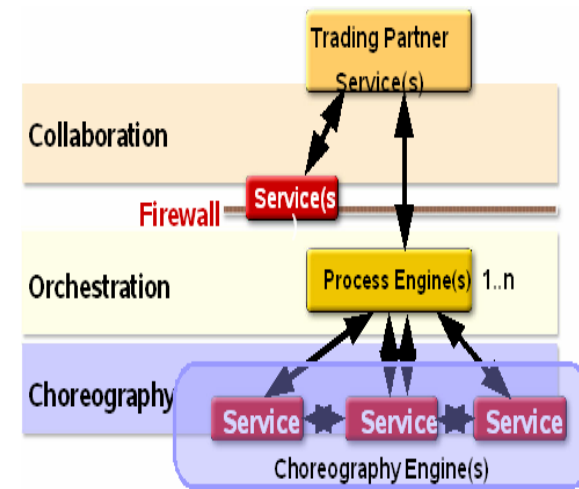


# ebBP and eBusiness Interoperability

## ebBP ebXML Business Process Specification Schema

Dale Moberg, Axway  
Monica J. Martin, Sun Microsystems



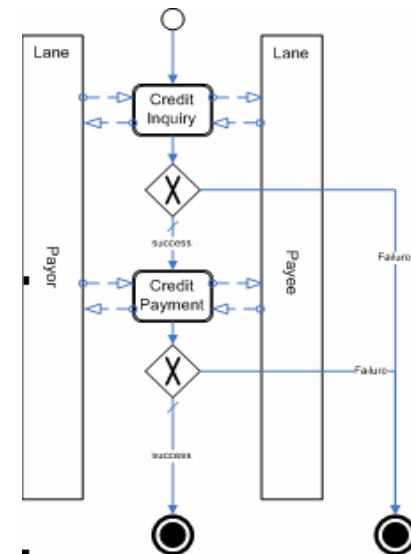


# ebBP and eBusiness Interoperability

- ebBP: Basis in and Roots of eBusiness Collaboration
- Exemplary Trading Service Case
  - Design Principles
- Community Driven Development
  - Practical Domain Cases
- Standard and Adoption Plans
- Summary and Questions

# Basis in eBusiness Collaboration

- What is ebBP? [1]
  - A standard business process definition for business systems configured to support the execution of business collaborations between partners or collaborating parties
  - Rooted in vertical domains such as RosettaNet, EAN-UCC or GS1<sup>[2]</sup> and UN/CEFACT (UMM)<sup>[3]</sup>
- Targeted to design / use of collaborative business processes
  - Process visualization and documentation
    - Linking business constraints to technical execution
  - Gateway configuration for technical contract (such as CPP/A)



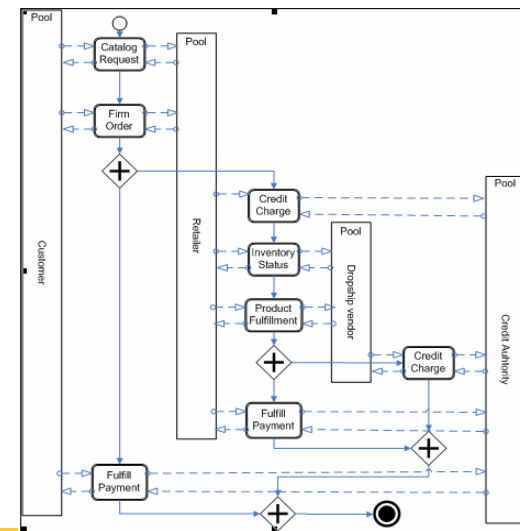
[1] ebXML Business Process Specification Schema

[2] Global Standard 1 (GS!)

