

UBL Forum

November 2006

SINGAPORE

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An Industry Partnership Supported by
SPRING Singapore & ICA Singapore



Opening Address

*Mr Kamarudin bin Tambi
CrimsonLogic Pte Ltd*

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UBL Introduction

Mr Ken Holman

*Co-chair, UBL Human Interface SubCommittee
Chair, OASIS Code List Representation TC*

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UBL and the Danish OIO Project

*Mr Tim McGrath
Vice-Chair, UBL TC*

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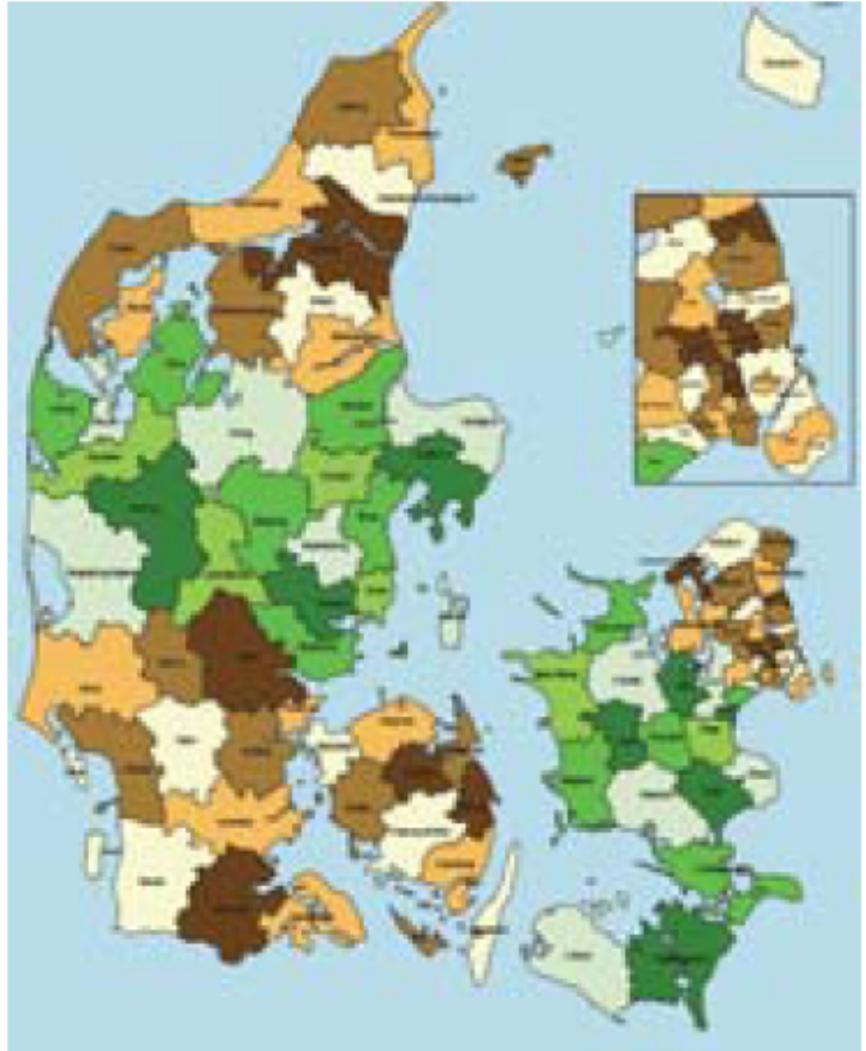
The Danish Public Sector

Today

- 19 Ministries
- 14 Counties
- ~271 Municipalities
- ~950.000 employees

Structural reform from
January 1st 2007

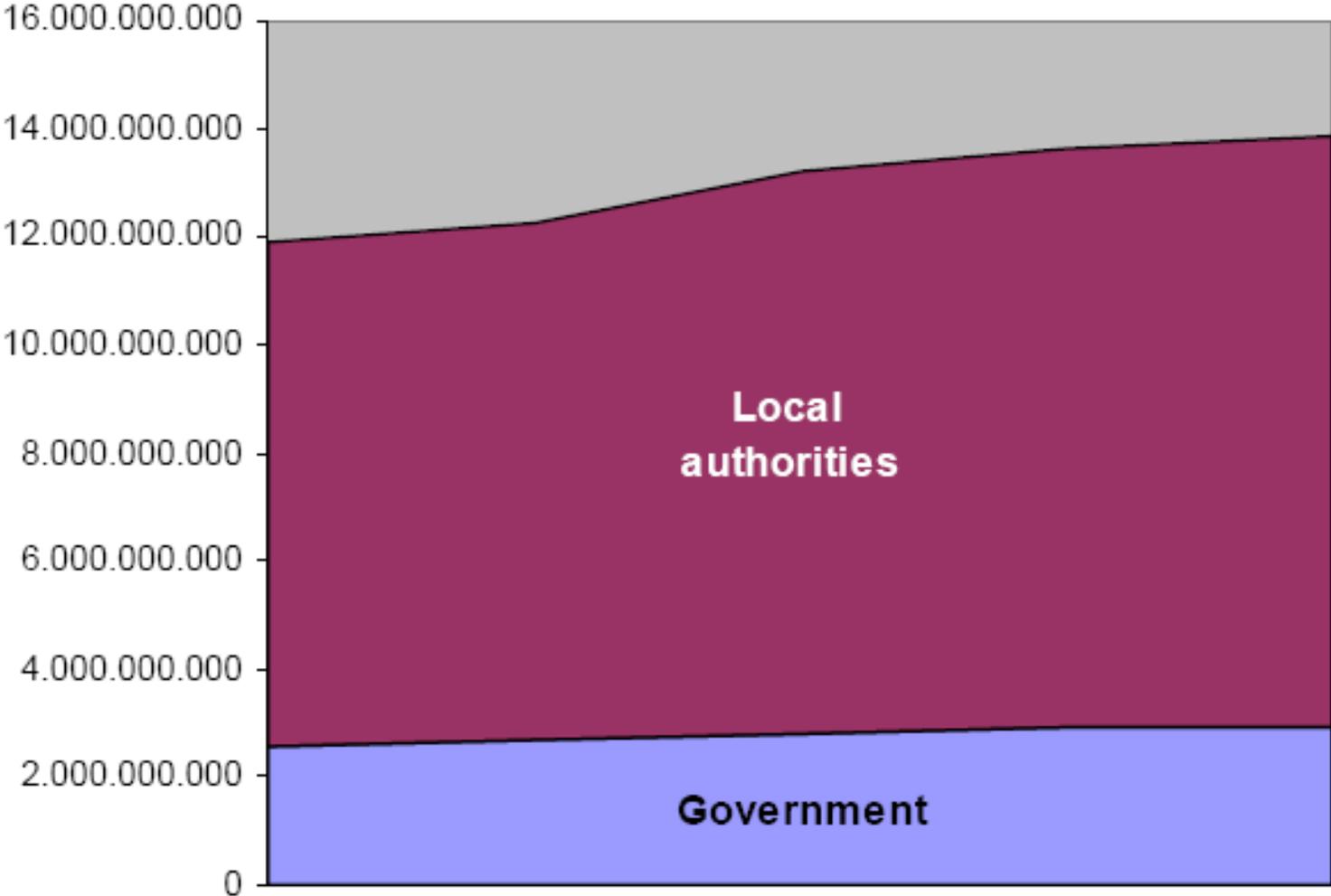
- 5 Regions
- 98 Municipalities



Key players in public E-procurement

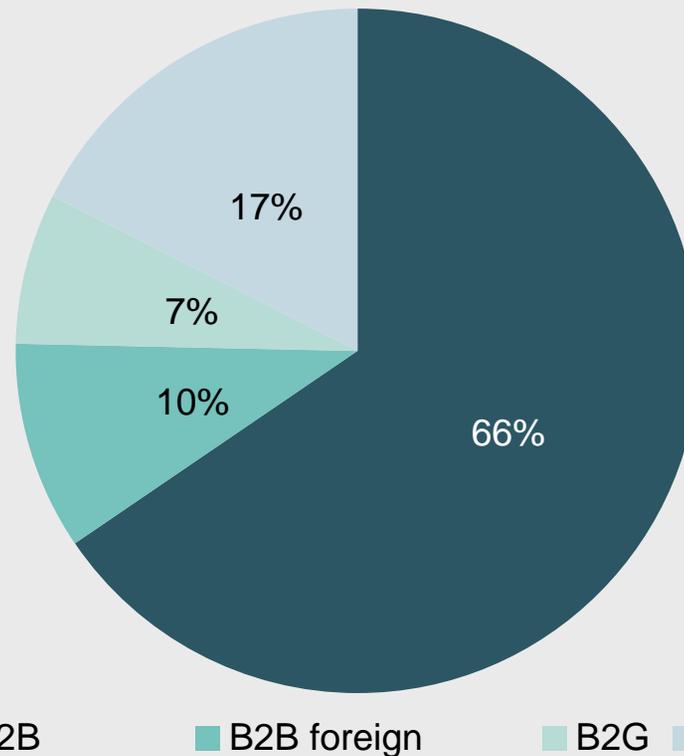
- **Ministry of Finance**
 - Budgets
 - Policy
- **Agency for Governmental Management**
 - Legislation
 - Guidelines
 - Implementation
- **Ministry of Science**
 - XML-schemas
 - Digital Signature
- **National Procurement (SKI)**
 - Framework agreements
- **Gatetrade et al.**
 - Suppliers of IT-solutions for E-commerce

Public procurement 2000 – 2004 (€)



The biggest volume is in the private sector

Invoices - by sector



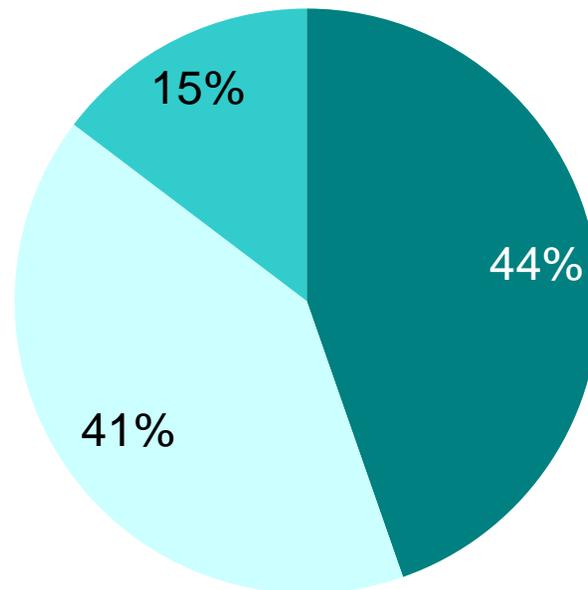
191 million invoices and orders are exchanged in companies with 10-99 employees

Source: "Analyse af besparelses- og innovationspotentiale ved digitalisering af forretningsprocesser" udarbejdet af KPMG, december 2005.

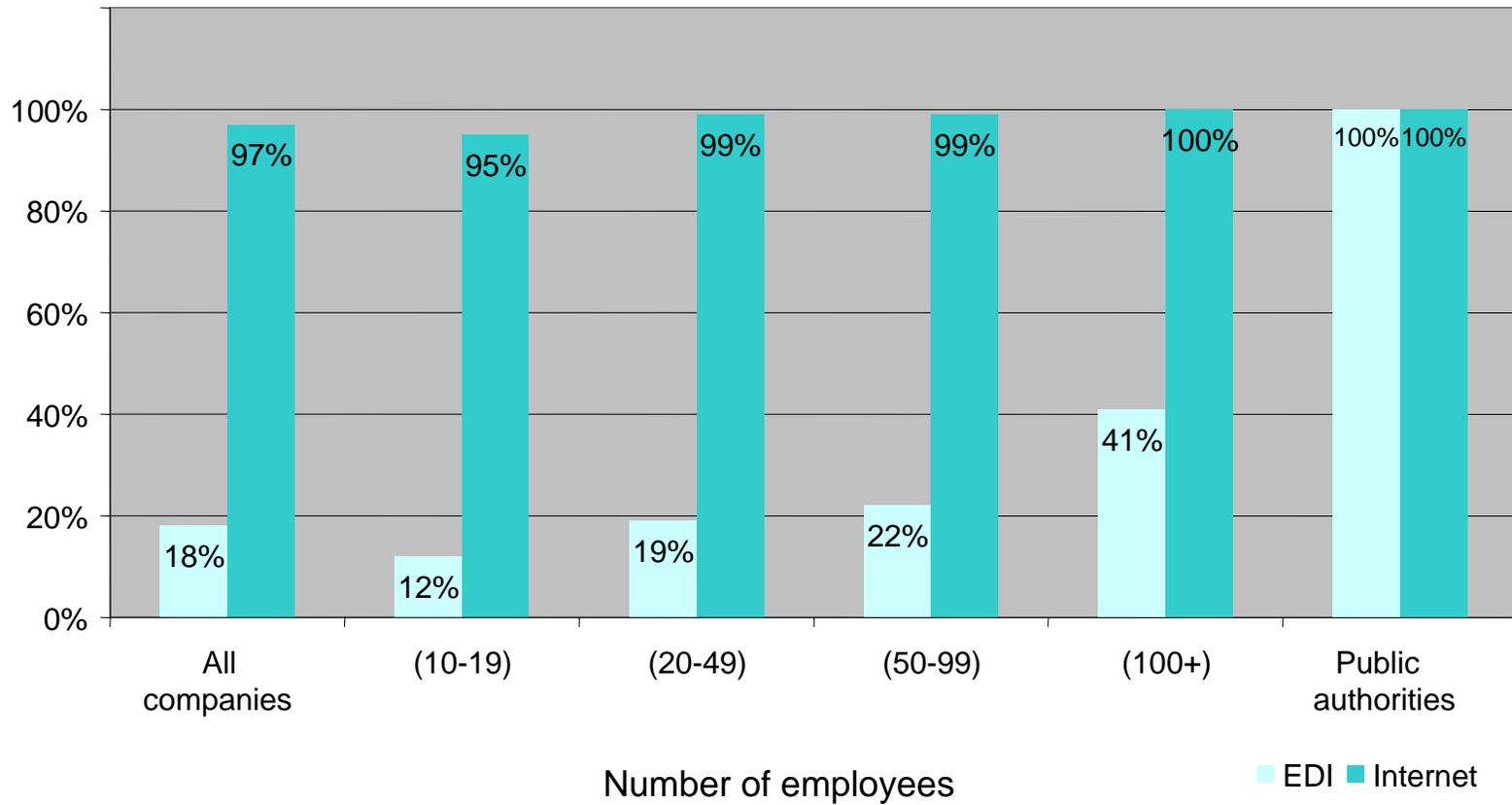
But why are the SME's important?

(it's about lowering the barriers for participation, not ignoring the SME's)

Distribution of transaction volume for companies between 10 and 99 employees. (Total volume is 191 million orders and invoices)



EDI is a substantial barrier



Vision for e-government 2010

- 50% of all Danish companies are doing full electronic business
- 90% of all Danish companies, citizens and public authorities have a digital signature certificate
- That the public sector organizations follow Enterprise Architecture principles and become service enabled (SOA)
- That we have ONE citizens portal drawing on all the different service offerings across the public sector
- That the public sector play an offensive and innovative role in shaping SOA enablement both in the private as well as the public sector
- Enable competition on services rather than infrastructure, formats or vendor lock-in

The Strategy

- Legal:
 - An umbrella agreements for multilateral exchange of e-business documents, only requirement is a Digital Signature.
 - Standardized service level agreements for e-business. Differentiated requirements for SME's and larger companies.
 - Using the Digital Signature to secure and sign business messages adding to the trust.
- Complexity:
 - A new national e-business registry, which allows all Danish companies and institutions to register simple e-business services and endpoints with their company ID.
- Cost:
 - Open source components makes it possible for anyone to get started just using a digital signature.
- Technical:
 - New open standards create a common open national service oriented infrastructure for business transactions, build around recognized international web service standards.

The case: Danish e-invoicing law

- All invoices to the public sector sent electronically
 - If not the authority can refuse payment
- 18 million invoices exchanged each year
 - Estimate saving of €7 in handling cost per transaction
- 440.000 companies affected
 - Scanning agencies handle the conversion of paper invoices
 - Both the private and the public sector will benefit from the initiative
- This is the first step
 - Once the invoice is digital, the upstream process can be optimized (ie. procurement and tendering)
- UBL is the underlying standard

Total estimated savings in public sector 120 million € per year.

Impact on Public and Private Sector

- Each public institution must be connected to a VANS supplier
 - Other Networks can be used if both parties agree
- Each public institution must be able to receive and read OIOXML
 - Other formats can be used if both parties agree
- The invoices must be electronic on **arrival**
- Vendors can choose
 - Full integration
 - Invoice portals
 - Central scanning bureaus

Initial Results

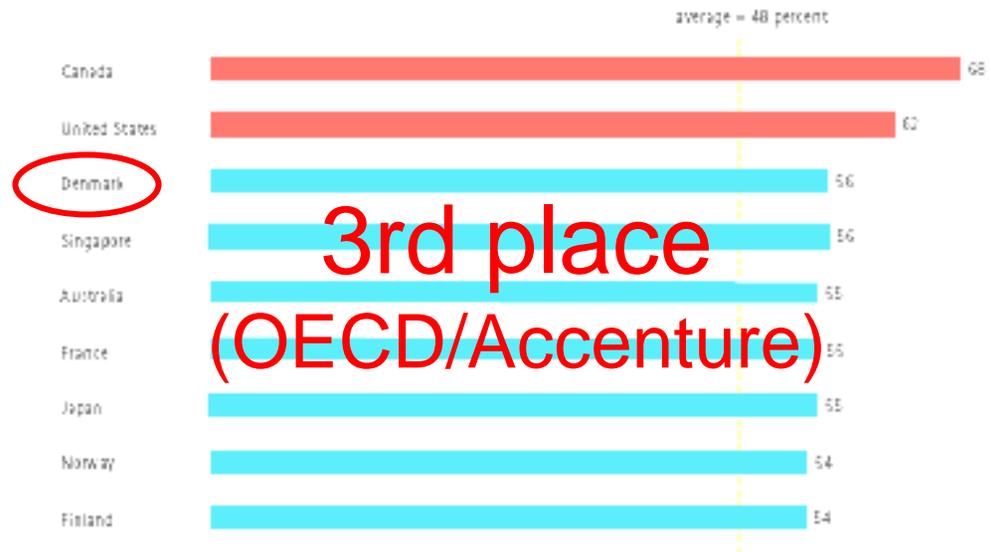
- Slow start with 400.000 invoices in february (approx. 30% of the potential volume)
- A lot of negativity from the industry and public authorities because of the very tight schedule
- Many invoices were not paid on time
- Special requirements identified
 - Utilities
 - 3rd party involvement

eGovernment in Denmark – today

2006 e-readiness rank (of 68)	2005 rank	Country	2006 e-readiness score (of 10)*	2005 score
1	1	Denmark	9.00	8.74
2	2	US	8.88	8.73
3	4	Switzerland	8.81	8.62
4	3	Sweden	8.74	8.64
5	5	UK	8.64	8.54
6	8	Netherlands	8.60	8.28
7	6	Finland	8.55	8.32
8	10	Australia	8.50	8.22
9	12	Canada	8.37	8.03
10	6	Hong Kong	8.36	8.32
11	9	Norway	8.35	8.27
12	12	Germany	8.34	8.03
13	11	Singapore	8.24	8.18
14 (tie)	16	N. Zealand	8.19	7.82
14 (tie)	14	Austria	8.19	8.01
16	15	Ireland	8.09	7.98
17	17	Belgium	7.99	7.71
18	18	South Korea	7.90	7.66
19	19	France	7.86	7.61
20	--	Bermuda*	7.81	--
21	21	Japan	7.77	7.42

1st place
(The Economist)

Figure 1: 2005 overall maturity scores



3rd place
(OECD/Accenture)

