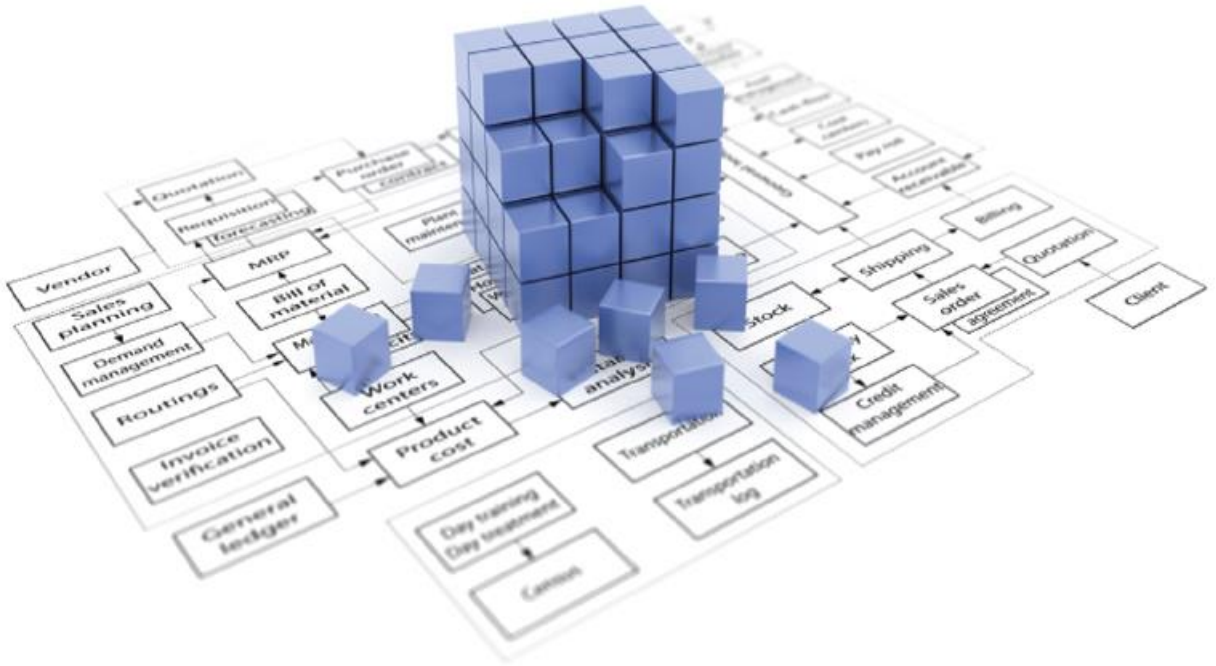
Progress Corticon Integration with Progress OpenEdge and BPM

Ankur Goyal – Corticon Product Manager

Ken Smyth – Sales System Engineer

Agenda

- Changing Complexities of the Business
- Ruling Processes or Processing Rules?
- Integration Flow
- Customer Successes
- Q&A



Changing Complexities of Business

Decision Time	Days	Real-Time
Objectives	Straightforward	Complex Trade-offs
Regulations	Local and Simple	Complex and Global
Uncertainty	Low	Very High
Strategy Changes	Every 3-5 Years	Constant
Decision-Making	Well-Defined	Increasingly Complex
Operational Volume	Low	High

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Responding to Increasing Complexities

Business Process Management Delivers…

- Manage uncertainty
- Ensure compliance
- Improve agility
- Cut costs
- Resource efficiency
- Core application value
- Process simulation and impact analysis
- Run processes exactly as documented
- Easier workflow and process changes
- Avoid coding changes to multiple applications
- Measure and adapt human workflow
- Share processes across the enterprise

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Responding to Increasing Complexities

Enhance Process Management

- Manage uncertainty
- Ensure compliance
- Improve agility
- Cut costs
- Resource efficiency
- Core application value
- Predict and test the future
- Demonstrate compliance in every action
- Give business user control with stable processes
- Lower maintenance costs with fewer manual reviews
- Focus people on higher value tasks
- Modularize and modernize

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Use Processes with Decisions

Process

- Business users determine ***sequence***
- Based on business policies and services
- Rapidly model, ***assemble***, deploy, govern services
- Reuse business ***processes*** and ***services***
- End-to-end visibility of ***business processes***

Decision

- Business users determine ***actions***
- Based on regulations, policies, expertise
- Rapidly define and evolve the ***behavior*** of a service
- Reuse business rules ***across services***
- Visibility ***within*** critical business services

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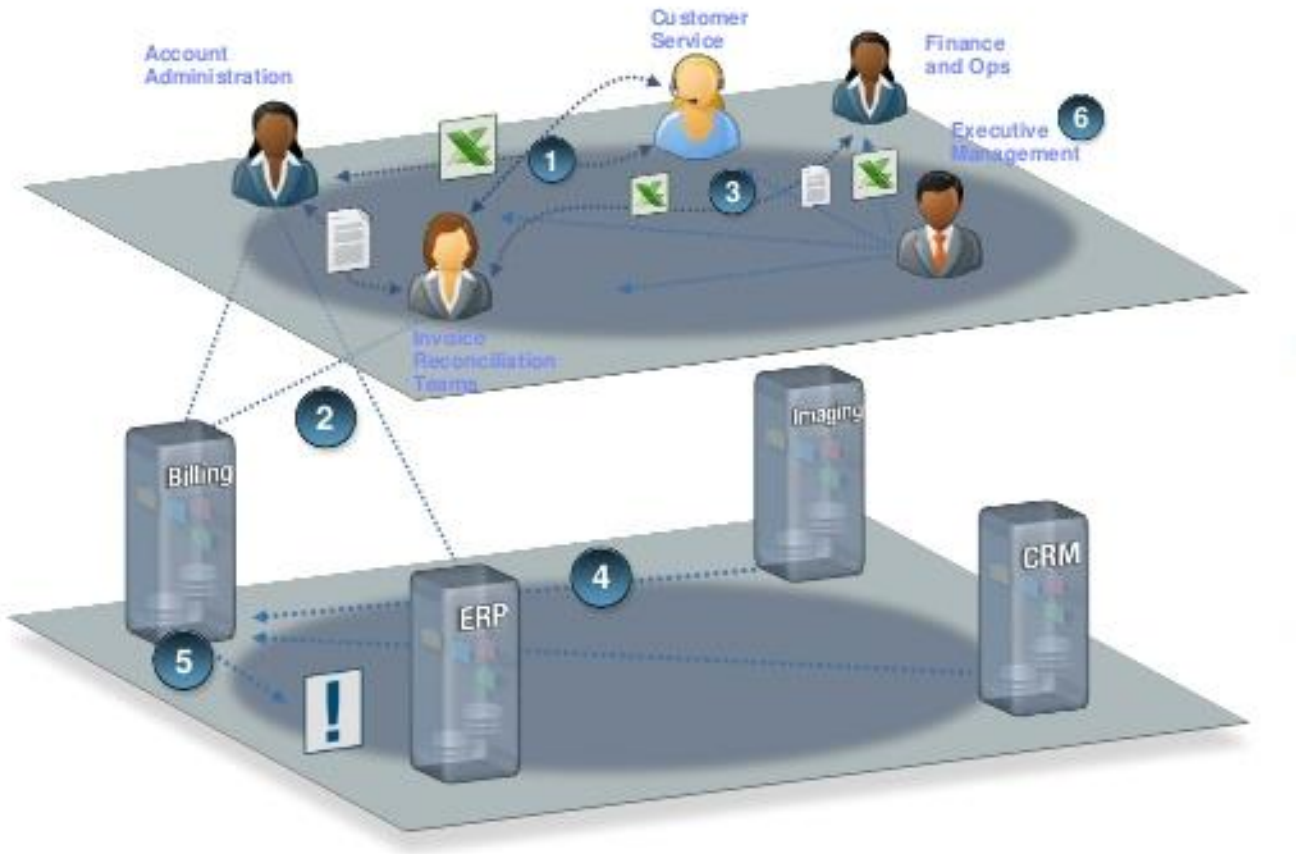
Typical Process Problems



