



WebSphere Operational Decision Management

Srecko Janjic

IBM Software Group

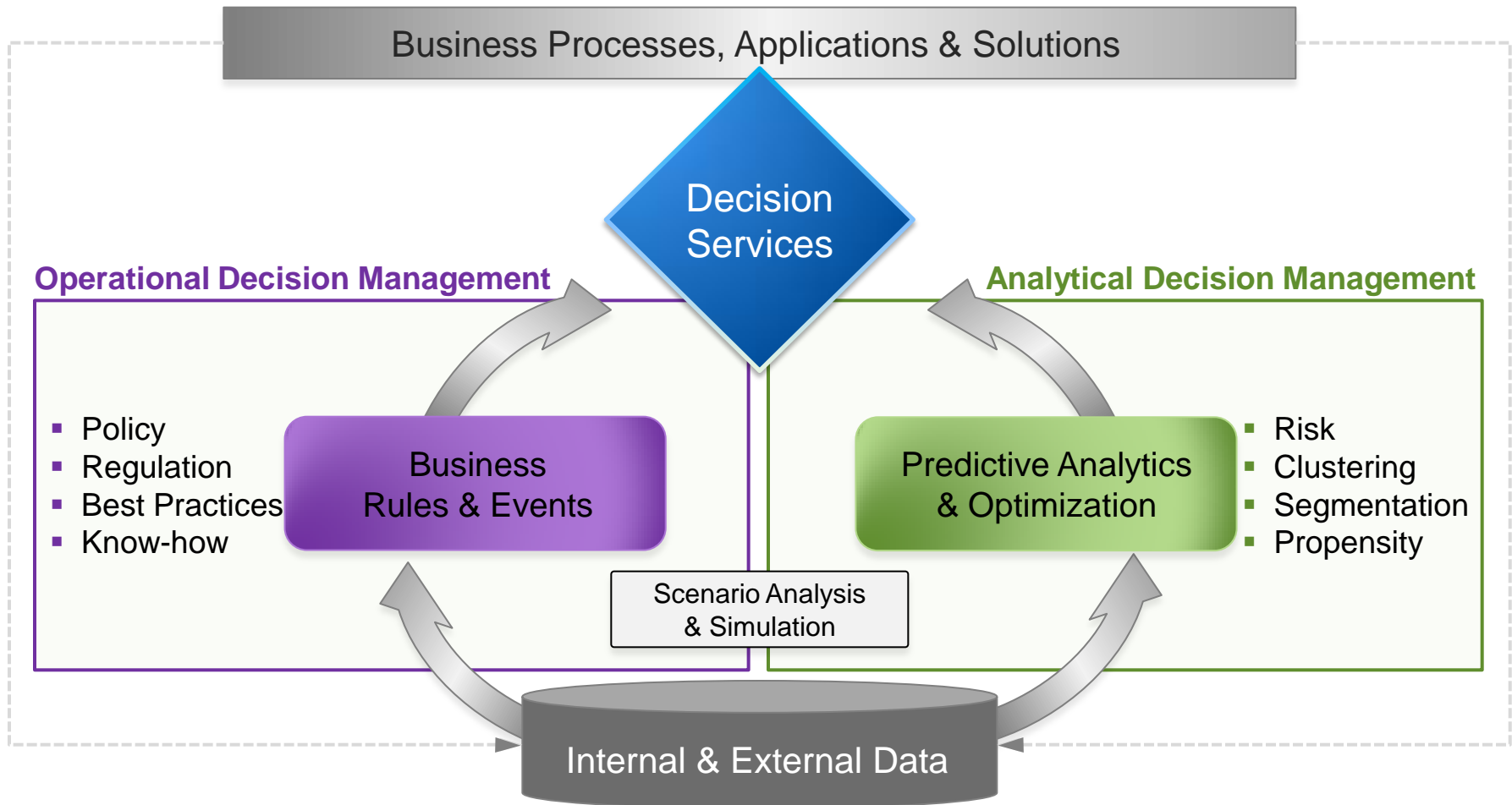
srecko.janjic@si.ibm.com

Agenda

- **Operational decision management definition**
- WODM architecture and concepts
- Use cases

What is Decision Management?

Decision Management is a business discipline that enables organizations to automate, optimize and govern repeatable business decisions.



Two Key Entry Points to Decision Management



Operational Decision Management

Focuses on the automation and governance of frequently occurring, repeatable decisions that control critical business systems

Enabled by:

- Business Rule Management with Business Event Processing

Closely integrated with:

- Analytical Decision Management
- Business Process Management

Analytical Decision Management

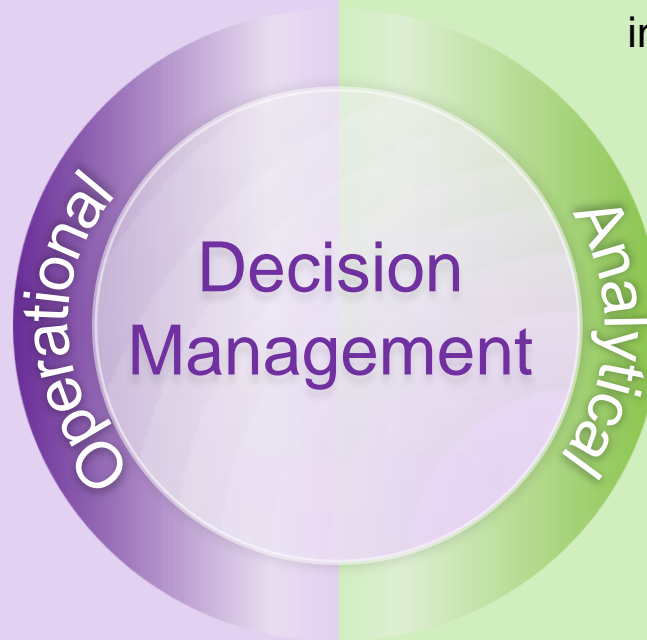
Focuses on the development and deployment of decision services bringing intelligence and predictive insight into repeatable decisions while maximizing outcomes