Table 3.1

E-Government Readiness Rankings 2004: top 25 countries

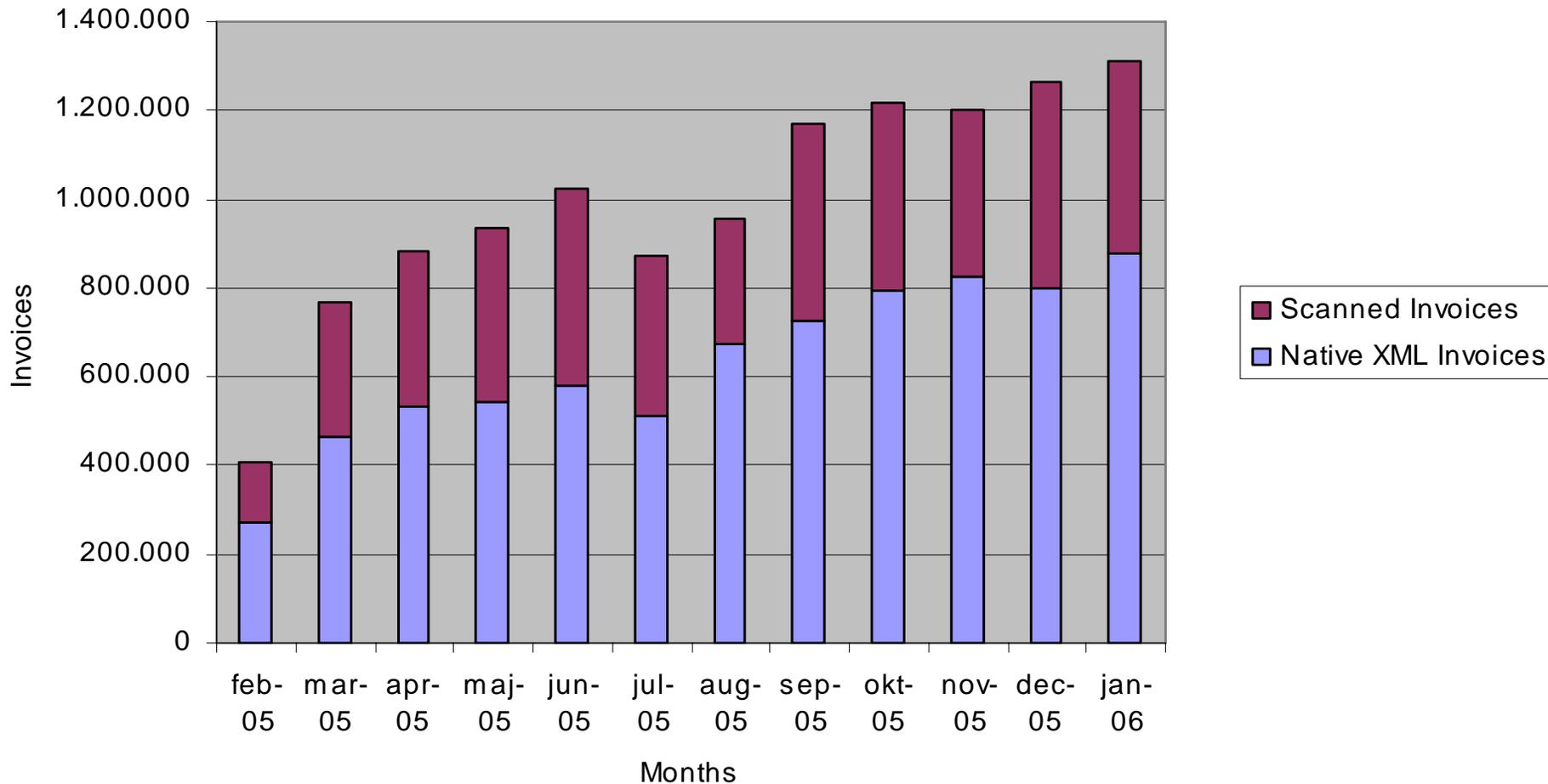
Rank	Country	E-Government Readiness Index
1	United States	0.9132
2	Denmark	0.8947
3	United Kingdom	0.8852
4	Sweden	0.8741
5	Republic of Korea	0.8575
6	Australia	0.8377
7	Canada	0.8369

2nd place
(UN)



Full digitalization – a challenge

Electronic Invoices to the Public sector in Denmark

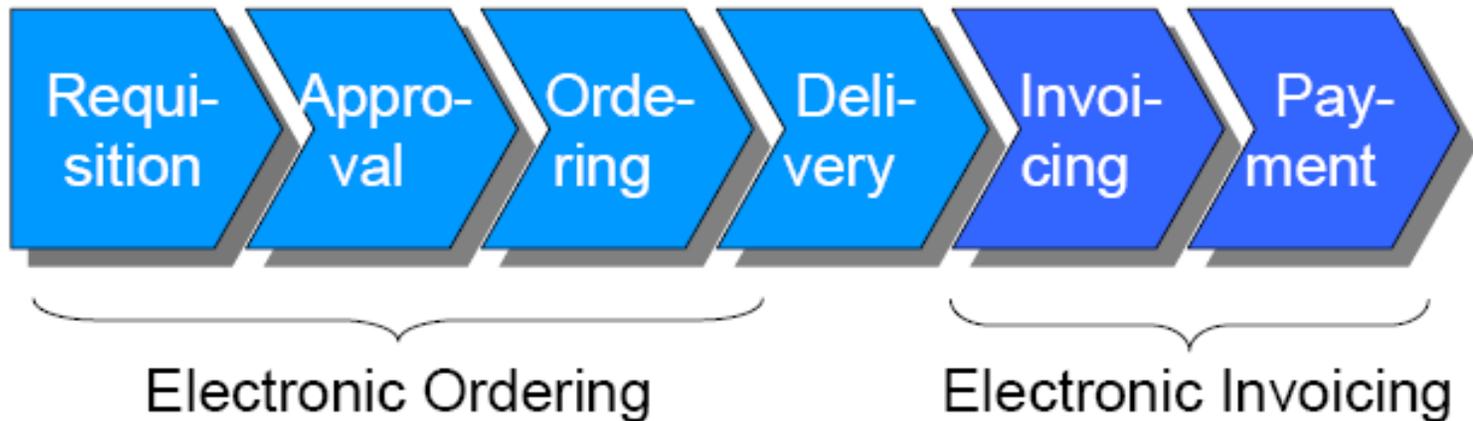


Lessons Learned

- Focus on infrastructure
- Continuous improvement and support
- The keyword is “information” to all parties of interests
- The process of information should have been initiated earlier in the project (as always)
- Don’t forget the people – change management is essential
- Electronic invoicing is “only” one step on the road to efficient public procurement

Next Steps

- Only about 30% of the governmental institutions have completely digitized the invoicing process
- E-ordering – digitizing the full procurement process

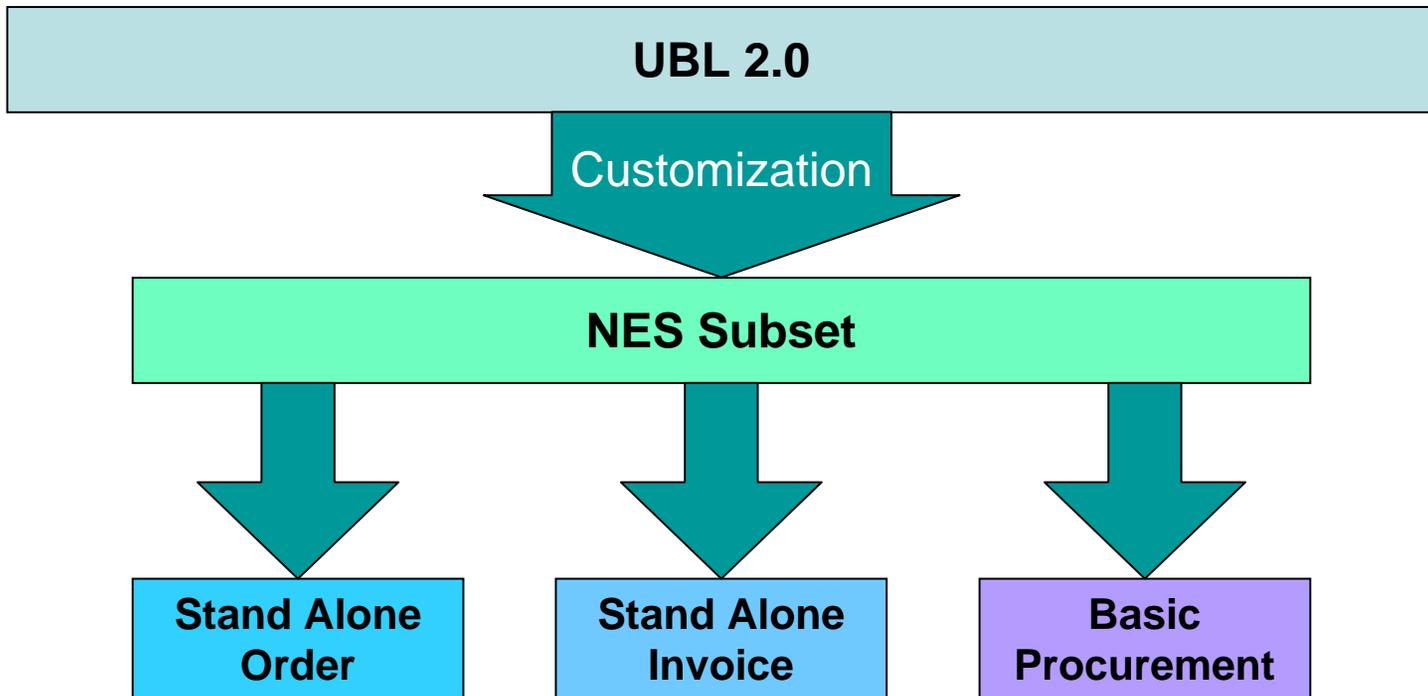


- **To digitize 191 million documents using OIOUBL**

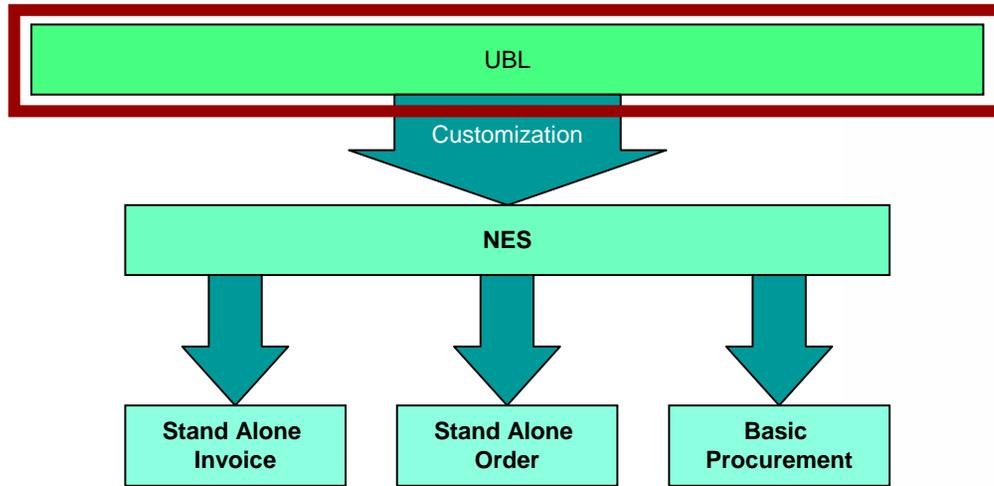
North European Subset (NES)

- NES is a collaboration between Denmark, Sweden, Norway, Finland, Iceland and the UK.
- NES describes business rules for a number of simple profiles.

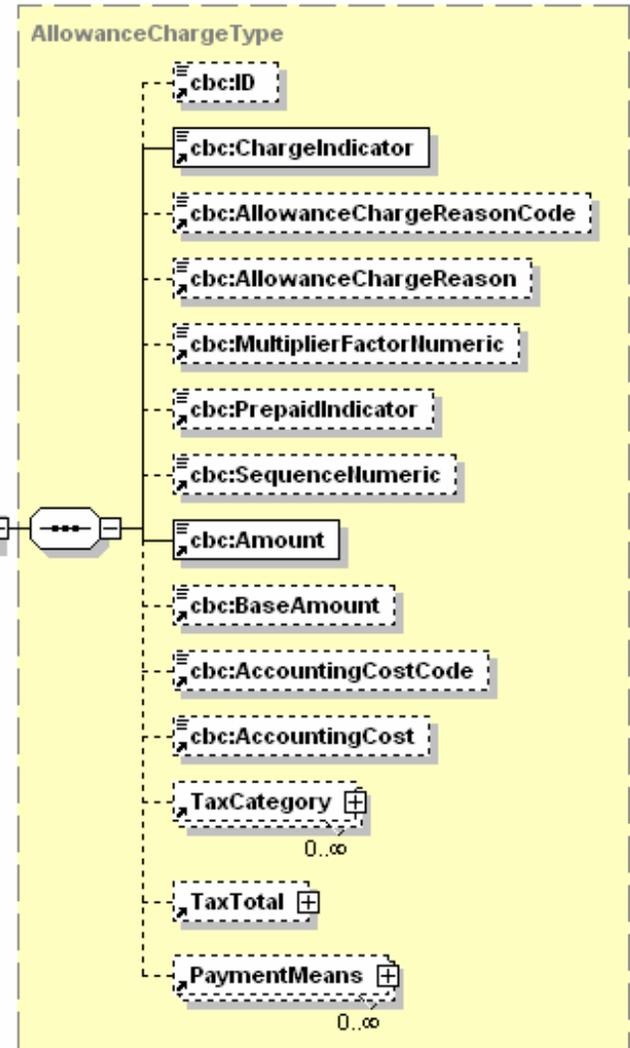
UBL North European Subset



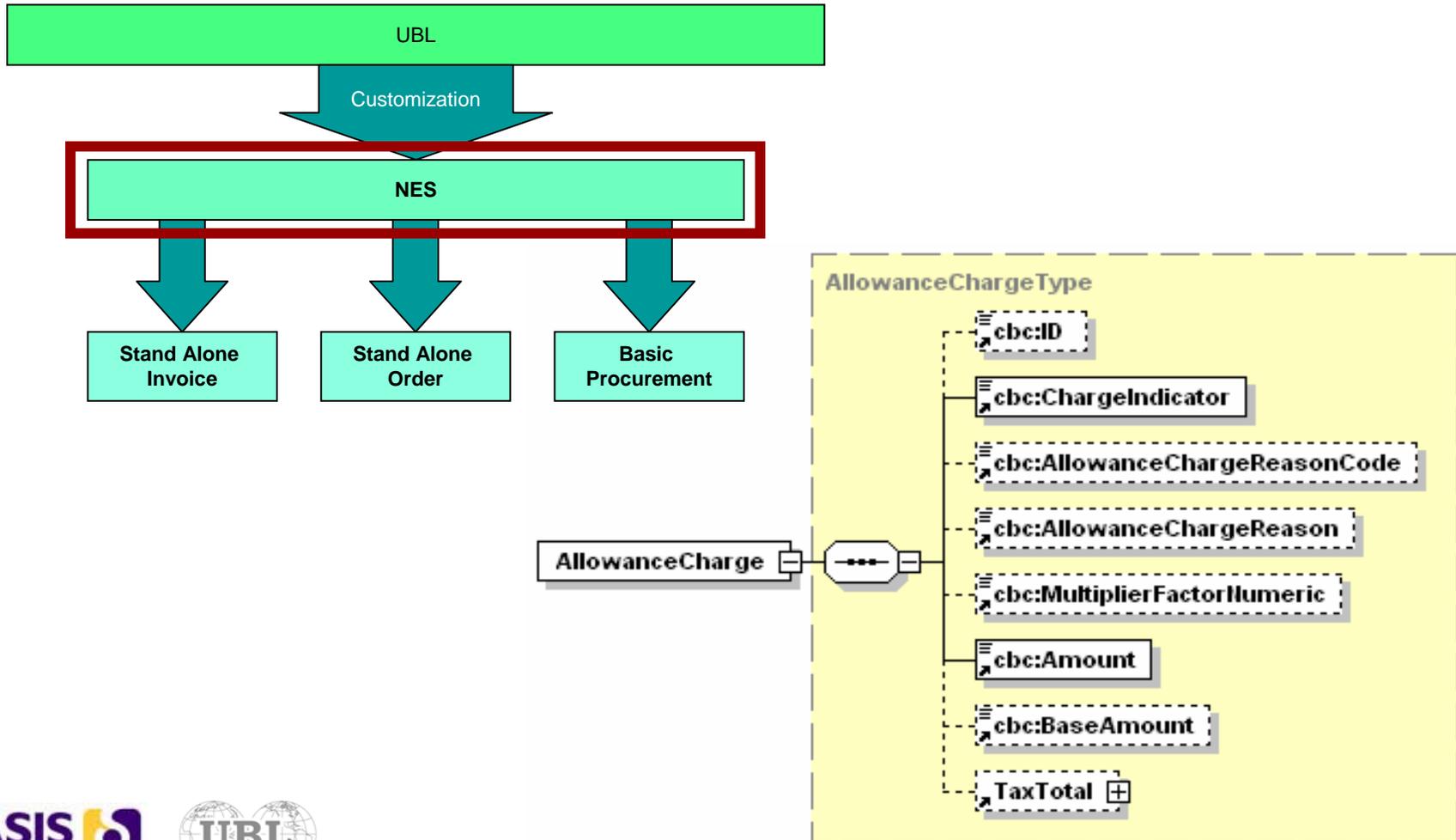
UBL North European Subset



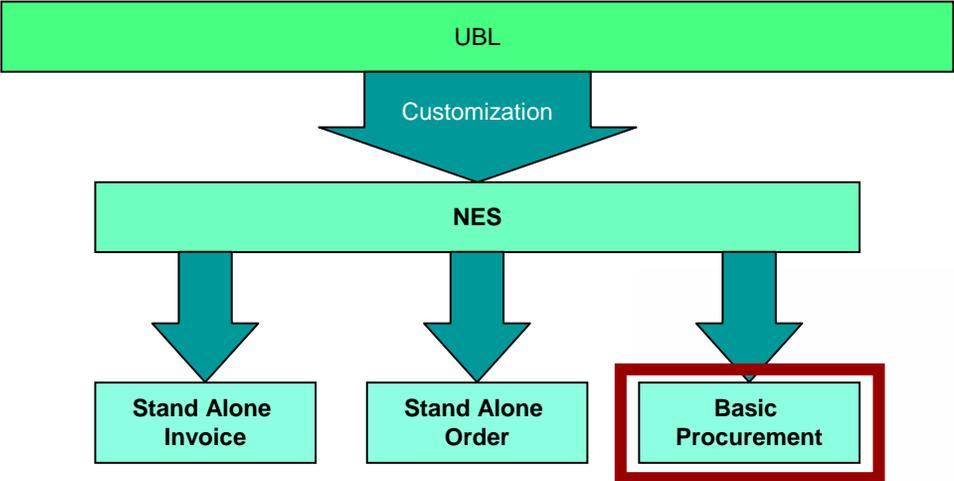
AllowanceCharge



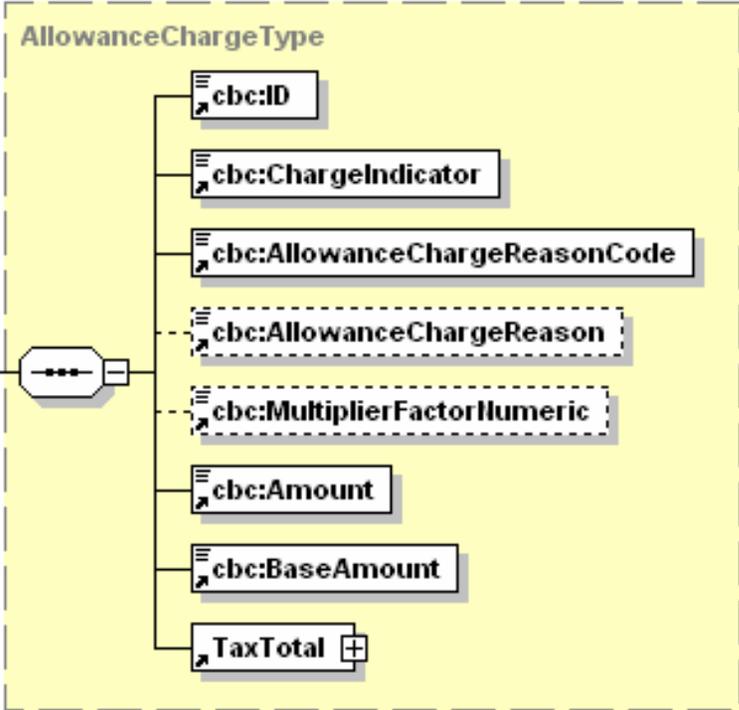
UBL North European Subset



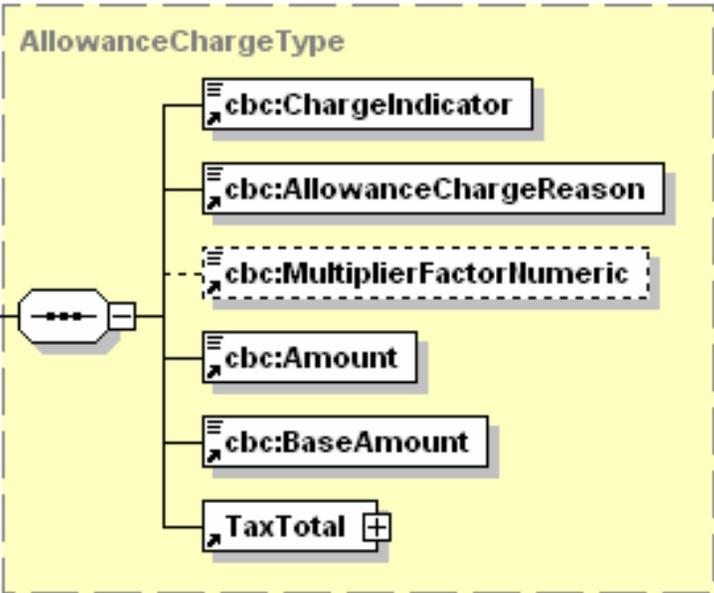
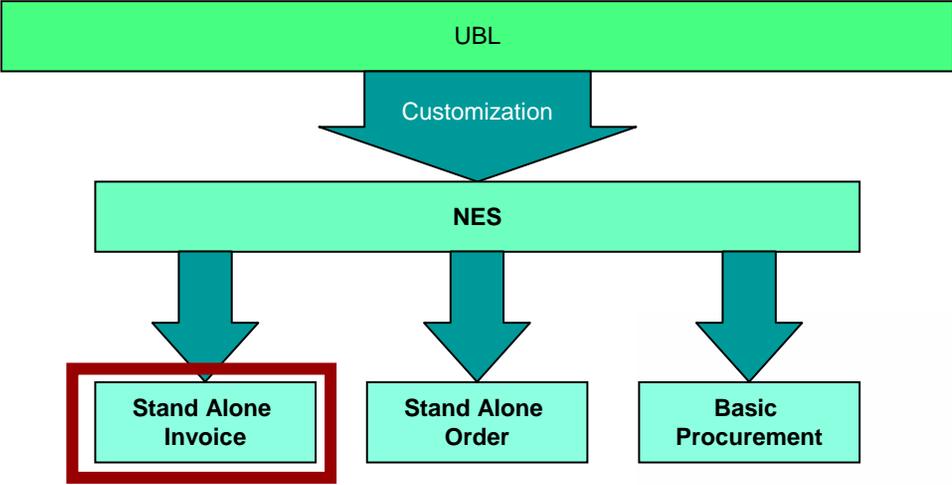
UBL North European Subset



