Drop UI

Interaction Blocks

Failed Login Threshold Related by **Customer.Account ID**

In response to **Failed Login** from Website When

Where **Event Repeats 3 Times**

Then **Level 1 Suspicious** on Fraud

Watch for Large Withdrawal Related by **Customer.Account ID**

In response to **Withdrawal** from ATM System When

Where **Large Withdrawal** and **Changed PIN in Last 24 Hours**

Then **Level 1 Suspicious** on Fraud

Level 1 Threshold Related by **Customer.Account ID**

In response to **Level 1 Suspicious** from Fraud When

Where **Event Repeats 3 Times**

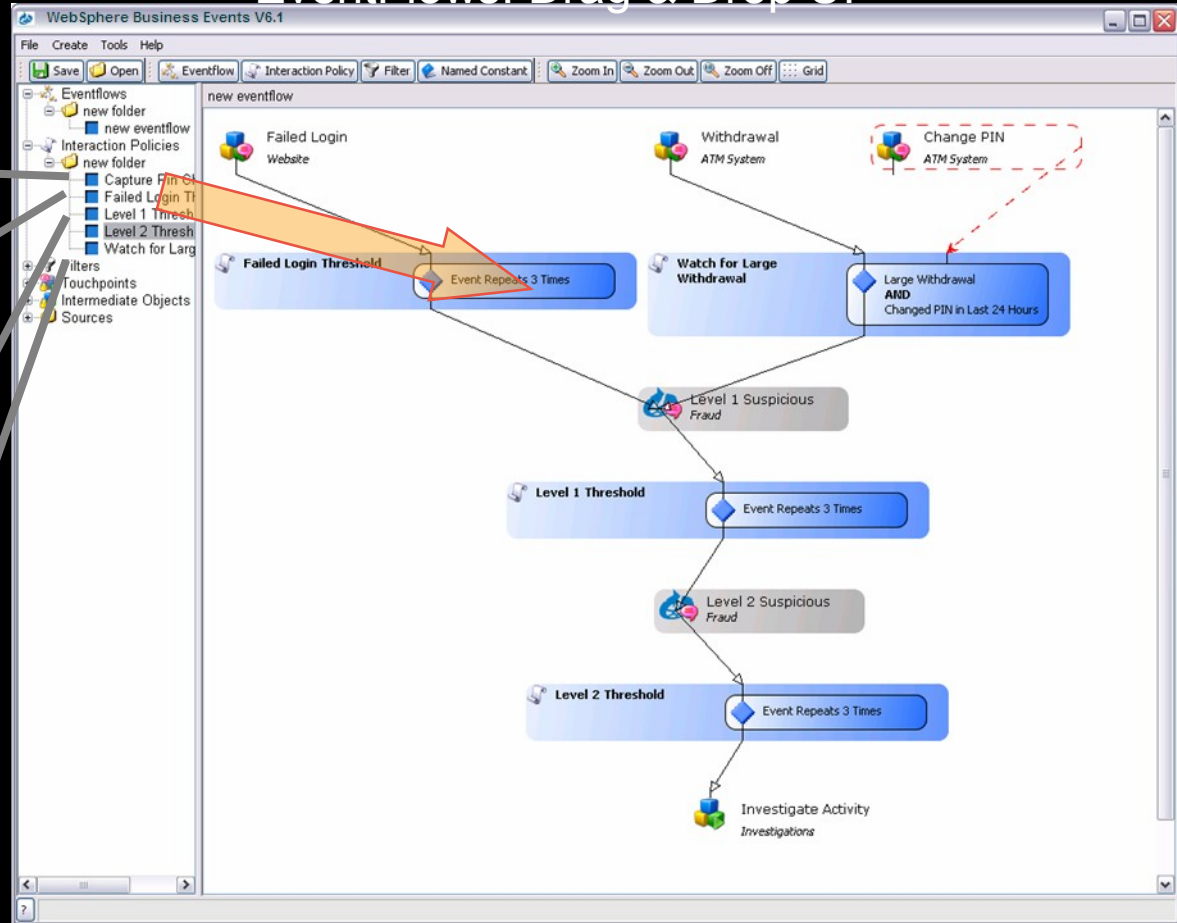
Then **Level 2 Suspicious** on Fraud

Level 2 Threshold Related by **Customer.Account ID**

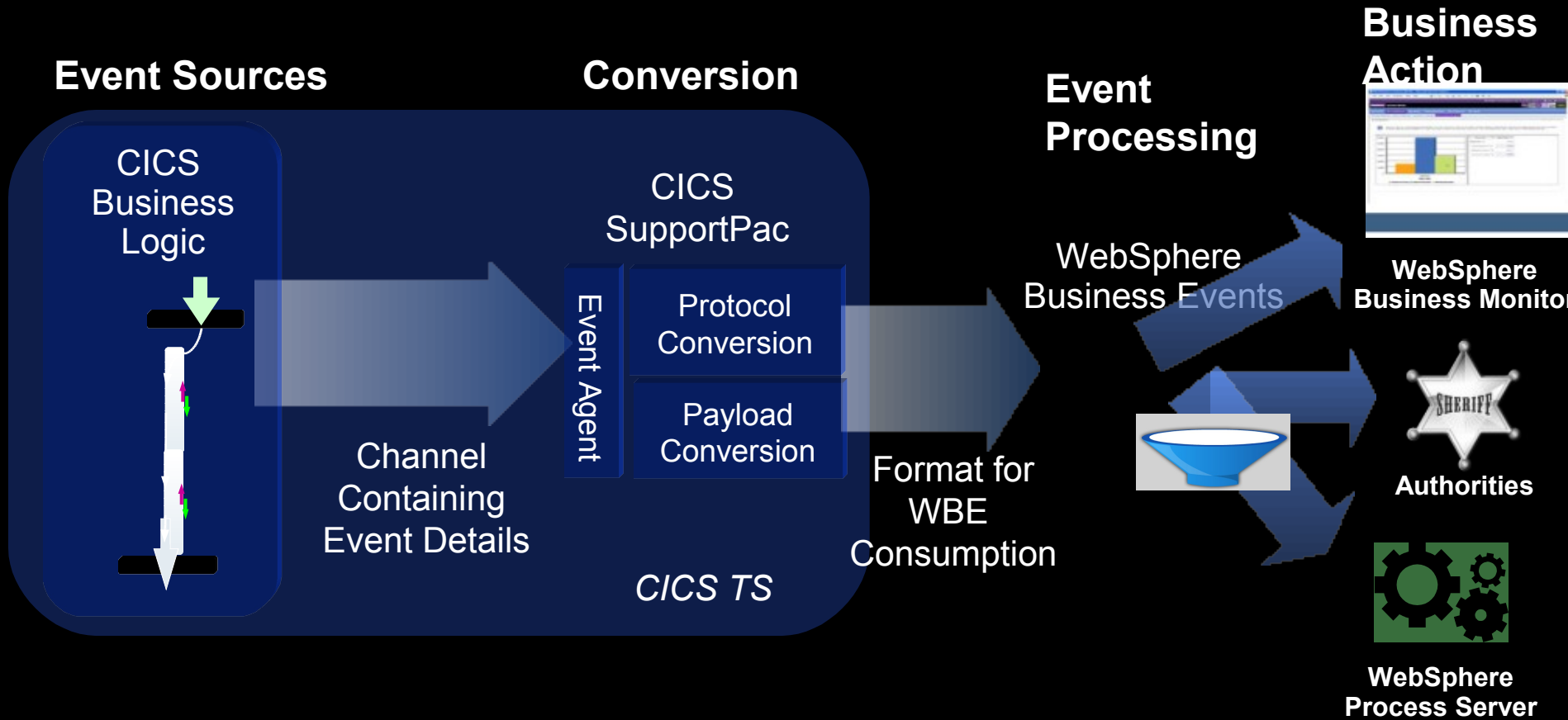
In response to **Level 2 Suspicious** from Fraud When