Enabled by:

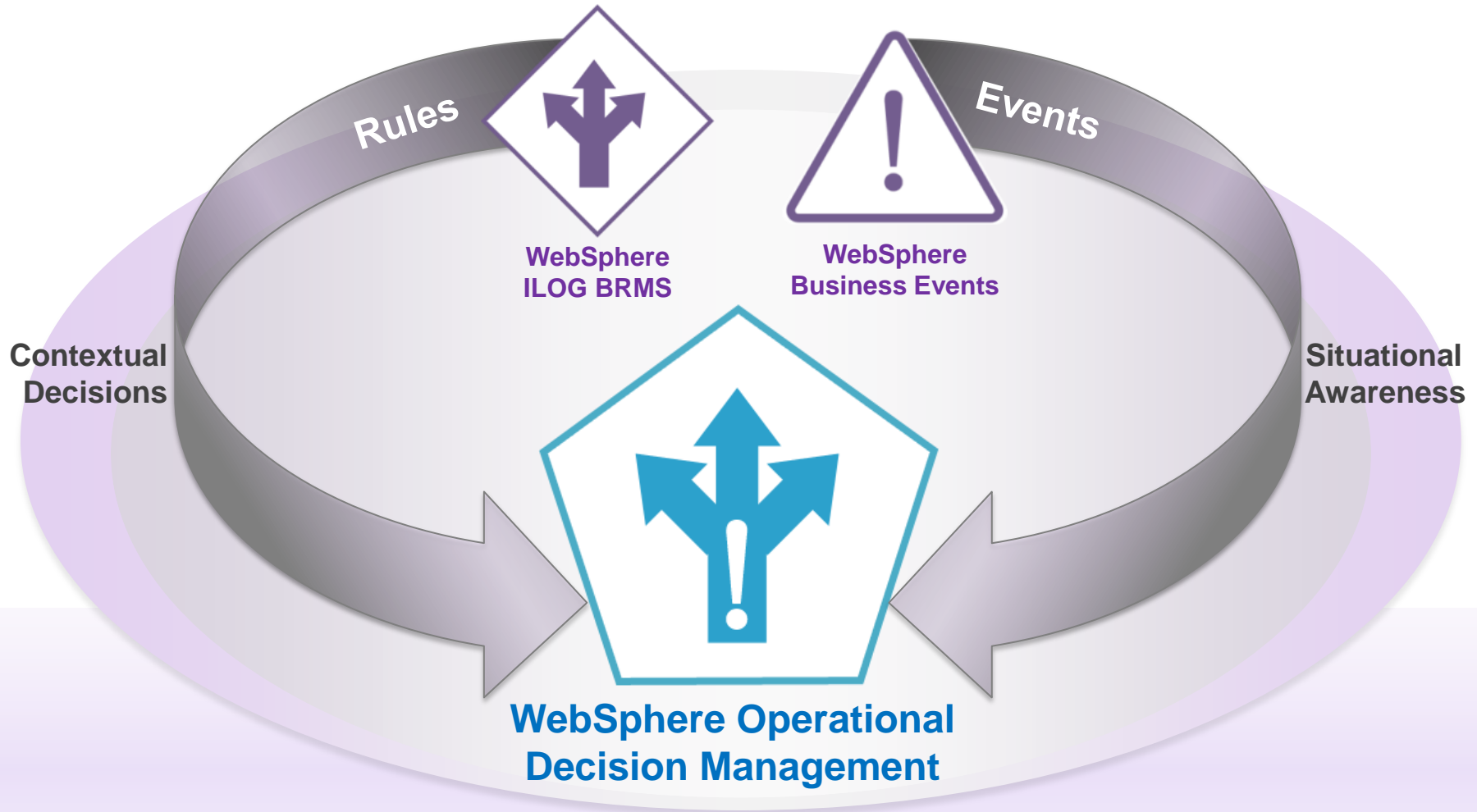
- Predictive Analytics with Optimization

Closely integrated with:

- Operational Decision Management
- Business Intelligence



Introducing WebSphere Operational Decision Management



Your business decisions.

Made by your business *experts*.

Delivered in *real-time* by technology.

What is a Business Rule ?

Business Rule Examples

If the **Passenger** is a **gold frequent traveler**
 and the **flight distance** is more than 40000 miles
 and the **flight destination** is in Europe or Asia
 Then
 Add 10.000 points to the fidelity card of the **Passenger**

If the **Vehicle** is not an SUV
 and all the following conditions are true

- the **vehicle** is equipped with dual passenger airbag
- the **driver** has a good driver certificate
- the **driver** age is between 30 and 50
- the number of accident the **driver** was responsible for is 0

then
 Apply a **5% discount** on the premium coverage price

Business Decisions

Reasoning with

Business Contexts

Passenger(age, address, gender, frequent traveler level, company)

Vehicle (VIN, Manufacturer, Data, Type, Brand)

Order (Amount, items) **Promotion** (Code, amount, type, article)

Flight (FID, Airline, Depart, Destination, Distance, Date)

Plant (Location; production, Profitability)



What is a Business Event ?