- Unstructured tasks and communication
- Inefficient working environment spans systems
- Inconsistent prioritization
- Incomplete or inaccurate data flow between systems
- Lack of control over system and business events
- Poor visibility into process performance

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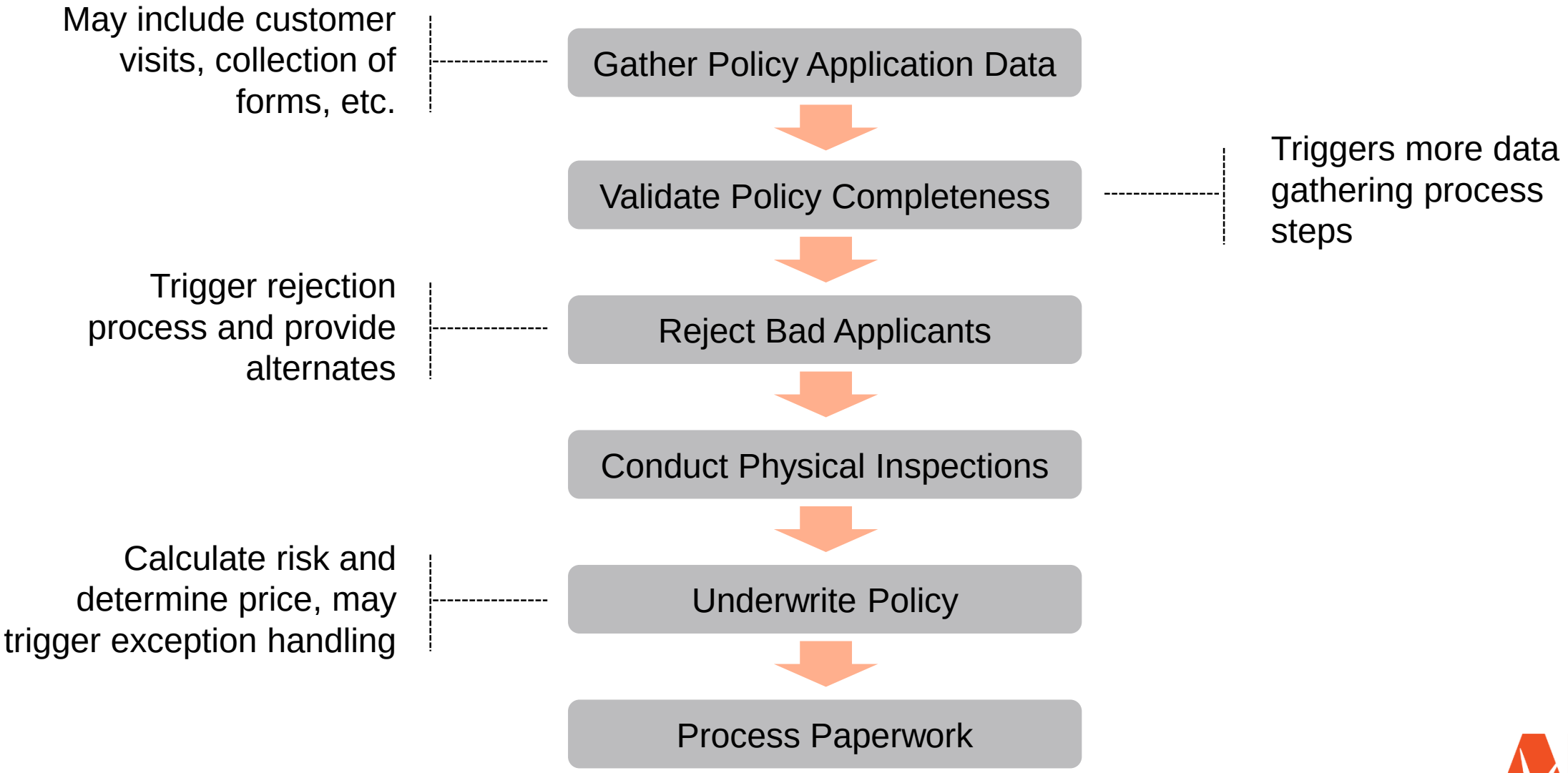
Insurance Underwriting Example



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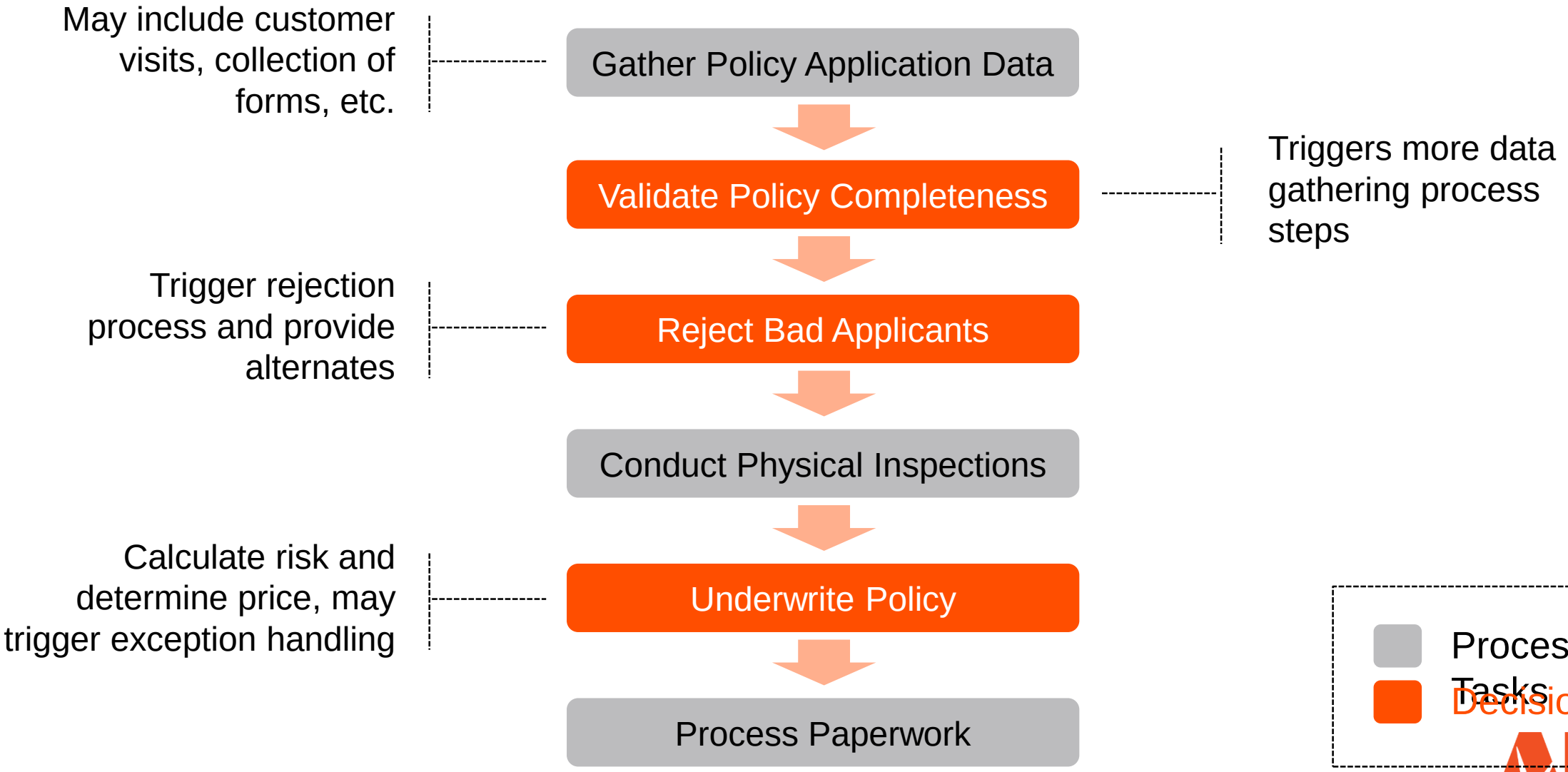
Insurance Underwriting Example