Where **Event Repeats 3 Times**

Then **Investigate Activity** on Investigations



Integration with CICS

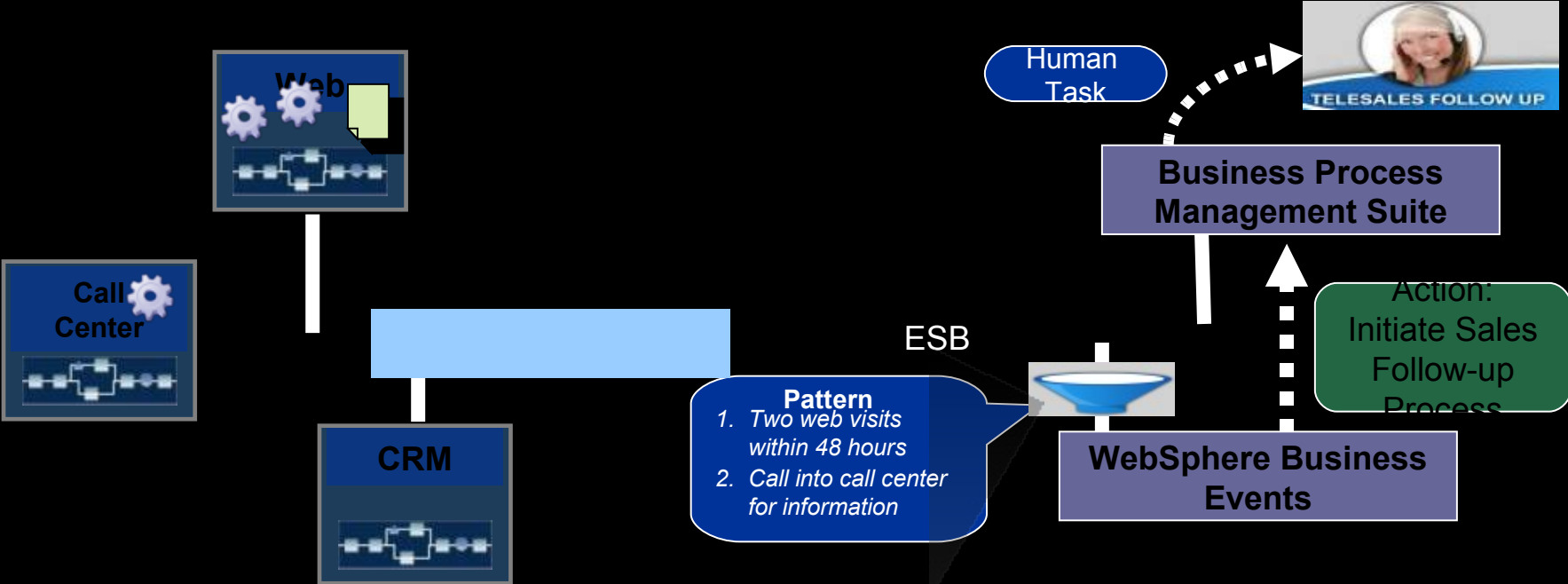


Designed to achieve visibility, business agility, compliance and fraud recognition

Example: Sales Lead Conversion

Business Problem: Capitalize on the recent introduction of several hot new products by automatically following up with registered customers who demonstrate interest.

- Benefit of solution:**
- Engage sales activity on only highly qualified, new product situations



Learn More...

ibm.com/software/innovate/

Get Started with BEP:

http://download.boulder.ibm.com/ibmdl/pub/software/solutions/soa/pdfs/SOA_EVENTS_PROCESSING_BR.pdf



Check out WBE:

ibm.com/software/integration/wbe



View a webinar and learn how to empower your business to sense and respond:

<http://www.ebizq.net/webinars/8996.html>



Business event processing with WebSphere Business Events:

http://www.ibm.com/developerworks/websphere/library/techarticles/0809_crocker/0809_crocker.html



Andrew Howarth

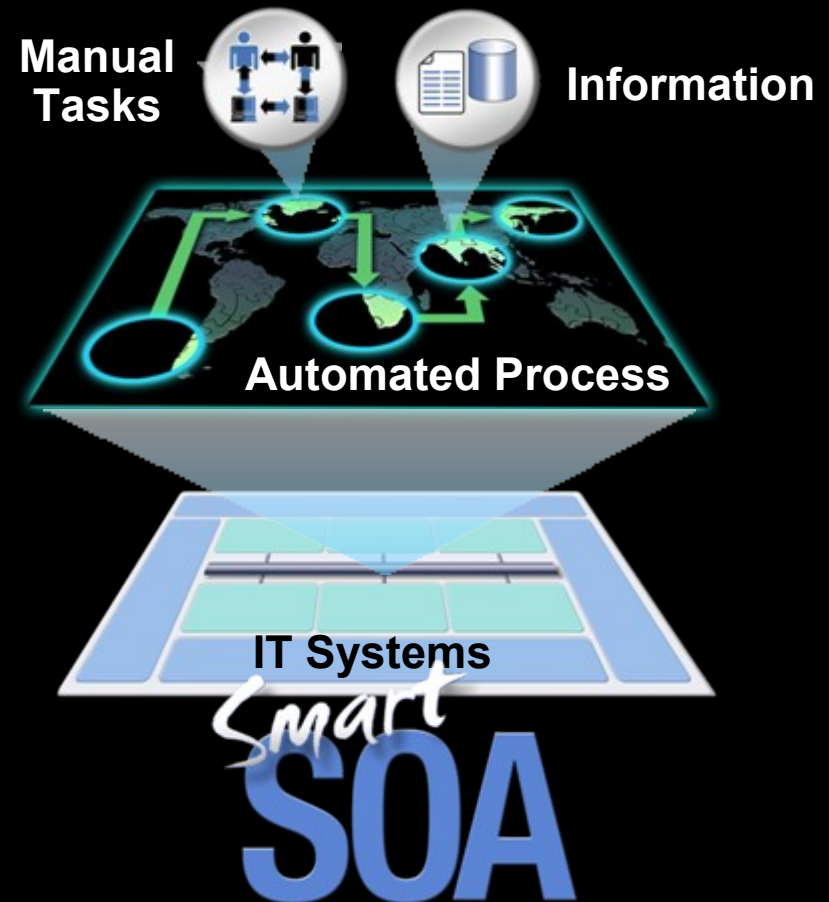
Process Management focused on efficiency is now not enough

Operational excellence requires process agility, that is the ability of a business to change its operations and adapt to continuous change



Automate Manual Processes to Optimize Costs

- Reduce staffing requirements
- Reduce handling costs
- Support rapid change and reduce cycle times 3x
- Maximize investments through reuse



What's
New?

