

<i>Date</i>	<i>Present</i>
Wednesday, July 07, 2004	Dubray Martin Moberg St. Amand Webber Yunker
Thursday, July 08, 2004	Arrott Dubray Moberg St. Amand Tell Webber Yunker Martin
Friday, July 09, 2004	Dubray Moberg St. Amand Yunker Martin

Work Item 11: Packaging

Discussion:

- Allow an industry to specialize to their domain context and definition.
- Need to be specific with prefix if a BTA reference is to other than the package namespace.
- Use schema namespace not BPSS ones.
- Provide capability to bind business collaboration to many business document requirements and formats.
- In EAN.UCC, they have a logical business document. They need a way to identify the different parts. This is multiple references to the content structure, which could be expressed using namespaces. A business action references a business document - one XSD or multiple XSD or namespaces. This is up to the service that assembles them.

v2.0 TECHNICAL SPECIFICATION CHANGES:

Section 8.1.5 Element Business Document

1. Allow use of many namespaces for business document element. Allow for repeatable specification and specificationLocation.

2. Requirements for repeatable type element: Service support, extensibility for context, and multiple namespaces related to a logical business document



PEND FOR NEW SCHEMA FROM MOBERG, DUBRAY AND YUNKER.

3. Delete namespacePrefixes attribute.

4. Add specificationType to allow implementer to include the code modules that handle a particular type.

SECTION 8.1.17 Element Include

1. Clarify URI attribute is a URL that specifies a location where the specification can be retrieved. It must point to a physical location.

2. Delete name, nameID and version.

SECTION 8.1.20 Element Namespace

SECTION 8.1.21 Element Namespaces

1. Delete as these have been replaced with specification for the Business Document and Attachment. Delete related text in the technical specification.

SECTION 8.1.22 Element Package

1. Remove include from the content model of package.
2. Under package, its name attribute must be fully qualified.
3. Remove namespace from package.

SECTION 8.3: Scoped Name Reference

Note; Reference other sections above.

1. Two business transactions can not have the same name within a package.
2. Allows extension of a package that I am including from.
2. Describe that a Package is a declarative way to know where to put your relevant BPSS fragments: BT, BTA, business documents.
3. (around Line 2388) Specify that the reference is by NameID only.

Work Item 47: Start of Collaboration Activity (MPC and/or BC)

Discussion:

- Provide capability to monitor process start of, for example, three BC between two parties.
- When you receive a message with CPA bound to a BC, you can associate the action-context. Also make use of SBDH.
- How do you specify the dependency if there is no IsInnerCollaboration. There may not need to be a definitive start action.

V2.0 TECHNICAL SPECIFICATION CHANGES:

Section 8.1.27

1. Clarify that all non-isInnerCollaboration BC are eligible to start a complex BC or MPC. Other sections for Start changes: Section 2, 7.4, 7.4.4.2, 7.4.6.1, 7.4.6.2 and 7.9.

Work Item 19: Business transaction enough?

Discussion: Add business transaction patterns including Notification and QueryResponse.

Business transaction patterns:

1. Notification pattern
 - Notifying business document + receipt acknowledgment
 - Non-repudiation involved
 - Formal
 - Chapter 9 UMM R10 pages 9-17
2. Query-Response pattern
 - Input-output documents (one each only) apply
 - No non-repudiation
 - No signals
 - Chapter 9 UMM R10 pages 9-14 and 9-15

V2.0 SCHEMA AND TECHNICAL SPECIFICATION CHANGES:

1. Add two business transaction patterns that are missing: Query Response and Notification (see above).
2. Leave or ensure definition of pattern attribute on BC, MPC, Business Transaction and new Business Collaboration.
3. Add NOF as a new BT pattern (see Work Item 52).

Work Item 36: NOF and Negative Acceptance Acknowledgment

V2.0 TECHNICAL SPECIFICATION CHANGES:

Specify that:

- Negative Acceptance Acknowledgment: You recognize you have a problem.
- NOF: Allows us to clear the slate when the normal exception methods do not apply.