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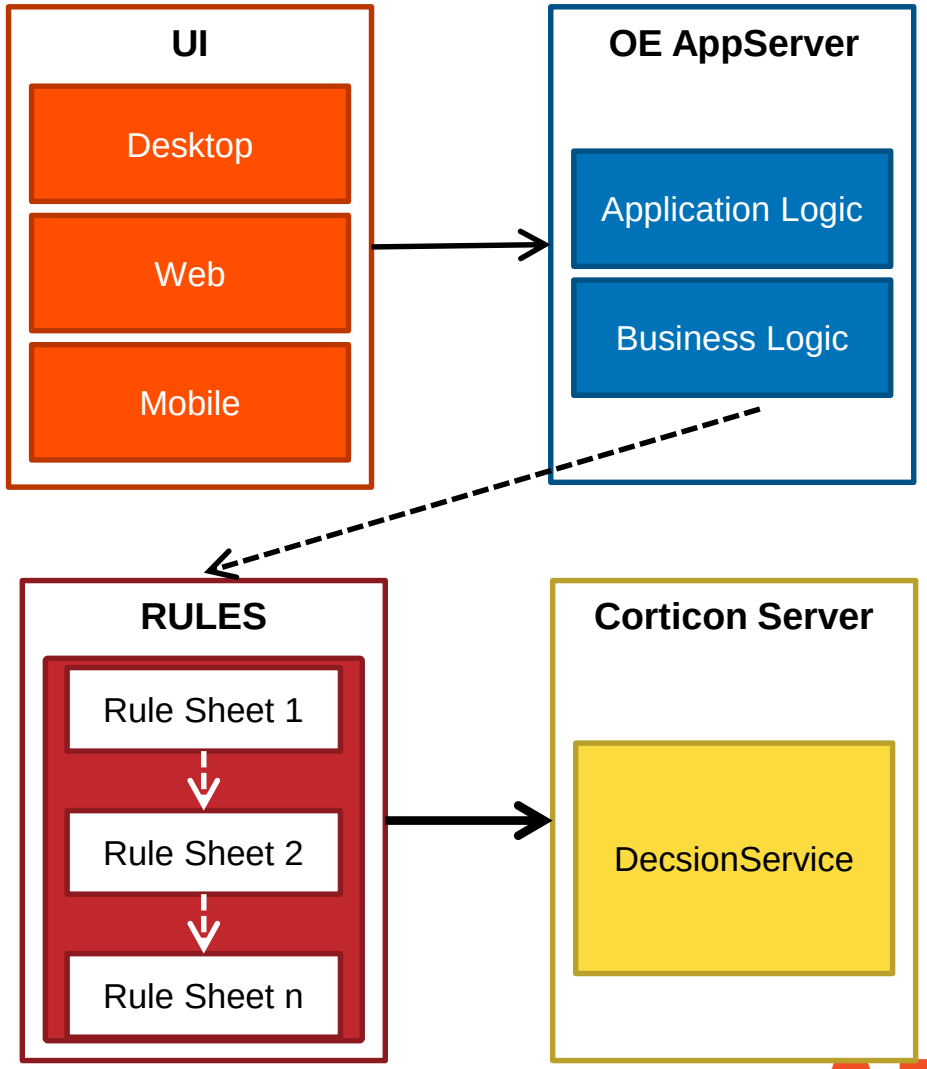
Challenges Encountered if Rules Written in ABL

- Ties up valuable ABL development resources
- High maintenance cost and extended release cycles
- Hard to detect rule Ordering errors
- Hard to identify Conflicting rules, Completeness



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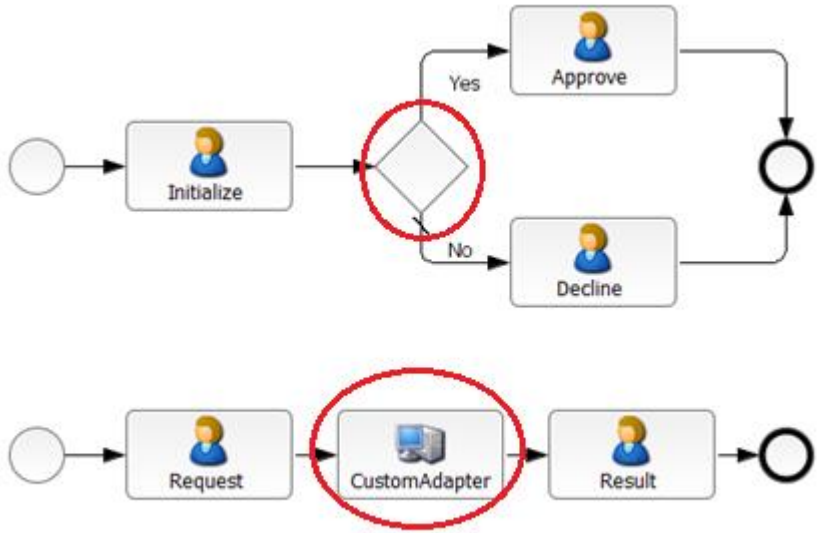
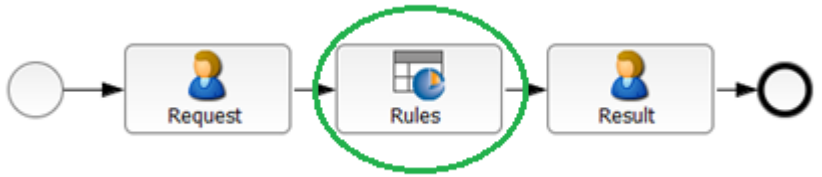
Challenges Encountered if Rules Developed in OpenEdge BPM

- Difficulty in modeling complex rules
- No reusability of rules across different process
- Lack of visibility for rule execution
- Changing the logic results in modification, redeployment

