

Business Transformation Utilizing Business Rule Technologies

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UNISYS

Imagine it • Done •

- > **Systems Integration.**
- > **Outsourcing.**
- > **Infrastructure.**
- > **Server Technology.**
- > **Consulting.**

Agenda

- > Objectives
- > Who Are We
- > Business Blueprints
- > Process Case Study
 - *Process Description for Check Truncation*
 - *Business Rule Taxonomy*
 - *Standardized Business Rule Capture*
- > Conclusions
- > Q&A



Objectives

> *What you should take away:*

- Change is a Constant. *Build to last because you build to change*
- Business Blueprinting Enables the Agile Corporation
 - Provides a Holistic View of the Corporation
 - Enables Digital Capture of Intellectual Assets
 - Provides Traceability from Business Strategy through to Technology Infrastructure
 - Industry Standard Components and Business Patterns
- Standardized Approach to Capture Business Rules

> *Benefits+:* **Beyond traditional benefits.**

- Future-proof solutions
- Alignment between the Business and Technology Strategies
- Business Process Predictability and Traceability
 - Dynamic Cost and ROI Models linked to processes
- Separating the IP that represents the business from the code that executes it for rapid business reuse towards fast moving business opportunities
- Cost reduction through reusability and elimination of redundant processes
- Enhanced capabilities to respond faster to fast-moving opportunities and lower development & deployment costs

Who is Unisys

An exciting Technology sector story in the making...transformation to a services led, technology enabled company

Unisys at a Glance

- > Global Business Solutions & Services Company
- > 37,000 Employees Worldwide
- > 3rd Largest US Patent Holder
- > 5th Largest System Integrator Worldwide, 1st in Europe
- > 6th Largest Consulting Firm
- > Global presence... in more than 100 countries - \$5.8 Billion
- > Outsourcing Leader – 9000 employees, 20 centers

Our Customers

- > 88% of top 25 world banks
- > 50% of the world's insurers
- > NASDAQ Powered By Unisys
- > 100+ Telecom Carriers in 40 Countries, 9 of top 10 Telcos
- > 200 airlines (18 of top 25)
- > 1500 government agencies
- > More than 200 newspapers

Our Solutions

- > Process 50% of world's checks
- > Process 250 million income tax returns
- > Process 80+ million payments monthly (30+ M for Telco's alone SBC, BellSouth, Comcast, Qwest, etc.)
- > Deliver Physical and Network Security at 450 US airports Process 1Billion calls daily



Our Clients Face Uncertainty in Their Business Environment ...

Capitalization Issues

- Economic Downturn
- Bad Loans
- Bad Investments Payouts

Competition Issues

- Liberalization
- Foreign Entrants, etc.

Regulatory Issues

- Patriot Act
- Anti-Money Laundering
- Check 21



Pressure On:

- Cost Base
- Risk Profile
- Asset Allocation
- Geographic Focus

**Business Model
And Structure**
(Excessive M&A
Activity in mid 1990)

Credit Risk

Loan
Securitization Risk

Operational
Risk

Operation Cost
(level of flexibility
in the cost base)

Industry
Infrastructure

Capital adequacy +
Corporate governance

Sarbanes – Oxley
Basel Accord Implementation

Technology Imperatives

Consolidation
Legacy Migration
Out Sourcing...

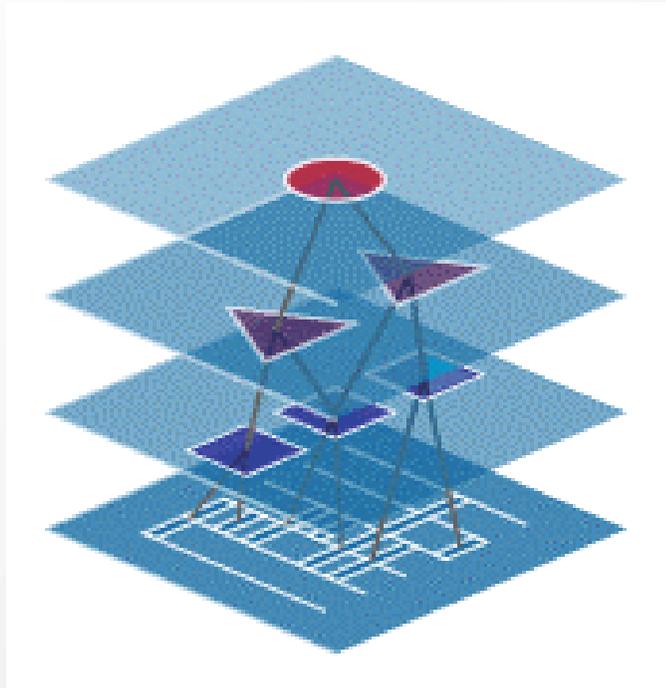
Industry Events

Payment
Processing

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To Survive, Organizations Need to Become “Agile”