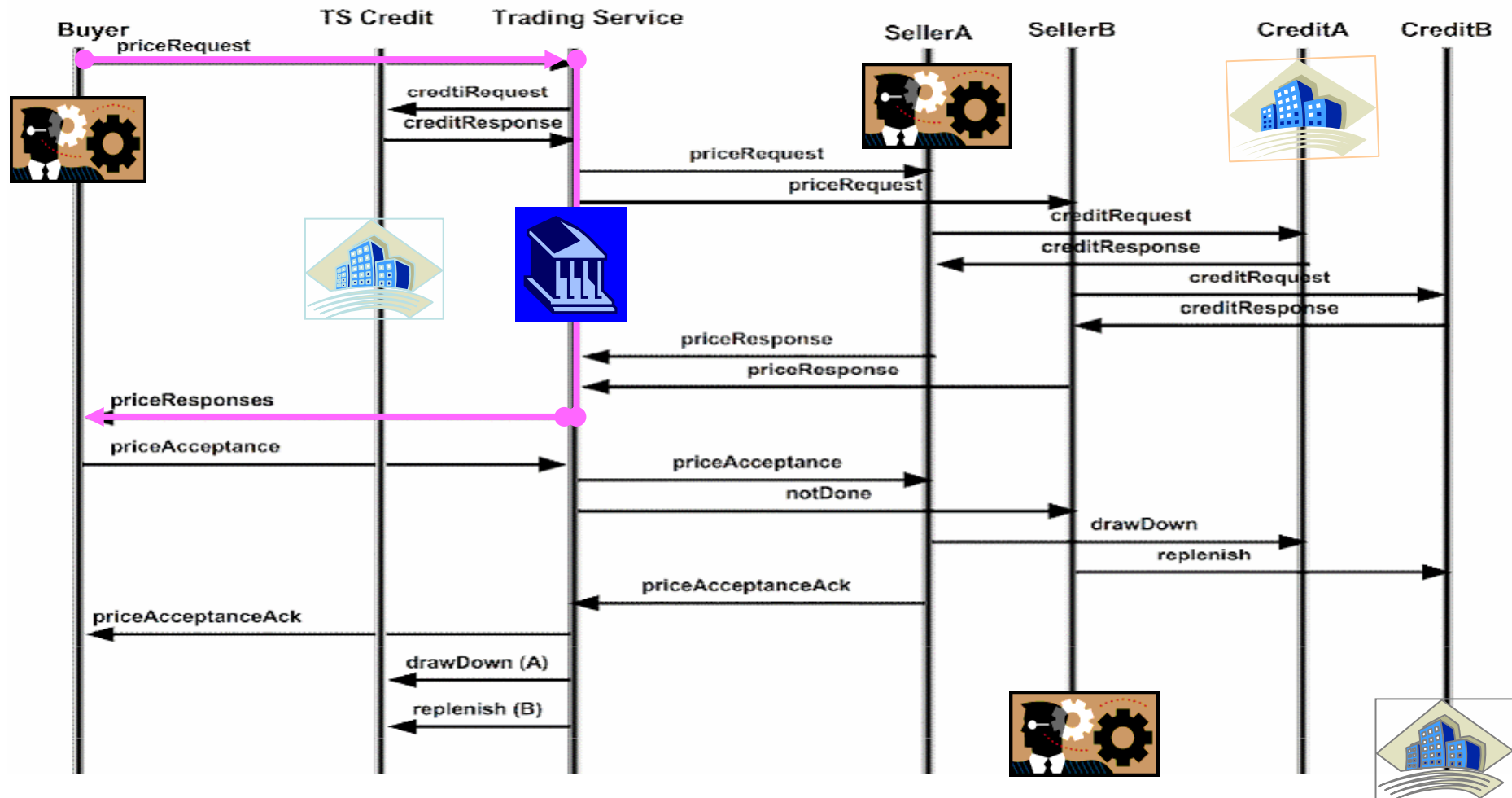
[3] United Nations Centre for Trade Facilitation and eBusiness  
www.oasis-open.org

# ebBP Basic Terminology

- Shared business collaboration between partners through document-based message exchange
  - Collaboration and choreography between 2+ parties
  - Business transactions based on international patterns
  - Technical state alignment using business signals and business messages
  - Multiple roles that parties play
  - Logical business documents
  - Business conditions and constraints
  - Business quality of service expectations



# Exemplary Trading Service Case



Let's take a look at ebBP basic concepts through a domain example: Financial Services

<ProcessSpecification xmlns="http://docs.oasis-open.org/ebxml-bp/ebbp-2.0" <!-- more -->

<!-- 7.2.7 Global Role (participant types) are: Buyer, TSCredit, TradingService, SellerA, SellerB, CreditA, CreditB -->

<ExternalRoles>

<BusinessPartnerRole name="Buyer" nameID="ER1">

<Performs currentRoleRef="ER1" performsRoleRef="R1"/>

</BusinessPartnerRole> <!-- more including TradingService-->

</ExternalRoles>

<Signal name="ReceiptAcknowledgement" nameID="ra2">

<Specification location="http://docs.oasis-open.org/ebxml-bp/ebbp-signals-2.0" name="ReceiptAcknowledgement" nameID="rabpss2"/>

