ebBP and eBusiness Interoperability

ebBP

ebXML Business Process Specification Schema

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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[2] and UN/CEFACT (UMM)[3]

• Targeted to design / use of collaborative business processes
  – Process visualization and documentation
  – Supports monitoring of business activities
    • Linking business constraints to technical execution
  – Gateway configuration for technical contract (such as CPP/A)

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>
</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 -->
<!-- 7.2.7 Local choreography Role values: Buyer, TSCredit, TradingService, SellerA, SellerB, CreditA, CreditB -->
<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>
<ComplexBusinessTransactionActivity name="TradingServiceMediatedPriceRequests" nameID="CBTA1" businessTransactionRef="CT0" hasLegalIntent="false">
  <TimeToPerform duration="P10M"/>
  <Performs currentRoleRef="R1" performsRoleRef="Req0"/>
  <Performs currentRoleRef="R3" performsRoleRef="Resp0"/>
</ComplexBusinessTransactionActivity>

<!-- 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"/>
</ComplexBusinessTransactionActivity>

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

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

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

<ComplexBusinessTransactionActivity name="SecondaryPriceRequestB" nameID="CBTA3" businessTransactionRef="CT1" hasLegalIntent="true">
  <TimeToPerform duration="P2M"/>
  <Performs currentRoleRef="R3" performsRoleRef="Req2"/>
  <Performs currentRoleRef="R4" performsRoleRef="Resp2"/>
</ComplexBusinessTransactionActivity>

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

<Decision>
  <FromLink fromBusinessStateRef="CBTA1"></FromLink>
  <ToLink toBusinessStateRef="CBTA4">
    <ConditionExpression expressionLanguage="DocumentEnvelope" expression="PriceResponseWithAWinner"/>
  </ToLink>
</Decision>

<Success name="Success" nameID="S1">
  <FromLink fromBusinessStateRef="CBTA4">
    <ConditionExpression expressionLanguage="ConditionGuardValue" expression="Success"/>
  </FromLink>
</Success>

<Failure nameID="F1" name="Failure">
  <FromLink fromBusinessStateRef="CBTA1">
    <ConditionExpression expressionLanguage="ConditionGuardValue" expression="Failure"/>
  </FromLink>
</Failure>

</BusinessCollaboration>
</ProcessSpecification>
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

Criminal Justice, EPV (Electronic Information Exchange), The Netherlands
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
Questions
Thank You!

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(Backup slides follow)
• 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

Open source project freebxm1bp

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

• OASIS site

• 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/

• Free editor http://sourceforge.net/cvs/?group_id=154705

• ebxml.xml.org: http://ebxml.xml.org/bp


• Tutorial: http://www.oasis-open.org/events/symposium_2006/tutorials.php