Imagine a truly responsive organization...

Agile enough to **respond to a new opportunity** with simultaneous shifts to the business architecture – *business model, process models, technology architecture* – to **get to market faster than any competitor.**

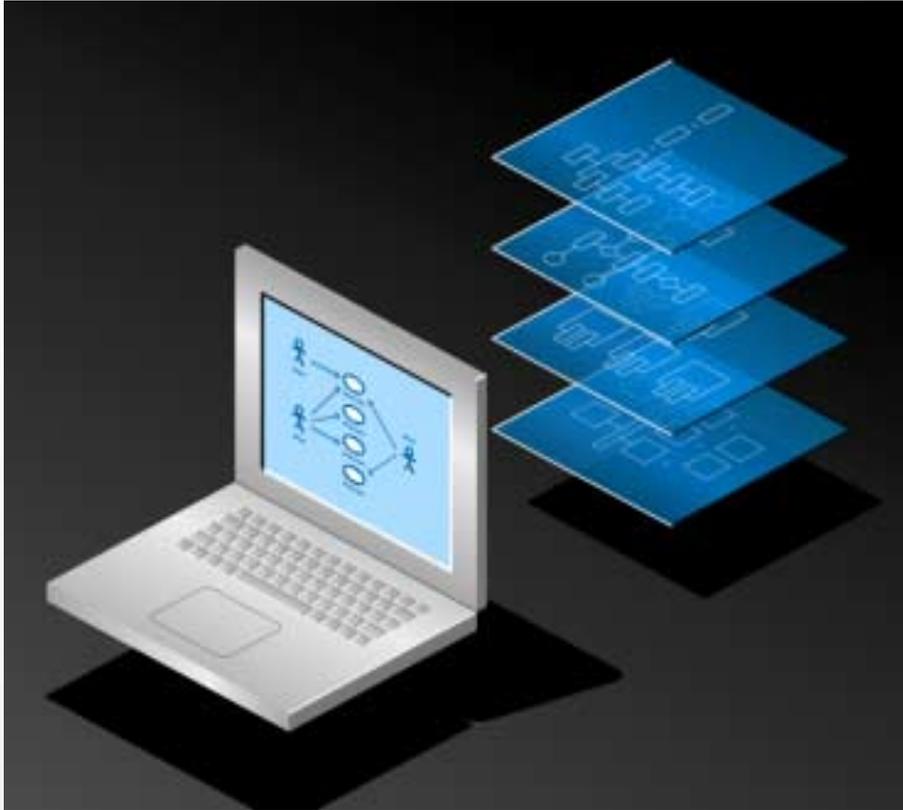
Reduce Cost by Eliminating Processing, Application & Infrastructure Redundancy

Reduce Business Process “Cycle Times” For Competitive Advantage

Increase Agility by Assessing Impacts and Reacting more quickly to Change

Business Blueprints:

Built to Last Because They are Built to Change...



What do you end up with?

- A Completely Electronic, Extensible, Traceable & Deployable Models
- Intellectual Property Separated from System Implementation

> Business BLUEPRINTS consists of:

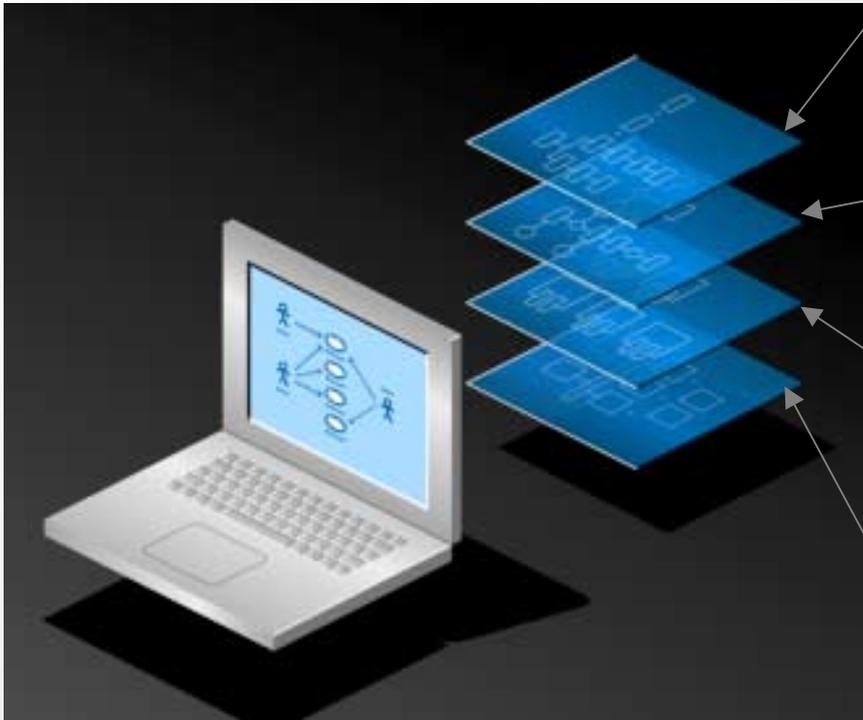
- **Tools, methods and libraries of organizational patterns**, business process components and technology implementation options ...
- That allow a client to build or modify business processes quickly and predictably... **based on the pre-population of domain specific business processes & assets...**
- Bringing the concept of blueprinting to the **arena of high-volume, mission-critical systems.**

> Business BLUEPRINTING is the process of:

- Adhering to a **rigorous discipline** of crafting specific business solutions...
- Resulting in domain or solution-specific models (business & technology) that **enhance the classic 'better, faster, cheaper' benefits** BECAUSE of the discipline **to include** those of being **'reusable, agile and traceable'**.

Business Blueprints: An Integrated Approach.

Integrates Business Modeling, Service Oriented Architecture, & Web Services



Business Vision & Operations Model

Characterization of business domain – including business objectives, structure, organizational measures, and competitive framework.

Business Rules & Process Model

Characterization of the operational requirements and key business processes. Translating them into reusable Business Patterns.

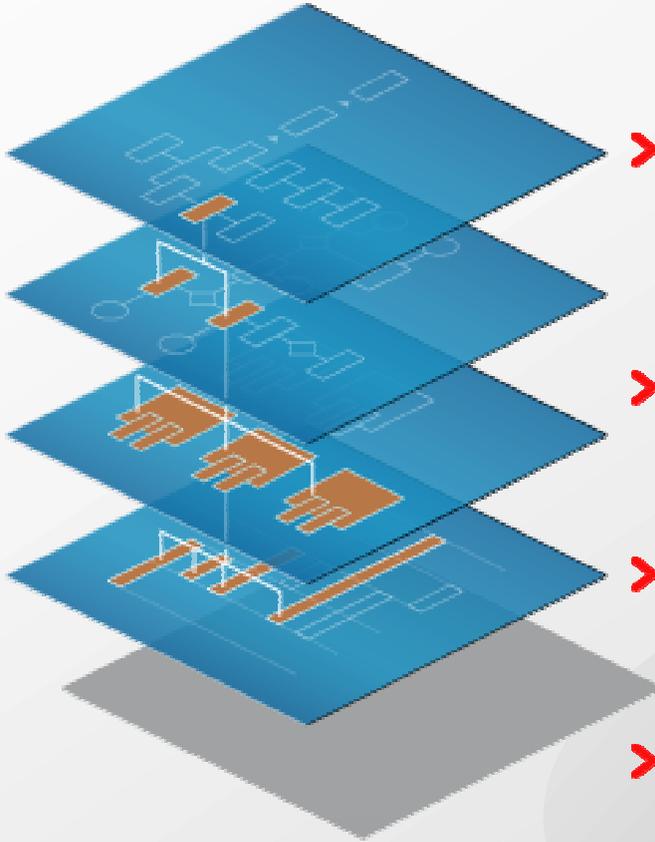
Functional / Application Model

Key Business functions implemented as a set of architectural models (UML) representing core business services.