</Signal> <!-- more Signals including AcceptanceAcknowledgement-->

<!-- These ids will be referenced as if they identified the documents for the business transactions. -->

<!-- priceRequest -->

<Package name="p1" nameID="B1"/>

<!--priceResponse -->

<Package name="p2" nameID="B2"/>

<!--PriceResponseA (expands priceResponses) into distinct logical document -->

<Package name="PriceResponseWithAWinner" nameID="B3"/>

<!-- more including PriceResponseB -->

<CommercialTransaction name="PriceRequests" nameID="CT0" isGuaranteedDeliveryRequired="true">

<RequestingRole name="Requester" nameID="Req0"/>

<RespondingRole name="Responder" nameID="Resp0"/>

<RequestingBusinessActivity name="priceRequest" nameID="ReqBA0">

<DocumentEnvelope name="PriceRequest" nameID="DE01" businessDocumentRef="B1"/>

<ReceiptAcknowledgement name="RA" nameID="RA0" signalDefinitionRef="ra2"/>

<ReceiptAcknowledgementException name="RAE" nameID="RAE0" signalDefinitionRef="rae2"/>

</RequestingBusinessActivity>

<!-- more including RespondingBusinessActivity -->

</CommercialTransaction>

<CommercialTransaction name="PriceRequest" nameID="CT1" isGuaranteedDeliveryRequired="true" <!-- more -->

</CommercialTransaction> <!-- more -->

<Notification name="DrawDown" nameID="N1"> <!-- more -->

</Notification> <!-- more -->



<!-- Central choreography for TWIST 7.2.7 -->

<BusinessCollaboration name="RFQAndPriceAcceptanceUsingTradingServiceWithCreditChecks" nameID="BC1">

<!-- 7.2.7 Local choreography Role values: Buyer, TSCredit, TradingService, SellerA, SellerB, CreditA, CreditB -->

<Role name="Buyer" nameID="R1"/>

<Role name="TSCredit" nameID="R2"/>

<Role name="TradingService" nameID="R3"/> <!-- more -->

<TimeToPerform duration="P2D" type="design"/>

<Start>

<ToLink toBusinessStateRef="CBTA1"/>

</Start>



<!-- Buyer asks Trading Service for Prices, the RFQ phase -->

<ComplexBusinessTransactionActivity name="TradingServiceMediatedPriceRequests" nameID="CBTA1" businessTransactionRef="CT0" hasLegalIntent="false">

<TimeToPerform duration="P10M"/>

<Performs currentRoleRef="R1" performsRoleRef="Req0"/>

<Performs currentRoleRef="R3" performsRoleRef="Resp0"/>

<!-- Between buyer price request and response, TradingService consults TSCredit -->

<BusinessTransactionActivity name="CreditRequest" nameID="BTA1" businessTransactionRef="RR1" hasLegalIntent="false">

<TimeToPerform duration="P5M"/>

<Performs currentRoleRef="R3" performsRoleRef="Req2"/>

<Performs currentRoleRef="R2" performsRoleRef="Resp2"/>

</BusinessTransactionActivity>

<StatusVisibility name="SVFirstInnerBTA" nameID="ID14"/>

<!--Next, Trading Service asks price request from SellerA -->

<ComplexBusinessTransactionActivity name="SecondaryPriceRequestA" nameID="CBTA2"

businessTransactionRef="CT1" hasLegalIntent="true">

<TimeToPerform duration="P2M"/>

<Performs currentRoleRef="R3" performsRoleRef="Req2"/>

<Performs currentRoleRef="R4" performsRoleRef="Resp2"/>

<!-- A contacts Credit A including CreditRequest BTA -->

<StatusVisibility name="SecondaryRequestA" nameID="ID10"/>

</ComplexBusinessTransactionActivity>

<StatusVisibility name="SVSecondInnerCBTA" nameID="ID12"/>

<!--Also concurrently Trading Service asks price request from Seller B -->

<ComplexBusinessTransactionActivity name="SecondaryPriceRequestB" nameID="CBTA3" <!-- more -->

</ComplexBusinessTransactionActivity>

<StatusVisibility name="TradingServiceMediatedPriceRequests" nameID="ID16"/>

</ComplexBusinessTransactionActivity>

<Decision>

<FromLink fromBusinessStateRef="CBTA1"></FromLink>

<ToLink toBusinessStateRef="CBTA4">

<ConditionExpression expressionLanguage="DocumentEnvelope" expression="PriceResponseWithAWinner"/>