AllowanceCharge



UBL North European Subset



Using UBL for the US DOT EFM Project

*Mr Andy Schoka
Consultant, US Department of Transport
Electronic Freight Manifest Project*

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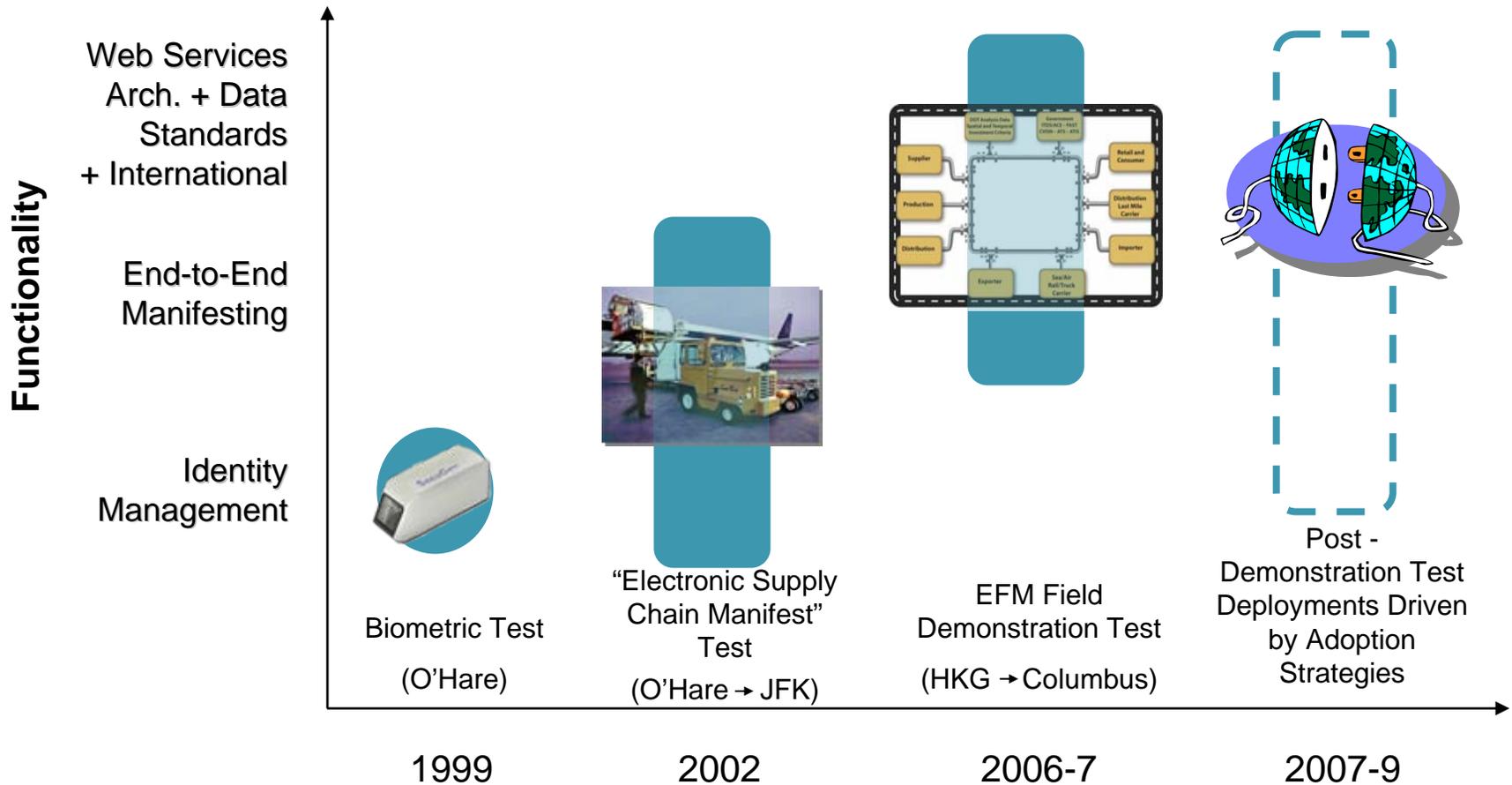
What is the Electronic Freight Management (EFM) Initiative?

- ▶ **EFM** is a USDOT R&D program that promotes and evaluates innovative e-business concepts, enabling process coordination and information sharing for supply chain freight partners through public-private collaboration.
- ▶ **EFM envisions** an integrated family of processes and technology aimed at the standardized sharing of electronic information among all supply chain partners that promotes the effective use of transportation resources and the efficient movement of goods on the transportation network.

Several definitions are needed to understand the relationship among different pieces of EFM.

- ▶ **The Freight Information Highway (FIH)** is an innovative, non-proprietary standards-based architectural specification that defines a service-oriented architecture to support business process coordination and secure real-time data exchange.
- ▶ **The Columbus Electronic Freight Management (CEFM) project** is a deployment test within the EFM program which implements all the components of the FIH necessary to support a select Limited Brands international truck-air-truck supply chain.

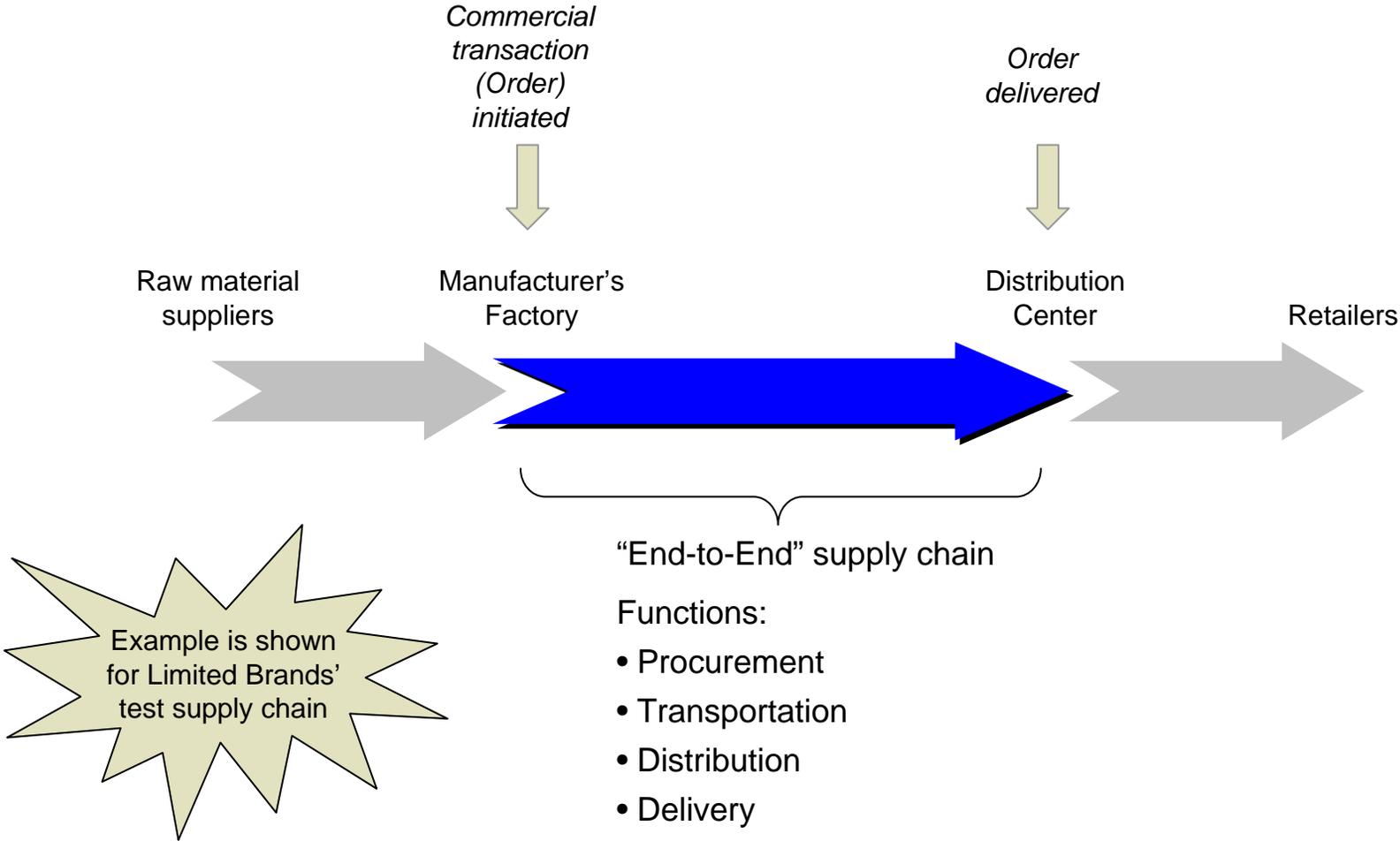
The EFM initiative is evolving through several distinct tests, sponsored by the U.S. DOT's Intelligent Transportation Systems Joint Program Office.



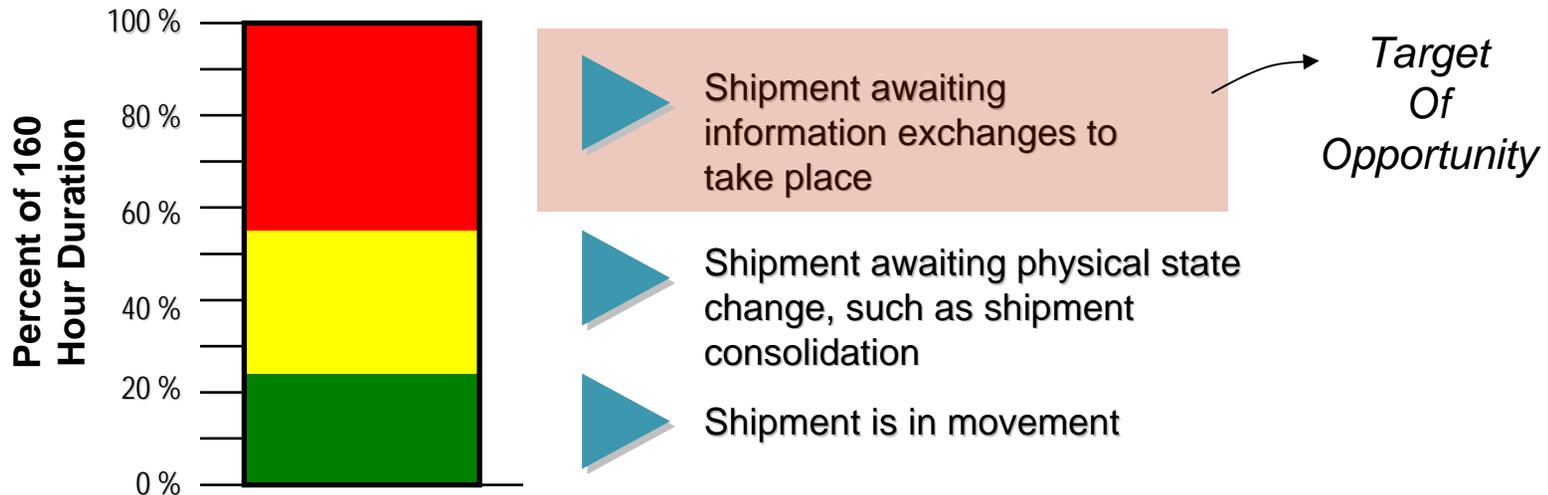
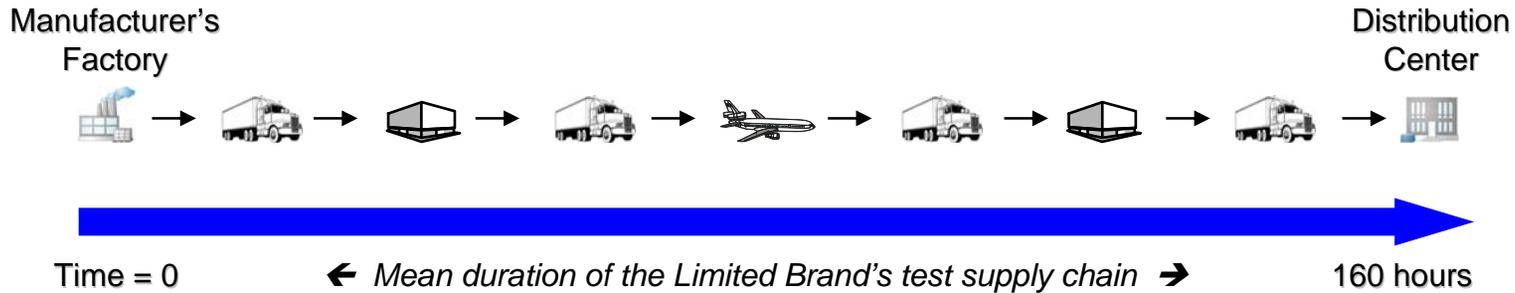
Operational concepts, a technology architecture and relevant relationships have been created:

- ▶ **EFM System Architecture and Technical Concept of Operation**
- ▶ **Business-level Concept of Operation for upcoming Demonstration Test**
- ▶ **Executive White Paper**
- ▶ **Relationships established with several standards-related organizations**

EFM considers the trade's perspective of "end-to-end" in defining the supply chain's span, a capability broader than transport modes have traditionally provided their customers.



EFM targets the time freight is at rest, awaiting information exchanges.



Data are based on preliminary qualitative findings collected during baseline activities along the target supply chain.

The CEFM Deployment Test involves an Asia-to-US apparel supply chain.



Test Participants:

- Two Chinese apparel manufacturers
- Two freight forwarders
- Air cargo terminal operator
- Two charter air carriers
- Buyer
- US 3PL
- Import Broker

Elements of the EFM Demonstration Test include:

▶ These EFM elements....

▶ Lead to these Demonstration Test components...

▶ To create this expected value for stakeholders....

Technology Architecture

Data Standards

Identity Management

Portions already successfully tested in two previous tests

- “Virtual” data record of the shipment, enabled by web services technologies
- Messaging schemas harmonized with emerging international standards
- Definition and use of unique consignment references
- Selected opportunities to help industry modify its business processes

- Improved shipment and inventory management for shippers and consignees
- Clerical data entry savings and error reduction
- Quicker and more predictable delivery times to consignees
- Enhanced freight security
- Improved resource management
- Improved regulatory and trade compliance

The Demonstration Test is being designed and developed this year (2006), with plans to be operating on live shipments in early 2007.



Design

- ▶ Requirements and Preliminary Design are complete
- ▶ Detailed Design in progress (through end '06)
- ▶ Seeking a forum to convene standards bodies for buy-in and design review

Development

- ▶ System development and implementation is expected to take six months
- ▶ Expected completion in early 2007

Test Operation

- ▶ Test expected to be run for six months

A formal, independent evaluation will be completed during 2007, to assess how well the Test met its objectives.



Evaluation

- ▶ Ability of supply chain partners to operate in the EFM / FIH environment
- ▶ Scalability from one or two supply chains to many
- ▶ Ability and willingness of partners to operate using international data and messaging standards

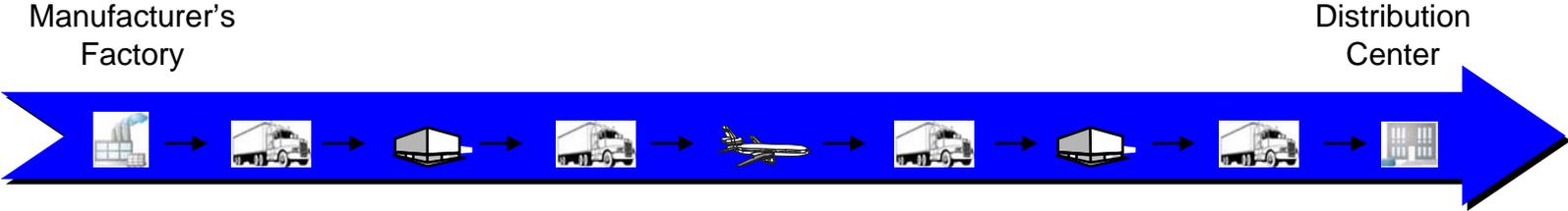
Feedback will be provided for all stakeholders once the Test's results are evaluated.



Feedback

- ▶ Best practices defined and published
- ▶ Content offered to standards bodies
- ▶ Test observations also turned over to industry and government stakeholders

We have reached out to, and are respecting mature and emerging initiatives and instruments within relevant standards development and standards implementing organizations.



- WCO Data Model
- US CBP ACE
- UCR



- Cargo IMP
- Cargo 2000
- eFreight



- TBG3
- CC
- TDED



- UBL



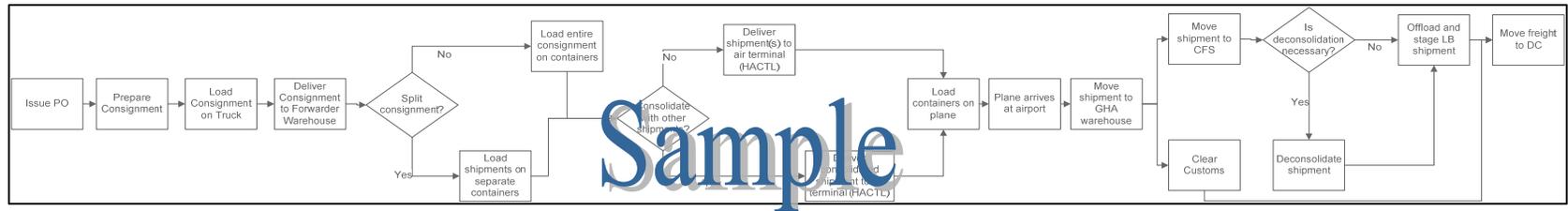
Because of our interest in UBL, we have been actively engaged in the definition and review of the UBL 2.0 release

- ▶ **Participating on the UBL Transportation Subcommittee**
- ▶ **Conducting technical review of UBL**
- ▶ **Conducting business review of UBL, particularly with regards to the requirements of the EFM Demonstration Test**
- ▶ **Contributing to the public review process via these reviews**
- ▶ **Preliminary findings being shared with UBL Transportation Subcommittee**

Examples of new formats of information exchanges that will be tested include:

Business Function	Baseline Information Exchange	Demo Test
▶ Resource and production planning for dispatch to DC	▶ Dispatch Advice EDI (ANSI X12 861, with MIGs published by Buyer)	▶ UBL Despatch Advice document, customized for this supply chain
▶ Limited Brands' exception management process for shipments	▶ Forwarders enter custom Access app ("Daily Status Report"); email file twice daily to Limited Brands	▶ New UBL-compatible message will be created; "pushed" to Limited Brands
▶ Forwarder verifies wheels-up and wheels-down of aircraft	▶ Forwarders' clerks check airline web sites and make telephone calls	▶ Use same message as above
▶ Document truck contents; non-negotiable record of carriage	▶ Truck manifest cut from ODW's (the US 3PL) legacy application	▶ UBL Bill of Lading document adapted

One key enabling element of EFM is the development of a reference identifier to uniquely identify shipments.