Infrastructure Model

Characterization of the deployment services and technologies to realize the business objectives. Key Functional Services (Web Services) that are provided to all applications in the organization (Security, Network, Application Server, Data Services, Integration Services, Administration).

What's Unique about Business Blueprints?

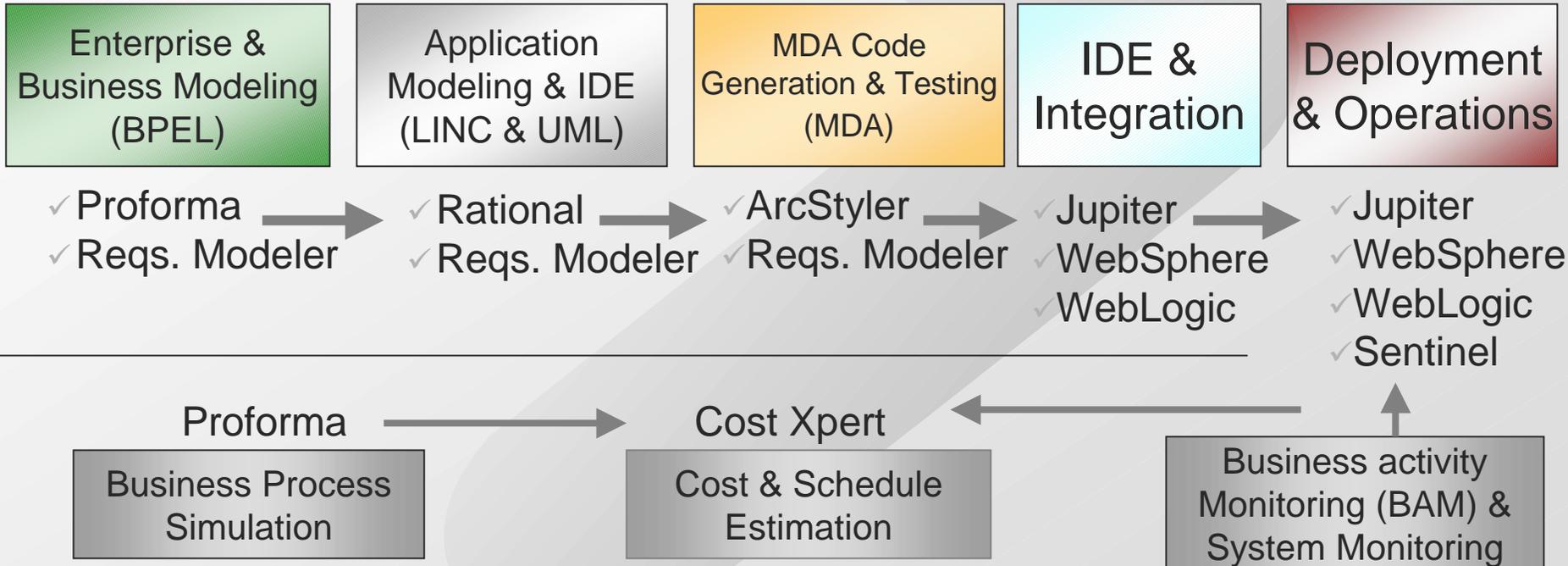


- > **Separation of IP from Underlying Technology:**
 - The separation **is** the source of agility and leverage through control of your IP
 - Discipline to manage unstructured documents
- > **Interactive IP:**
 - The Blueprint captures intellectual capital – Unisys and client – in an industry standard, visually modeled form which is electronically traceable from top to bottom
- > **Traceability:**
 - Business-Pattern -Traceability from business model through deployment implementation
- > **Integrated Cost Model:**
 - Sensitivity Analysis on Blueprint changes can be linked and driven from any level
- > **Service Oriented Architecture:**
 - Allows Stateless Business calls of a variety of components