Event Pattern Examples

If the **low temperature has been detected** more than **3 times in the last 5 minutes**

and the number of occurrence the **outside air temperature has increased** in the **past 5 minutes** is zero

then

Raise a severity alarm

Notify the maintenance team

Reduce activity by 15%

If more than 2 **customer withdraws in an ATM** are done **in the same day**

and the 2 ATMs are from 2 foreign countries

then

Investigate possible fraud

Reduce to cash redraw max amount to 100\$

Correlation / Actions

Triggered by

Event Triggers

RFID badge detected at the room entrance

Customer withdraw in an ATM

Debts threshold exceeded

Application rejected

Incoming call at the call center

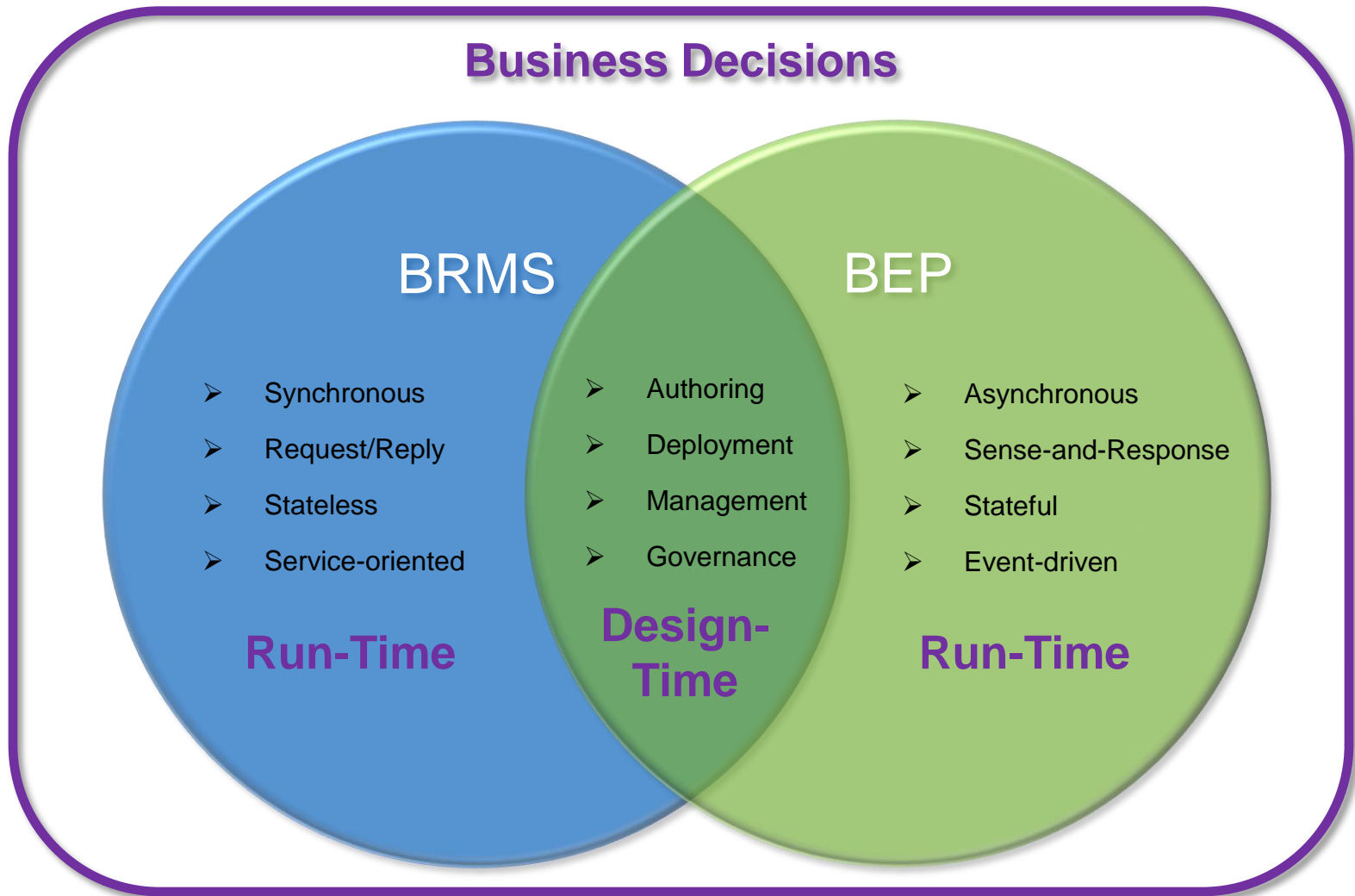
Application form submitted

Low temperature detected



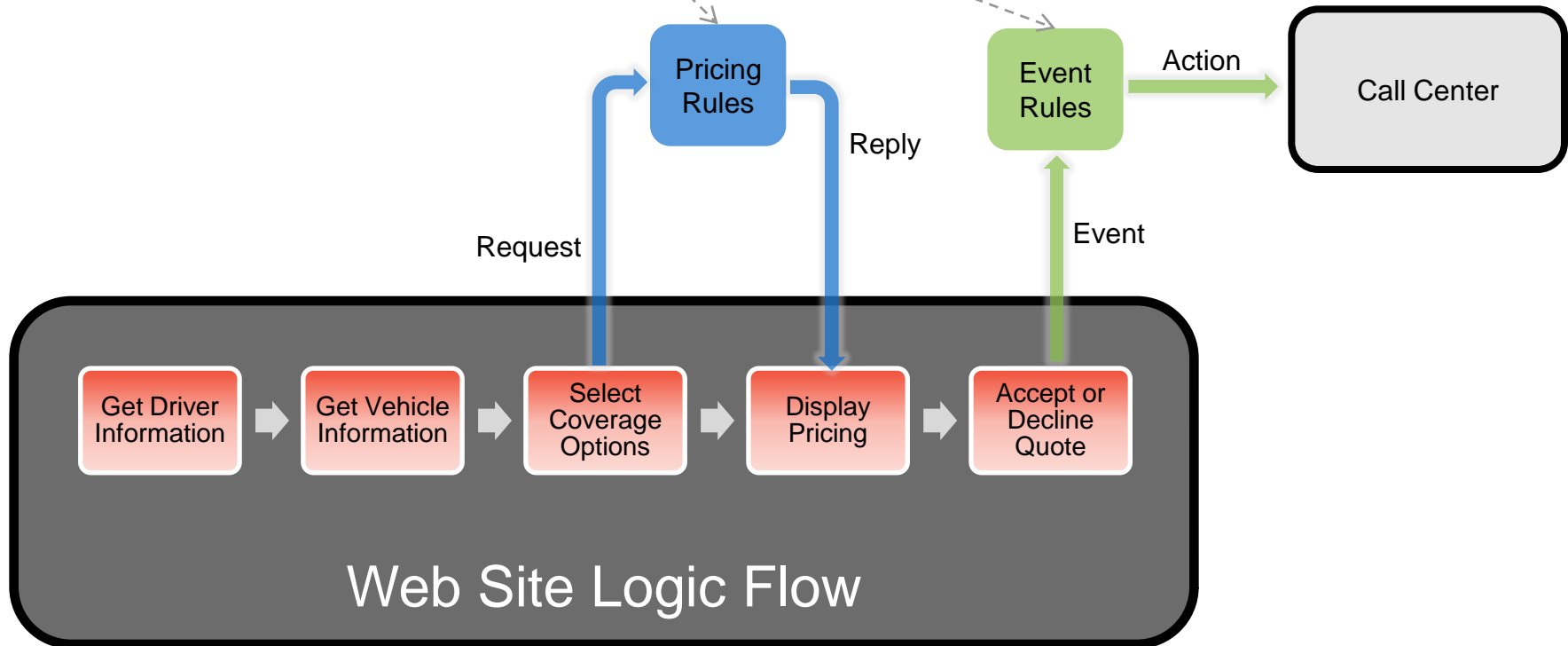
Situational

Where is there overlap, where is there not?



How Decisions Can Be Different

Operational Decision



Agenda

- Operational decision management definition
- **WODM architecture and concepts**
- Use cases