Note: Also see Work item 52.

Work Item 60: General Exception Signals

V2.0 TECHNICAL SPECIFICATION CHANGES:

1. Mukkamala will provide a schema.

Work Item 52 : NOF and TTP

Business exceptions:

- NOF is when one or other party realizes they can not proceed, because a necessary part of the business protocol is missing.
- Putting AA or RA adds optimization, and use of NOF allows another party to fail a transaction.
- With reliable messaging you can definitively know that the transaction fails (can not deliver).
- If RA or AA is sent (positive or negative) and RM is used, the state is aligned. No NOF is required.

V2.0 TECHNICAL SPECIFICATION CHANGES:

1. Separate NOF message from general exception signal.
2. Specify a NOF could occur only if a timeout occurs for failure to receive a requesting or responding business document. In the case when there is reliable messaging which shows the receipt of request or response, the party should not be capable of sending NOF. If for example, a response is sent then a NOF by a responder. That is an anomaly; this is to be handled by the business agreement (UBAC).
3. Specify that an NOF occurs when a TTP expires.
4. Specify a NOF as a new BT pattern.

Work Item 55 - timeToPerform

Note: Tell .jpg attached.

v2.0 TECHNICAL SPECIFICATION CHANGES:

1. Resolve how we disambiguate the different BPSS instances that correlate, for example, an applicable invoice and order. Business documents have a unique identifier per instance as opposed to the message type only (nameID on the business document).

2. Create a variable (which allows the definition of semantic elements) constructs (supports effective use of conditional constraints).

This variable can be referenced by external elements such as UBAC.

- a. <variable name=originalPO expression=document (\$placeorder.bta.requestdocument,"/message/order/@ordernumber">beginsWhen expression='document(\$variables,"Variables/originalPO'=document (\$invoice.bta.requestdocument,"/message/invoice/order/@ordernumber)
- b. Specify this is an abstraction of a type of information from the location in the document. We have a variable that can be bound to a particular location in a document.
- c. Express the boundaries of the use of XPath and the use of the variable in this and other related cases. Allow to set an XPath variable.
- d. Address in the textual description where there is a looping. there is a node set where more than one value can apply. For example, nodeset=last. When the variable is made available to XPath, it is a node set.

v3.0 TECHNICAL SPECIFICATION CHANGES:

1. Investigate use of XPath v2.0.

Work item 53 - TTP on inner and outer collaboration

V2.0 TECHNICAL SPECIFICATION CHANGES:

1. Specify a well-formedness rule that an outer collaboration TTP has to be as long as the longest inner collaboration.

Work Item 5 Production rules

V2.0 TECHNICAL SPECIFICATION CHANGES:

1. Specify that ebBP does not preclude generating an XML artifact from an UML model although this will not be included in the specification.
2. Indicate that any changes that are identified may result in new changes to UMM.

Work Item 12 WSDL Support

Discussion:

- The difference between BT and OperationActivity (call it Operation), responding bus activity could have a human component.
- WSDL 2.0 only resolves in and in-out effectively.
- If you assume an OperationActivity is a Business Transaction, the assumption is that they are Optimistic in nature. We can't establish state alignment (lack of consequences).
- Do we use abstract operation or the operation-message type (missing the binding)? It would be cleaner to specify the binding at CPPA.
- Currently, in WSDL v2.0, the team does not understand how to handle asynchronous operations.
- Create a new substitution group to allow the use of messages rather than a Document Envelope. Name TBD to align with W3C WSDL v2.0. The same operations interface can be used for multiple BTAs. At the time that this Business Action occurs a set of message is sent. For operations, the result is the execution of an interface(s) that contain the documents (as opposed to the Document Envelope).
- Make sure the signal structure is well-defined and known by the BSI. The roles are not explicitly bound at the BT level but at the activity.
- A WSDL can only occur at the BTA level. Assume you have a complete BPSS. However, a party may want to dynamically bind partners. Need to differentiate operation mapping by role. Assume we import the WSDL definition. WSDL import is by targetNamespace and location.
- Map WSDL operations into a business transaction definition. This will allow achieving some state alignment by combining operations. When you use ebBP and ebMS, you have legallyBinding state alignment. We are trying to have the same kind of guarantee by mapping the semantic capabilities of the signals to input-output-fault. This portion of an operation semantically represents this construct.