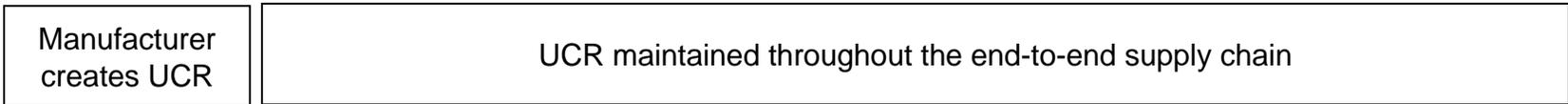


- PO #
- Ship. #
- BOL # 1
- HAWB #
- Split Shpt ID
- Consolidated Shpt ID
- MAWB #
- BOL # 2

Examples of Identifiers used in baseline business process

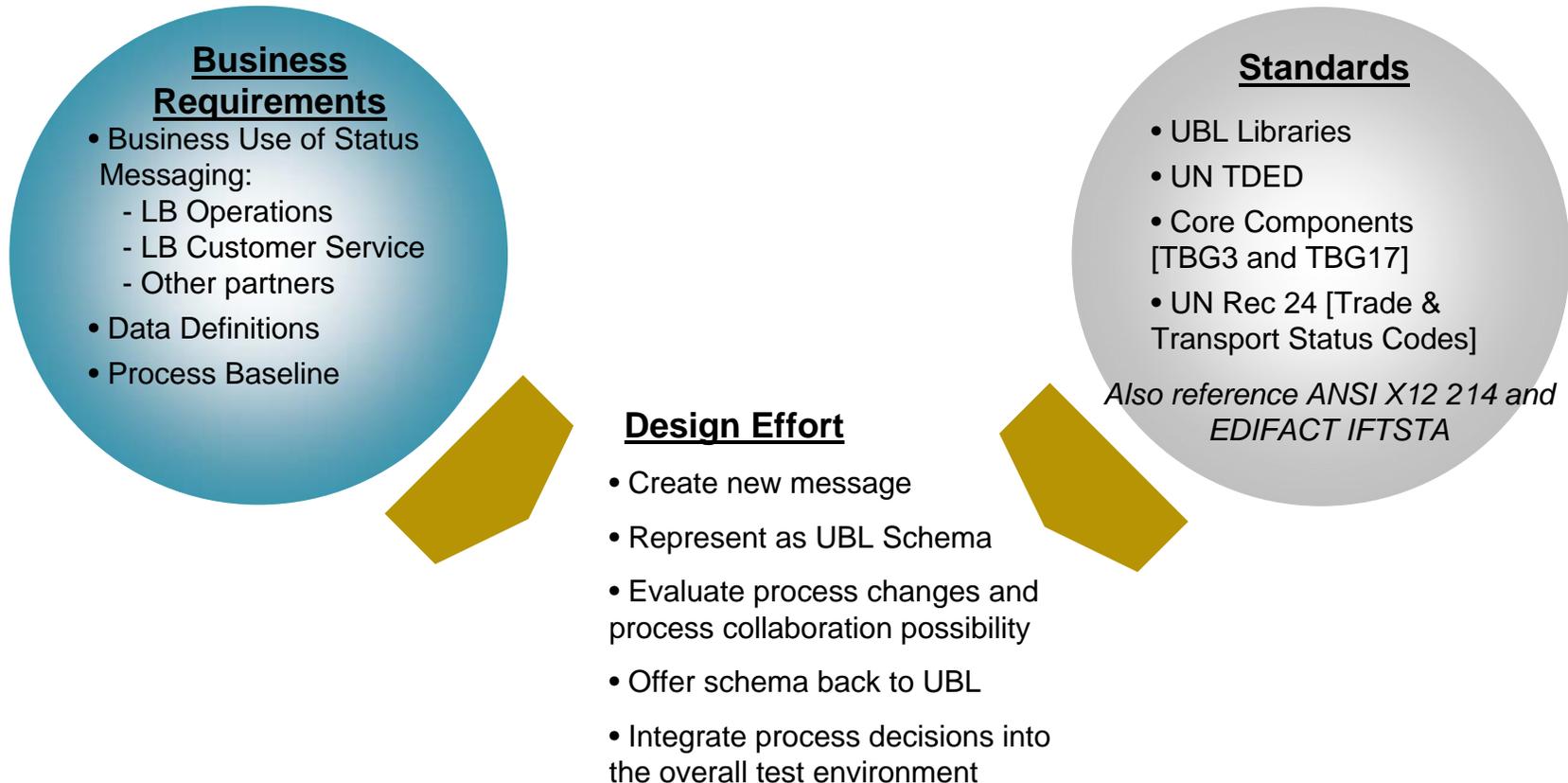


Adopt WCO's Unique Consignment Reference (UCR)



Anticipated scenario in EFM Demonstration Test

We are now designing a shipment statusing capability that meets the partners' business requirements and adapts and extends appropriate standards.



An EFM package will be developed during the Columbus EFM project and will consist of the following:

- ▶ Implementation Guidance
- ▶ Instructions for Trading Partners
 - Web services connections
 - How to publish/subscribe
- ▶ Universal Business Language (UBL) Messages
 - Define all UBL/eXtensible Markup Language (XML) messages to be used by industry
 - Includes appropriate XML schema
 - Published and available on FIH Portal
- ▶ Installation of local profile database
- ▶ Any appropriate translation software, if needed and available

Summary

- ▶ **Improve supply chain efficiency**
- ▶ **Technology**
 - **Data Standards**
 - **Freight Information Highway**
- ▶ **Improved methods of information sharing**
- ▶ **Deployable across modes when successful**
- ▶ **Broad benefits to industry**

Tea Break

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UBL and UN/CEFACT

*Mr Tim McGrath
Vice-Chair, UBL TC*

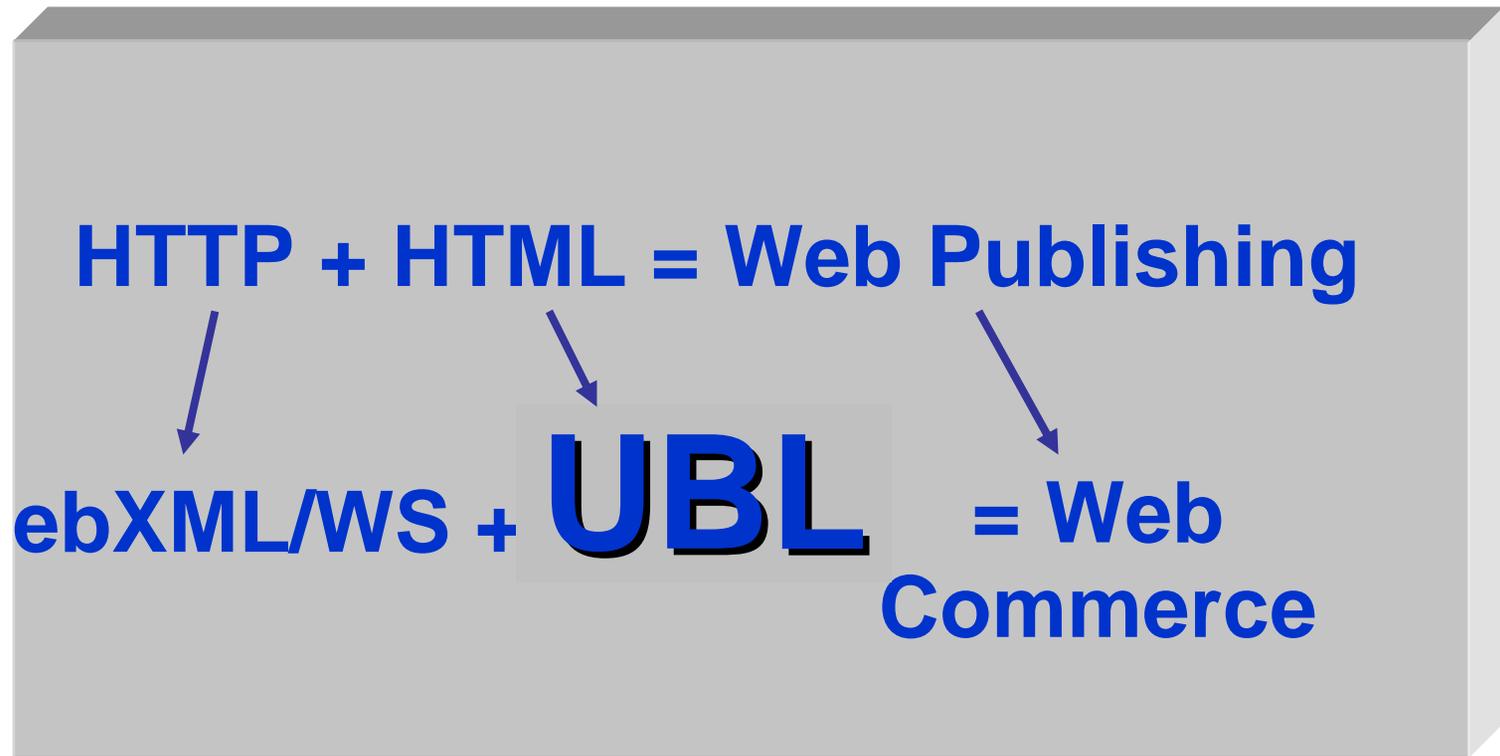
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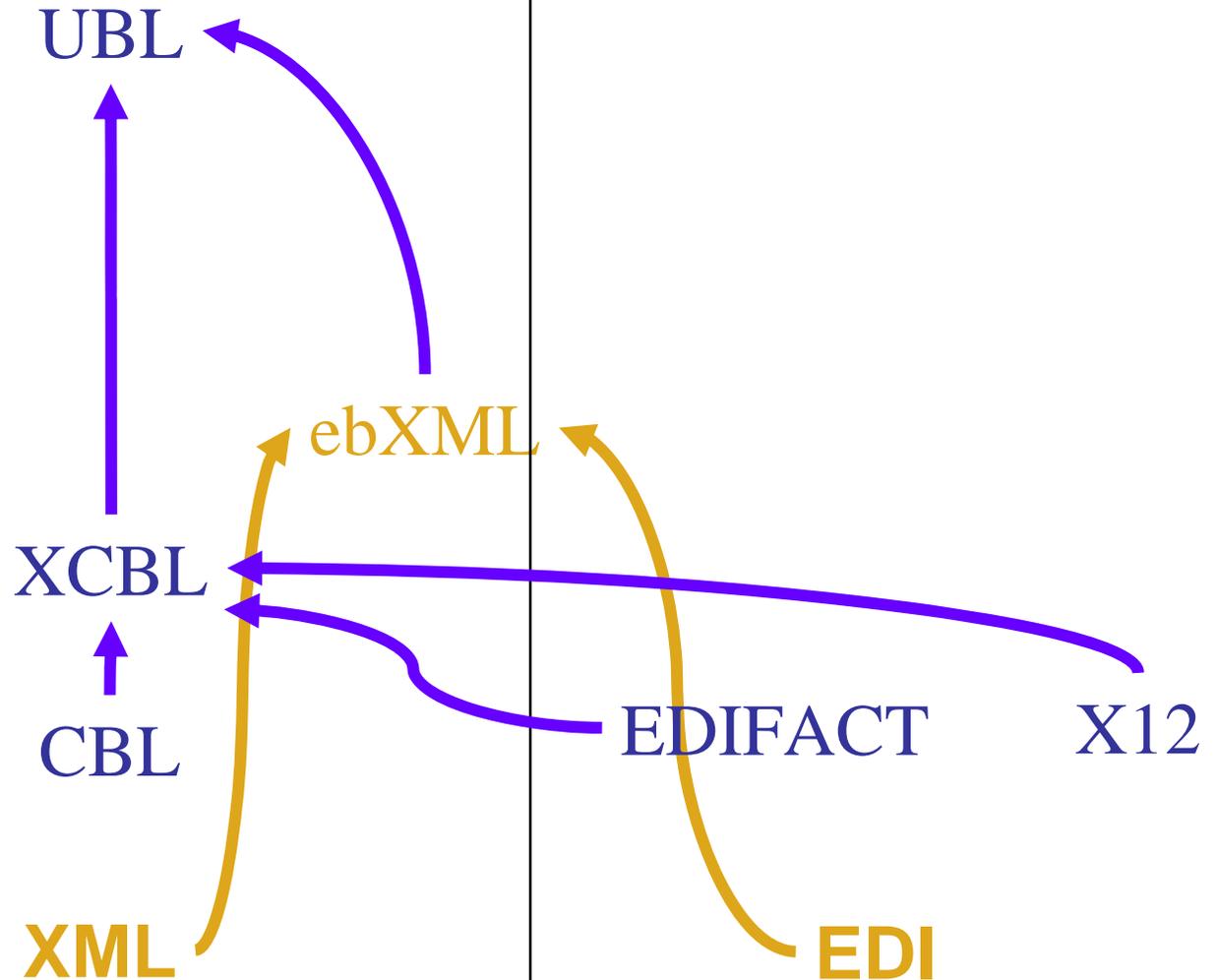
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The UBL Objective



UBL's Ancestry



UBL 2.0

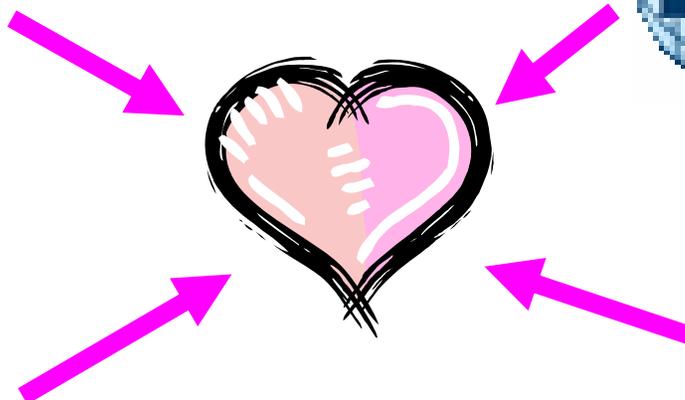
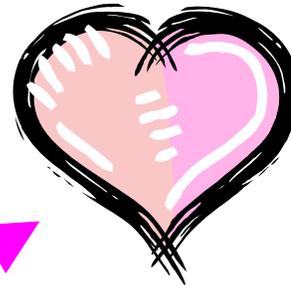
- Now an OASIS Committee Specification.
 - OASIS Standard expected December 2006
- Extended library.
 - 31 document types.
 - Extended Procurement Process (Europe).
 - Transportation Process Documents (Asia and US).
- Based on real implementation experience.
 - Improved library of re-usable components
- Alignment with UN/CEFACT projects.
 - Core Component Type library.
 - Input from Trade and Business Groups.
- Compliant to ISO 15000-5
 - ebXML Core Component Technical Specification.

Sanctioning eBusiness Standards

**INTERNATIONAL
ELECTROTECHNICAL
COMMISSION**



**INTERNATIONAL
TELECOMMUNICATION UNION**



UN/CEFACT

**SIMPLE, TRANSPARENT AND EFFECTIVE PROCESSES
FOR GLOBAL BUSINESS**

**UNITED NATIONS ECONOMIC
COMMISSION FOR EUROPE**



**International
Organization for
Standardization**

Specific Technology Consortia

- OASIS

- XML standards for e-business

- Collaborates with UN/CEFACT on the ebXML



- World Wide Web Consortium (W3C)

- Web infrastructure standards



- The Internet Engineering Task Force (IETF)

- Internet standards



But wait, there's more...

- Industry solutions developed to fill a requirement not met by other standards:
 - Rosettanet, XBRL, OAGIS, GS1, etc.
 - Gain momentum and become a standards business.
- National bodies:
 - CEN/ISSS, NIST, CNIS, SITPRO
- Proprietary or private solutions.
- There is a natural selection at play.
 - The market will decide.
 - But only if given the correct information.

UN/CEFACT Collaboration

- Agreed in April 2006.
 - UN/CEFACT recognizes UBL 2 as appropriate first-generation XML documents for eBusiness.
 - Future UN/CEFACT deliverables constitute the upgrade path for UBL.
 - Maintenance of UBL 2 remains with OASIS
 - In the expectation that UN/CEFACT will produce its own integrated set of XML schemas within a period of three years, OASIS will produce no further major versions of UBL past UBL 2.
 - OASIS will grant UN/CEFACT a perpetual, irrevocable license to create derivative works based on UBL.
- This means:
 - If you want a solution today then use UBL 2.0.
 - UBL 2.0 is the precursor to the next generation of UN/CEFACT XML standards.

UBL has Traction

- Adopted for a variety of contexts:
 - Government e-procurement.
 - International trade.
- Based on library of re-usable components.
- Active user community contributing to further development and enhancements.
 - Credibility within XML community.
- A feature of an Open Standard is no auditing of usage.
 - ‘Viral’ adoption

UBL has Sanction

- An approved OASIS Standard
 - 1.0 in May 2004
 - @ version 2.0 in December 2006
- Based on ebXML Core Components.
 - ISO 15000-5 compliant
 - Early adopter and pioneer
- UBL 2.0 aims to be a fully sanctioned international standard.
 - Endorsed by the MoU/MG for eBusiness standardization.

UBL Future Work

- The next version of UBL will be a collaboration with UN/CEFACT:
 - This is underway.
 - A long term migration path for UBL users.
- Maintenance and support of UBL version 2 remains with the OASIS UBL Technical Committee.
 - Minor releases, errata, extensions, etc
 - Backward compatible with UBL 2.0
- Use UBL today and tomorrow.

The UBL Technical Subcommittee

- Procurement SC
 - Models for Supply Chain business requirements
- Transportation SC
 - Models for International Trade business requirements
- Human Interface SC
 - Printed formats (eg. UN Layout Key)
 - Mappings for stylesheets
 - Input Forms (XForms)
- Small Business SC
 - Implementation profile for small business
- Software SC
 - Software for creating and customizing UBL models.

Localization Subcommittees

- Translation of UBL semantics.
- Fostering requirements for local implementations.
 - Chinese
 - Japanese
 - Korean
 - Spanish
 - Italian
 - Danish



UN/CEFACT

SIMPLE, TRANSPARENT AND EFFECTIVE PROCESSES
FOR GLOBAL BUSINESS



CEFACT Plenary
(Shareholders)



Bureau *(Board of Directors)*

Forum



Forum
Management
Group *(Board
of Management)*



Permanent Groups
(Workers)



TMG (CCTS, UMM)



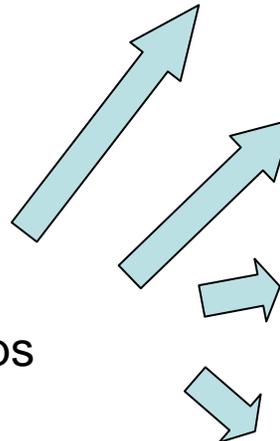
TBG (1-19)



ICG



ATG (1-2)



UN/CEFACT

Collaboration Activities part 1

- CEFACT BUREAU/ UBL TC
 - Mark Palmer and Tim McGrath
- TBG1 - Supply Chain
 - completed first analysis
- TBG3 – Transport
 - reviewed UBL 2.0 specification
 - proposing a common work item
- TBG17 – Harmonization
 - discussions started
- TMG/CCTS – Core Component Technical Specification
 - discussions started

TBG1 – UBL core group

- Present situation
 - Two meetings of 3 days (July, September)
- Next steps
 - Present the Gap analysis to TBG1 and OASIS UBL TC
 - Work plan (start July 2006 – planned end September 2007)
 - November 2006 meeting – Gap analysis Order
 - December 2006 meeting – Gap analysis Order response, Order change, Order cancellation
 - January 2007 meeting – Gap analysis Despatch advice, Packing list, Receipt advice
 - March 2007 meeting – Gap analysis Catalogue messages
 - July 2007 meeting – Gap analysis Self-billing

UN/CEFACT

Collaboration Activities Part 2

- ATG/NDR - XML Naming and Design Rules
 - working team formed
 - submitted requirements
- TBG2 – UN/eDocs
 - unclear how to proceed
- ICG (and ATG2) – Code Lists
 - need to engage formally
- TBG19 e-Government
 - still immature
- TMG/Context Methodology/Message Assembly
 - still immature

The Standards Maturity Model

Level 5 – “Functionally adequate” version is ubiquitous.

Level 4 – Many use “functionally adequate” version.

Level 3 – “Functionally adequate” version of standard is approved.

Level 2 – Version 1.0 of the standard is proposed.

Level 1 – Many recognize the problem.

[acknowledgements to Ross Altman, 2005]

ebXML Content Standards Maturity

Level 5 – UBL 2.0 ??