WebSphere Operational Decision Management Components



WebSphere Operational Decision Management

WebSphere Decision Center



WebSphere Decision Server

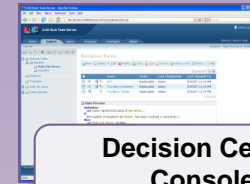
Rule Execution

Event Execution

Decision Monitoring

Connectors

Management



Decision Center Console

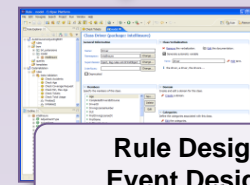


Rule Solutions for Office



Decision Center for Business Space

Design

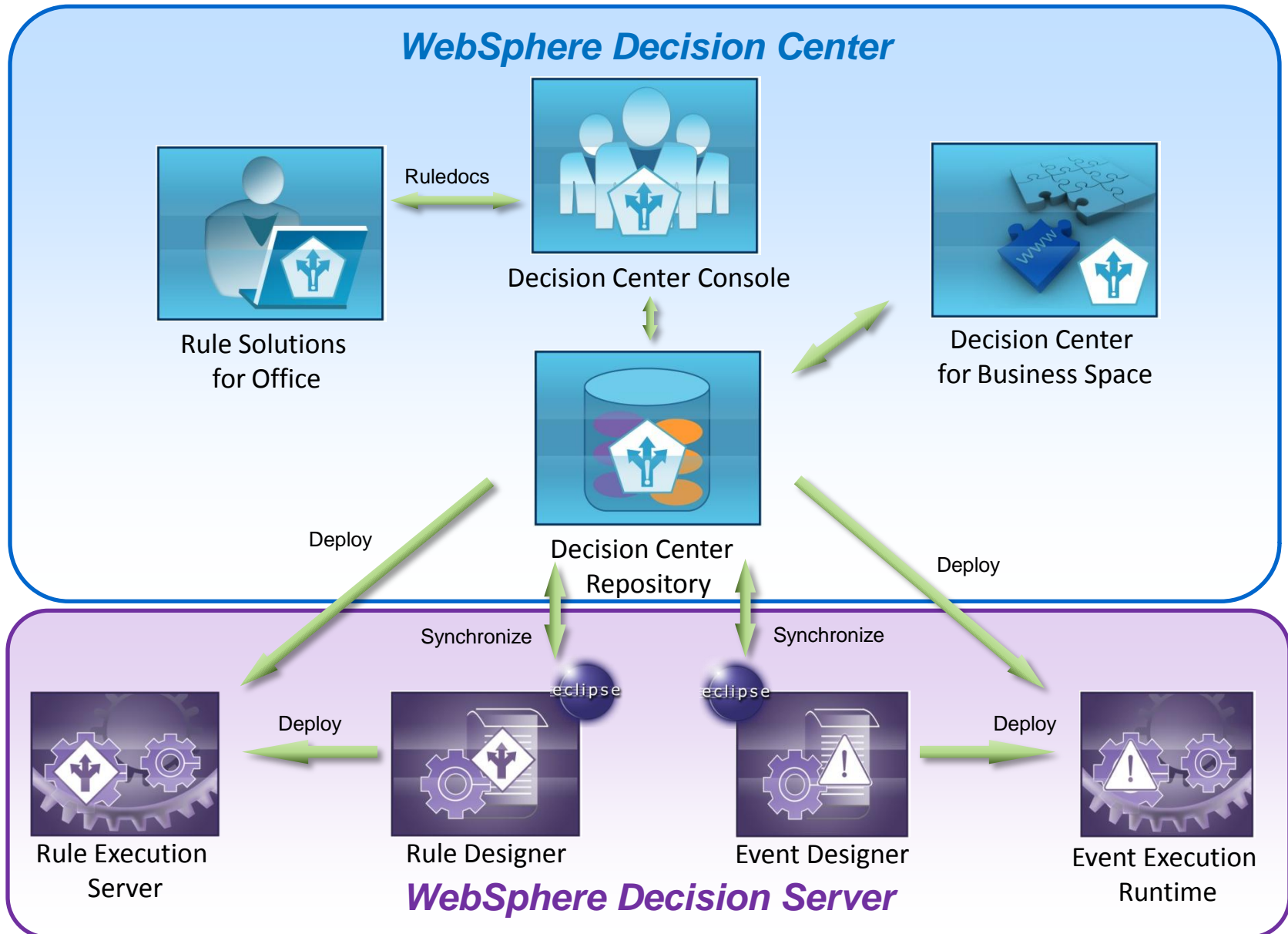