</ToLink> <!-- more for PriceResponseWithBWinner -->

</Decision> <!-- more -->

<Success name="Success" nameID="S1">

<FromLink fromBusinessStateRef="CBTA4">

<ConditionExpression expressionLanguage="ConditionGuardValue" expression="Success"/>

</FromLink> <!-- more Successes -->

</Success>

<Failure nameID="F1" name="Failure">

<FromLink fromBusinessStateRef="CBTA1">

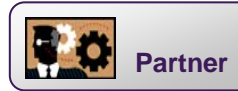
<ConditionExpression expressionLanguage="ConditionGuardValue" expression="Failure"/>

</FromLink> <!-- more Failures -->

</Failure>

</BusinessCollaboration>

</ProcessSpecification>



Partner



Activity



Complex Activity (blackbox)



Timing



Document



Complex Activity (blackbox)



Decision



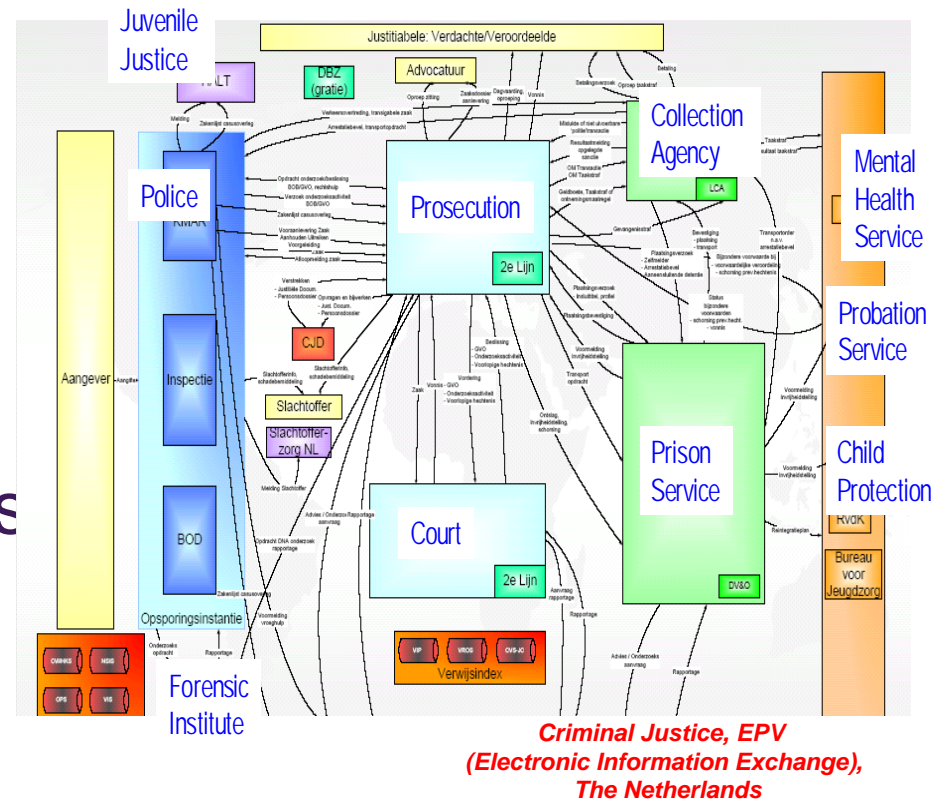
Success Failure



# Business-Driven Use Cases

- The ebBP supports and its work is rooted in business domain communities

- Financial services
- Supply chain
- eGovernment
- eProcurement
- Telecommunications
- Health care
- Knit wear







# Standards Progress and Plans

- Achieved OASIS Standard for ebBP v2.0.4 in December 2006 with an overwhelming membership vote
- Plan is to join ebXML framework in ISO-15000 in ISO TC 154
- Build on worldwide interest through domains to promote deployment and adoption
- Strategize on future work