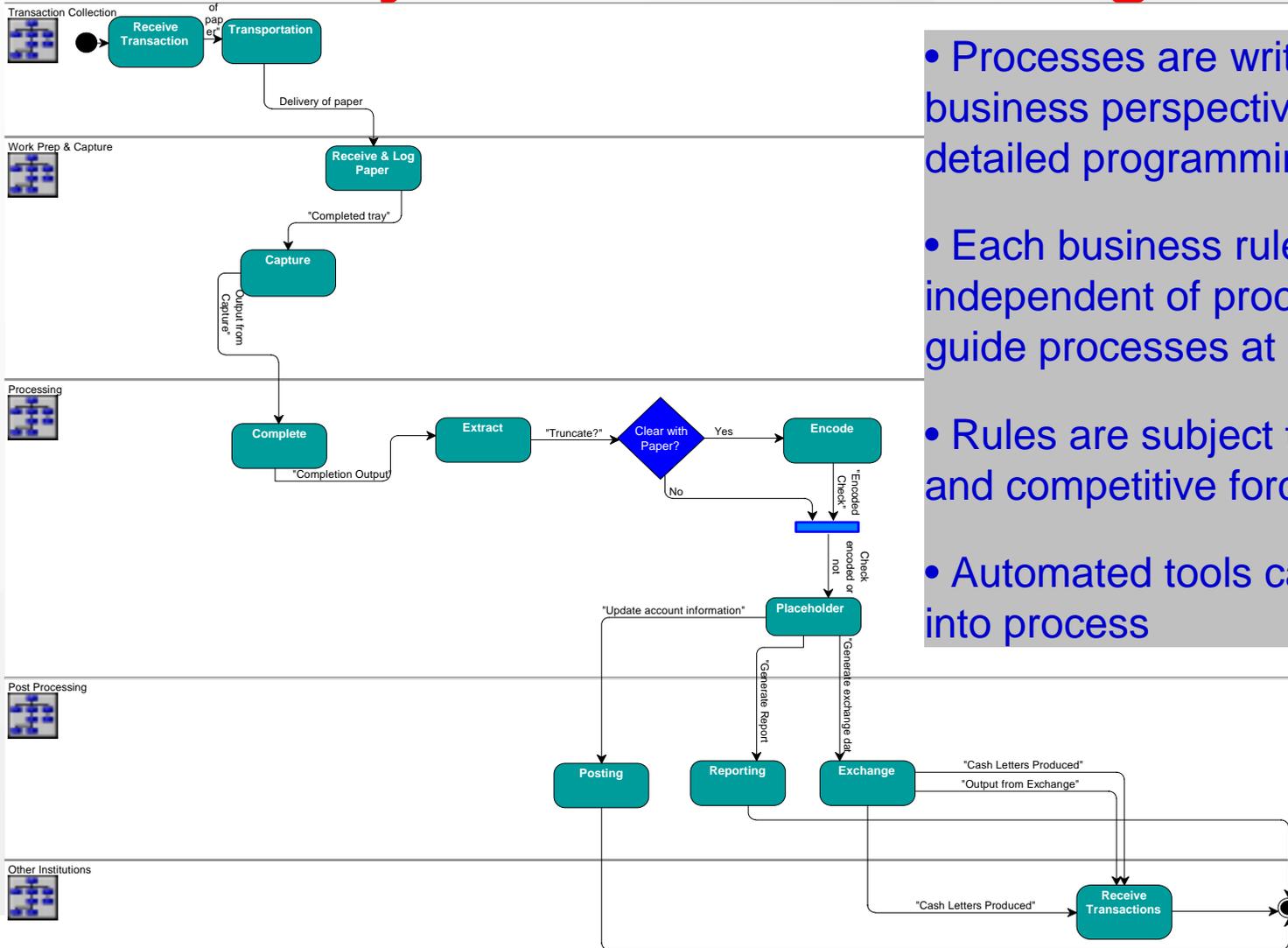
... And We Do all This Through Enabling Open Standards, Methods, and Industry Standard Tools.

The Business Blueprint program has created an integrated tooling environment that supports end-to-end traceability, ROI analysis, as well as MDA capabilities