Rule Designer Event Designer

WebSphere Operational Decision Management

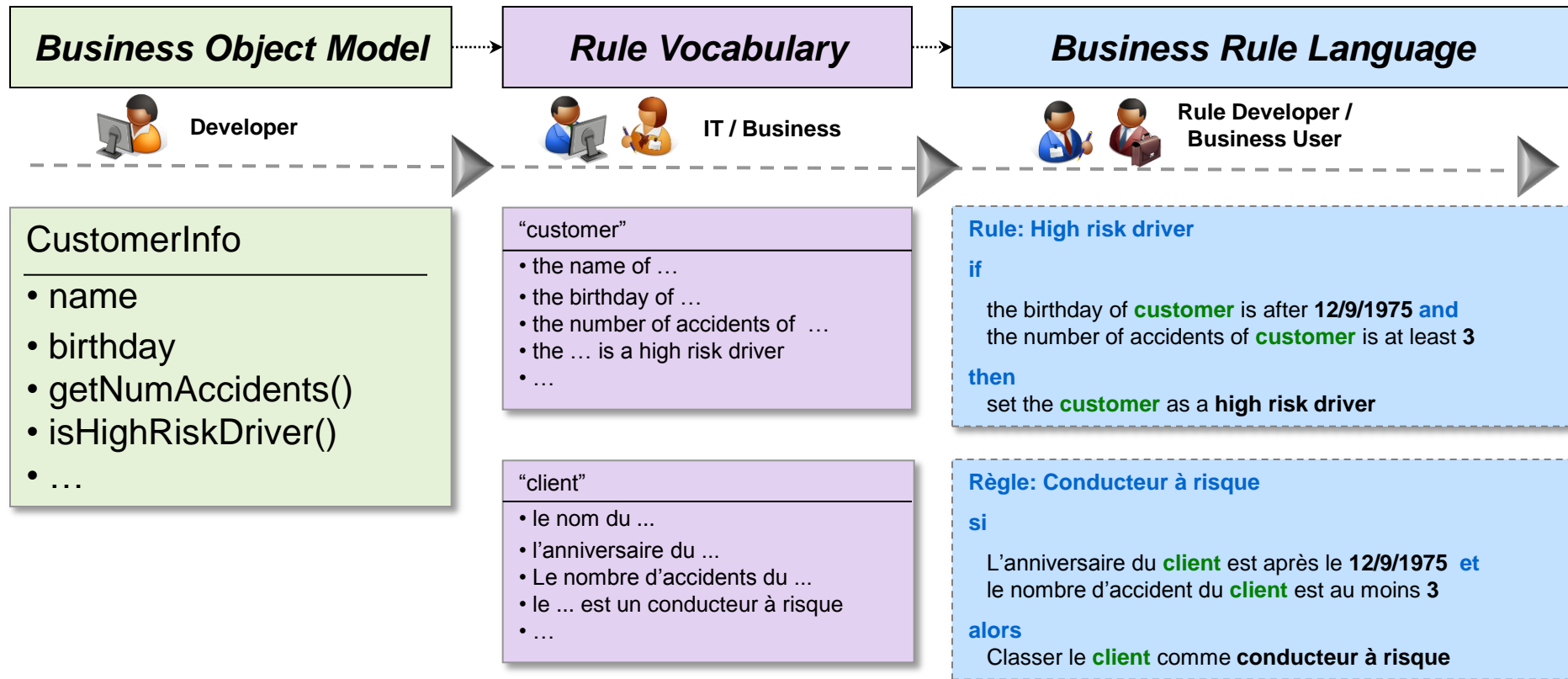


Relationships between components



Localization of Rule and Event Language

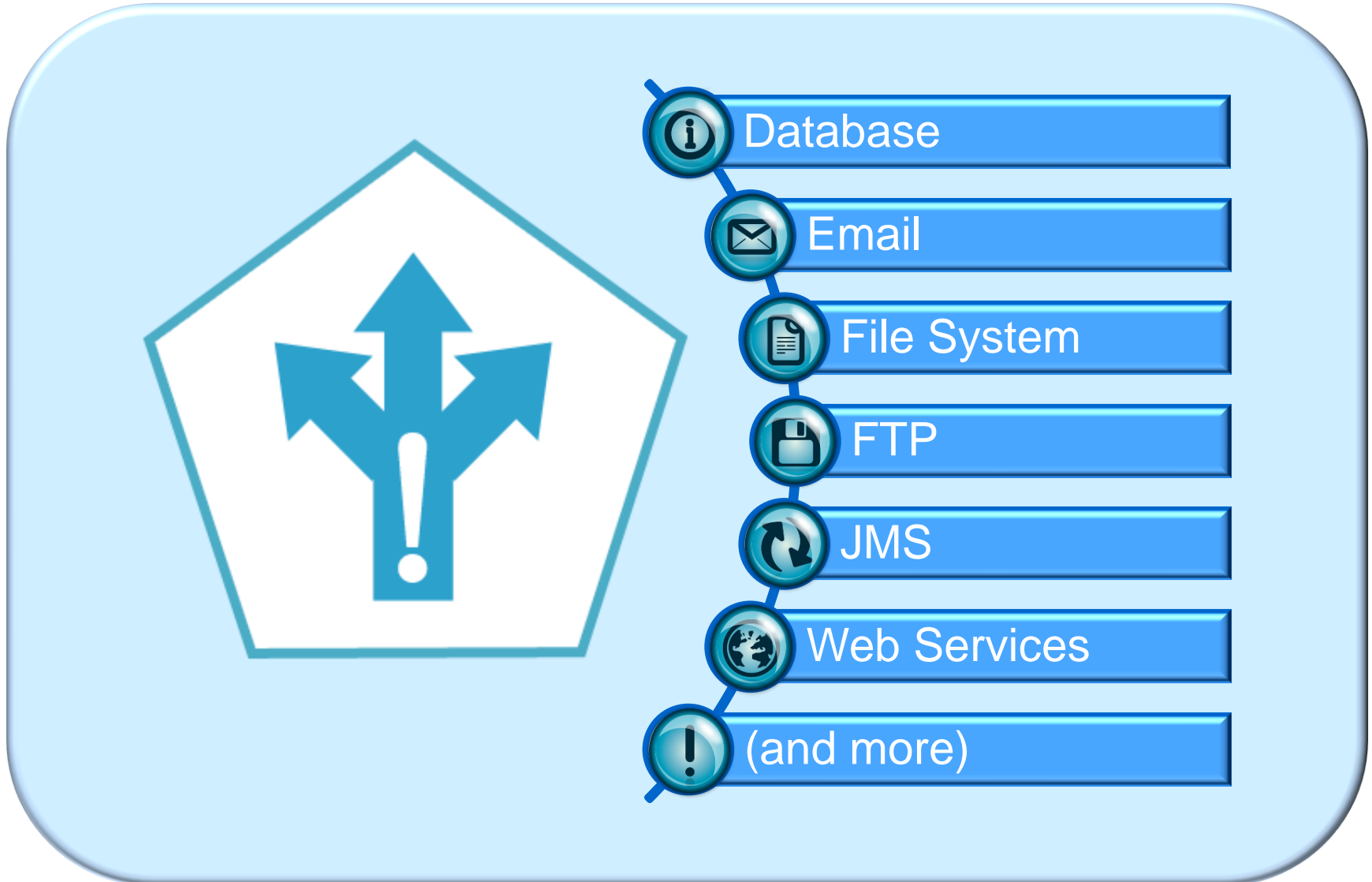
Allow users to work in native language – the execution language is *the same*



- ✓ Automatic generation of the rule vocabulary
- ✓ Comprehensive industry focused business terms to define its data and associated actions
- ✓ Localizable vocabulary