Level 4 – UBL (OIOXML, DTTN, OGC, USDoT)

Level 3 – UBL 1.0

Level 2 – ebXML Core Components, OAGIS

Level 1 – *RosettaNet, GS1, UN/CEFACT Library*

OASIS/UBL and UN/CEFACT collaboration plan

- Work together to build a common set of eBusiness document standards
- Work with all relevant Forum Groups
- Common core components and business processes
- Recognition of UBL v.2 as appropriate first-generation XML documents for eBusiness

Developing UBL-based Solution

*Mr Malcom Tay
Manager, CrimsonLogic Pte Ltd*

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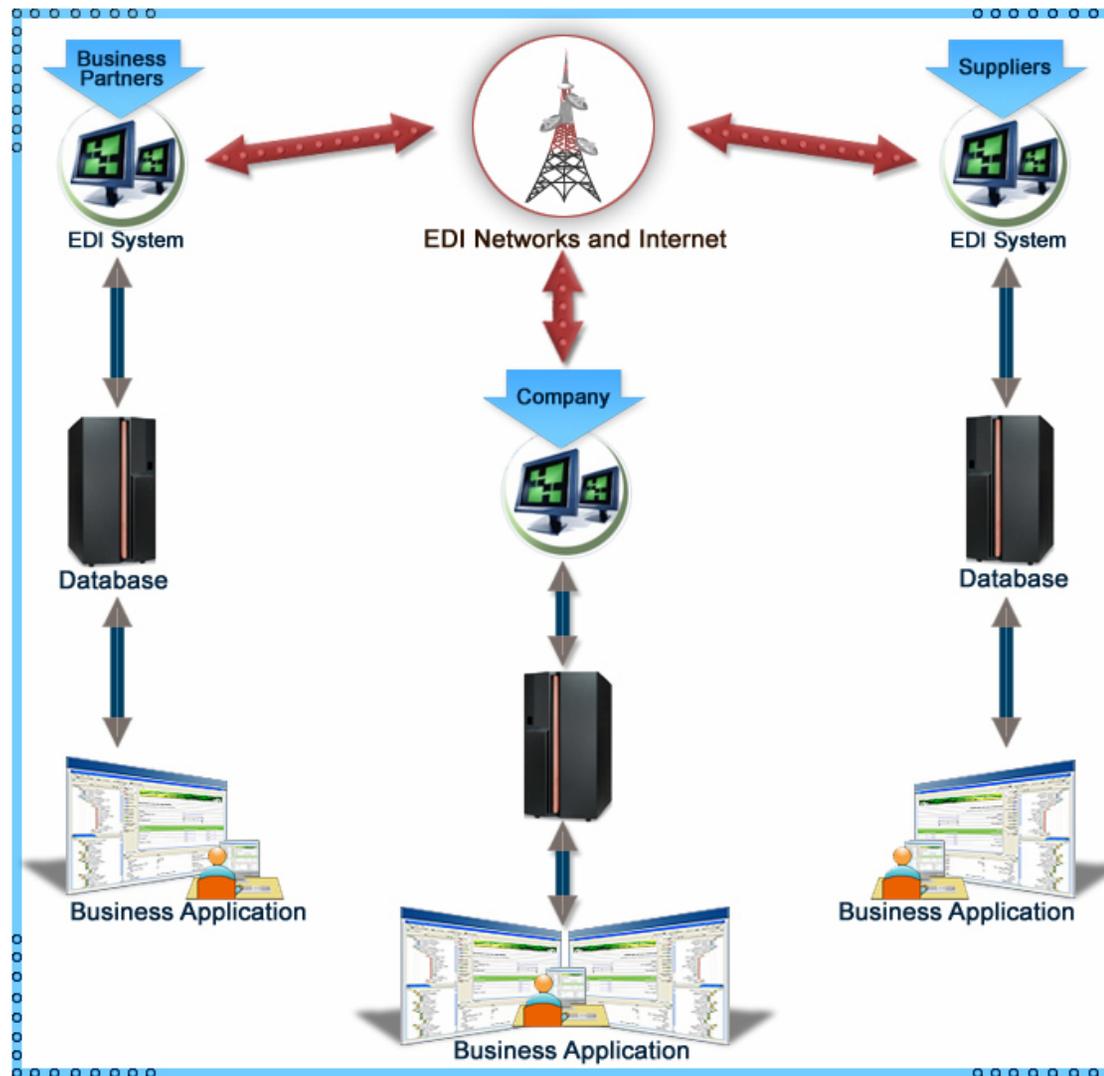


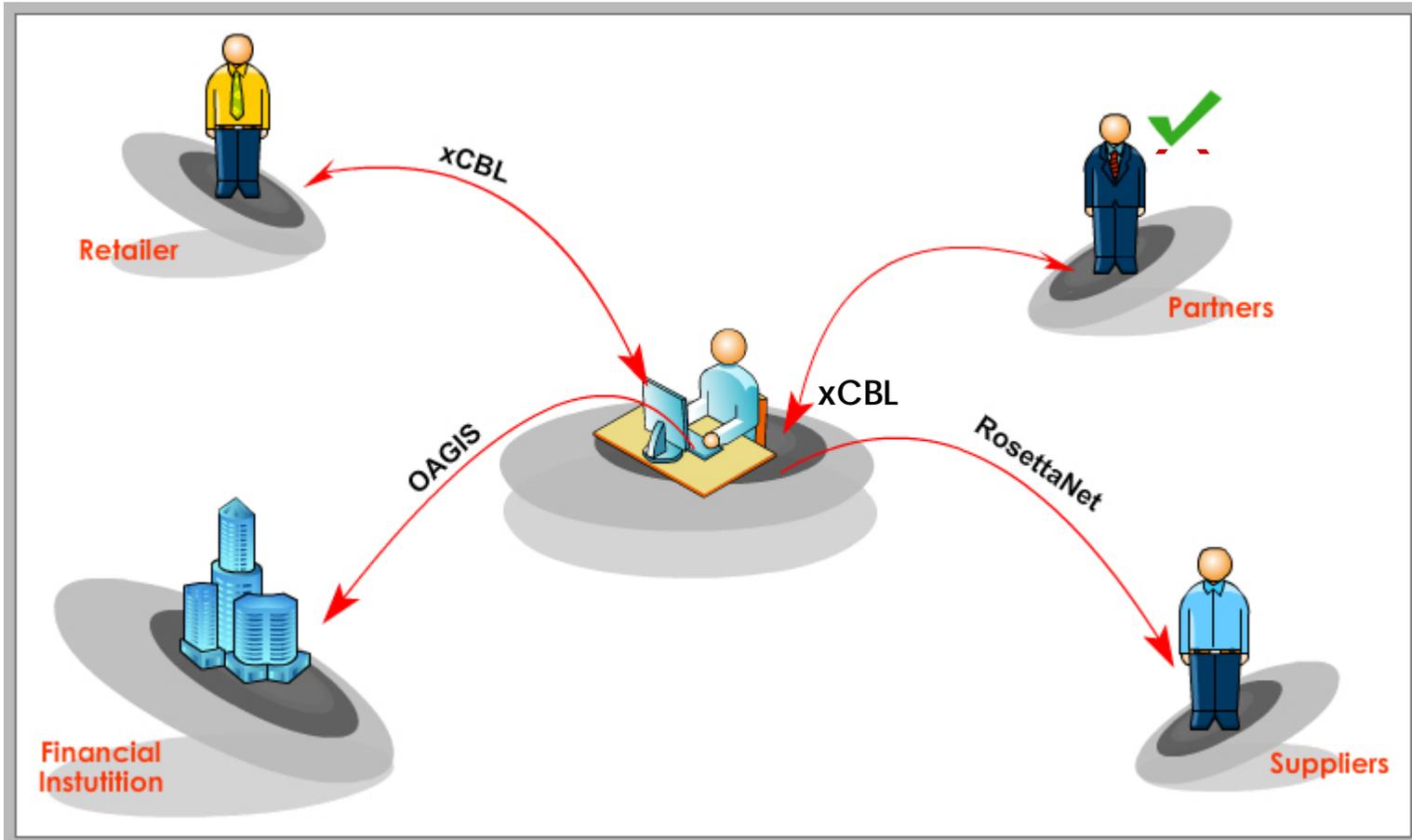
An Industry Partnership Supported by
SPRING Singapore & ICA Singapore

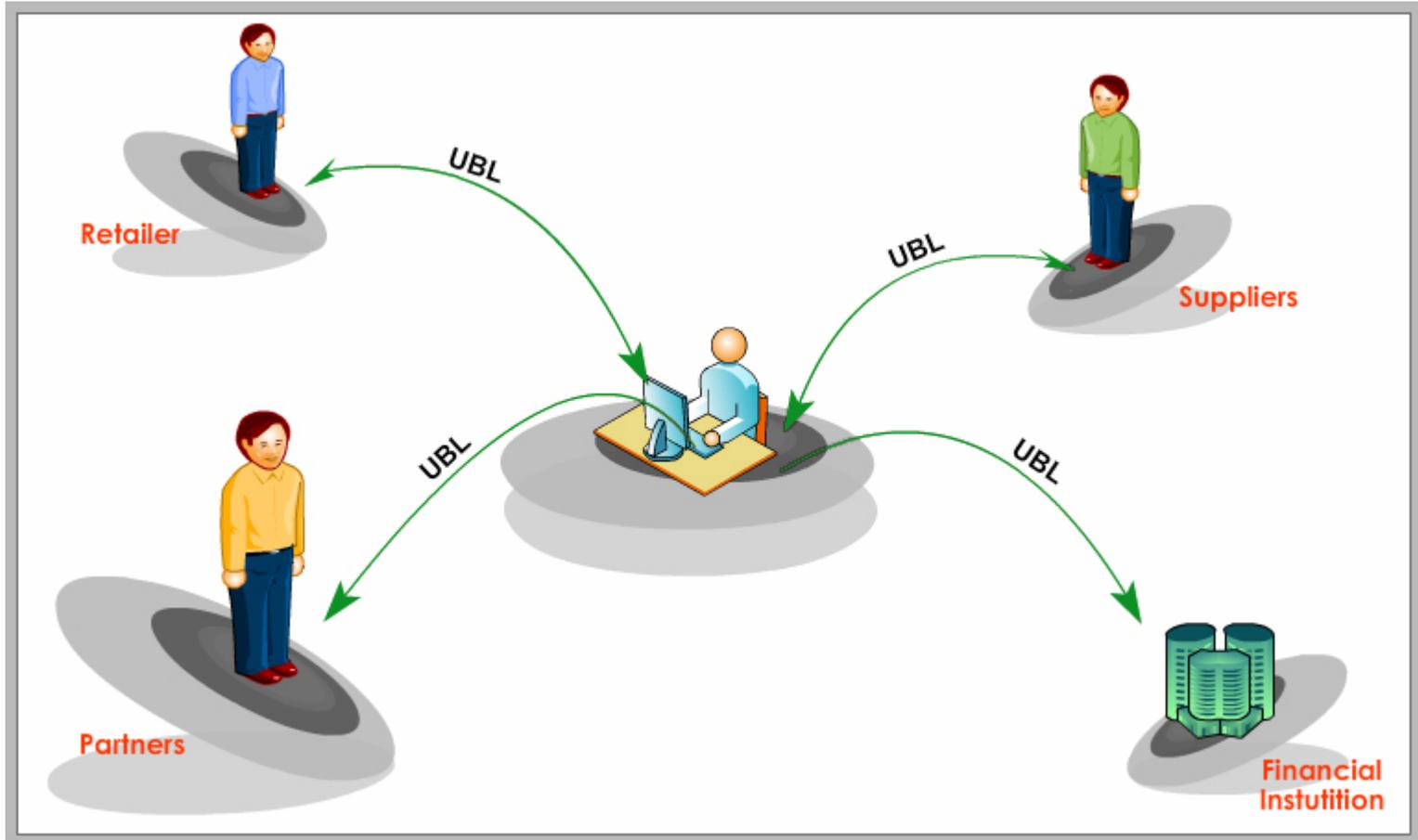




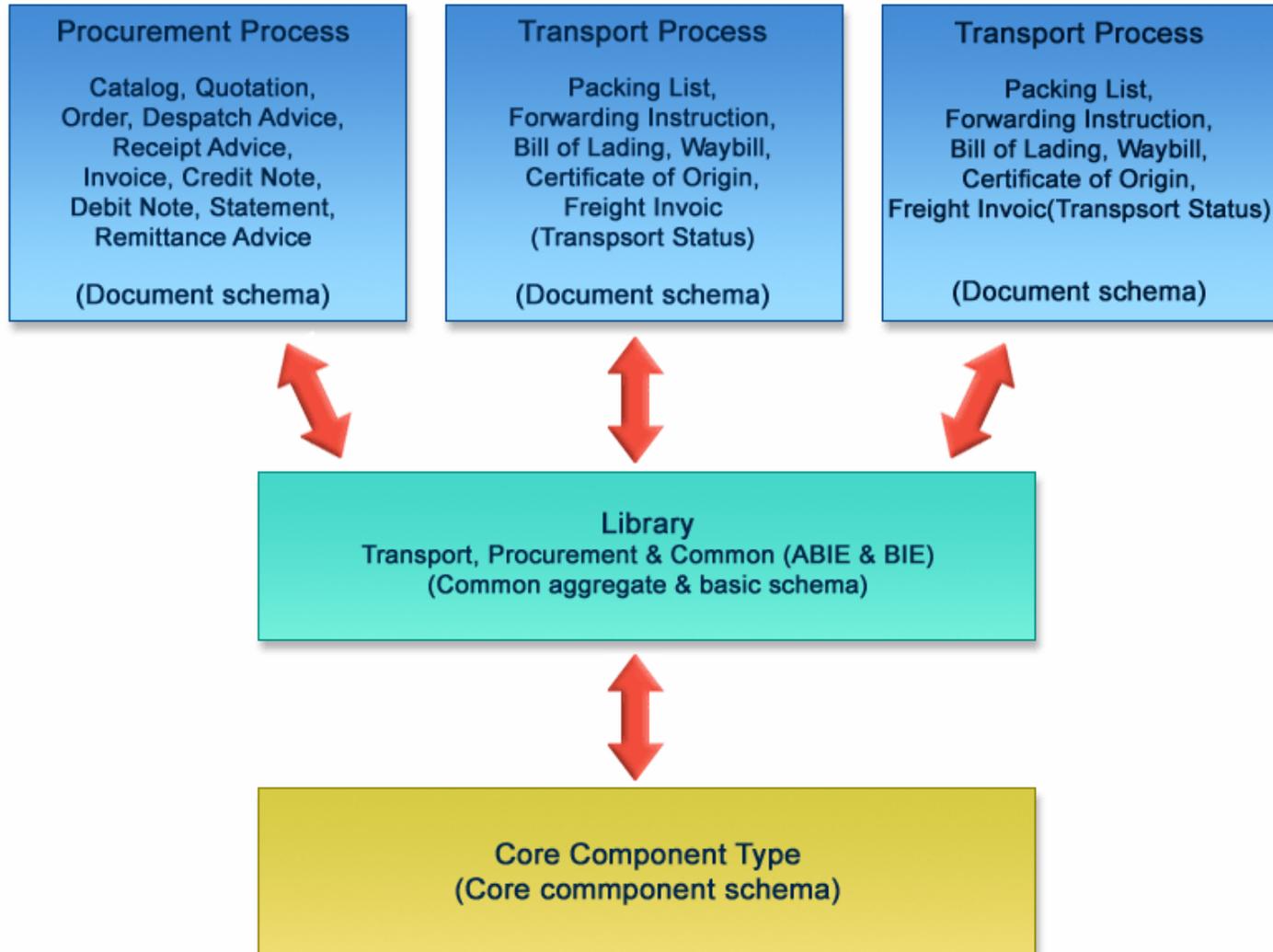
- UBL Overview
- Introduction to Xynthesis
- Developing UBL based Solutions
- Q & A

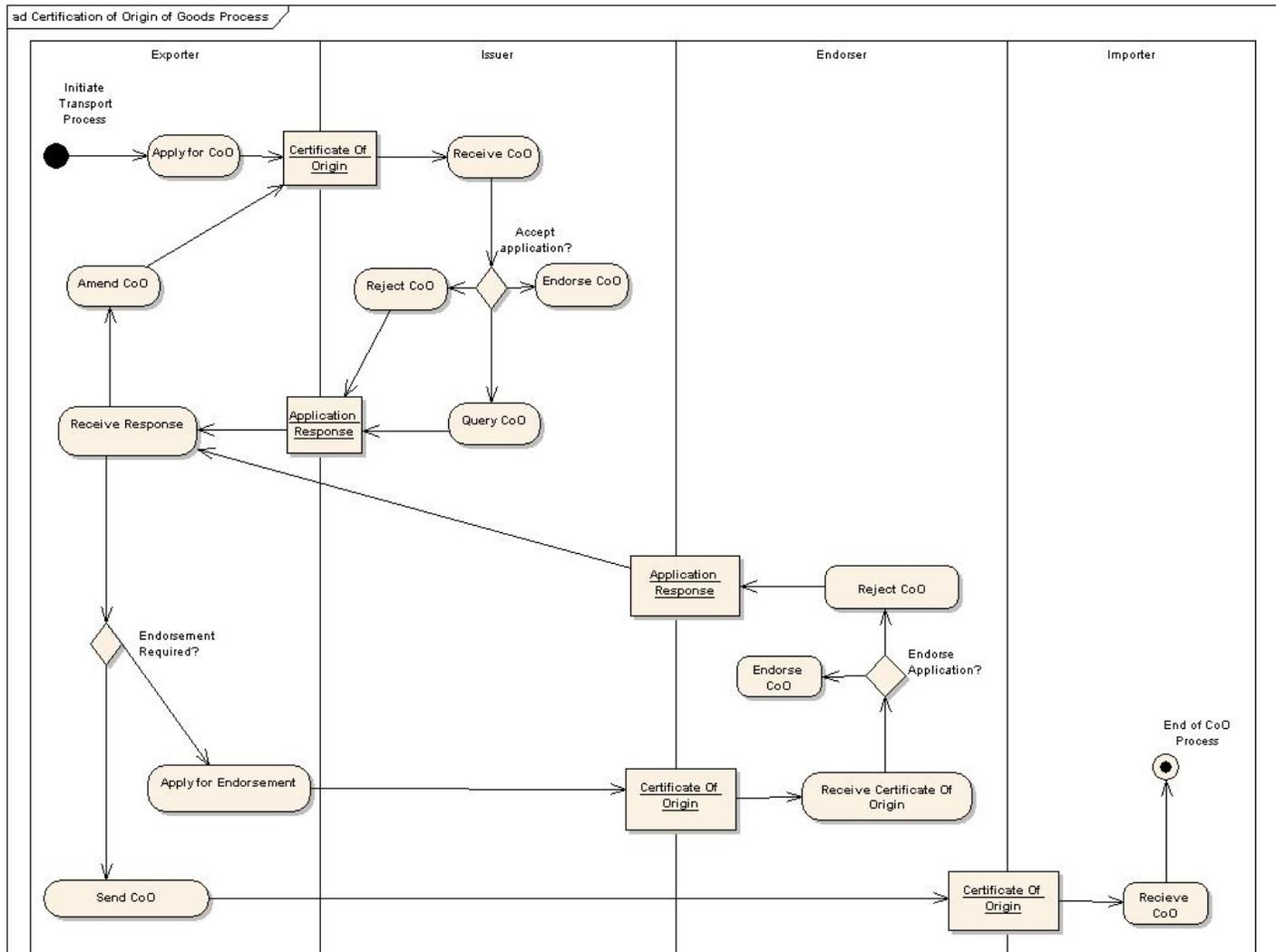






- **Universal Business Language (UBL)**
 - is the product of an international effort to define a non-proprietary library of standard electronic XML business documents
 - Leverages best features from EDI and other existing XML business libraries.
- **UBL Vision**
 - To create a vocabulary for common business communication

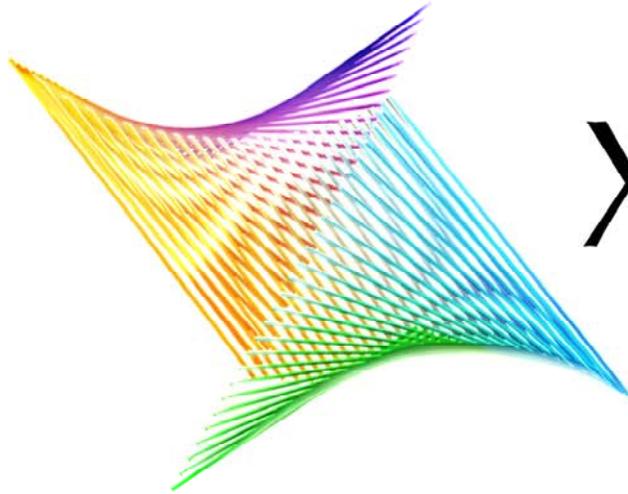






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Introducing Xynthesis



Xynthesis

the complete business solutions platform

"Xynthesis" originates from the word "synthesis" which means "the combining of separate elements to form a coherent whole".

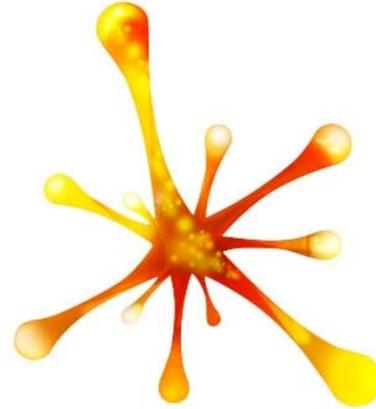
Xynthesis – The complete business solutions platform comprising of a suite of products designed for business users. Now it is possible for you to assemble a fully functional and robust system easily with business agility. In short, business solutions: yours to create, on demand.