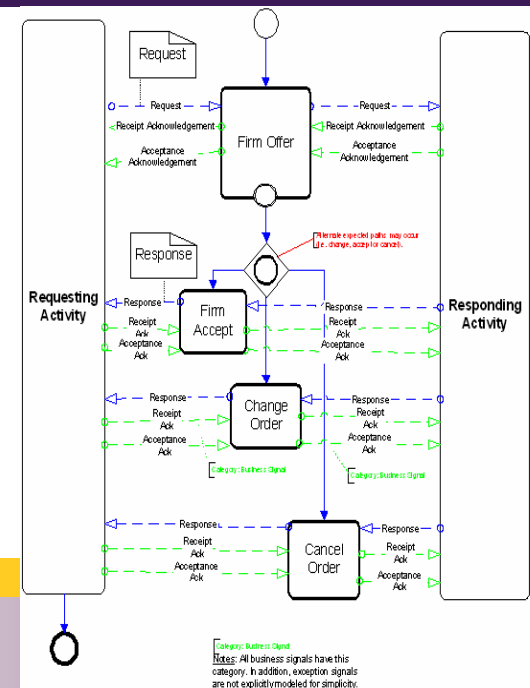
# Summary and Questions

- Rooted in eBusiness domains and partner expectations
- Key differentiators
  - Business transaction patterns
  - Business quality of service
  - Technical state alignment via signals
  - Semantic and context linking
- Now into the future: Promote adoption and deployment, ISO designation

# ebBP and eBusiness Interoperability

Questions  
Thank You!

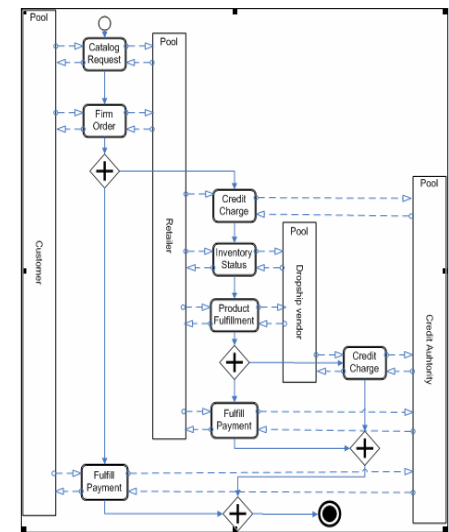
Dale Moberg, [dmoberg@us.axway.com](mailto:dmoberg@us.axway.com)  
Monica J. Martin, [monica.martin@sun.com](mailto:monica.martin@sun.com)  
(Backup slides follow)



# ebBP Basic Terminology

- Common terms

- Collaboration: the process that realizes eBusiness partner expectations
- Choreography: Business message control flow
- Business transactions: A unit of work
- Business signal: Technical state alignment mechanism
- Logical business document: Links the aspects that assemble the primary business document
- Quality of service: Business constraints and conditions on a business transaction



# Community Driven Development

The screenshot shows a desktop environment with two main windows. On the left is 'Untitled1 - StarOffice Writer' with a blank document. On the right is 'Workspace Window - ArkadinDataNow - 106175945 - Microsoft Internet Explorer'. The IE window displays a business transaction diagram with a central flow from 'Node Authentic...' to 'PIX Query-CA1...'. Two participant nodes, 'XSDDocum...' and 'PIXManager...', are connected to the central flow. A right-hand sidebar contains a list of business transaction activities: Role, BusinessTransactionActivity, CollaborationActivity, ComplexBusinessTransactionActivity, Success, Failure, Fork, Join, and Decision. Below this is a 'Business Transaction Classification' tree with several file paths. At the bottom of the IE window is a 'Create Transaction' button. The Windows taskbar at the bottom shows the start button, several icons, and the system tray with the time 8:25 AM.

Open source project **freebxmlbp**

- Relevant for health care, role-based profiles
- This example also uses OWL



# Resources

- OASIS site
  - [http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=ebxml-bp](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=ebxml-bp)
- UBL modular definitions (with freeb-ubl)
  - <http://docs.oasis-open.org/ubl/cs-UBL-1.0-SBS-1.0/universal-business-process-1.0-ebBP/>
  - <http://xml.coverpages.org/freeb-ubl-Announce.html>
- Free editor [http://sourceforge.net/cvs/?group\\_id=154705](http://sourceforge.net/cvs/?group_id=154705)
- ebxml.xml.org: <http://ebxml.xml.org/bp>
- Wikipedia: <http://en.wikipedia.org/wiki/EbXML>
- Tutorial: [http://www.oasis-open.org/events/symposium\\_2006/tutorials.php](http://www.oasis-open.org/events/symposium_2006/tutorials.php)