Event and Action Connectors

Quickly integrate existing systems using event and action connectors



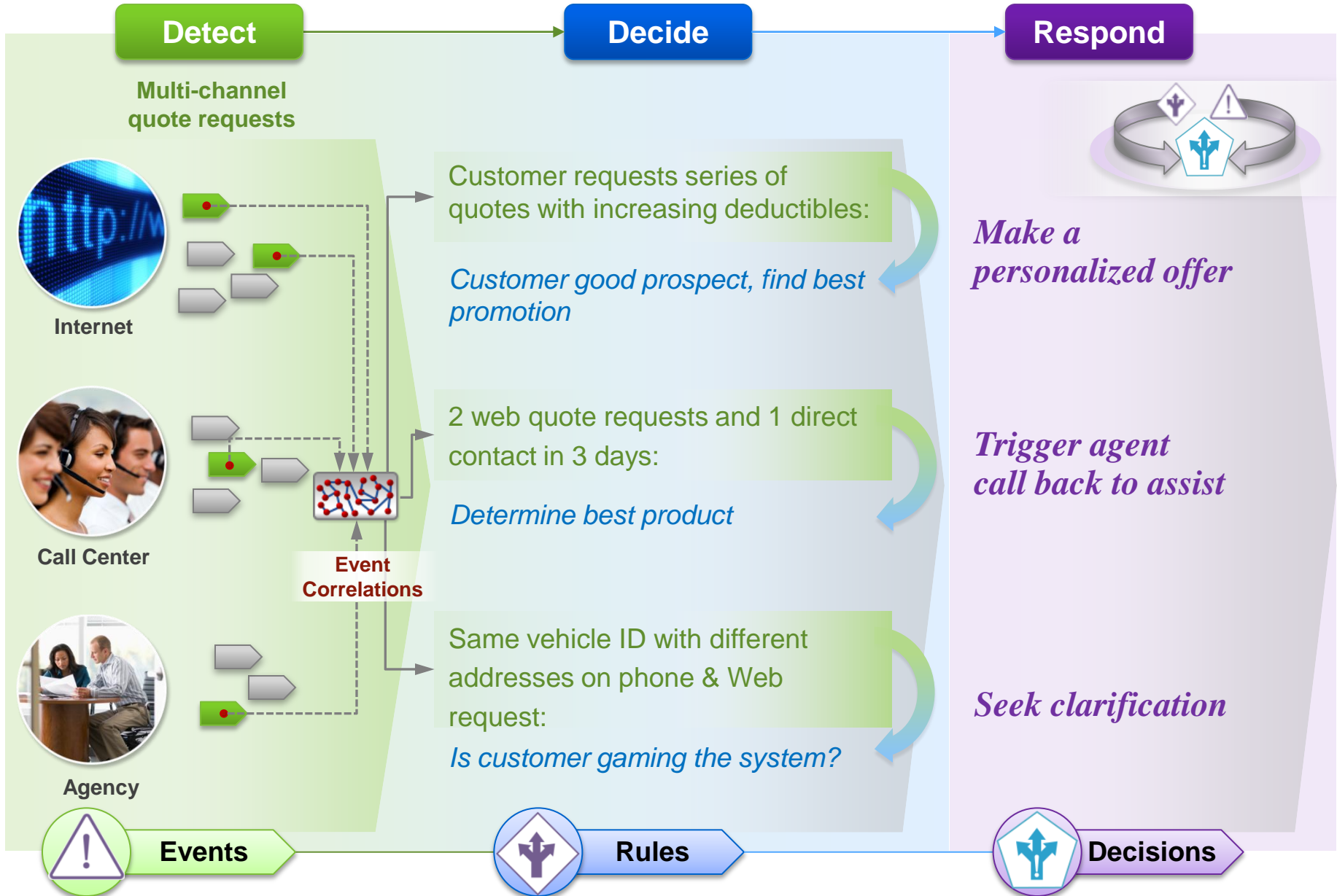
Agenda

- Operational decision management definition
- WODM architecture and concepts
- **Use cases**