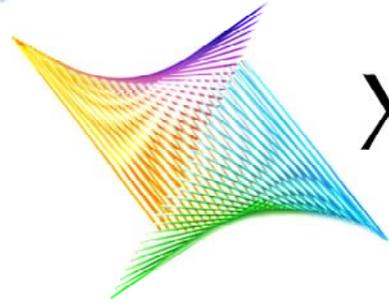
CrimsonLogic

Xynthesis – The Constituents

PERFORMA



Eureka

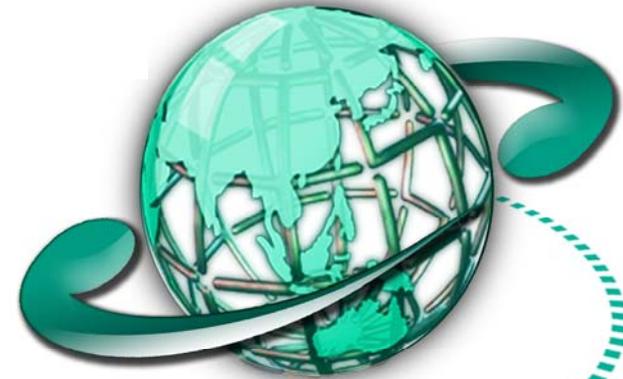


Xynthesis

the complete business solutions platform



MAESTRO

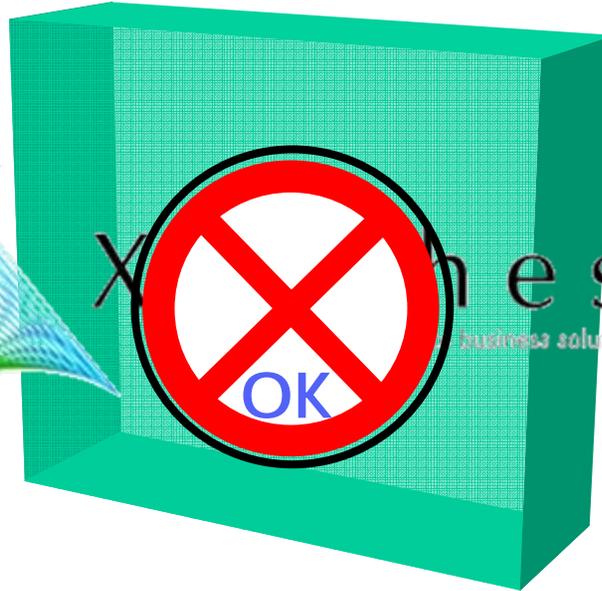
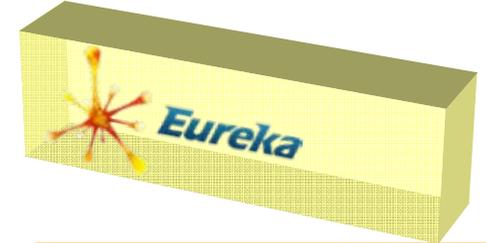
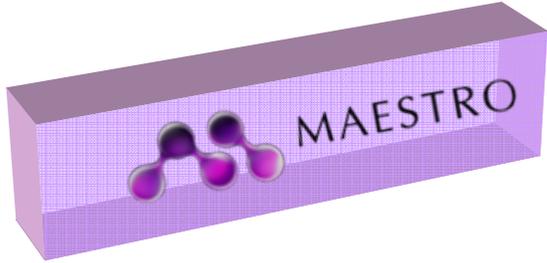


Nexus



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Enterprise Application Development Conventional Vs Xynthesis way

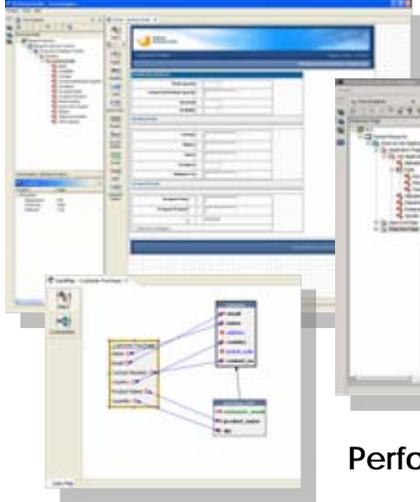


- Loose Security
- High Maintenance
- Slow Development
- Limited Reuse
- Lack of Control
- No Separation of Duties

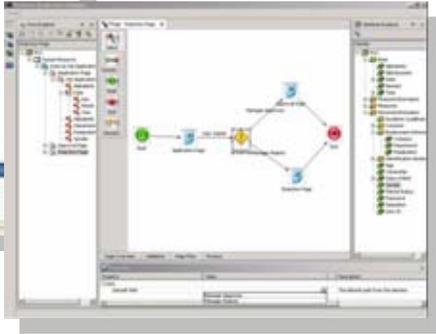




CrimsonLogic Platform Xynthesis - Screenshots

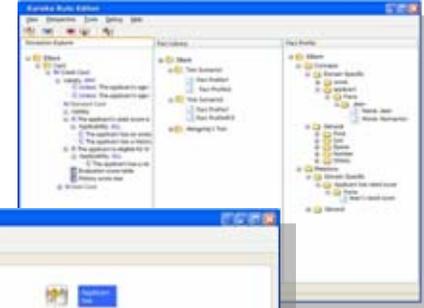


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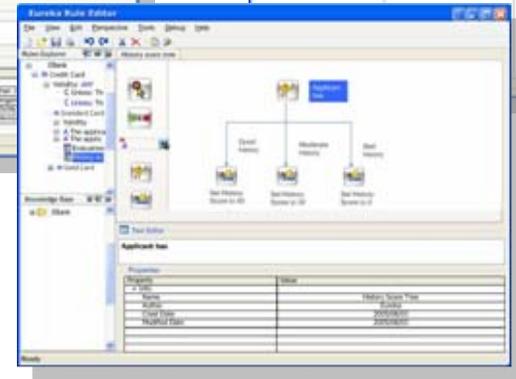


Eureka Rule Editor

Rule ID	Rule Name	Rule Description	Rule Status
Rule 1	Approval Annual Income >= 100000	Not Approved	00
Rule 2	Approval Annual Income >= 100000	Approved	17
Rule 3	Approval Annual Income >= 100000	Not Approved	20
Rule 4	Approval Annual Income >= 100000	Approved	12
Rule 5	Approval Annual Income >= 100000	Not Approved	02



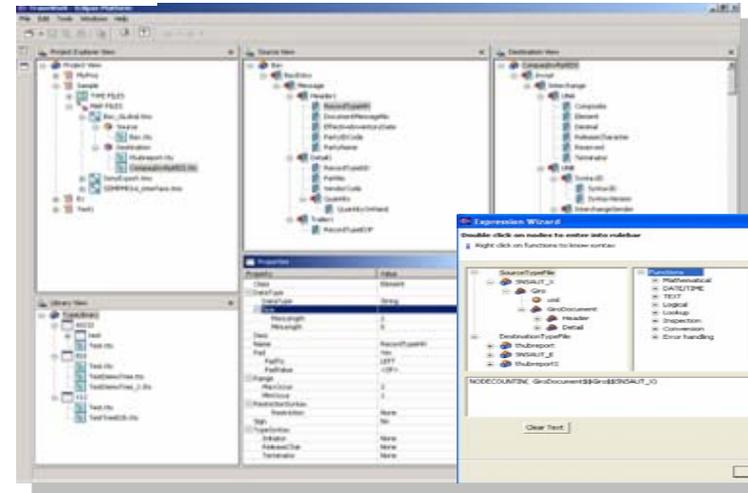
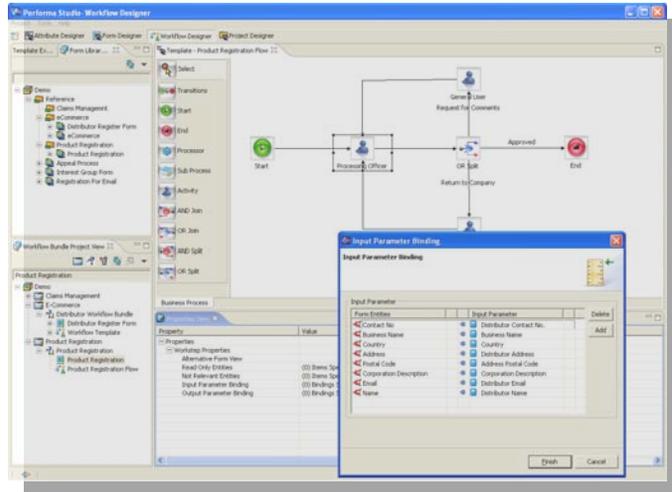
Eureka



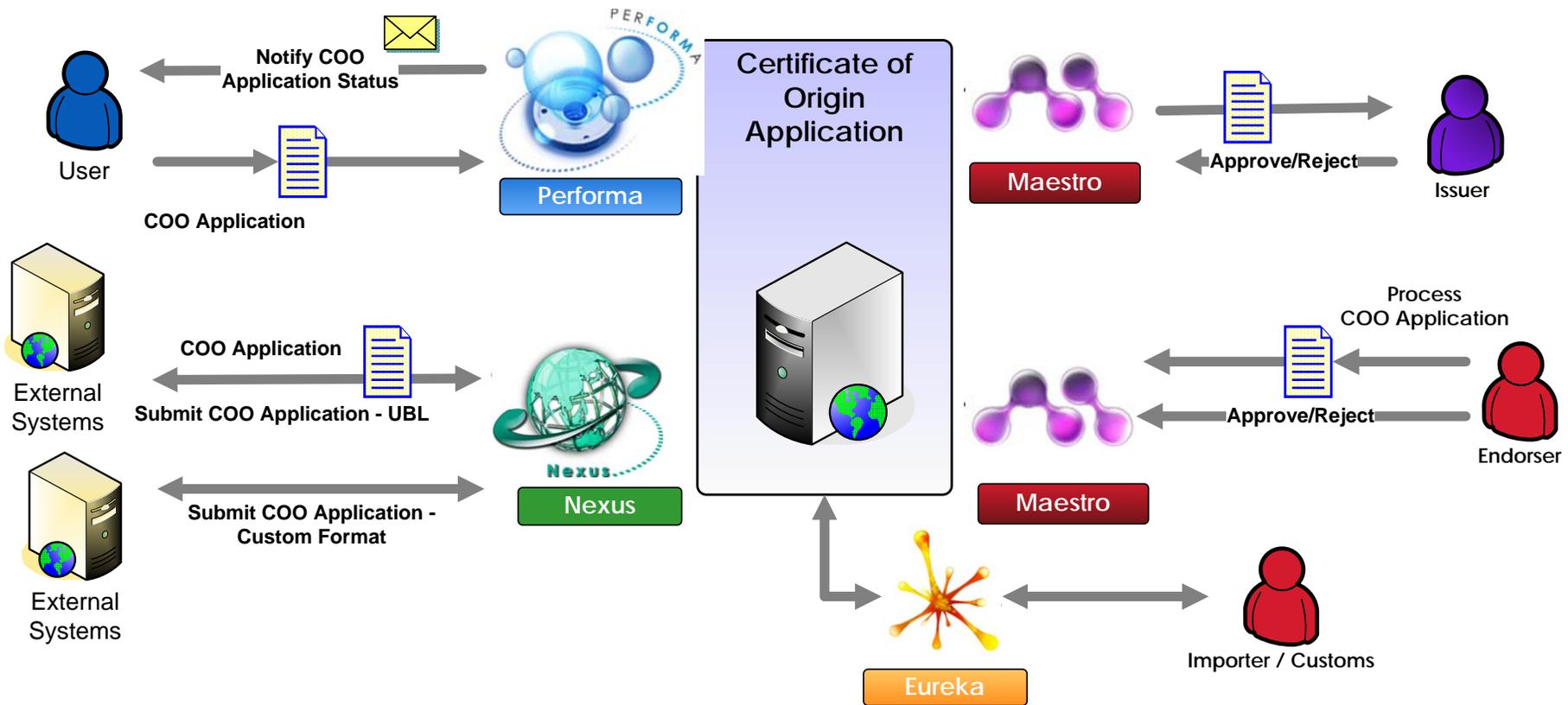
Xynthesis

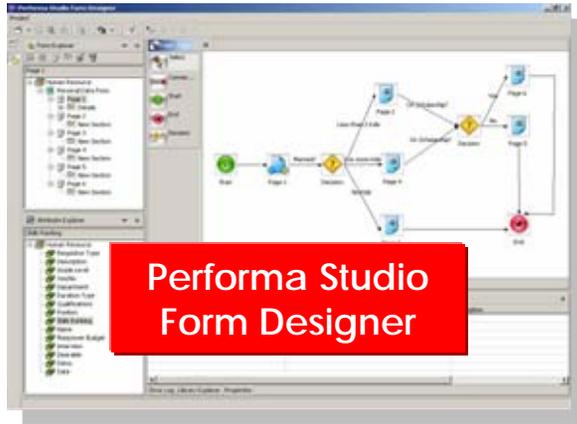
the complete business solutions platform

Maestro

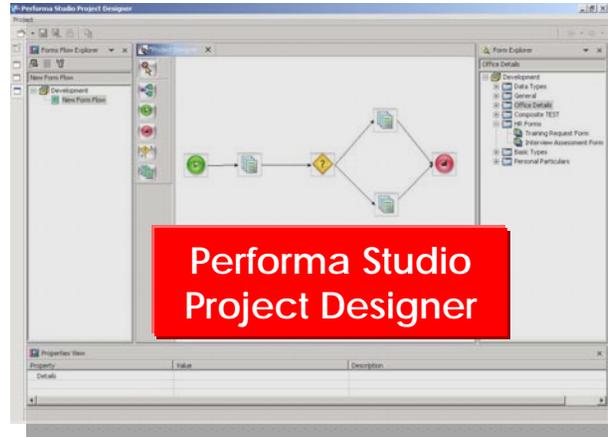


Nexus

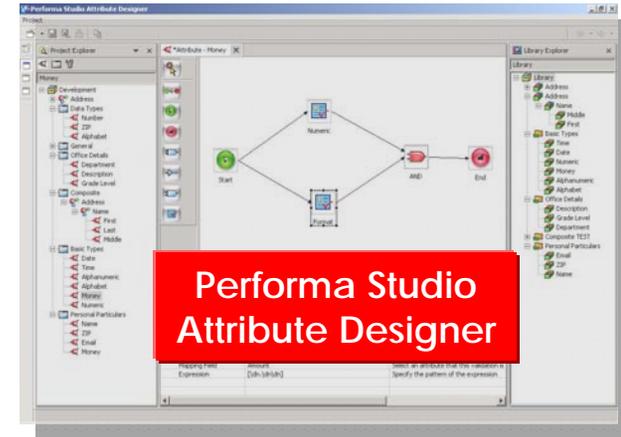




Performa Studio Form Designer



Performa Studio Project Designer



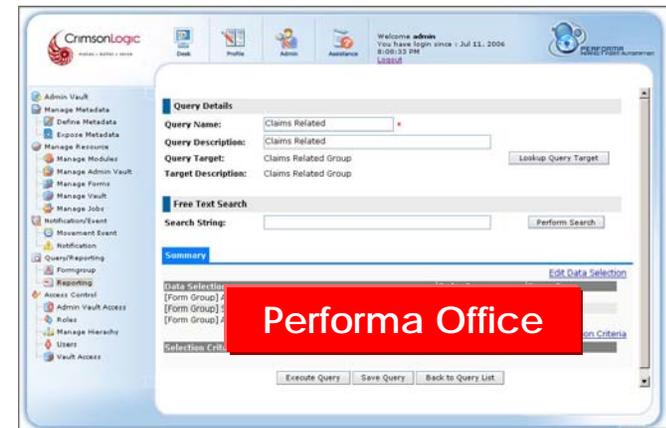
Performa Studio Attribute Designer



Performa Server



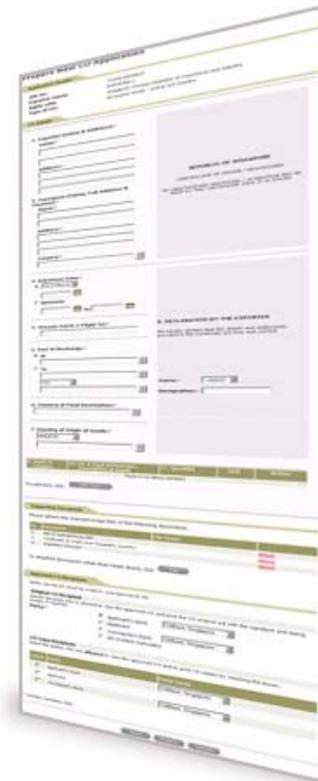
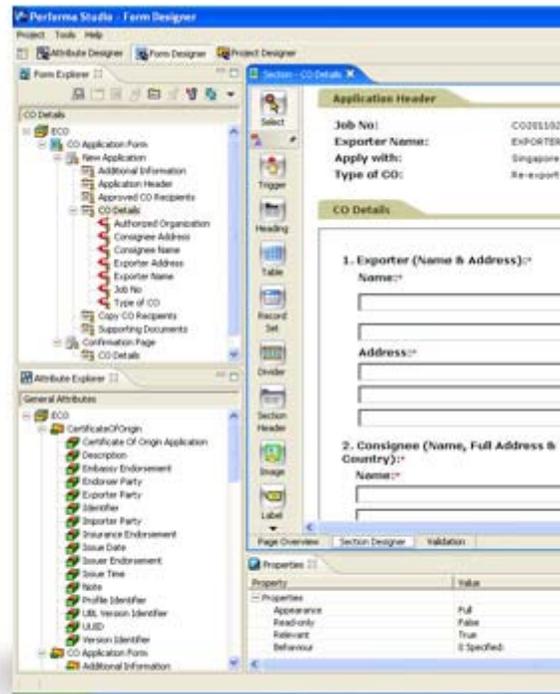
Performa Centre