When Used Decisions and CustomAdapter



Replaced With Corticon Adapter



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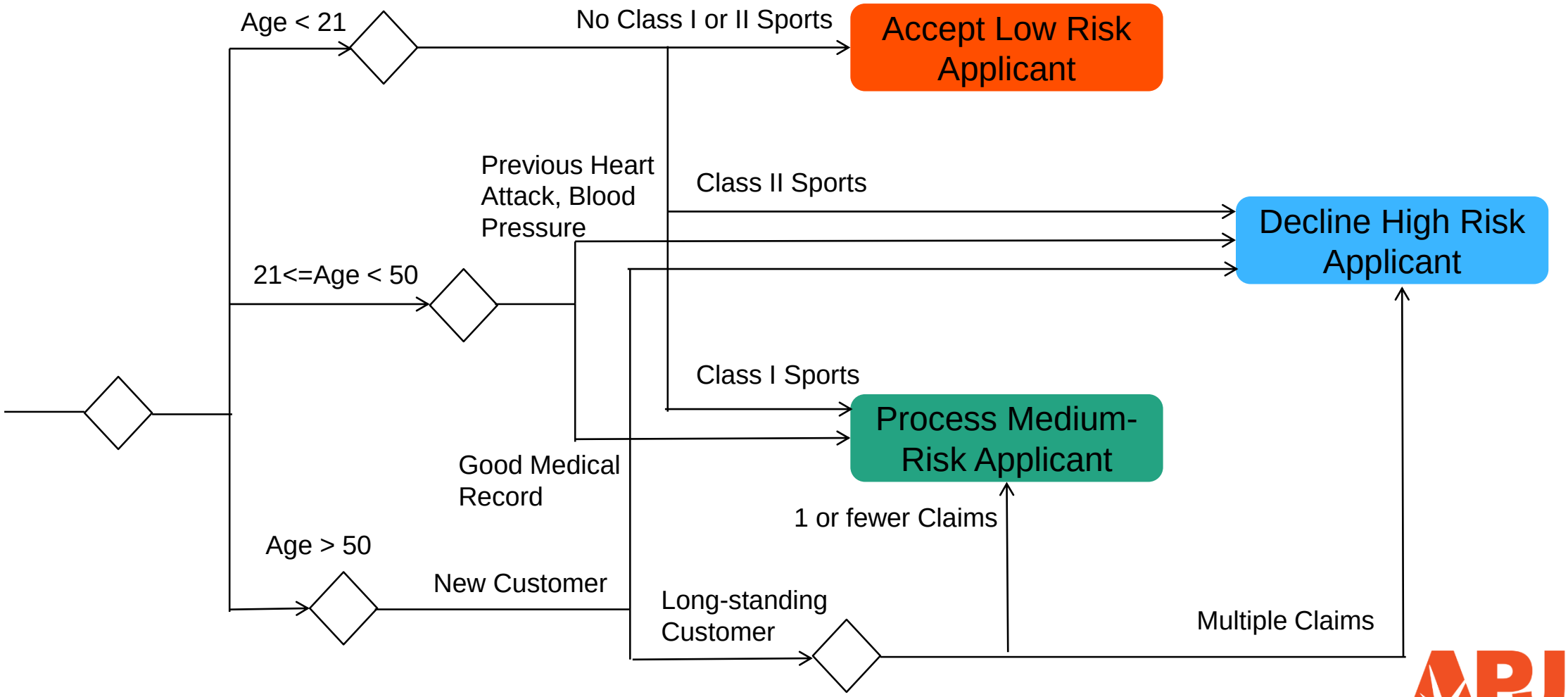
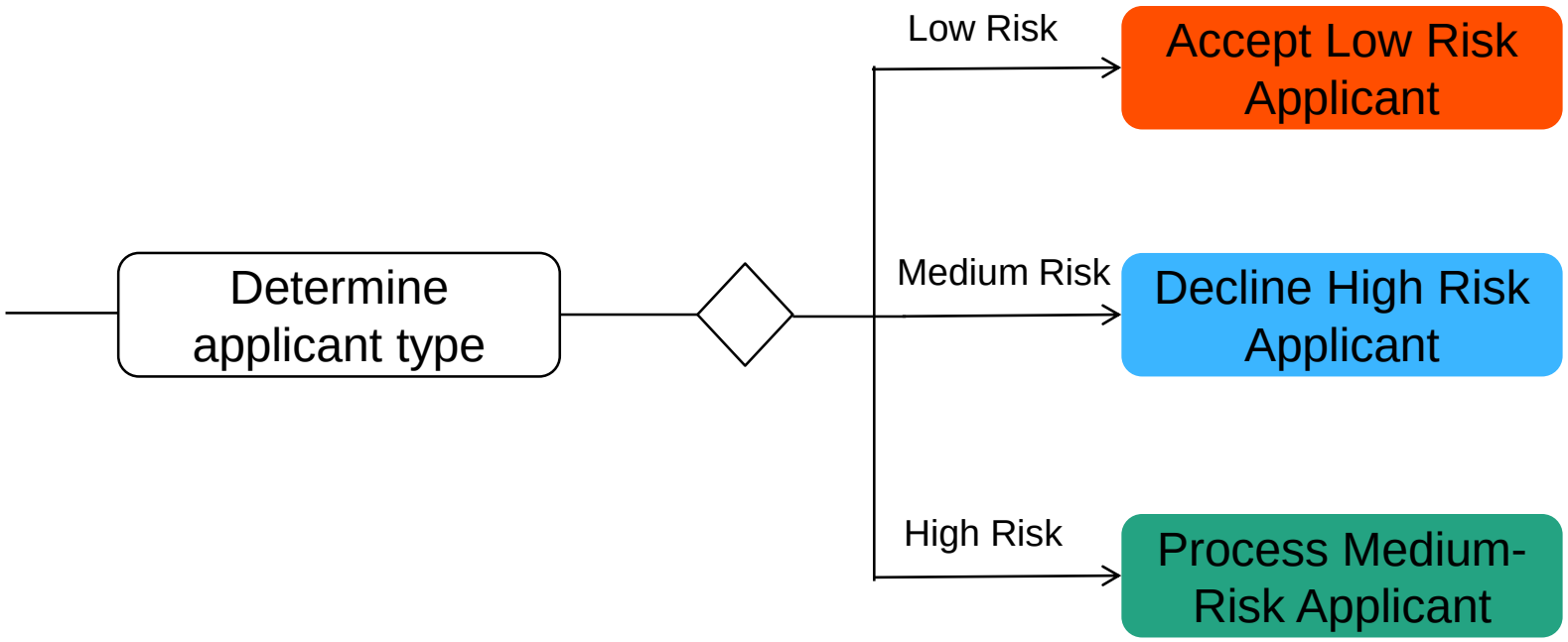
Complicated Process Flow



Process Flow Using Decisions



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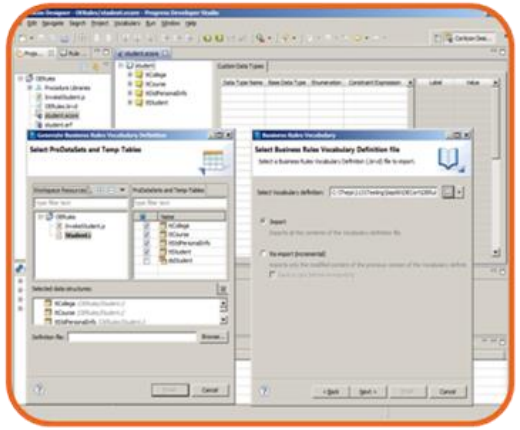
OpenEdge – Corticon