V2.0 TECHNICAL SPECIFICATION CHANGES:

1. Call new element an "Operation" or "OperationMapping" (name is inconsequential) which could have:
 - isConcurrent
 - Documentation
 - timeToPerform - However the TTP may be held in another location, for example.
 - Performs
2. Ensure we clearly specify that you have state aligned or non-stated aligned patterns. This allows you to clearly separate use of operations.
3. Show how you bind to abstract WSDL (map BTA to series of operations). Need to explain how this works with a series of operations.
4. Specify an element Specification of an operation to get to the WSDL location (bind an implementation to an operation node).
5. Explicitly indicate that ebBP can sit on top of messages or operations that are implemented as web services (even IDL interfaces). This is a key selling point for ebBP!
6. Provide samples to tie the business documents together correctly using the operations. In a web services implementation, the standard correlation tag block is part of the SOAP header or port definition for v2.0.
7. Put OperationMapping will be held at the Package level.



Note: Pending finalized Dubray schema submission added to Moberg schema.

Work Item 72 onInitiation

- Add ComplexBusinessTransactionActivity.
- Defer administrative messages to v3.0.
- The parties playing these roles are not parties to the business agreement. The sub-parties are there for visibility of status only not execution (fulfillment of the business agreement). BC that involves auxiliary partners (black-box approach).

V2.0 TECHNICAL SPECIFICATION CHANGES:

1. Add ComplexBTA but delay administrative messages to v3.0. Clearly state that the Responder on a CBTA is the requestor on a subordinate BTA.
2. Articulate that we allow status to be known and published in a collaboration.
3. Clearly state that the party, with visibility to other sub-parties, has the responsibility for the performance of the sub-parties (who are not first class citizens of the business collaboration), who are not specifically constrained by the business collaboration.
Sub-parties are identified in the complexBTA. However, they are not parties to the binary collaboration. Another business collaboration may exist elsewhere that defines the interaction of the parties that are sub-parties visible in this business collaboration. Provide an implementers' note.
4. Call the 'returns' by another more generic term such as 'StatusVisibility.' Define visibility as a requirement for the content in a response or in an ancillary notification. This becomes a requirement on the response for compliance.

Note: See Dale's updated Transition and Complex BTA submittal for replacement for onInitiation.

V3.0 TECHNICAL SPECIFICATION CHANGES:

1. Address administrative type monitoring messages.
2. Add transactional semantics to MPC to handle sub-parties to be first-class collaboration citizens.

Work Item 54: Attribute differences between BTA and BC

- This is where the BT protocol fails - concurrent. See WS-CDL case. How do you specify that two identical BTA can not occur at the same time?
- Do we serialize by specifying isConcurrent = false?
- BSI is the common thread and knows about situation.
- Sequence transitions, not order the messages.
- A BTA can occur more than once in an instance (Haugen case) too.

V2.0 TECHNICAL SPECIFICATION CHANGES:

Section 7.4.6.1

1. Identify that a BTA can occur more than once (multiple instances) [Haugen case] or it may not. Correct text. Parties are responsible for serializing instance of this BTA (~line 1474) - Explicit transitions or XOR.

Work Item 39 Acceptance Acknowledgment

- Signals have technical semantics. RA is structural validation. Any contract formation should be part of a response. Acceptance Acknowledgment can include content validation.
- AA guarantees content will be or is being processed.
- Separate intent from the technical implementation.
- You can bind to attributes that are related to Receipt Acknowledgment.
- Legal community should certify technologies that are applicable for a specific jurisdiction.
- BPSS is a business state alignment protocol.