WebSphere Business Modeler 6.2

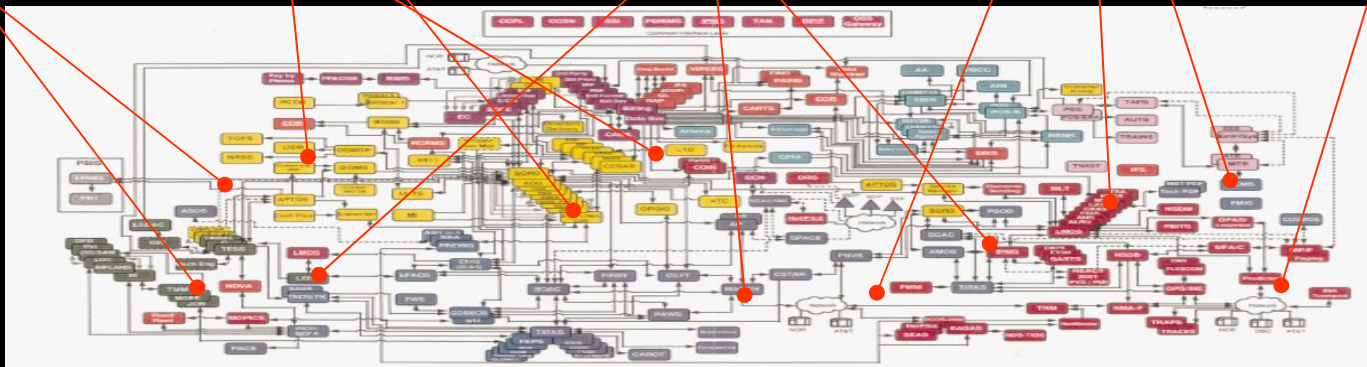
BSS/OSS transformation and billing – order-to-cash

Initially typically a sequence of single-step processes...



But now product complexity increase and requires complex coordination of single step processes for fulfillment

Traditional Approach to Effecting Business Change



Inability to quickly change business process

Variation across the Business is the key Implementation challenge



Variability Driver

Change Events

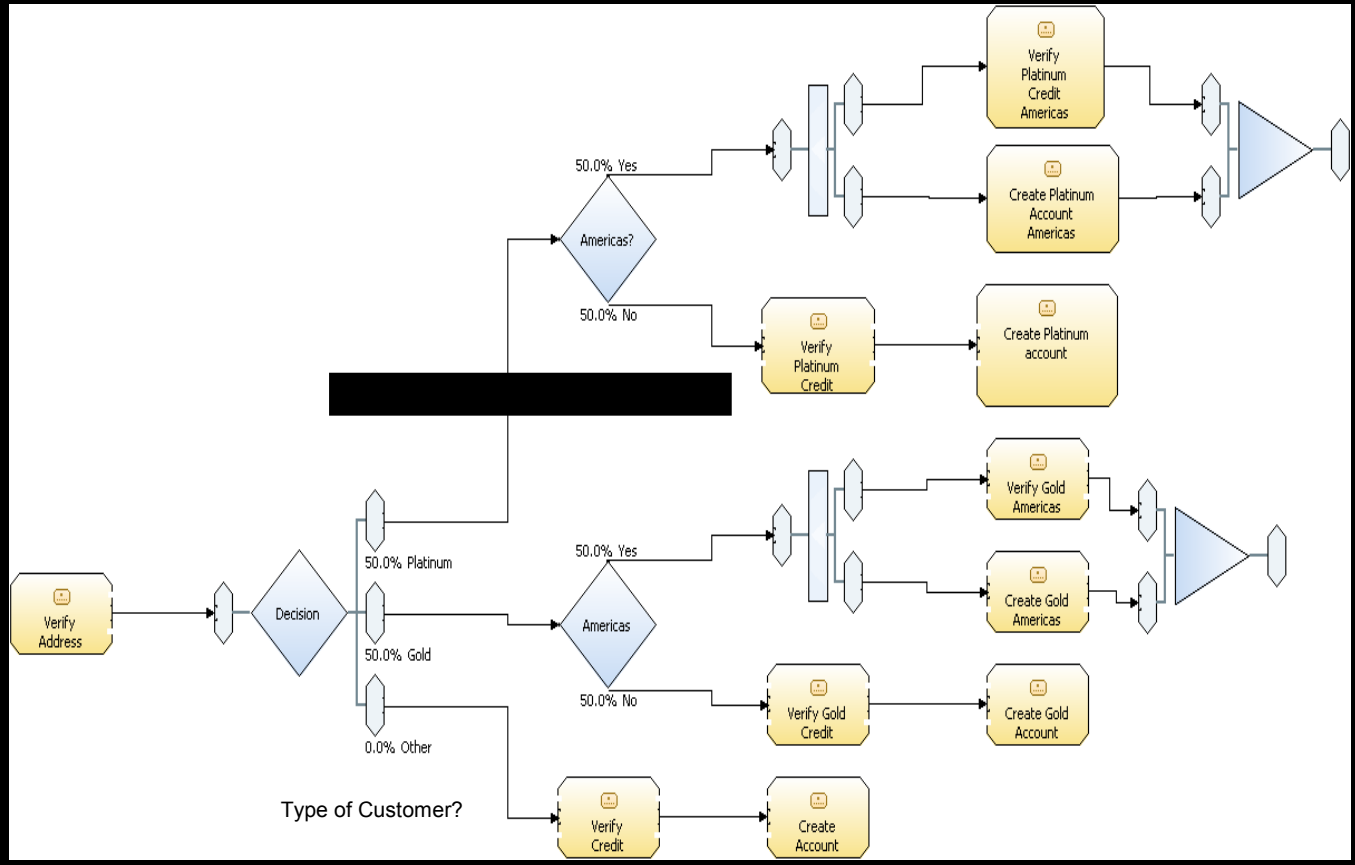
Product	Traditional, Car, Life, Biologic	3 New Products a year
Region	AsPAC, UK, Nordics, US, France	New market growth
Channel	Direct, Distributor, B2B, Net, WAP	New channel by acquisition
Supplier	Supplier 1, Supplier 2, Etc	New Supplier
Regulation	FSA, FDA, NICE, Etc	Frequent regulation changes
Customer	Gold, Silver, Bronze	Platinum
End Points	SAP 1, Legacy ERP, CRM 1, HR, Finance	Roll Out new SAP instance