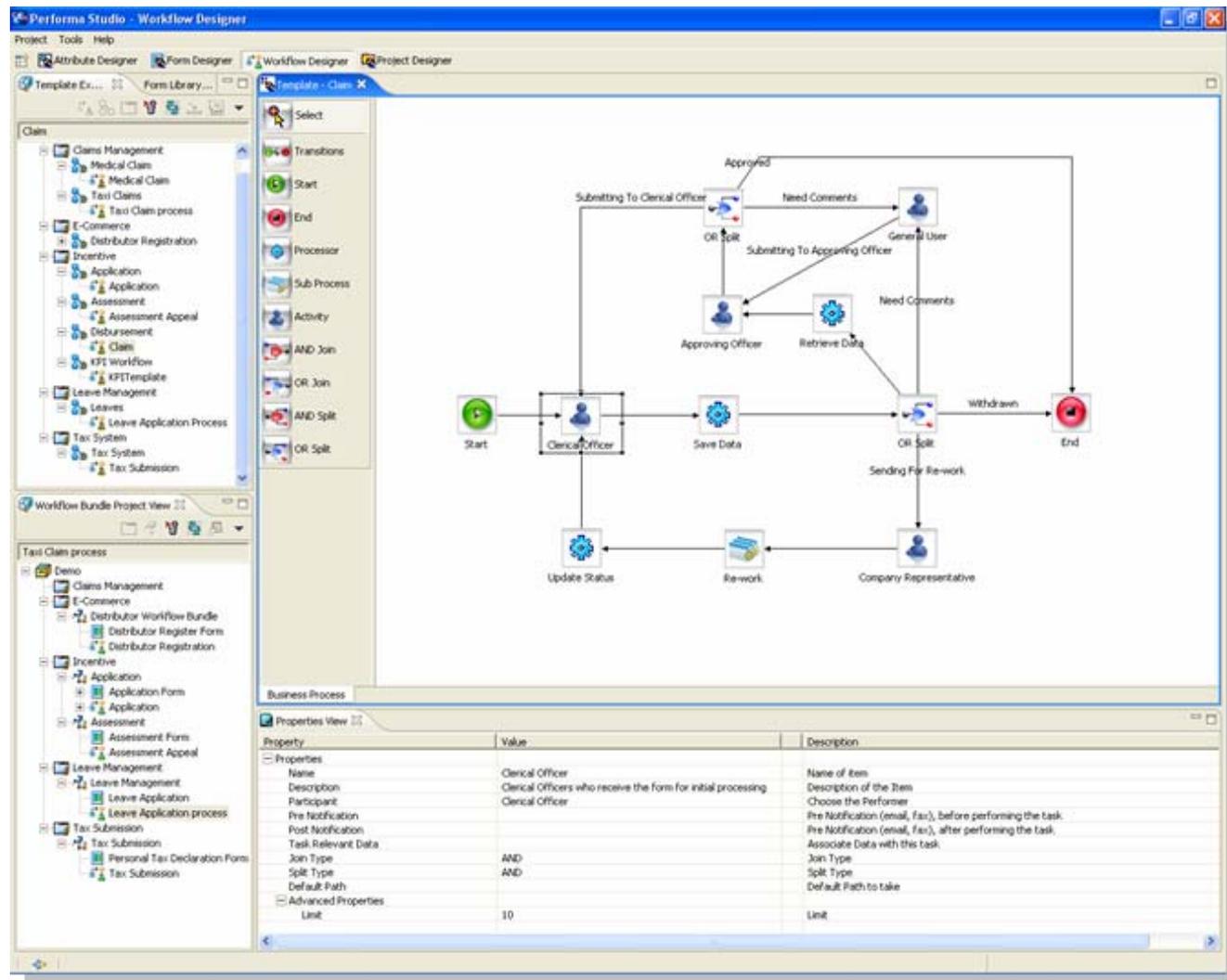


Performa Office



Merit Award Winner
Asia Pacific ICT Award 2005



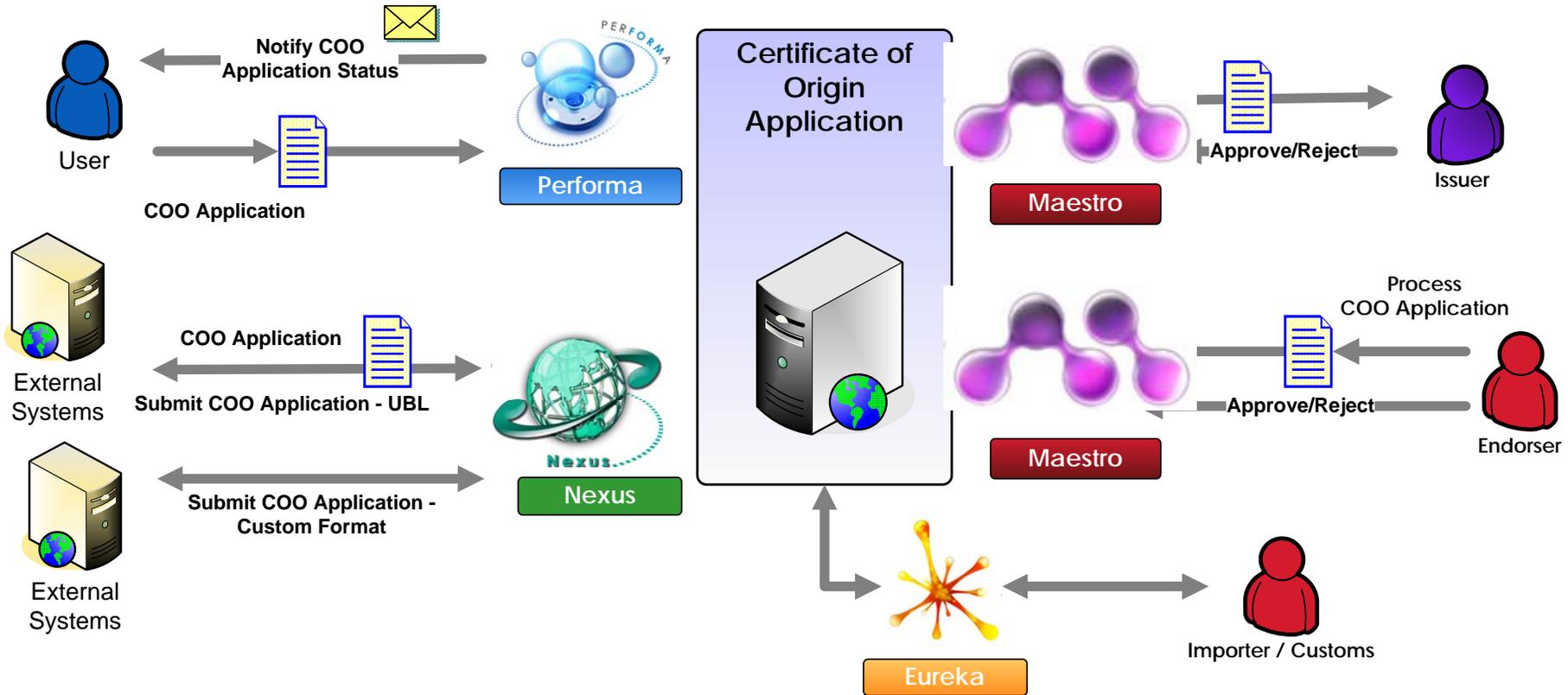




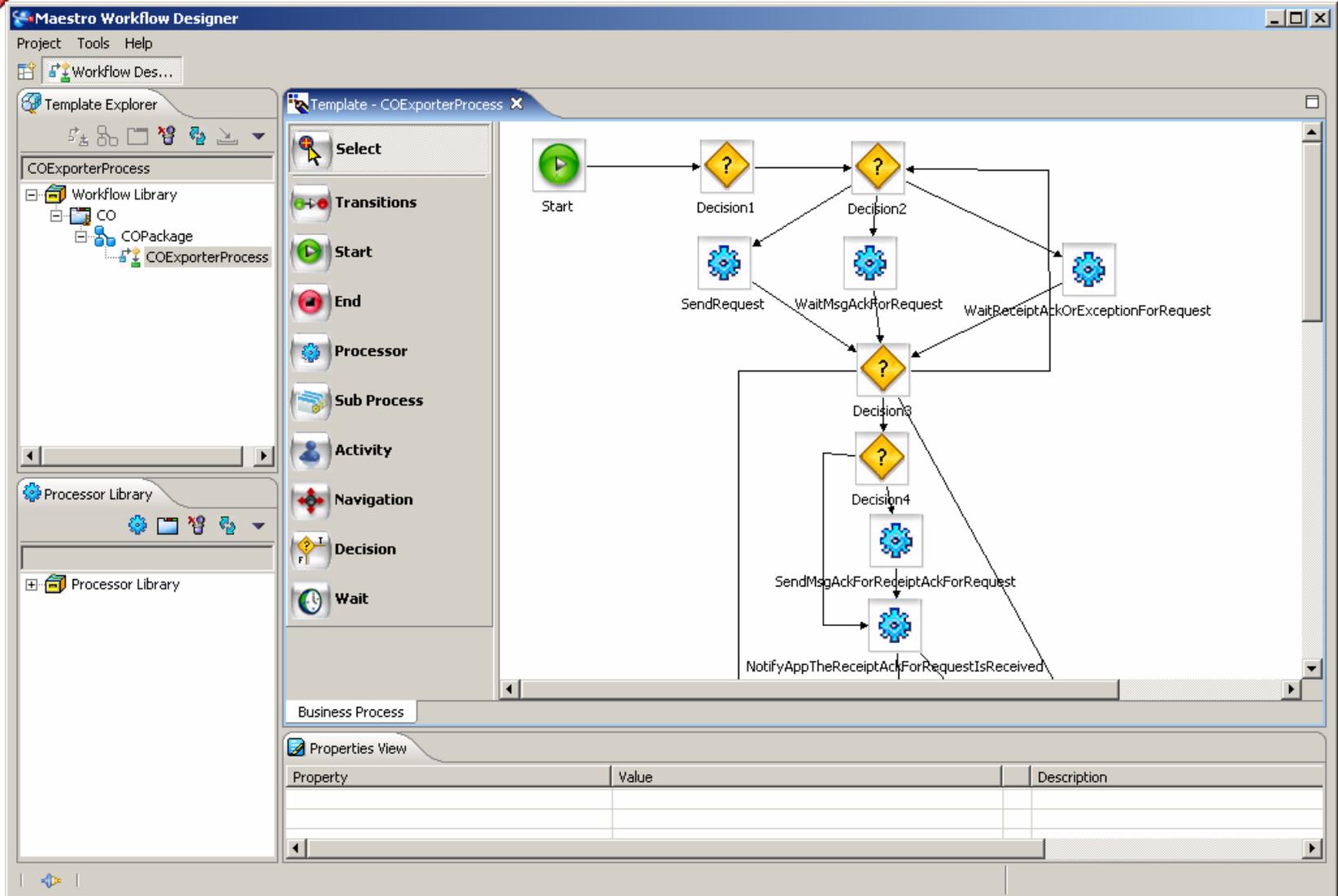
CrimsonLogic

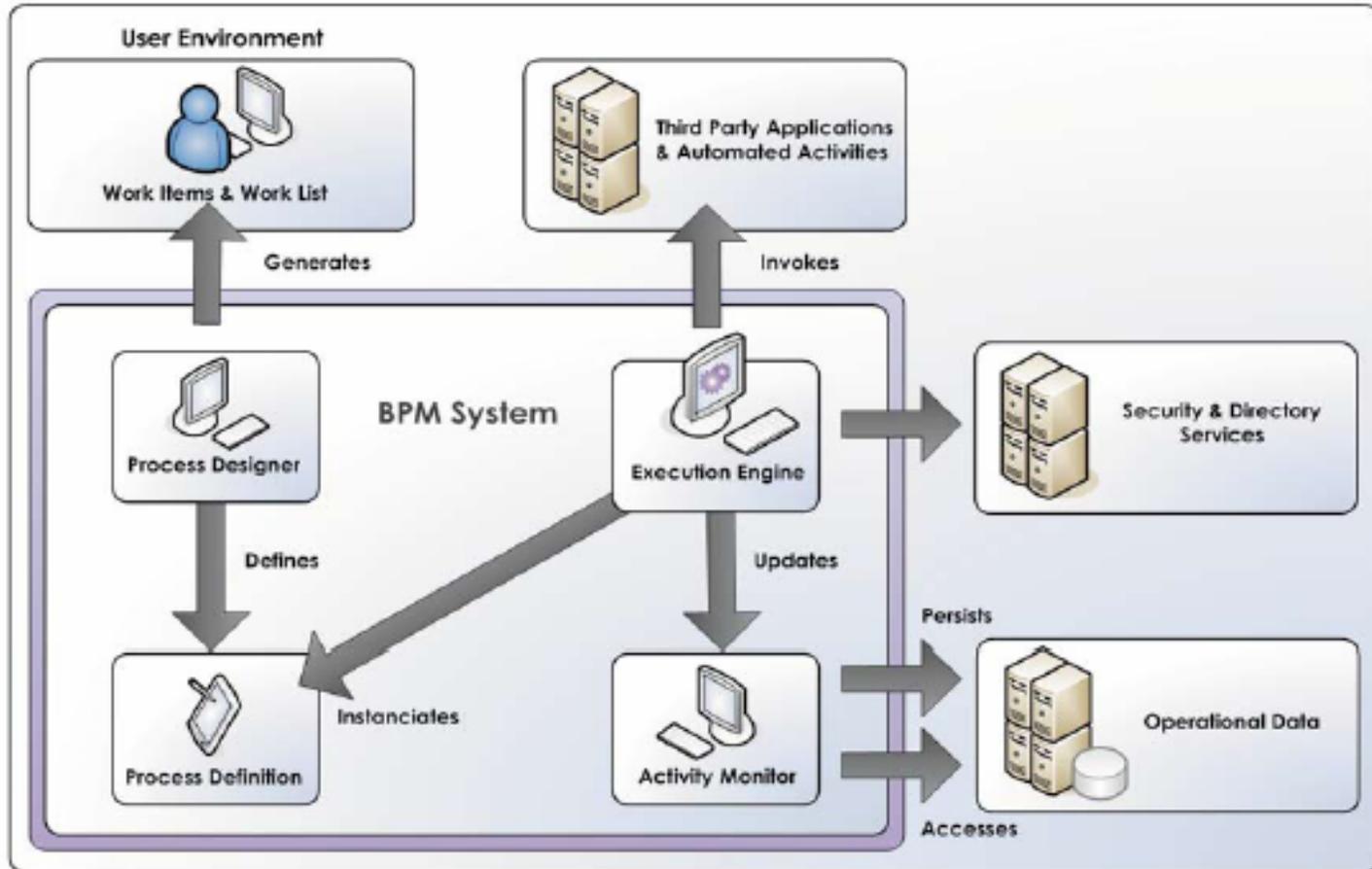
Design Once – Multiple Clients

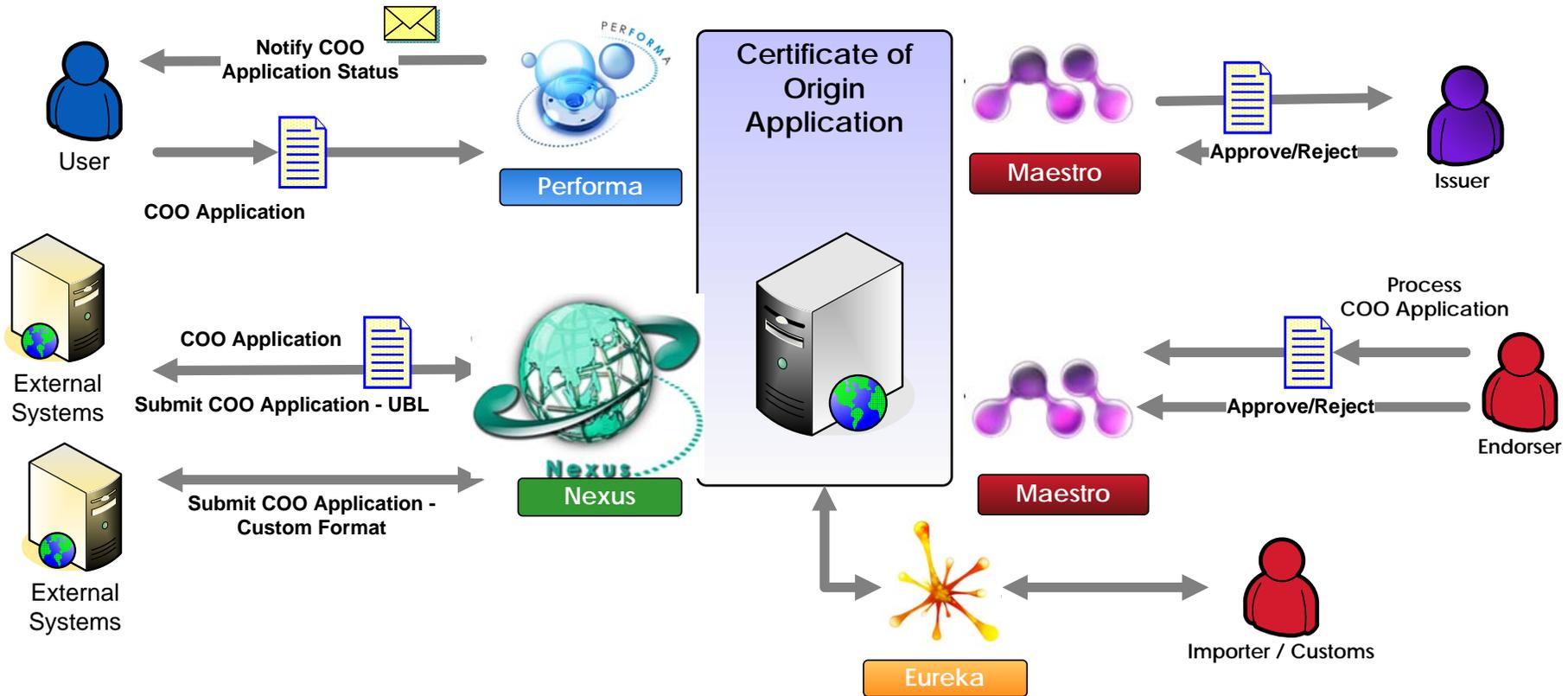












Provides the infrastructure for secure exchange of messages



Connect via Internet



Alerts via
SMS and e-mail

Message Hub

Messages archived
up to 7 years

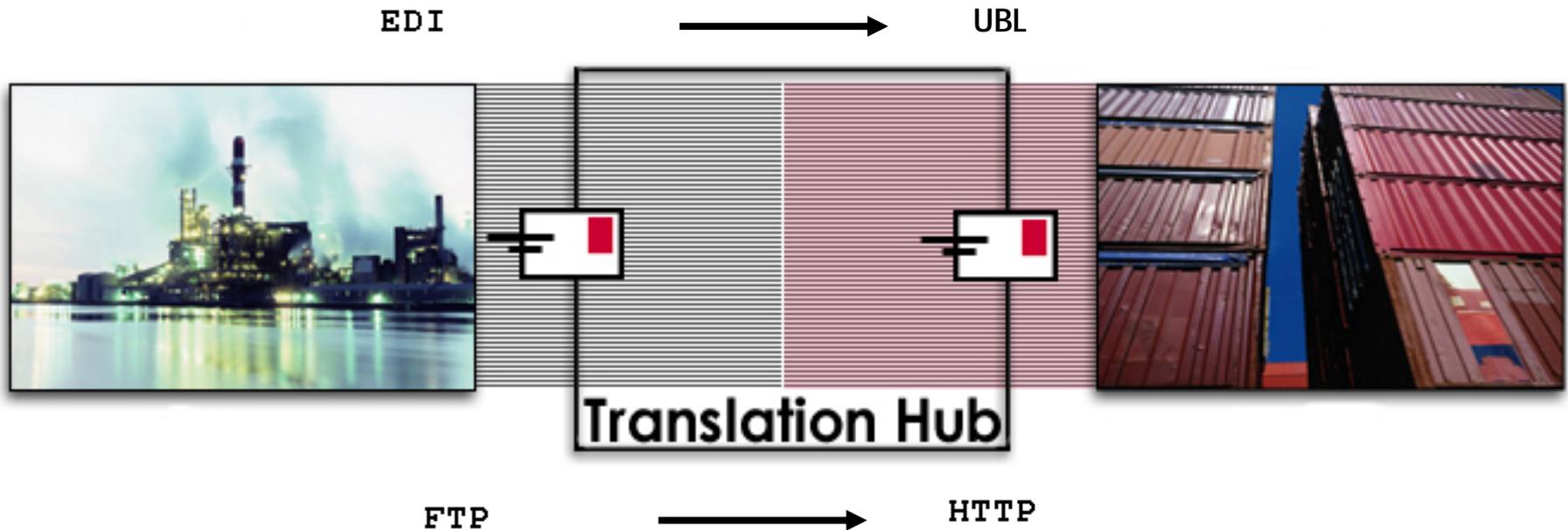
ebXML-enabled

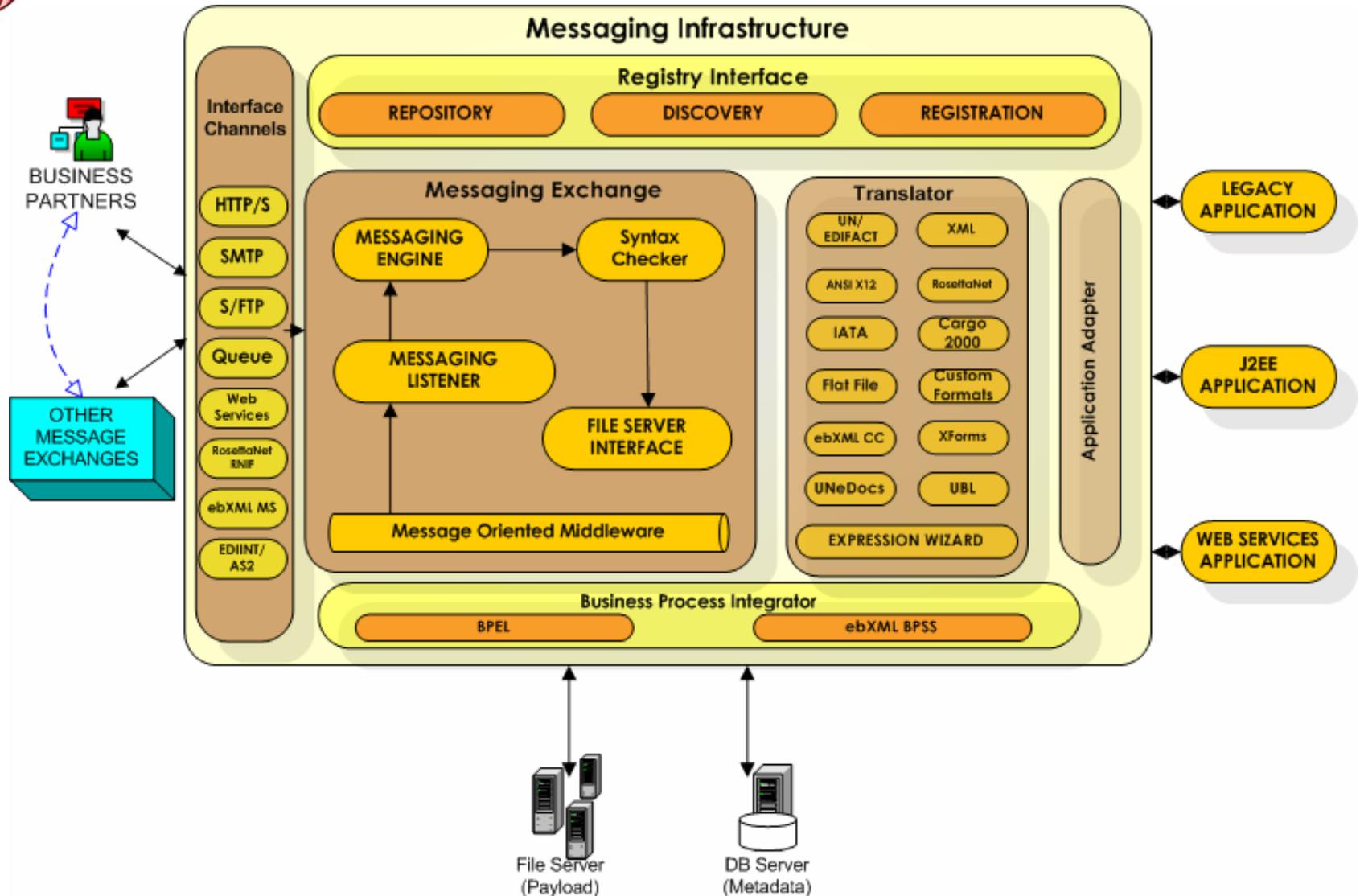


Connect via Internet



Converts application data from any format to any format
in any protocol across industries