V2.0 TECHNICAL SPECIFICATION CHANGES:

1. Define the role of the Acceptance Ack more clearly. Clearly differentiate technical vs. business state alignment using signals (for technical state alignment).
2. Specify that signals have technical semantics. Receipt Ack is structural validation. Any contract formation should be part of a response.
3. Acceptance Acknowledgment can include content validation (guarantee content will be or is

being processed).

4. Separate intent from the technical implementation. Rather than adding qualifiers on the Receipt Acknowledgment, use the QoS attributes. You can bind to QoS attributes that are related to Receipt Acknowledgment (i.e. to non-repudiation, authorization, document security and reliability) not the signal itself. This allows a legal community should certify technologies that are applicable for a specific jurisdiction.

5. Add content validation to an existing signal RA.

6. Add a specificationtype for signal types (Could allow use of context).

7. Originally we discussed adding a signal purpose for signals. This was not accepted by the authors and they defer, at this time, to specificationType only.

V3.0 TECHNICAL SPECIFICATION CHANGES:

1. Consider late acknowledgment and the signal purposes.

Work Item 43: Name and NameID

v2.0 TECHNICAL SPECIFICATION CHANGES:

Section 8.3

1. Updated to reflect use of NameID reference and user friendly use of Name for business analysts.

2. Clarify reference to how CPPA uses Name.

Issue 9,10 - MPC, 13-25-28 Roles

Discussion (Delegation):

- Multi-party interaction occurs at the environment level without binding. Shared semantics
 - Agree to transact
 - Responsibility in role - ODP - entities, environment; Interactions in environment
- All MPC can be broken down into BC pairs. This is from a legal point of view. Contracts can be bilateral. Events or message occurring in BT. The grouping of those messages in an interaction, responsibility is role. Seller role exists and wants to delegate some role to another 'agent,' who is a third-party. For example, see the prime broker. The seller is not checking the executing parties but checks the agent's credit who extends his credit line to the executing parties. Divide roles and responsibilities: Role and agency.
- Dispatch-reach: Monitoring events and know that other parties sent. These events are legally relevant. Delegation is very important. How much of the delegation belongs to the collaboration specification (exchange of data messages). What is the difference of delivery promises and TTP. Delivery has an obligation to notify which transforms and belongs in the ebBP. How much of this legally relevant part belongs in ebBP? Differences between obligations and the rights to send/receive notifications.
- The complexBTA only has a BC where R2 (R1 is Buyer, R2 is Seller, R3...n are sub-parties) has visibility but is responsible. Seller looks at prime broker not executing party credit line. The Buyer has a responsibility not to exceed the credit limit dictate by the Seller. Special tower phone relationships to talk about settlement dates apply.

Reference Trading Service example attached.

- Breaking credit line relationship between a primary broker. Seller checks prime broker in symmetric: prime broker checking credit line with Buyer. The trade can not take place unless the credit line's can support the size of the trade. The third-party has not broken the execution but the settlement relationship. Seller has independent view of the prime broker (BC). There is a notion of higher level roles (delegate to someone else).
- Swedish banking similar conversations are occurring. Don't want to compete on infrastructure. ebXML will be part of that work. Do all parties communicate or is there a centralized hub?
- In the normal world, execution and timeline reporting differ. In foreign exchange, Buyer reported based on system a prime broker provided or by fax. Executing bank report in their system already. If I trade with X, I know it is actually Y. Put the prime broker in the deal so deal doesn't occur unless the broker is electronically available. In the fax or phone perspective, the broker was not visible immediately.
- Difference between contractual obligation and exchange of information identified. What is in