Result – Complex Nested Business Process

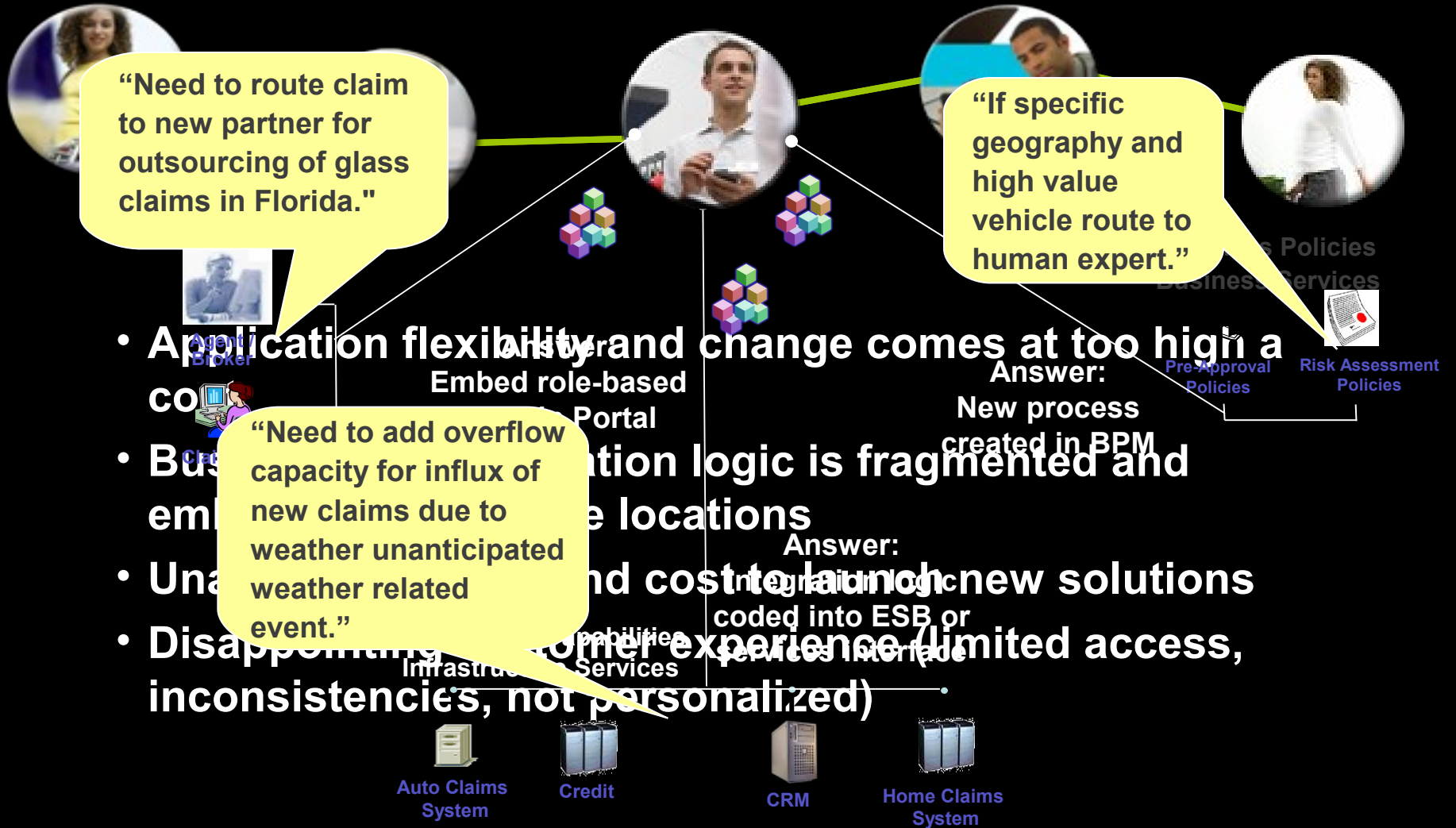


When attributes change, the number of possible paths increases – complexity

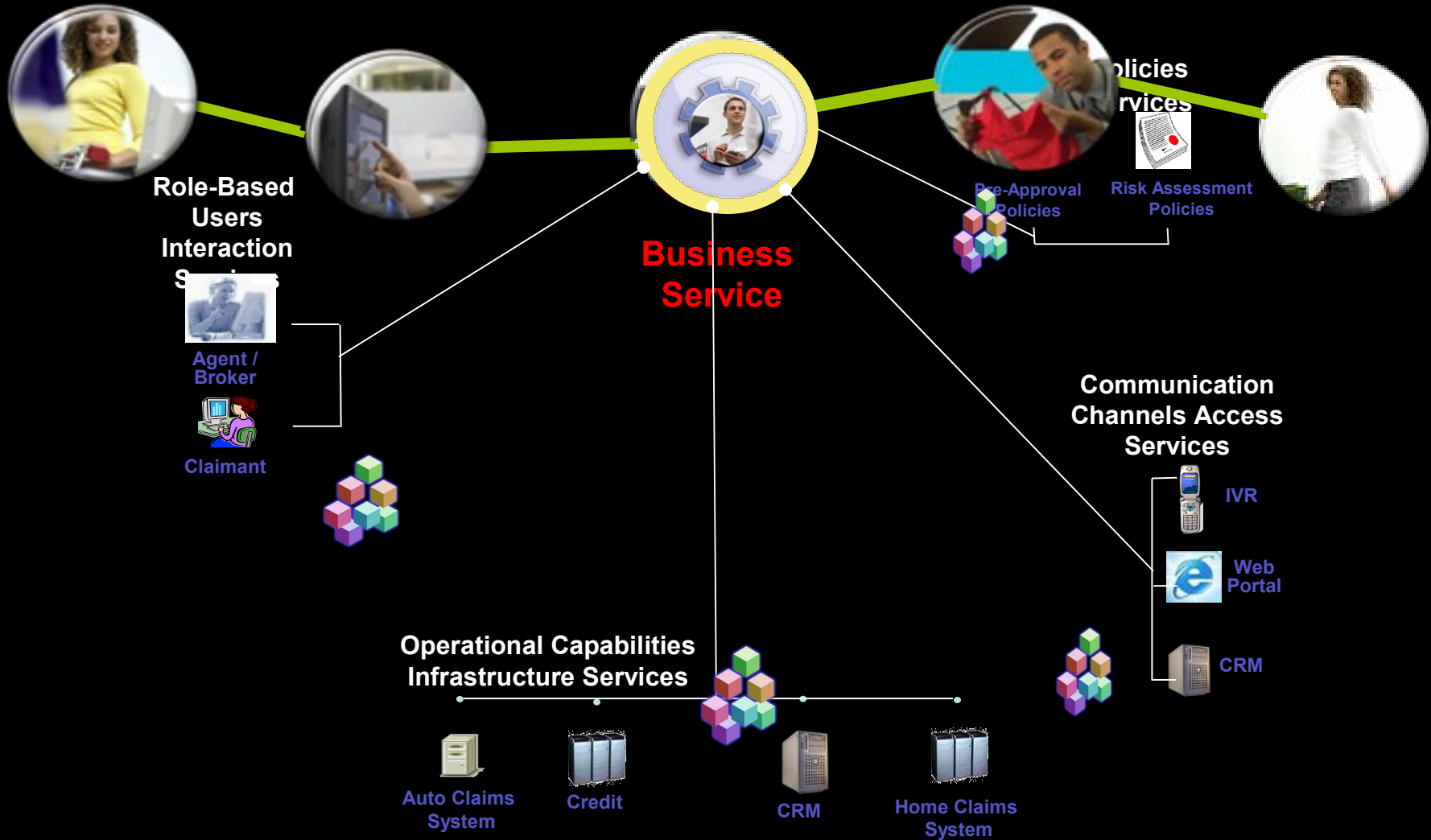
Attribute (Silos)	
Customer Type	2
Region	2
Channel	2
Product Type	2
Service Level	2
Time of Day	2
Transaction Type	2
Transaction Amount	2
Cost	2



Decisions, decisions, decisions!!!!