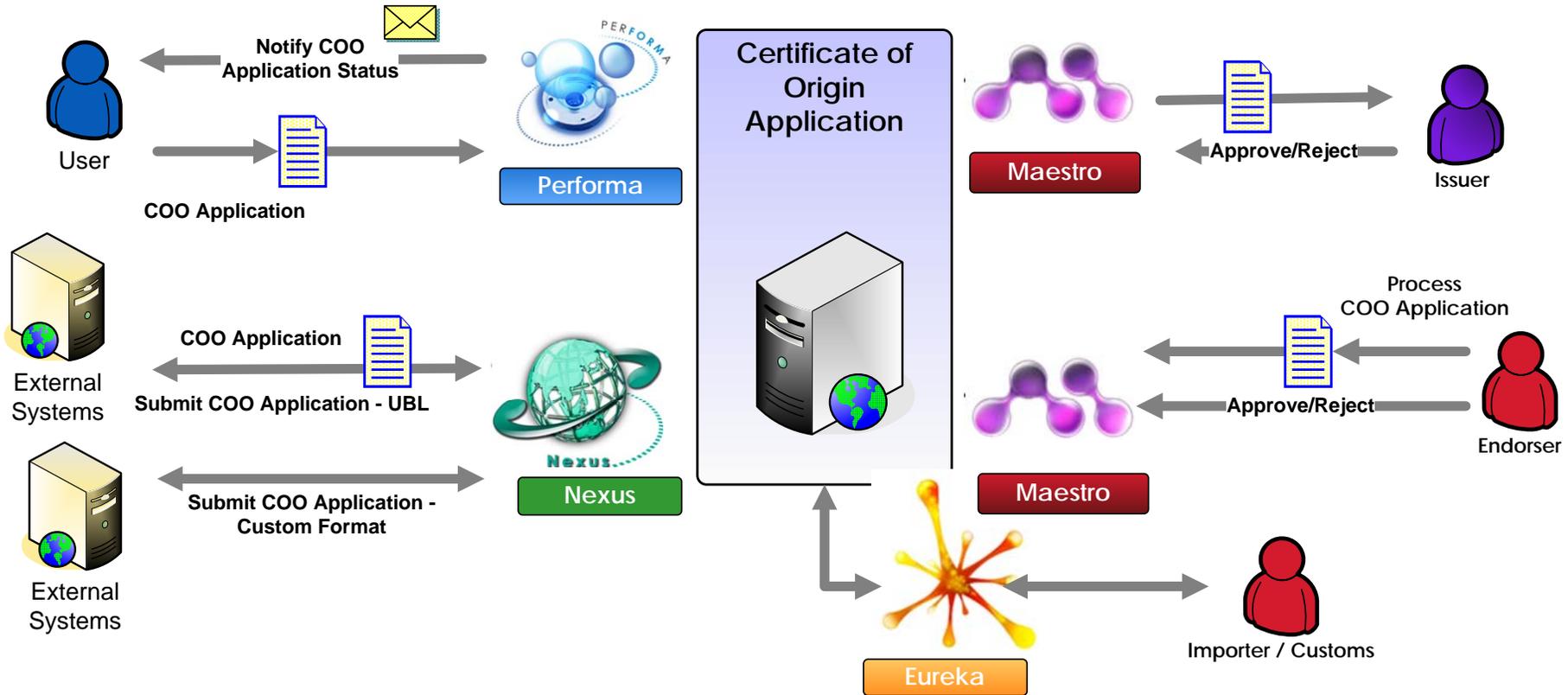
Nexus Transwork Studio – Translation Simplified

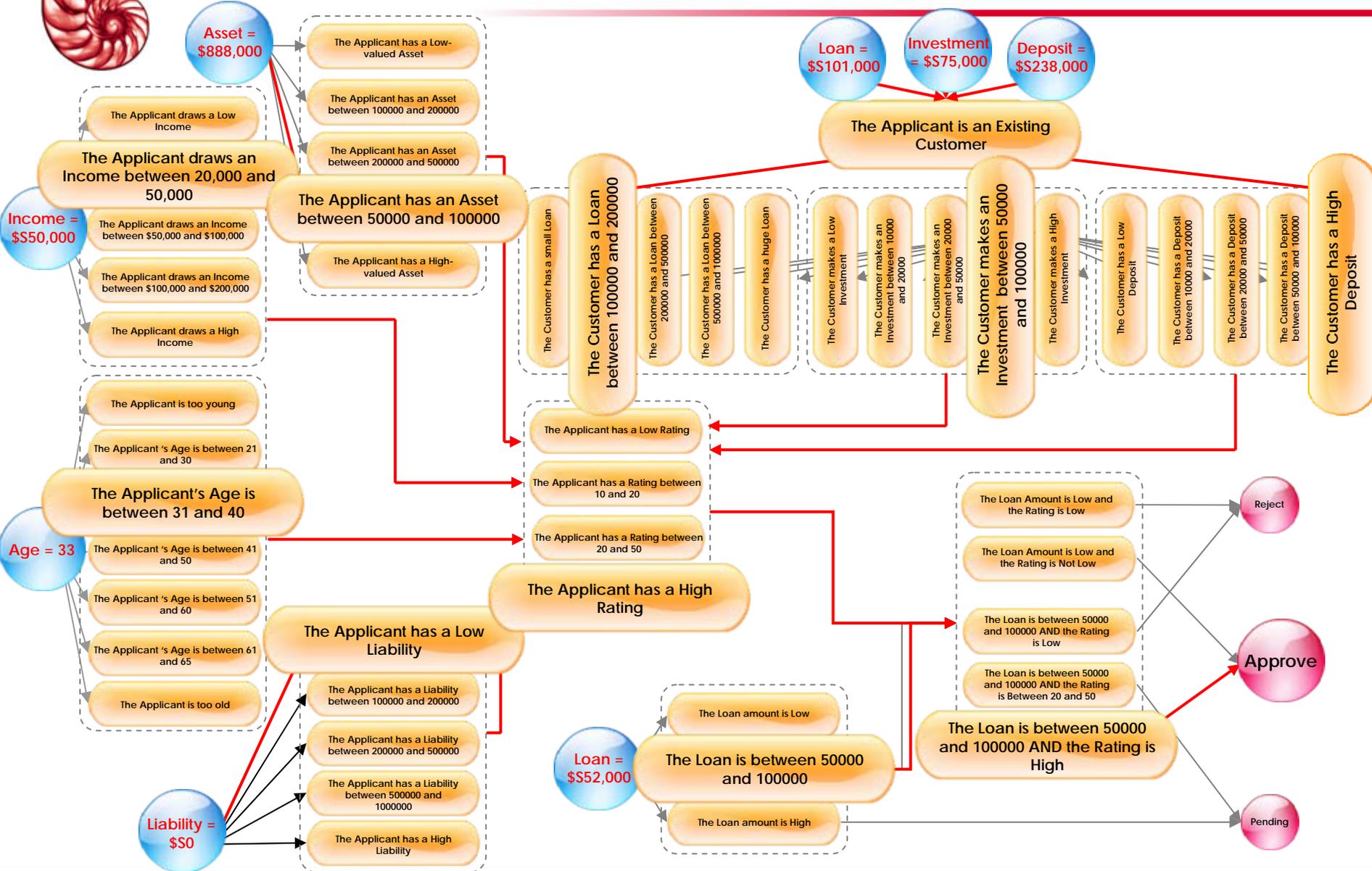
The screenshot displays the Eclipse IDE interface for Nexus Transwork Studio. The main workspace is divided into several views:

- Project Explorer View:** Shows a project structure with folders like 'TYPE FILES', 'MAP FILES', and 'Source'. Files include 'Bax_Global.tms', 'Bax.Its', 'Destination', 'thubreport.Its', 'CompaqInvRptEDI.Its', 'SonyExport.tms', and 'SIMPMD1st_interface.tms'.
- Source View:** Displays the source code for 'BaxEntry', showing a 'Message' structure with elements like 'Header1', 'RecordTypeHH', 'DocumentMessageNo', 'EffectiveInventoryDate', 'PartyIDCode', 'PartyName', 'Detail1', 'RecordTypeDD', 'PartNo', 'VendorCode', 'Quantity', 'QuantityOnHand', 'Trailer1', and 'RecordTypeCF'.
- Destination View:** Shows the destination code for 'CompaqInvRptEDI', displaying an 'Interchange' structure with elements like 'LINA', 'Composite', 'Element', 'Decimal', 'ReleaseCharacter', 'Reserved', 'Terminator', 'LNB', 'SyntaxID', 'SyntaxID', 'SyntaxVersion', 'InterchangeSender', 'SenderID', 'IDCdQualifier', and 'RoutingAddress'.
- Properties View:** A table showing properties for the selected element.

Property	Value
Class	Element
Data Type	
DataType	String
Size	
MaxLength	2
MinLength	0
Desc	
Name	RecordTypeHH
Pad	Yes
PadTo	LEFT
PadValue	<SP>
Range	
MaxOccur	3
MinOccur	1
RestrictionSyntax	
Restriction	None
Sign	No
TypeSyntax	
Initiator	None
ReleaseChar	None
Terminator	None

The **Expression Wizard** dialog is open, showing a tree view of source and destination type files. The 'Functions' list includes Mathematical, DATE/TIME, TEXT, Logical, Lookup, Inspection, Conversion, and Error handling. The 'Operator' list includes Arithmetic and Logical. The expression field contains: `NODECOUNTIN(GroDocument$$$Gro$$$SNSAULT_X)`. Buttons for 'Clear Text', 'Finish', and 'Cancel' are visible.





Eureka Studio - Business Rule Designer

File Edit Perspective Help

Rules Explorer

- COO
 - Origin Qualification
 - Validity
 - The product qualifies as of Singapore ori
 - Validity
 - The product is manufactured in s
 - The product is wholly obtained in
 - Process Criteria
 - Validity
 - The product is made from imported r
 - The product conforms to the process cri
 - Validity
 - The product's tariff heading is di
 - Value Add Criteria
 - Validity
 - The product conforms to the value add c
 - Validity
 - (product's local raw materials co
 - Verification - Manufactured Product
 - Validity
 - The product is not verified to be manufa
 - Validity
 - The product has undergone mini
 - The product is verified to be manufactur
 - Validity
 - The product has substantial add
 - The product has undergone sub
 - Verification - Wholly Obtained Product
 - Validity
 - The product is verified as wholly obtaine
 - Validity
 - The product is live animal born a
 - The product is mineral product e
 - The product is obtained from live

Document View

1. Origin Qualification

IF The product is manufactured in Singapore. AND The product is wholly obtained in Singapore.
THEN The product qualifies as of Singapore origin.

2. Process Criteria

Module Level Validity

The product is made from imported materials.

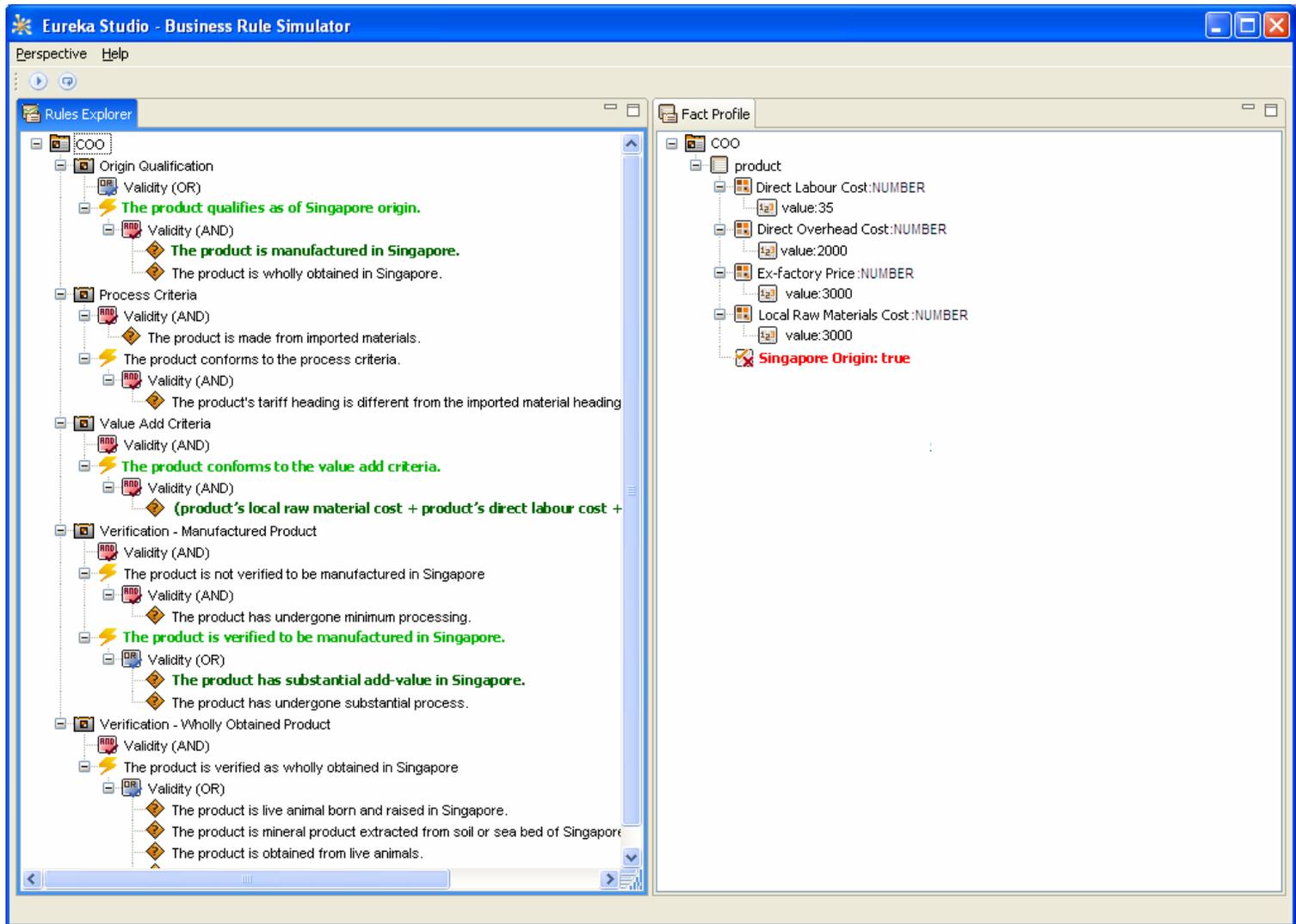
IF The product's tariff heading is different from the imported material heading.
THEN The product conforms to the process criteria.

Statement

(product's local raw materials cost + product's direct labour cost + product's direct overhead cost) / product's ex-factory price > 25%

Properties

| Property | Value |
|---------------|---|
| Info | |
| Create Date | |
| Description | |
| Modified By | admin |
| Modified Date | Mon Nov 06 15:03:06 SGT 2006 |
| Statement | (product's local raw materials cost + product's direct labour cost + product's direct |



Eureka Studio - Business Rule Simulator

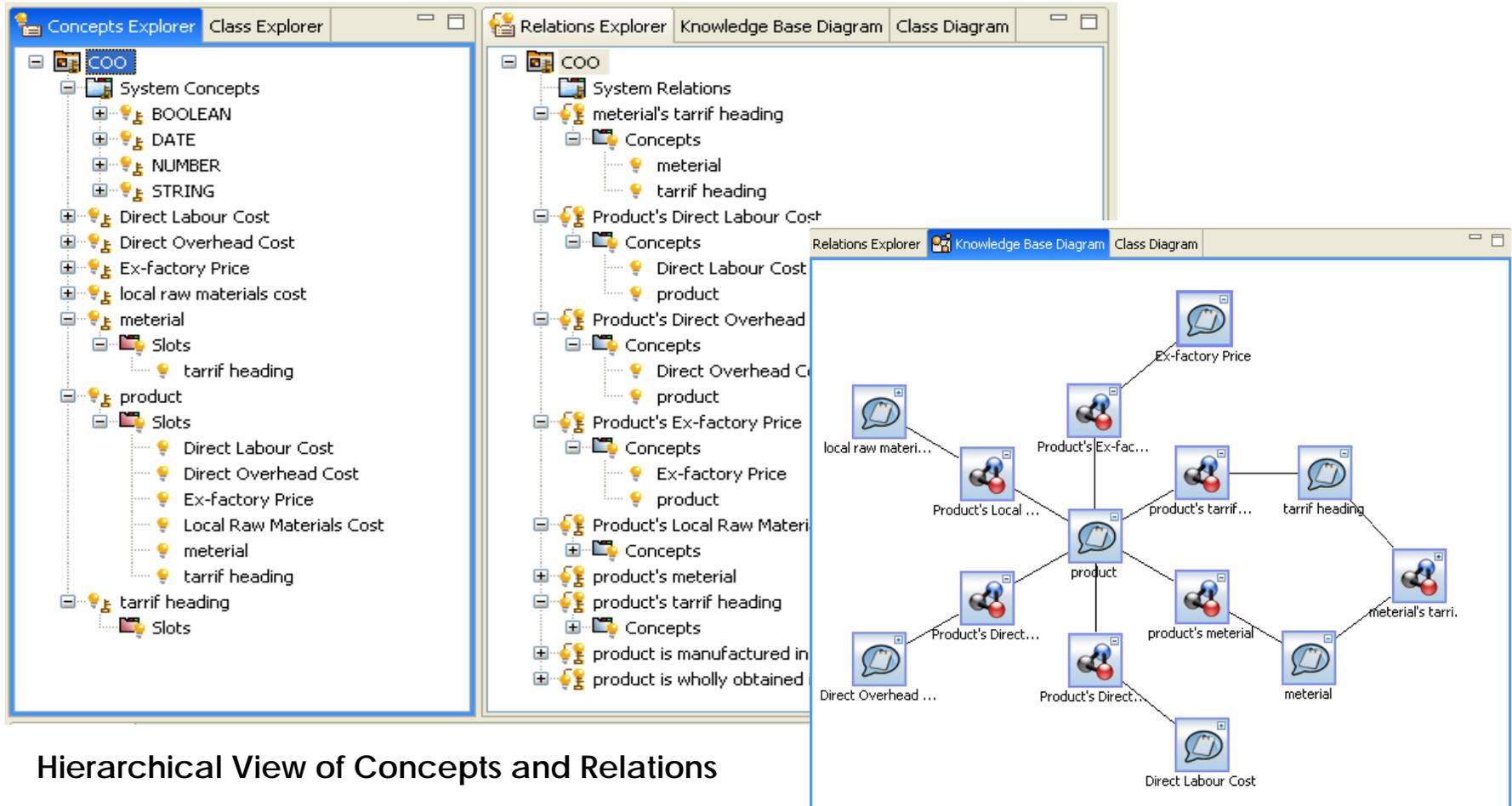
Perspective Help

Rules Explorer

- COO
 - Origin Qualification
 - Validity (OR)
 - The product qualifies as of Singapore origin.**
 - Validity (AND)
 - The product is manufactured in Singapore.**
 - The product is wholly obtained in Singapore.
 - Process Criteria
 - Validity (AND)
 - The product is made from imported materials.
 - The product conforms to the process criteria.
 - Validity (AND)
 - The product's tariff heading is different from the imported material heading
 - Value Add Criteria
 - Validity (AND)
 - The product conforms to the value add criteria.**
 - Validity (AND)
 - (product's local raw material cost + product's direct labour cost +**
 - Verification - Manufactured Product
 - Validity (AND)
 - The product is not verified to be manufactured in Singapore
 - Validity (AND)
 - The product has undergone minimum processing.
 - The product is verified to be manufactured in Singapore.**
 - Validity (OR)
 - The product has substantial add-value in Singapore.**
 - The product has undergone substantial process.
 - Verification - Wholly Obtained Product
 - Validity (AND)
 - The product is verified as wholly obtained in Singapore
 - Validity (OR)
 - The product is live animal born and raised in Singapore.
 - The product is mineral product extracted from soil or sea bed of Singapore
 - The product is obtained from live animals.

Fact Profile

- COO
 - product
 - Direct Labour Cost:NUMBER
 - value:35
 - Direct Overhead Cost:NUMBER
 - value:2000
 - Ex-factory Price:NUMBER
 - value:3000
 - Local Raw Materials Cost:NUMBER
 - value:3000
 - Singapore Origin: true**



Hierarchical View of Concepts and Relations

Network View of Concepts and Relations



- **Business User Empowerment**
 - Faster Response to Business Changes
 - User-friendly and Easy-to-use
 - Harnessing Collective Intelligence
- **Better Efficiency, Greater Control**
 - Reduce Time and Cost
 - Common Platform
 - Segregation of Duties
 - Enhanced Security
- **Extensible and Scalable Architecture**
 - Better Interoperability and Seamless Connectivity
 - High Availability and Scalability



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Questions and Answers





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Thank You

Visit us at www.crimsonlogic.com

- Discussion Panel – Question and Answer

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End of UBL TC Forum

Thank you!

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