PROGRESS EXCHANGE 2014

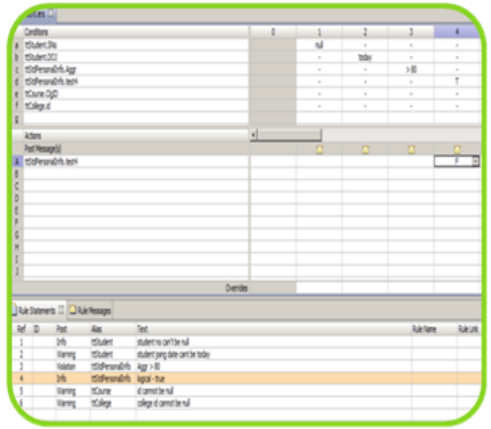
OpenEdge – Corticon

Define Schema → Create Rules → Deploy → Invoke Decision Service

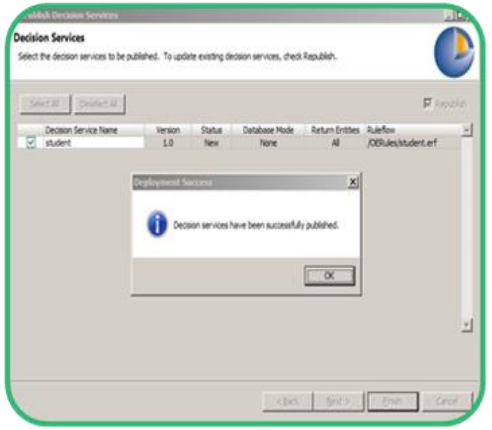
Define Schema in ABL



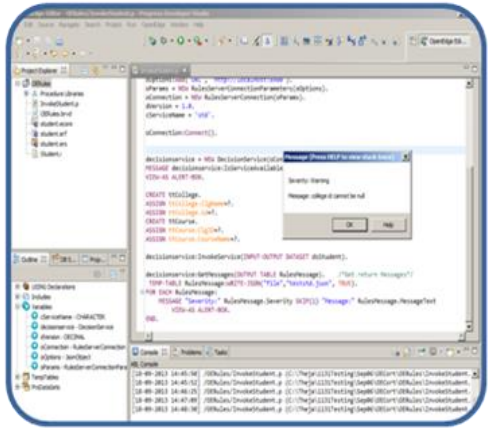
Write business rules in Corticon



Deploy the rules to Corticon Server



Invoke Decision Service from ABL



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OpenEdge – Corticon

Define Schema → Create Rules → Deploy → Invoke Decision Service

- Define ABL Schema
  - Temp-Table
  - ProDataSet
- Export Schema
  - Export from PDS for OE
  - Business Rules Vocabulary Definition(BRVD) file

```
DEFINE TEMP-TABLE Transanction
    FIELD TransactionID AS INTEGER
    FIELD CCNumber      AS INT64
    FIELD Name          AS CHAR
    FIELD ExpiryDate    AS DATE
    FIELD Amount        AS DECIMAL
    FIELD Result        AS LOGICAL
    FIELD ResMessage    AS CHARACTER.

DEFINE TEMP-TABLE CCInfo
    FIELD CCNumber   AS INT64
    FIELD HolderName AS CHARACTER
    FIELD ExpiryDate AS DATE
    FIELD Limit      AS DECIMAL.

DEFINE DATASET dsCCard FOR CCInfo, Transanction
    DATA-RELATION relation1 FOR  CCInfo, Transanc
    RELATION-FIELDS (CCNumber, CCNumber).
```

```
<ns2:table name="CCInfo">
    <ns2:fields>
        <ns2:field name="CCNumber" type="xs:long"/>
        <ns2:field name="HolderName" type="xs:string"/>
        <ns2:field name="ExpiryDate" type="xs:date"/>
        <ns2:field name="Limit" type="xs:decimal"/>
    </ns2:fields>
</ns2:table>
<ns2:table name="Transaction">
    <ns2:fields>
        <ns2:field name="TransactionID" type="xs:int"/>
        <ns2:field name="CCNumber" type="xs:long"/>
        <ns2:field name="Name" type="xs:string"/>
        <ns2:field name="ExpiryDate" type="xs:date"/>
        <ns2:field name="Amount" type="xs:decimal"/>
        <ns2:field name="Result" type="xs:boolean"/>
        <ns2:field name="ResMessage" type="xs:string"/>
    </ns2:fields>
</ns2:table>
```

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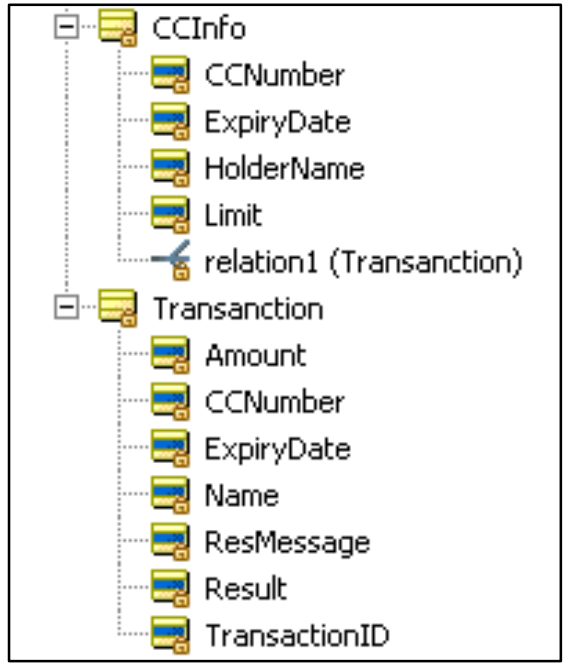
OpenEdge – Corticon

Define Schema | **Create Rules** | Deploy | Invoke Decision Service

- Import Schema
  - BRVD file -> Vocabulary file
  - Temp-Table -> Entity
  - Temp-Table Fields -> Entity Attributes
- Write Rules
  - Create Rule Sheet
  - Write rules



Conditions	0	1
Transanction.Amount > CCInfo.Limit		T
CCInfo.ExpiryDate < today		-
Transanction.ExpiryDate <> CCInfo.ExpiryDate		-
Transanction.Name		-
Transanction.Name <> CCInfo.HolderName		-
Actions		
Post Message(s)		
Transanction.Result	T	F
Transanction.ResMessage	...	'"Limit Exceeded"'

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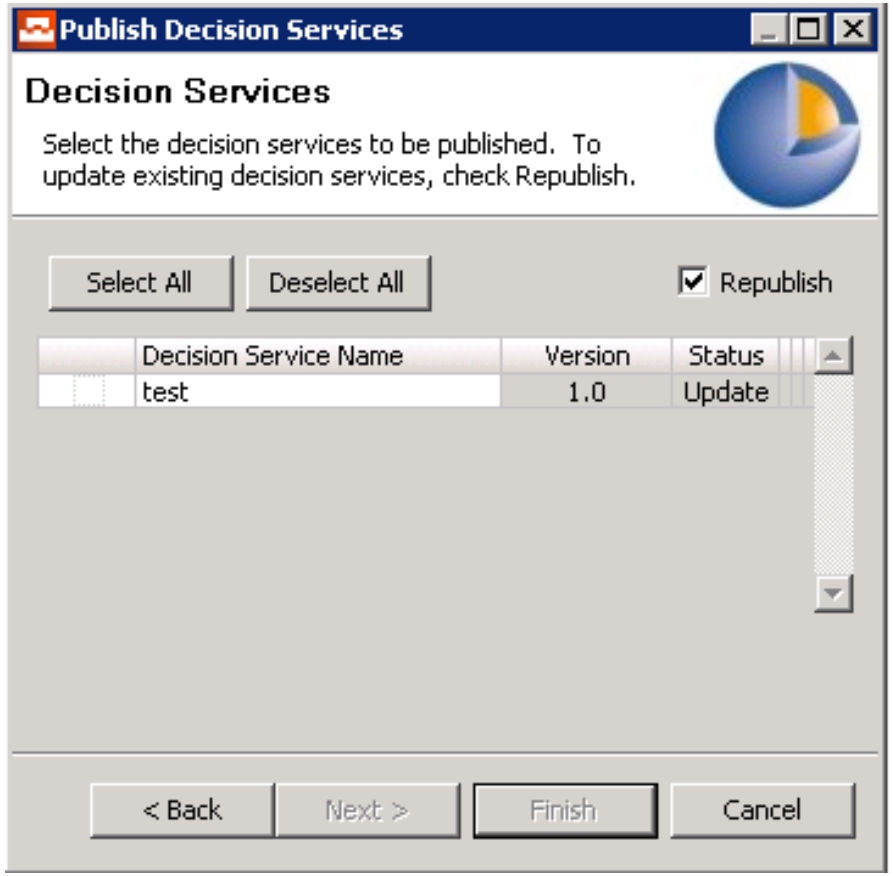
OpenEdge – Corticon