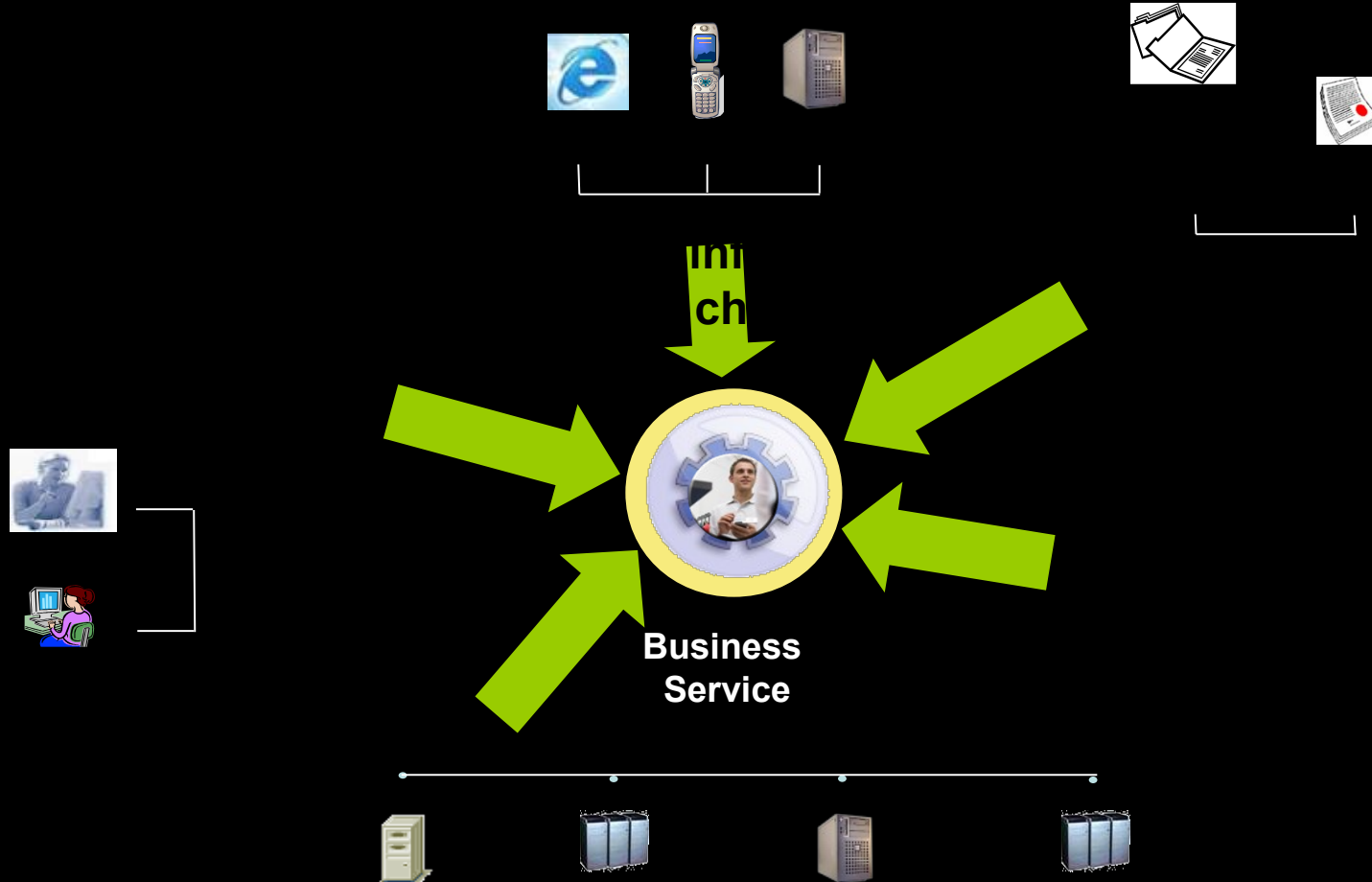


BPM with Dynamic Business Services enabling an adaptive business

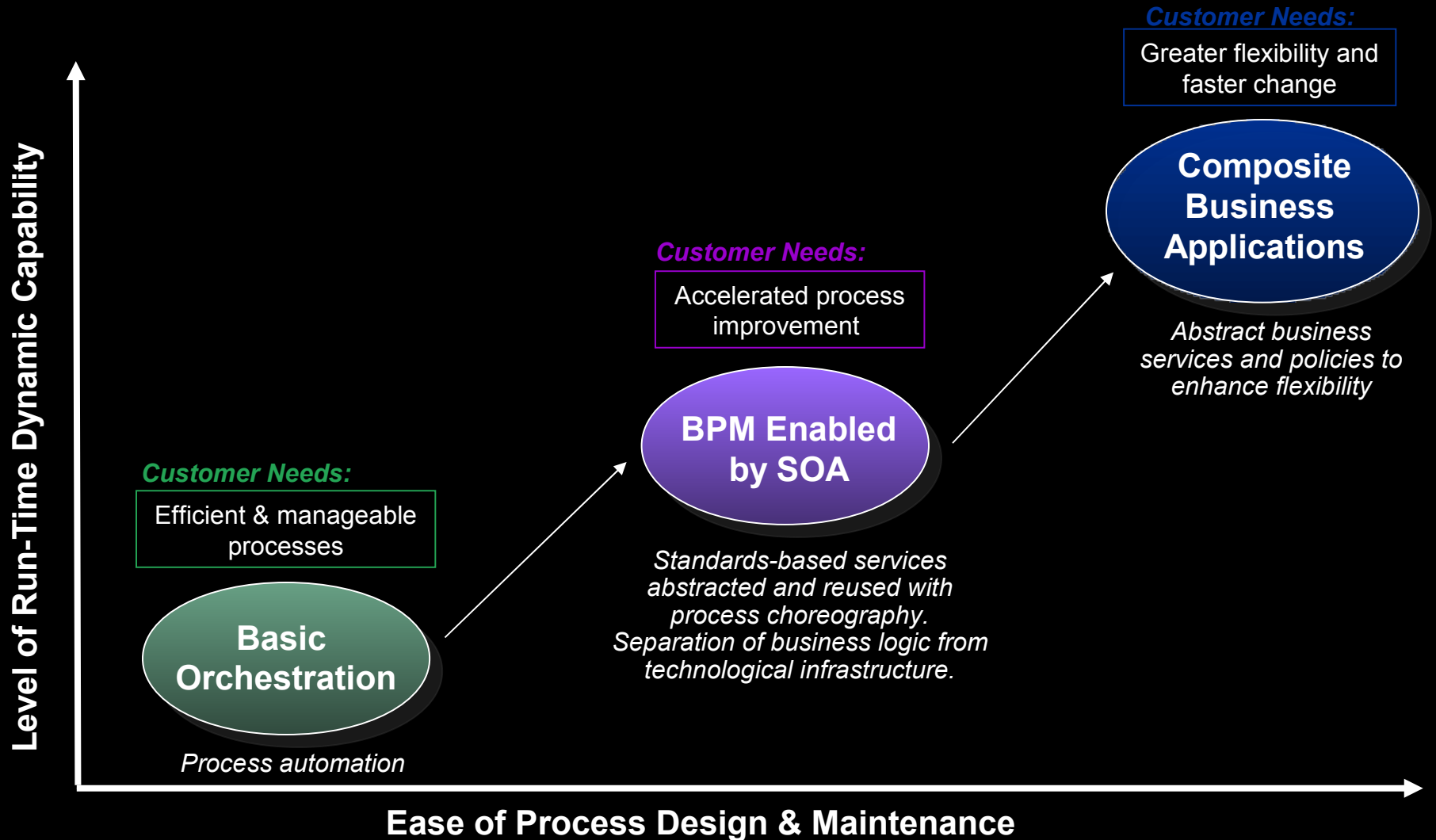


What Composes a Business Service?




Consolidates business-level usage **information** into **one place** for easier discovery, change and re use, and their behavior can be **dynamically personalized** based on business context



Componentized Dynamic Process Change using SOA



What the Analysts say on Composite Business Applications

-  calls them "SOBAs"
 - Service Oriented Business Applications (SOBAs) will enable enterprises to dynamically compose and decompose applications according to business needs.
 - *"SOBAs will be the death of the monolithic application provider"*
-  calls them "Dynamic Applications"
 - Dynamic applications — software that adds more visibility and collaboration to today's business processes, while adapting more quickly and cost-effectively to their changes — represent IT's worthiest hope for enabling real business agility.
 -
-  calls them "Composite Applications"
 - Composite applications — logic and data collected from multiple IT sources and harnessed with web services standards — are rapidly becoming the development standard of choice in all IT organizations.