Modeling & Development Track



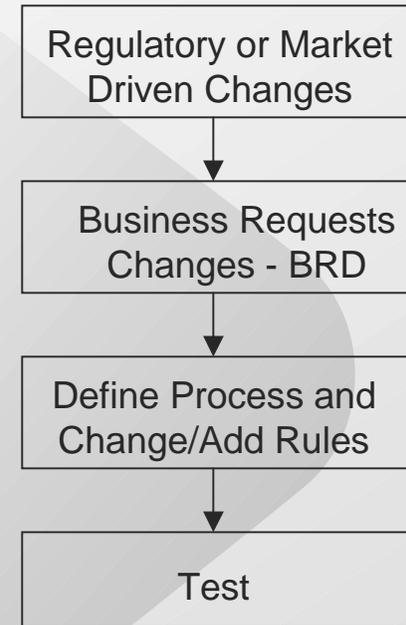
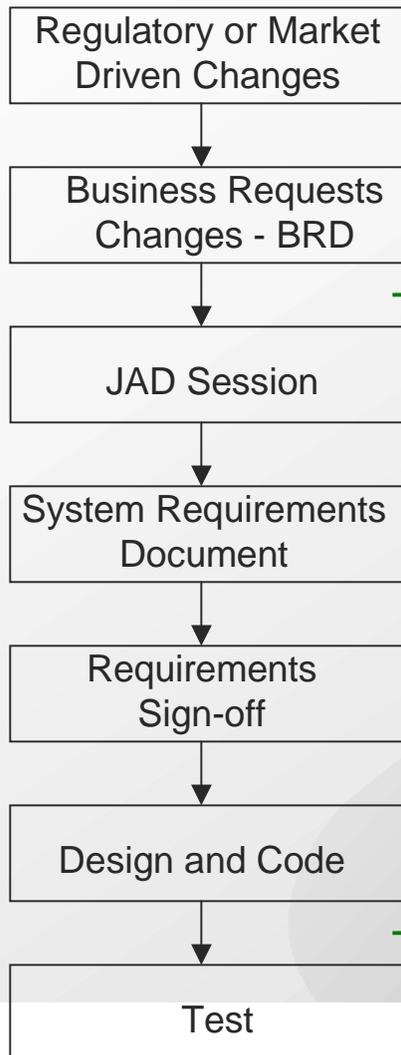
Case Study: Check Processing



- Processes are written from a business perspective (not a detailed programming perspective)
- Each business rule is independent of process and can guide processes at multiple points
- Rules are subject to regulatory and competitive forces
- Automated tools can link rules into process

The Old Paradigm

The New Paradigm



- Components are Commodity
- Services Based Architecture
- Business Rules isolated from Commodity Code
- Business Units generate infrastructure from Process Definition

Business Rule Taxonomy

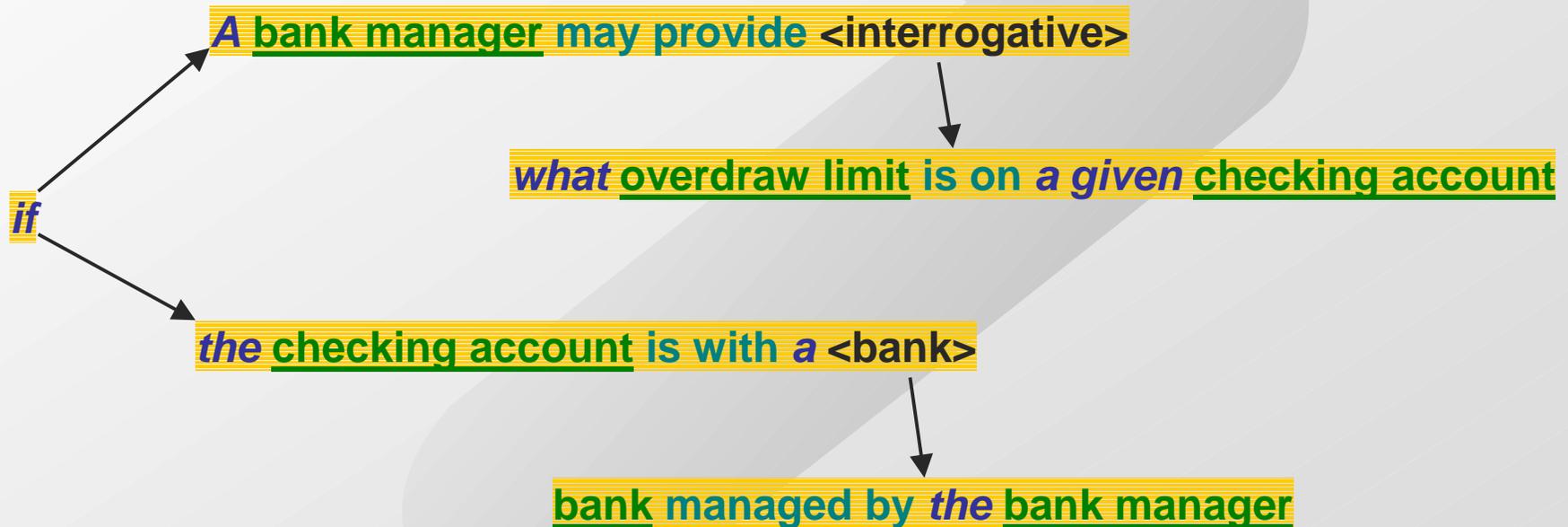
> **Business Rule:** A bank manager may provide what overdraft limit is on a given checking account if the checking account is with a bank managed by the bank manager