Define Schema | Create Rules | **Deploy** | Invoke Decision Service

- Define Flow
  - Create Rule flow
  - Define the flow
- Deploy
  - Configure Corticon Server
  - Deploy Rule Flow to Server



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OpenEdge – Corticon

Define Schema → Create Rules → Deploy → **Invoke Decision Service**

- Invoke Decision Service
  - ABL API
    - Connect
    - IsDecisionService
    - InvokeService
    - GetMsgs
    - Disconnect

```
oOptions = NEW JsonObject().
oOptions:Add('URL', 'http://localhost:8980').
oParams = NEW RulesServerConnectionParameters(oOptions).
oConnection = NEW RulesServerConnection(oParams).
dVersion = 1.0.
cServiceName = 'testDemo'.

TEMP-TABLE Transanction:WRITE-JSON("file","before.json", TRUE).

decisionservice = NEW DecisionService(oConnection, cServiceName, dVersion).

hAppData =  DATASET dsCCard:HANDLE.
decisionservice:InvokeService(INPUT-OUTPUT DATASET-HANDLE hAppData).
```

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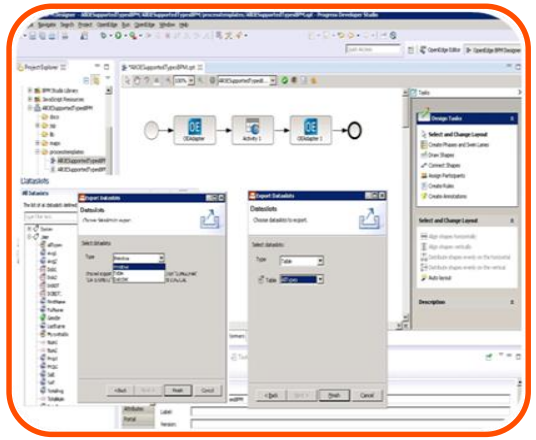
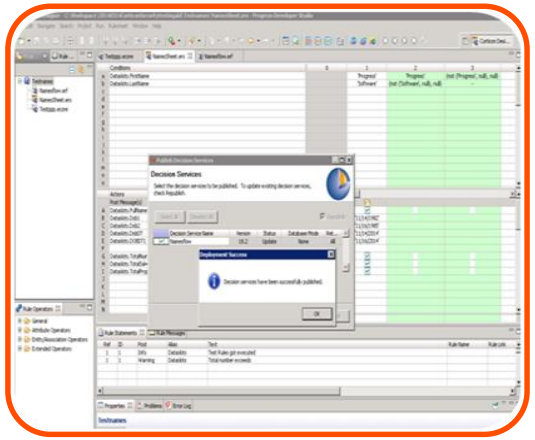
OpenEdge BPM – Corticon

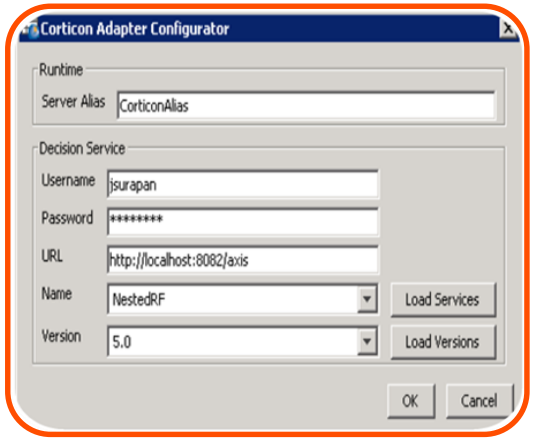
PROGRESS EXCHANGE 2014

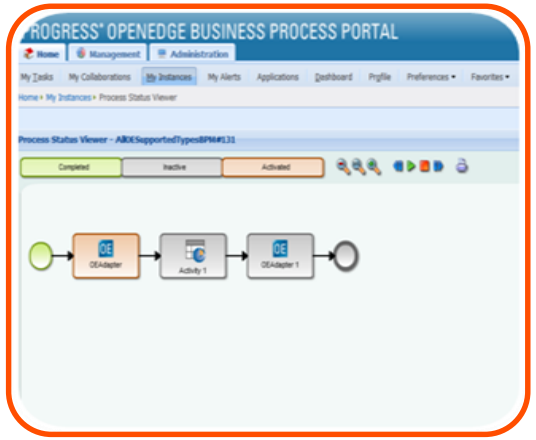
OpenEdge BPM – Corticon

Define Dataslots	Model & Deploy Business Rules	Configure Corticon Adapter	Invoke Decision Service
Export Schema from Dataslots and Import it as Vocabulary	Create Business Rules and Deploy	Configure Corticon Adapter	Invoke the adapter from Business Process









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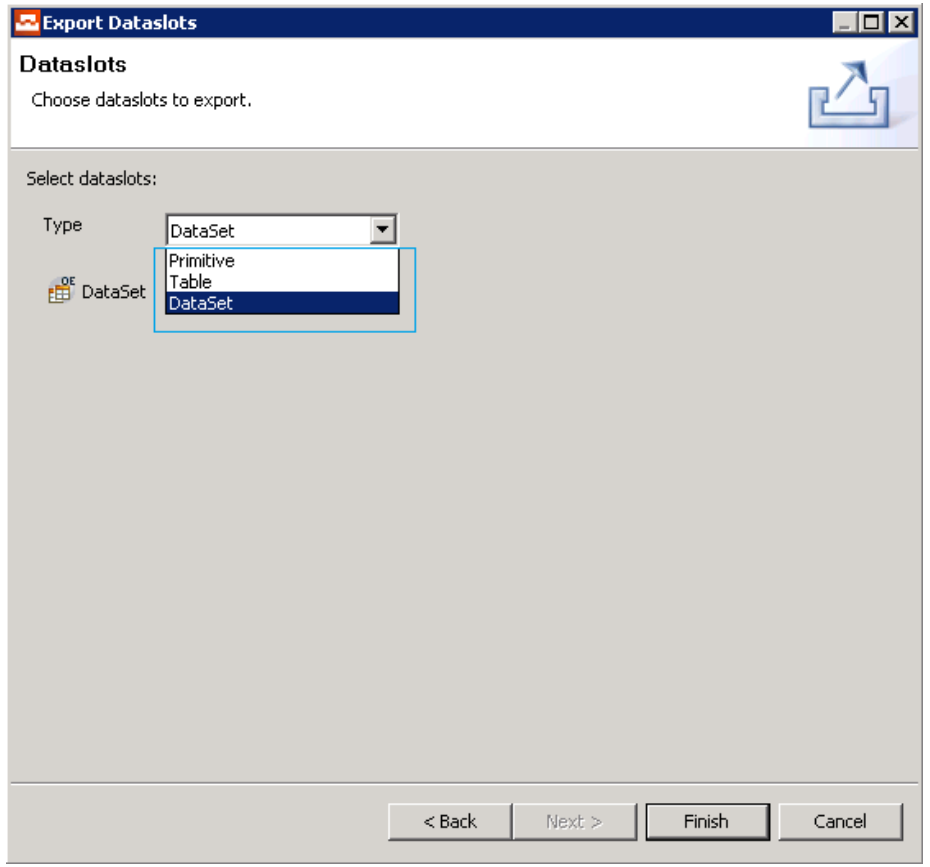
OpenEdge BPM – Corticon

Define Dataslots | Model & Deploy Business Rules | Configure Corticon Adapter | Invoke Decision Service

- Define Dataslots
  - Primitives, Prodatasets and Temp-Table types
  - Assign schema definition for Prodatasets and Temp-Table
- BRVD Export
  - Primitives
  - Prodatasets
  - Temp-Table