How Decision Management Works: Customer Acquisition

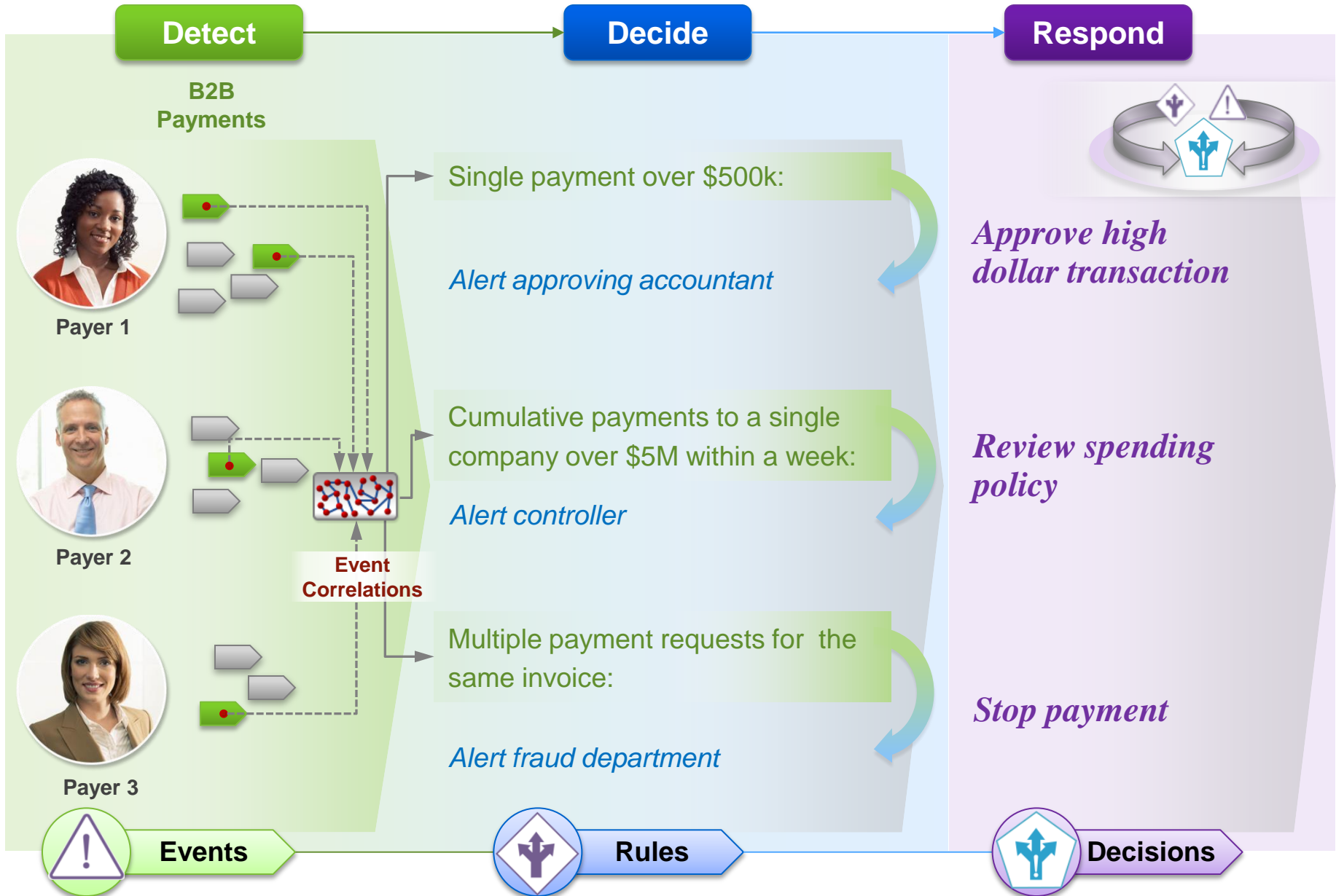


Insurance multi-channel customer acquisition



How Decision Management Works: Payments Processing

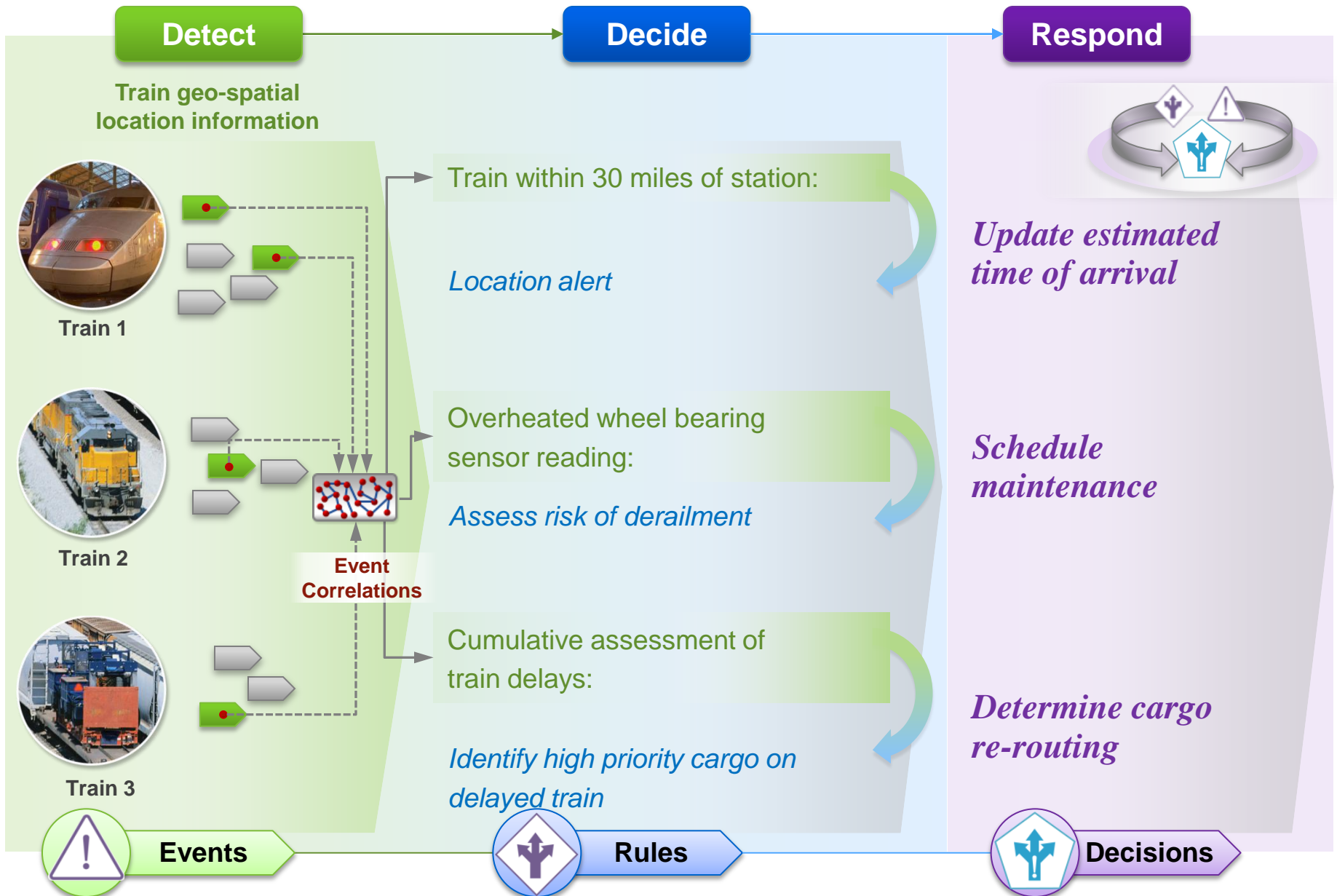
Financial corporate payment notification



How Decision Management Works: Logistics



Transportation real-time logistical support



Visa Europe Unifies Payments Across 36 Countries



Scalable, automated payment authorization and settlement system

Challenge:

- Complex European market with multiple currencies
- Payment authorization & settlement across 36 countries
- Regulatory requirement to unify payments across countries

Benefits:

- 3x faster time-to-market
- 25% cost reduction to maintain business logic
- Increased flexibility and responsiveness with business users managing the rules

Decision Management Solution

- *Financial payments authorization & settlement system*
- *System handles 30,000 rules and 500 transaction types for 4,000 institutions*

“Within 13 months we’ve made 60 rule changes... What [the system] gives us is tools that can put key capabilities into the hands of users. They become an integral part of the process, rather than mere consumers of it. That’s a tremendously powerful concept...”

~ Justin Snoxall, VP, Head of Development Services, Visa Europe

Swiss Customs Streamlines Border Control



Increases the speed and precision of tariff processing

Challenge:

- Facilitate trade while reducing threat of illegal goods
- Enforce customs regulations consistently
- Increase effectiveness of 2,500 customs officers

Benefits:

- Faster, yet better border checks with pre-validated customs declarations
- 96% of declarations are processed automatically
- Revenue of 23B Swiss Francs annually through tariffs

Decision Management Solution

- *Scalable system that validates 200,000 customs declarations daily*
- *Customs officers update the rules to keep pace with changing regulations*



“The quick and accurate validation of customs declarations with the IBM rules platform enables straight-through processing without human intervention, saving significant time and resources for both government and business.”

~ Stefan Huesemann, Principal Consultant at Innovation Process Technology AG

BNP Paribas Provides Personalized Offers to Customers

Rapidly adapts product recommendations to customers' individual attributes

Challenge:

- Construct grouped offers, such as providing home insurance with mortgage
- Personalize fees based on specific customer profile
- Provide incentive to customers to use multiple company products

Benefits:

- Reduce time-to-market from weeks to days
- Integrate offers across different lines of business
- Enable business users to generate, change and manage offers

Decision Management Solution

- *Allows the bank to precisely define highly variable decision logic*
- *Flexible solution that can be deployed in multiple countries, easily adaptable for differing financial rules and regulations*



“We needed a platform that could be reused regardless of the country or the types of products... the products which are distributed in Ukraine, for example, are not the same as the products in Italy.”

~ Vladimir Milojkovic, Project Manager, BNP Paribas

Thank
You