Business Service Policies “Steer” Your Operational Business Processes – Without IT Intervention

Transactions via these channels: B2B, Web or phone



Platinum customers get discount offer



Transaction values >\$5,500 get real-time response



Steer the business process the way YOU need it to go

Don't overhaul the business process just to change the "route"



Business Policies and Business Rules *Complementary*

	Policy Driven	Rules Engine
Policy / Rule Type	Dynamic Assembly	Decision Services
Purpose	Building composite applications	Making business decisions
Example	Which pricing service to use?	What discounts should be applied?
Level of Detail	Process logic – coarse grained	Decision logic – fine grained
Who Maintains?	SOA Administrator	Business User

Example Use Case: Auto/Home Quote CBS

	Policy Driven	Rules Engine
Purpose	Assemble underwriting process	Determine eligibility and pricing
Example	context: channel is web content: risk is non preferred content: LOB is AUTO contract: non-Preferred UW service	If Age < 25 and driver is High Risk Then Add 40% surcharge to quote

Dynamic BPM Approach

Policy-driven dynamic processes *managed by LOB*

Business-Level Policies...

- For **“Open Account”** transactions across **all product lines**, accessed via **Portal** by **Agents**...
- where customer is **NEW**, account is **LARGE**, and transaction is **under \$250,000**...
- Offer **Straight-Through- Processing**.

Policy

Context

3 Contexts

Match all of the following Match any of the following

- OpenAcctBusinessSvc (Process Service)
- Portal Channel (Portal Channel)
- Agent (Agent)

Policy

Content

2 Contents

Match all of the following Match any of the following

CustomerType(= NEW)
AccountLimit(= 250,000)

Policy

Policy Assertions

2 Assertions

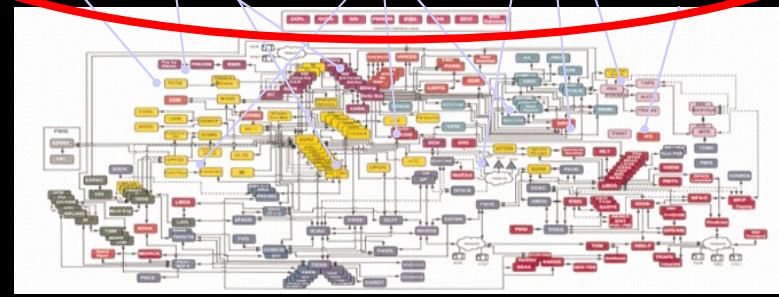
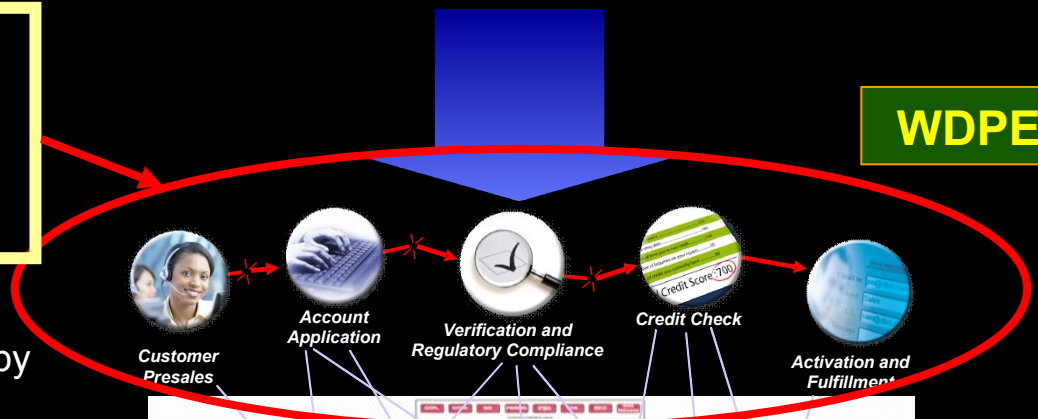
Type	Required	Locked	Fill from Context	Value
AccountSizeAssertion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LARGE
CustomerTypeAssertion	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NEW

LOB

Processes are built on the fly according to the exact business conditions encountered and business policies set by LOB.

WDPE

- Written in a business context consumable by LOB users
- Consolidated into one place for easy change
- Provides the rules and engine for dynamically assembling and managing processes

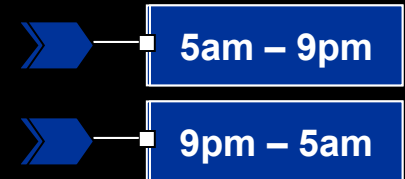


IT

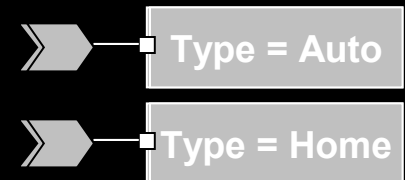
WebSphere Dynamic Processing Edition in Action

Service Endpoints:

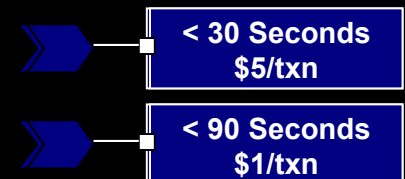
Billing Inquiry



Claim Status



Credit Reports



WebSphere Dynamic Processing Edition in Action

Consumers



Branch



CSR



Customer



Branch



Branch

Service Endpoints:

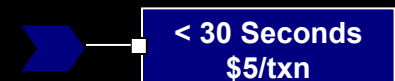
Billing Inquiry



Claim Status



Credit Reports



WebSphere Dynamic Processing Edition in Action

Consumers



Branch



CSR



Customer

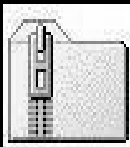
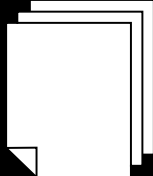


Branch



Branch

Channels



Service Endpoints:

Billing Inquiry



5am – 9pm



9pm – 5am

Claim Status



Type = Auto



Type = Home

Credit Reports



< 30 Seconds
\$5/txn



< 90 Seconds
\$1/txn



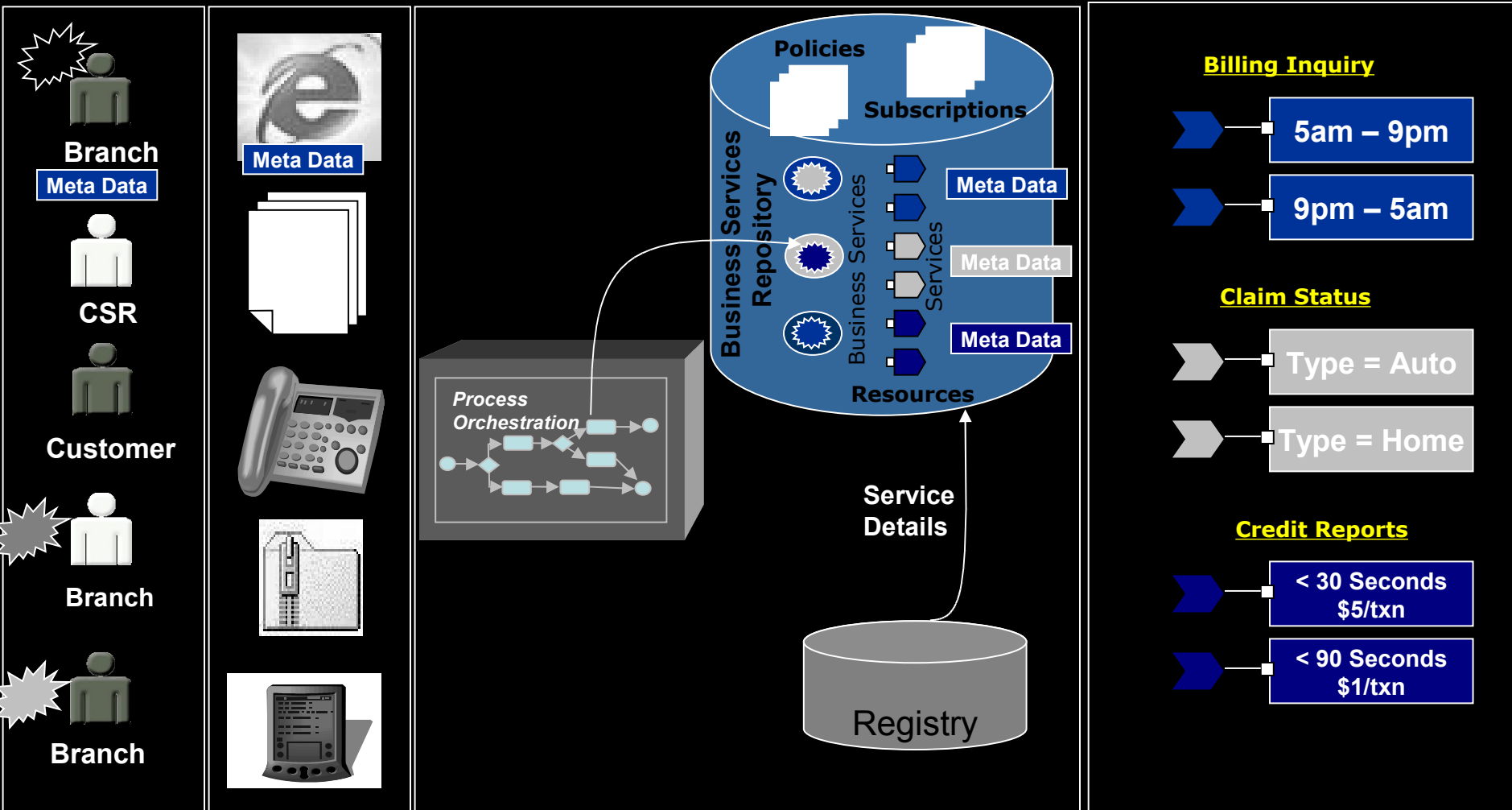
WebSphere Dynamic Processing Edition in Action

Consumers

Channels

IBM Dynamic Process Edition

Service Endpoints:



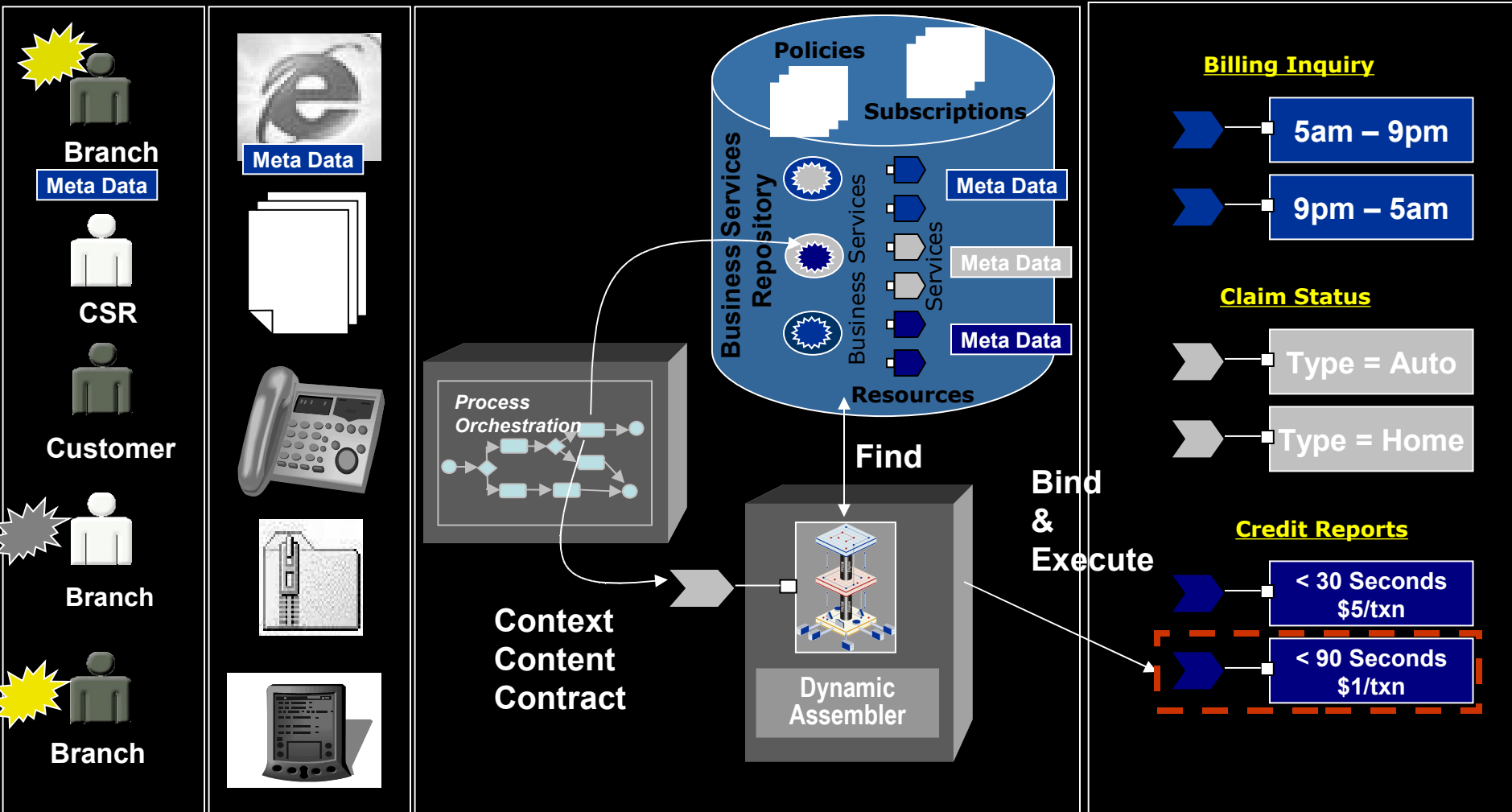
WebSphere Dynamic Processing Edition in Action

Consumers

Channels

Services Infrastructure:

Service Endpoints:



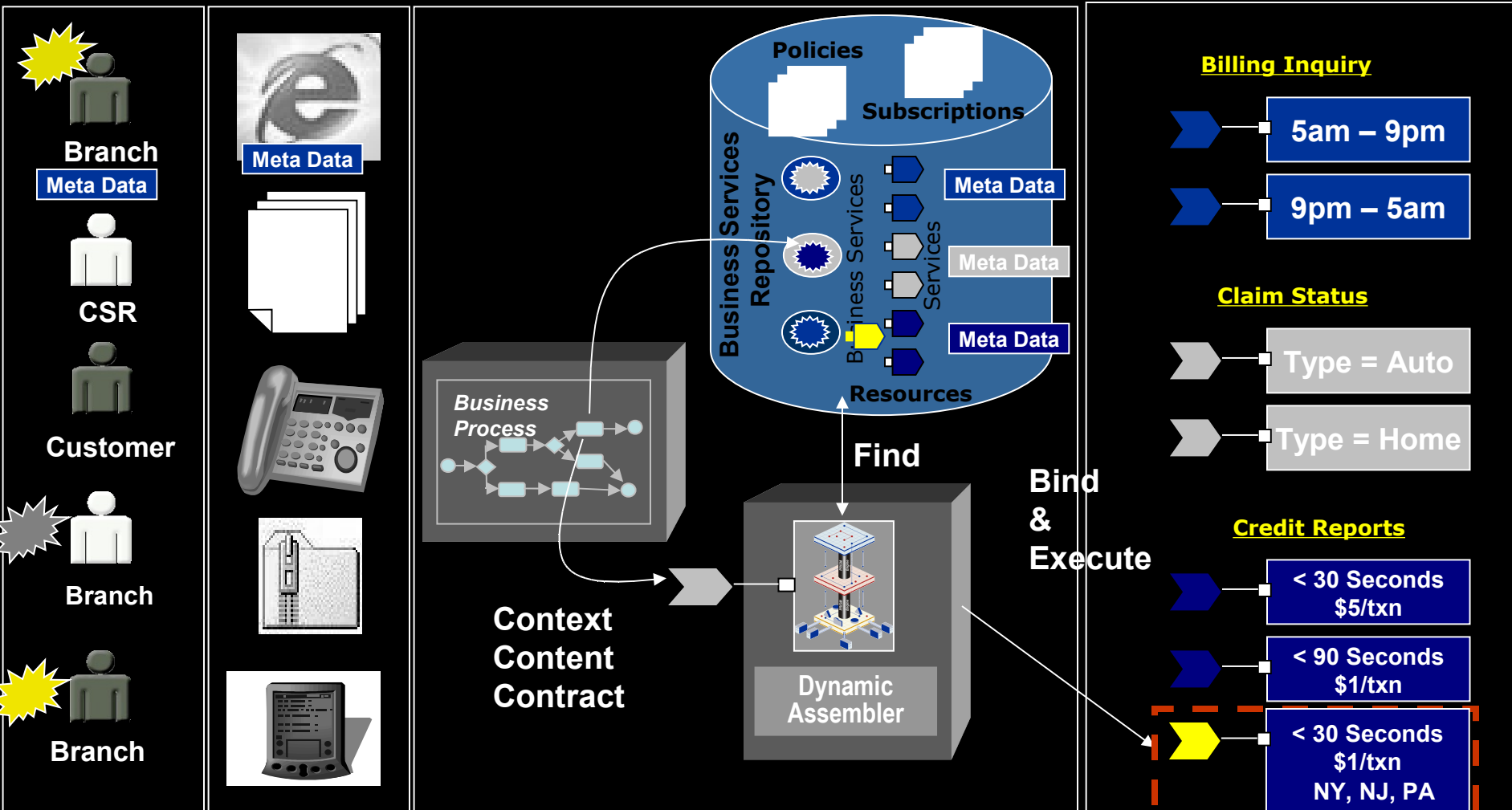
WebSphere Dynamic Processing Edition in Action

Consumers

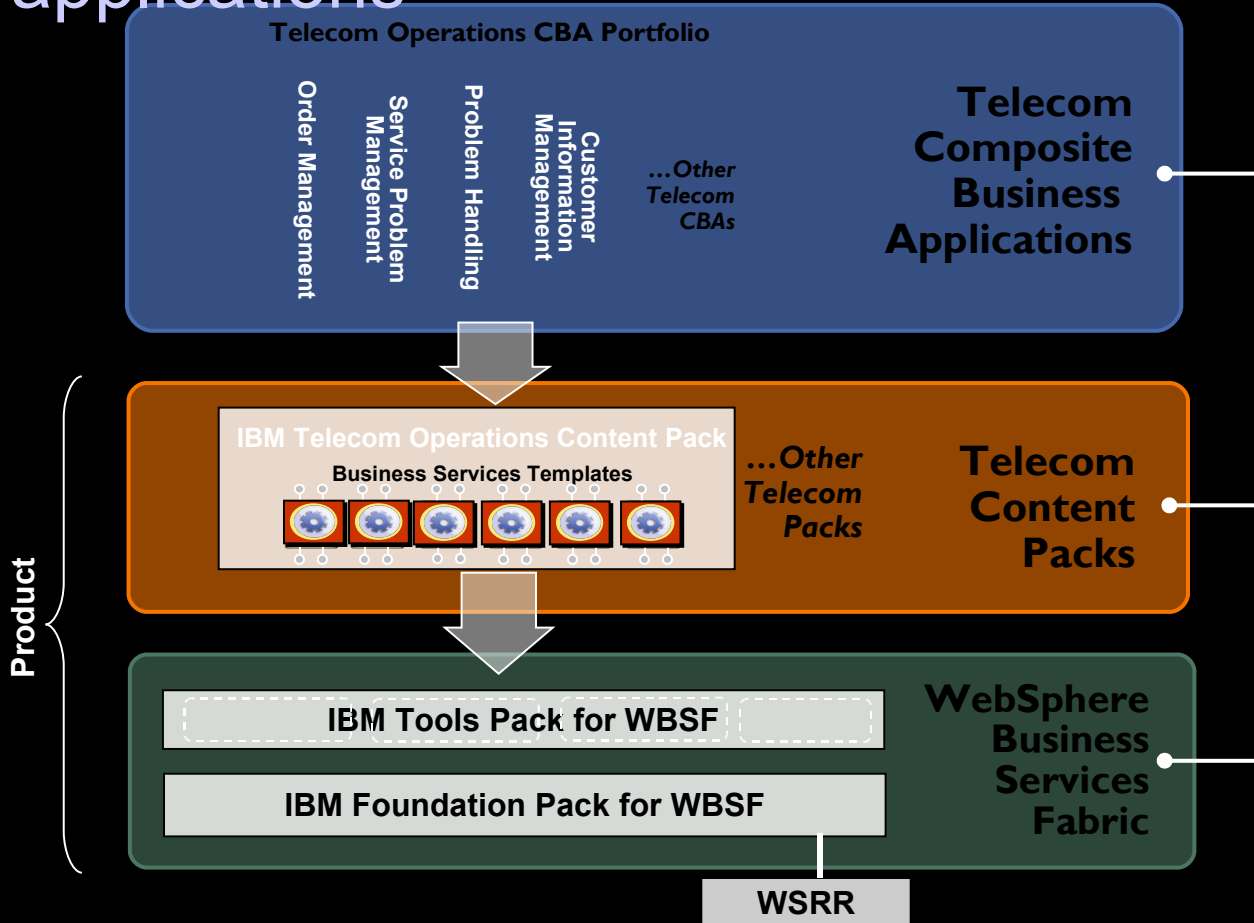
Channels

Services Infrastructure:

Service Endpoints:



Telecom Operations Content Pack serves as a SOA accelerator for WBS Fabric-based composite business applications



Smart Supply Chain with Automation



AIRBUS

automates logistics to improve operations and reduce costs

Industry Pains

- Inefficient, manual inventory and transport processes
- Lack of visibility into supply chain assets

Real Results

- **75% reduction** in handling time
- **Reduced** aircraft production and operating/maintenance costs

Smart Oil Production Driven by Actionable Insights

StatoilHydro

rewrites the rules on production efficiency



Industry Pains

- Declining production levels
- High maintenance costs
- Lack of integration risked \$10 billion in potential revenue

Real Results

- **30% reduction** in maintenance cost
- **5% higher** production efficiency
- **Greener** energy production with smart sensors

Smart Customer Service using Business Policies

The logo for 'sky' is displayed in a white, rounded square. The word 'sky' is written in a lowercase, sans-serif font with a slight shadow effect.

delivers flexible service platform to support growth plans

Industry Pains

- High support costs inhibit profitable growth
- 90% of support handled through call center

Real Results

- **Reduce** customer on-boarding costs with dynamic “self-service” support channels
- **Support 100% growth** plan without adding CRM agents

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Thank you

**Andrew Howarth
Jason Browne
Richard Brown
WebSphere & ILOG
3rd March 2009**