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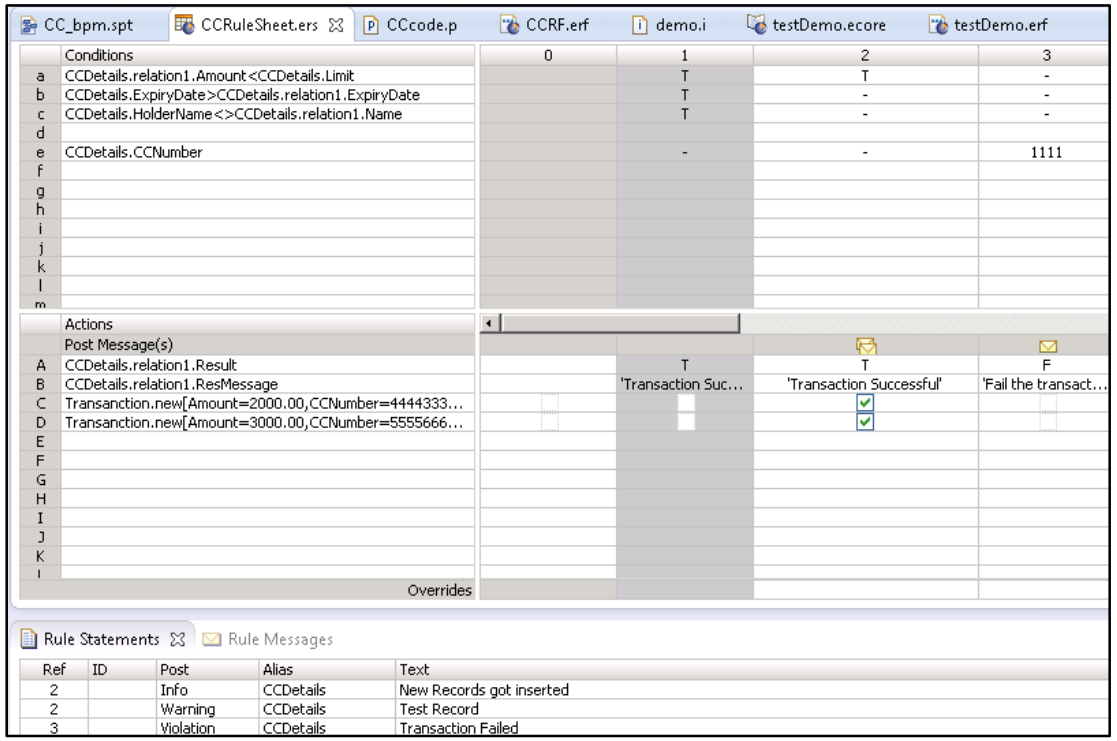
OpenEdge BPM – Corticon

Define Dataslots | **Model & Deploy Business Rules** | Configure Corticon Adapter | Invoke Decision Service

- Corticon studio
  - Create Corticon Project
  - Import BRVD
  - Create Rule sheet and model rules
  - Define Rule flow using the Rule sheet
- Corticon server
  - Deploy the modeled Rule flow



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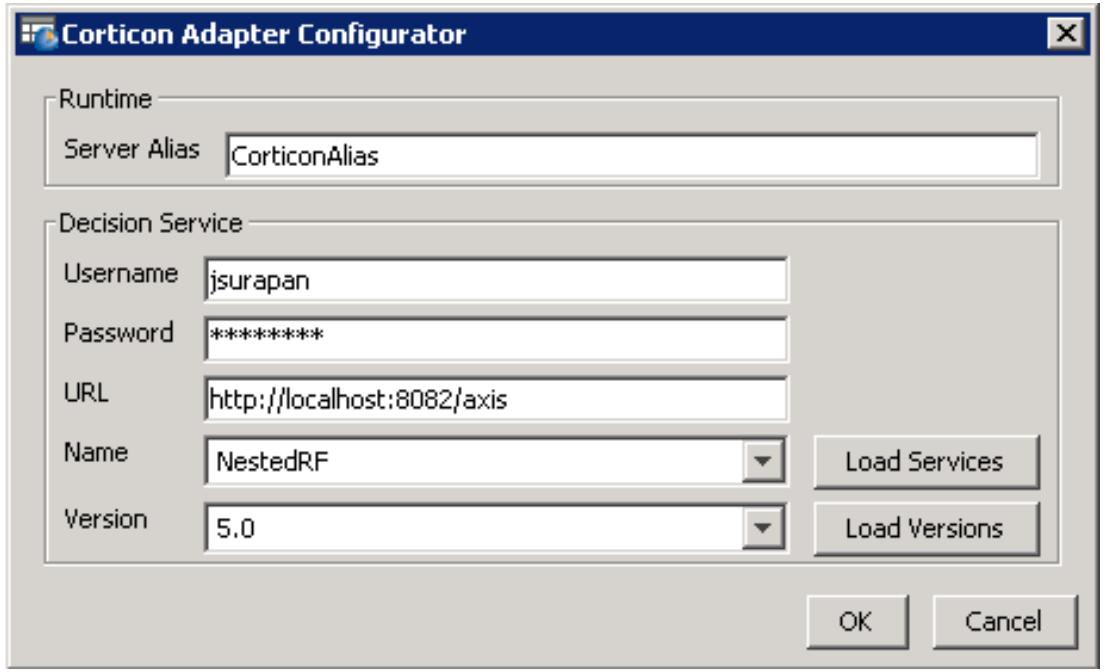
OpenEdge BPM – Corticon

Define Dataslots → Model & Deploy Business Rules → **Configure Corticon Adapter** → Invoke Decision Service

- In BPM studio
  - Model BPM process
  - Add Corticon adapter
- In Corticon Adapter
  - Username & Password (If secured)
  - Server URL
  - Decision Service name
  - Decision Service version
  - Define dataslot mapping for either Primitive/Prodataset/Temp-Table types



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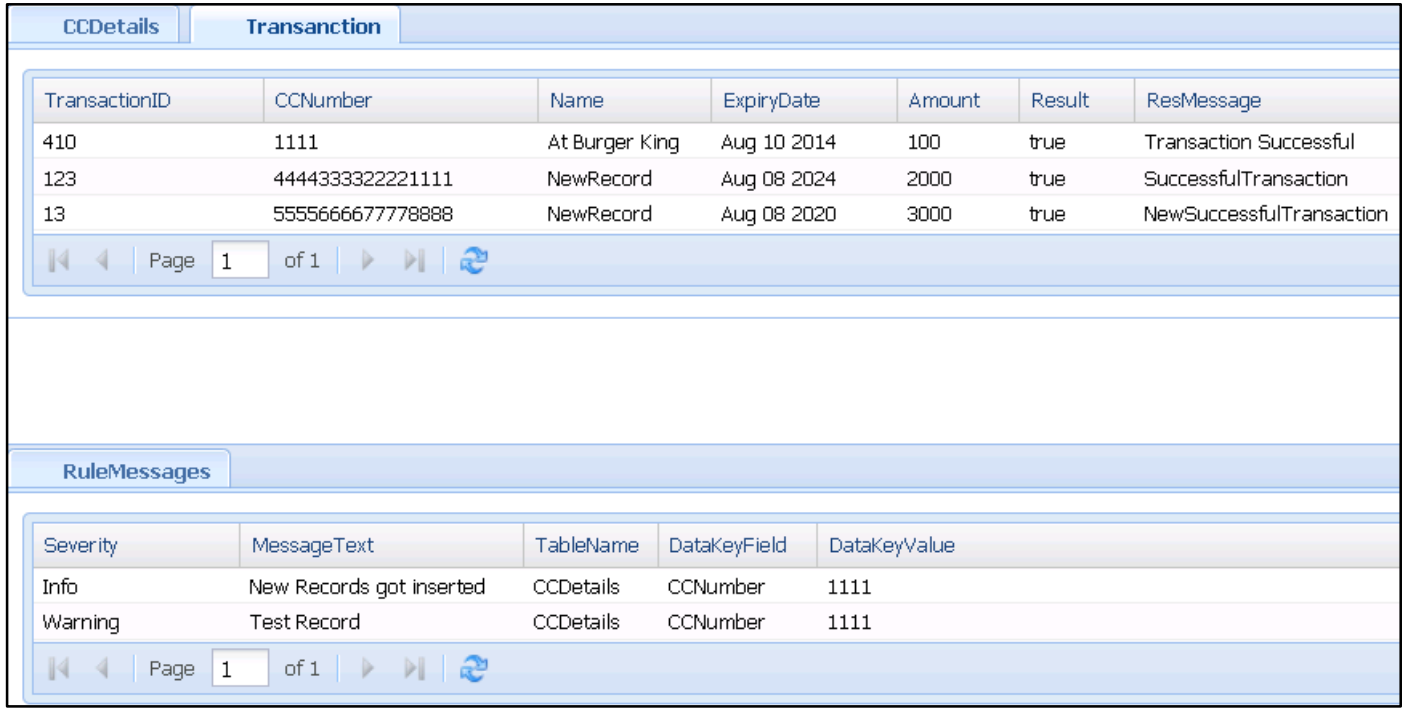
OpenEdge BPM – Corticon

