Business Processes in a Global Domain

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16 April 2007
Presentation Outline

- Summarize current state of global eBusiness domain
- Relevant business process efforts
- Benefits and challenges
- Brief assessment of eBusiness progress for business processes
The Global eBusiness Domain

Current State

*Electronic interchange across domains of control and, most often, communities*

- Involves business expectations and may often include compliance
- Driven by peer, partner and community relationships
- Influences enterprise technologies
  - Affected by enterprise constraints
- Heterogeneous technology and topology environment
Global eBusiness Requirements

- Requires both flexibility and rigor
  - Secure and reliable transport
  - Means to publish, discover and make available artifacts and services
  - Configurable technical contracts
  - Business transaction patterns
  - Business and operational semantics

- Improve collaboration and facilitate interaction
  - Balance policies and practice
Common eBusiness Practices

Business Process Overview

- Practical, adaptable, and iterative to:
  - Balance cost-benefit to business
  - Address global and local requirements
    - Align to business context
  - Leverage and integrate standards
    - Where desired, realize and/or align cultural or regional norms

- Logical progression up technology ladder
  - First: Content and messages
  - Next: Agreements and processes
Business Process Overview

- Concentrates on use and integration of business processes. May use:
  - Business modeling
    - Metamodel
    - Element notation and semantics
    - Diagrammatic exchange
  - Orchestrated processes
    - Application integration
  - Choreographies
    - Distributed computing model
  - eBusiness collaboration
    - Business quality of service contract
Cross-application integration

- Focus: Invokes and offers services in binary relationships
- Visibility: Well-known in marketplace
- Status: OASIS Standard, April 2007
**Choreographies**

**W3C WS-Choreography Description Language v1.0**

- **Distributed computing model**
  - **Focus**: Common observable behavior and endpoint projection / generation
  - **Visibility**: Primarily known in financial services and academic communities
  - **Status**: W3C Candidate Recommendation

```plaintext
if \( x_{quote} \leq 100 \) @Buyer then
  
  { Buyer \rightarrow Seller: B2Sch(QuoteAccept). 
    Buyer \rightarrow Buyer: B2Sch(OrderConfirmation). 
    Seller \rightarrow Shipper: InitS2H(S2Hch). 
    Seller \rightarrow Shipper: S2Hch(RequestDeliveryDetails). 
    Shipper \rightarrow Seller: S2Hch(DeliveryDetails, y_{details}, x_{details}), 
    Seller \rightarrow Buyer: B2Sch(DeliveryDetails, x_{details}, y_{details}), \theta } 
  
  else
  
  { Buyer \rightarrow Seller: B2Sch(QuoteReject), \theta } 

  Notice the condition in the conditional branch, \( x \leq 100 \), is explicitly located at Buyer’s.
```

**The of Choreography: Charlton Barreto,**

Business Process Modeling

OMG BPMN v1.0+

Modeling notation

- Focus: Graphical modeling objects with semantics; diagram exchange deferred
- Visibility: Gaining traction in visualization
- Status: OMG effort for v1.1 almost complete
Business design methodology

- Focus: Integrates semantics with metamodel
- Visibility: Progressing in OMG albeit slowly
- Status: OMG RFP Submission in Sept 2006
**eBusiness Collaboration**

**OASIS ebBP v2.0.4**

- **Business quality of service contract**
  - Focus: Document eBusiness message exchange using patterns / semantics
  - Visibility: Generating interest in many communities
  - Status: OASIS Standard, Dec 2006; ISO submission soon
Process Benefits / Challenges

- Support and integrate enterprise systems
- Drive accountability and transparency
  - Business and service level monitoring, and conformance
  - Global communication avenues across domains
- Encompass business entities
Achieving Process Synergy

- Enables design
- Exposes composed services as processes
- Drives process compatibility of message interfaces
- Enables monitoring of semantic-aware processes
Standards Adoption Enablers

- Tools for promoting conformance and interoperability
- Integrate earlier in standards process
  - Also leverage community investment
- Cohere business and technical focal points
- Prove functional capabilities in practice
Business Process Progress Report

- Community and standards examples
  - Role-based profiles to share electronic patient records
  - Trading partner guidelines for business agreements and technical contracts
  - Profiles spanning across (and within) domains for European eInvoicing and health care

- Marketplace use case examples
  - Leverage common content, building blocks and secure, reliable infrastructure
  - Choreographic control flow for gateway, supported by application integration components
  - Monitoring of business quality of service contracts
Global Business Processes

Summary and Questions

- Challenged to integrate across domains and compose as needed
- Process efforts are compatible although competitive in practice
- Communities engaged in coopetition
- Build from infrastructure to agreement and processes
- Evolution occurring albeit slowly
Resources Quick Hit

(in alphabetical order)

WS-BPEL:
http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=wsbpel
March webinar: http://www.oasis-open.org/events/webinars/

BPDM, BPMN:
BPMN OMG (pre-FTF): http://www.omg.org/docs/dtc/06-02-01.pdf

CPP/A:

ebBP:
http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=ebxml-bp
Recent podcast: http://www.ebxml.org/ebxmlpodcasts.htm#process

UBL:
http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=ubl

WS-CDL: http://www.w3.org/2002/ws/chor/
Recent article:
http://searchwebservice.techtarget.com/originalContent/0,289142,sid26_gci1245819,00.html?track=NL-110&ad=581378&asrc=EM_NLN_1062168&uid=1287513

WFMC (XPDL v2): http://www.wfmc.org/