> **Vocabulary**

- Terms - bank manager, overdraft limit, checking account, bank
- Functional Forms of Sentences and other kinds of Expressions
 - <Business Actor> **may provide** <Interrogative>
 - <overdraft limit> **is on** <account>
 - <account> **is with** <bank>
 - <bank> **managed by** <bank manager>
- Linguistic symbols
 - “**A**” – Indefinite Article – a Universal or Existential Quantifier depending on Context
 - “**what**” – Interrogative Operator
 - “**a given**” – Parametric Operator
 - “**if**” – Logical Connective
 - “**the**” – Definite Article – a Pronominal Operator

Restatement of Business Rule

- > A bank manager may provide *what* overdraw limit is on a *given* checking account *if* the checking account is with a bank managed by *the* bank manager



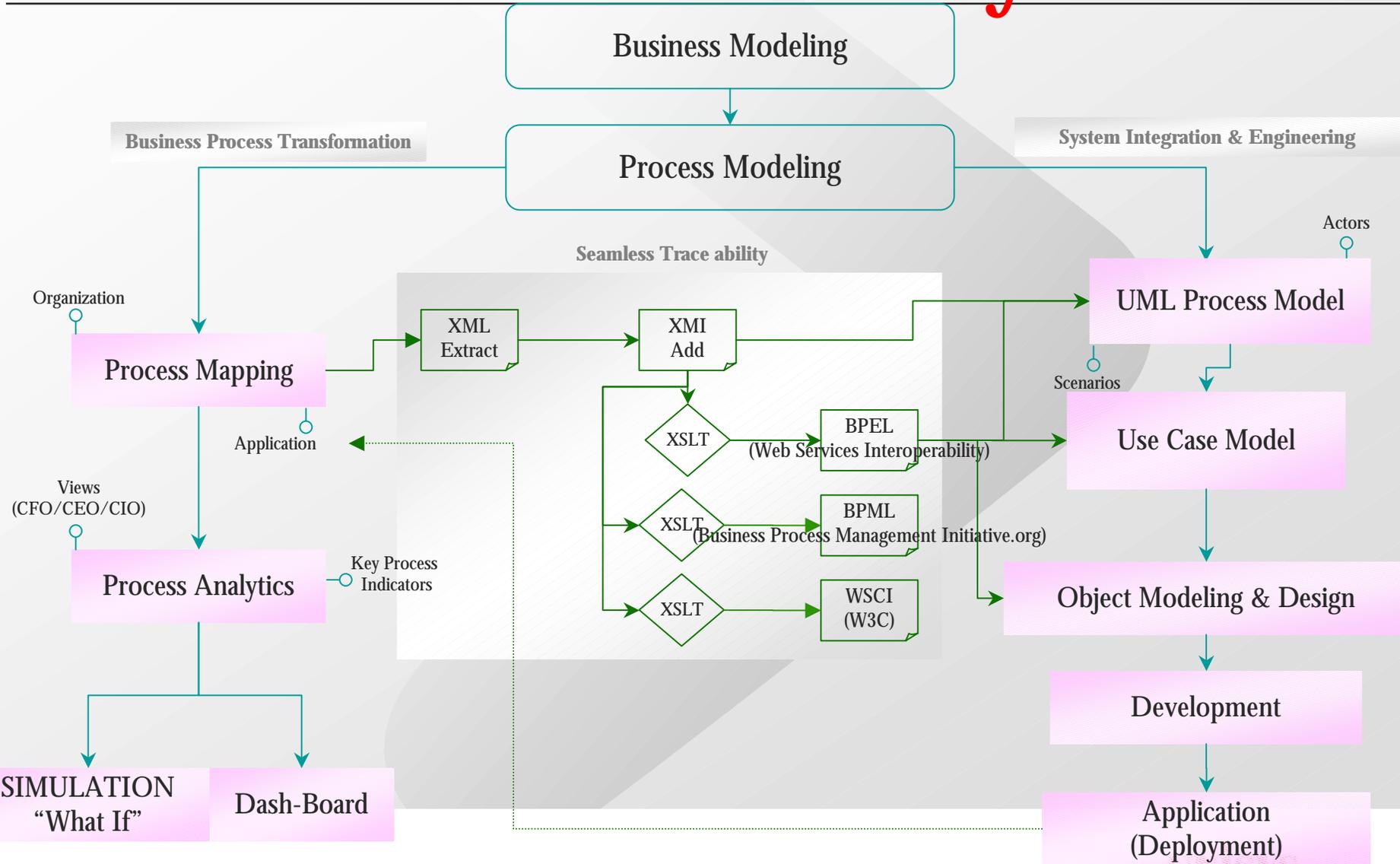
Business Rules from case study

Store paper: Part of Capture process

- **Receive Request for Check: The check must be provided back to the paying institution within three days of receiving a request following a customer service enquiry**
 - *It is required that a check request for a posted check is satisfied on a date at most 3 days past the date of the check request if the check request is prompted by a customer service inquiry at the paying institution of the posted check*

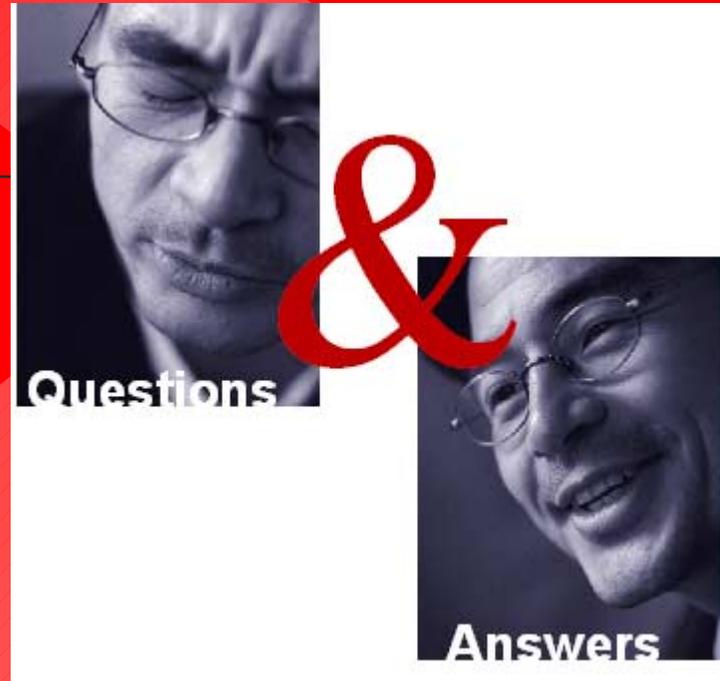
- **Retention Period: The paper check shall be retained and readily available at the collecting imaging bank for a period of 60 days.**
 - *Given that a paper check is collected at a collecting imaging bank, it is required that the paper check is available at that collecting imaging bank if the collection date of the paper check plus 60 days is not passed.*

End-To-End Traceability



Conclusions

- **Business Blueprinting together with a Common Business Rule Information Model Enables Separation of Intellectual Assets (Business Rules) from the Process model and Underlying Code that Executes it**
 - Business Processes described at a Business Person's perspective
 - Helps Manage the Complexity of the Enterprise
- **Common Business Rules Information Model can generate Databases and Service Components that Automate Business Functions**
 - IT Infrastructure Agility and Responsiveness
- **Business Rules and Business Blueprints allows Future-proofing of your Enterprise**
- **Business Blueprinting Creates a Tighter Alignment Between Business and Technology Architecture**
 - Business Process Predictability and Traceability
 - Cost reduction through reuse and elimination of redundancy
- **Business Blueprints is enabled through a seamless toolset**
 - Unisys is working with the OMG to Standardize Business Rules and Common Information Models



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