Define Dataslots → Model & Deploy Business Rules → Configure Corticon Adapter → **Invoke Decision Service**

- Deploy the Business Process
- In Portal
  - Instantiate the process
  - Invoke decision service using Corticon Adapter



CCDetails | Transanction

TransactionID	CCNumber	Name	ExpiryDate	Amount	Result	ResMessage
410	1111	At Burger King	Aug 10 2014	100	true	Transaction Successful
123	4444333322221111	NewRecord	Aug 08 2024	2000	true	SuccessfulTransaction
13	5555666677778888	NewRecord	Aug 08 2020	3000	true	NewSuccessfulTransaction

Page 1 of 1

RuleMessages

Severity	MessageText	TableName	DataKeyField	DataKeyValue
Info	New Records got inserted	CCDetails	CCNumber	1111
Warning	Test Record	CCDetails	CCNumber	1111

Page 1 of 1

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TEXAS DEPARTMENT OF INSURANCE

*"Corticon has enabled TDI **to automate far more of the claims** process than we ever thought possible."*

– Scott Ashworth, Solutions Architect

CHALLENGE

- Thousands of claims from thousands of employers
- Manual, error-prone process
- High fraud rates

SOLUTION

- **Progress Corticon** BRMS to ensure usiness analysts manage rules, logical consistency, and ntegrate with existing BPM solution

BENEFIT

- 50% reduction in claims processing cost
- 80% reduction in time to close
- 80% leakage reduction
- 50% faster changes

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LexisNexis®

“Business agility was a key criterion and Corticon was rated best at enabling fast and accurate changes to our processes.”

– *Steve Iddings, Director of Applications Integration*

CHALLENGE

- Automate validation, routing, fulfillment of orders from multiple sources
- Increase order processing consistency
- Shrink long fulfillment lead times
- Reduce time to market for new and modified products

SOLUTION

- **Progress Corticon** BRMS to enable rapid, non-templated rule change

BENEFIT

- Business users now build 90% of business logic without consuming IT resources
- Eliminated 50% of cost of new projects
- Eliminated 80% of cost to change logic
- Empower business users
- Scale to thousands of transactions per second
- Integrate with Intalio BPM

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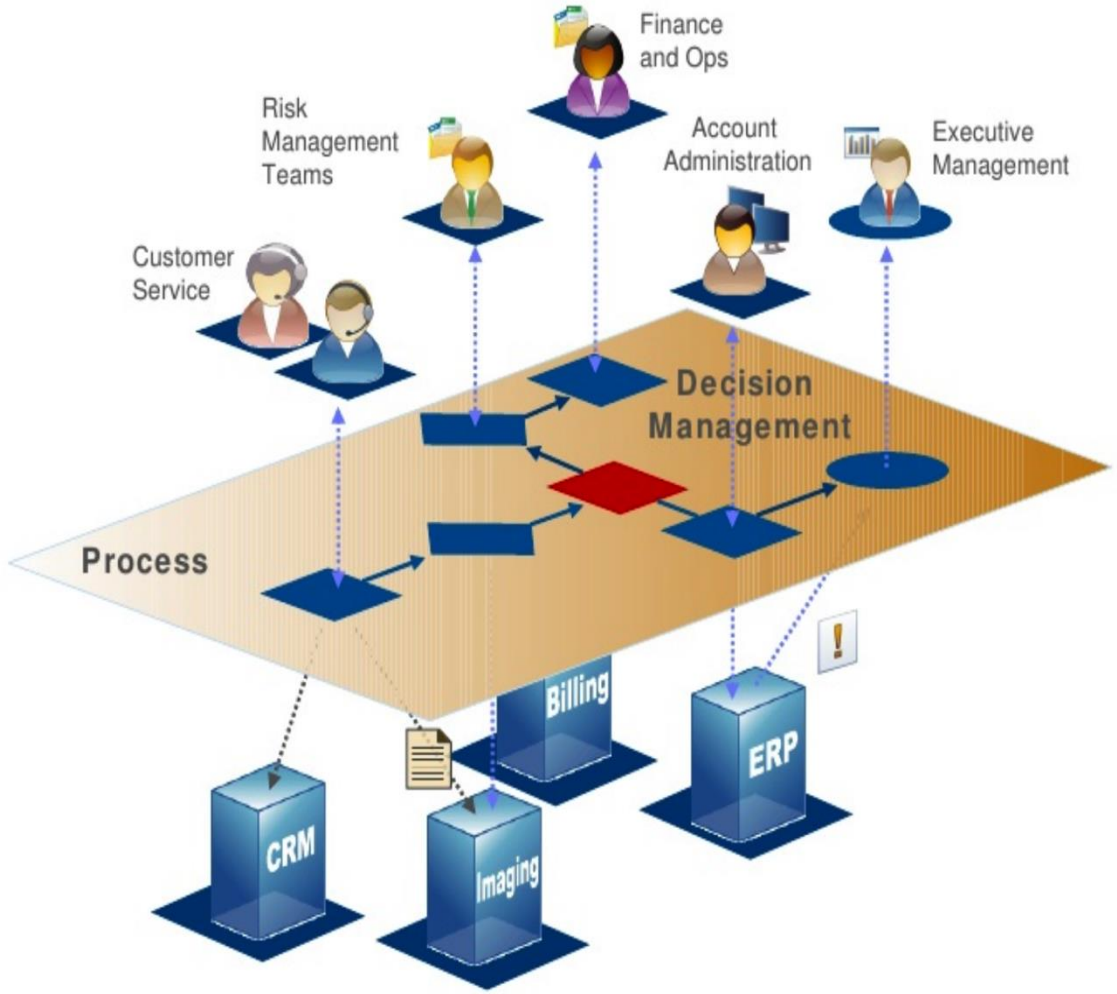
Bring Order to Chaos



- Automate workflow and decision making
- Reduce errors and improve consistency
- Standardize resolution across geographies
- Leverage existing systems and data
- Monitor for business events and initiate actions
- Real-time visibility and process control

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Q&A

Your Feedback Matters

Best Tweets

2 Winners get a GoPro Hero 4 Camera worth USD 399 each!

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Take 10 Surveys

2 Winners get a Microsoft Band worth USD 199 each!

Take 10 surveys and stand a chance in the lucky draw!

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