- ebBP or in UBAC? Need to have v3.0 business entities that survive an information exchange.
- Trading service is an intermediary or central hub. What visibility is needed at the Trading Service? How and whether to percolate the statuses to the main state that we are modeling.
- How does the Trading Service aggregate price requests. We had three models to aggregate. Buyer chooses way to have prices aggregated - wait and hold for all and reveal (good in sparse market); show prices immediately as they arrive (price volatility for example 5 seconds); and Buyer doesn't request but Seller publishes the prices.
- Quantify what is the need for ebBP to get into the transactional space (WS-CAF, WS-AT/BA/C, BTP) where aggregated behavior is a requirement. This will assist us in monitoring status and progress.
- Support notion of business entities. Putting too much in one state machine with complexBTA. Need to separate contractual obligation and promises. With business dialog you have to handle visibility. You need the contract view to effectively handle such use cases.
- Is a coordinator a third party or only a routing intermediary? Consequences exist if a coordinator party doesn't fulfill its responsibility.
- We need to determine how to define, propagate and manage state. This is a limited publish-subscribe community. That is an implementation choice. Visibility and then how to make it visible.
- In the white box transaction as part of complexBTA, we have a status service URL. This differs from a Notification message that elicits some action by the other party. Notification (not the Notification pattern) could be an OperationActivity. You could have the BSI send status signals bound to a business document.
- Observe the notification. You could use a timeout if the Notification does not occur (observable behavior). Use the pre- and post-conditions as enabler for communicating state.
- For white box condition (MPC), Trading Service creditRequest and creditResponse are not opaque; they are between the Seller-X and Credit-X. We have a: (1) Composite transaction which is considered visibility driven; (2) Party is a participant in the composite transaction where its identity is known. Actions taken by partners are transparent to others; intermediaries however take responsibility for the outcome.
- Can replace TS with prime broker. The prime broker and sellers are full fledged participants. You can have a prime broker and a trading service involved. Prime broker has business ownership while the trading service has technical responsibility. Some brokers are completely black box (taking technical and business risk). The seller relationships are opaque to the Buyer. Business represent a continuum to opaque (traditional broker with own community of buyers and sellers, certain risk levels are identified and if exceeded he offloads to another tiered market); trading service is a technical infrastructure to bring together buyers and sellers completely transparent, and hybrid (customers who want to execute in higher level market that the broker typically operates where the broker is the settlement organization but the communities can execute with a set of banks).
- Add another choice, represent the continuum between white and black box cases when full-fledged for MPC that goes back to a black box transaction model with more participants. Provides a continuum of transparency of the inner actions. We have a federated data model where the manager of the data is not the owner or the entity that is represented by the data. The manager of the data is required to have visibility into the signatures given to the requester both for the data where it originates and the originator.
- In v3.0, we are investigating coordination with posting of dashboard data where services provide global visibility. Or, you could support publish-subscribe to support relevant events. We wish to support differential access.
- We assume if the ebBP declares the visibility of the element of the white box transaction, that element must exist in the response of that higher level transaction.
- Notification is generated to the regulatory body and the response is given to the requester. We need to infer that if those elements exist in the notification message, they are marshaled into the notification message.
- A prime broker is largely an agent. In many cases, the prime broker is an agent of some organization. Value proposition is that the agent can extend its credit line to its constituents. A trading broker (Trading Service, technical trucking) takes own transaction risk as its own entity (I ask as your seller).

V2.0 TECHNICAL SPECIFICATION CHANGES:

1. Add complexBTA.
2. In the context of the use of a complexBTA (priceRequest), the transition to a notification business transaction is guarded by a document event (the exchange of "sub-party priceResponse business document" that drives transition to notify the original Buyer). See 7-27 trading service case for priceRequest, priceNotification, priceResponse). These constructs support the case of a volatile price req-response set of conditions in the financial services industry. The complexBTA handles some of the other more complex conditions related to BTA composition. Note that a fork sits above both "price request/response" and "price notification", so that "price notification" is enabled while the complex BTA "price request/response" is active.
3. Any event used on a transition guard MUST be visible to the initiatingRole in the 'to' BTA. This allows a related business document event to be used to drive a transition. The enabling and disabling are actually pre- and post-conditions.
4. Ensure we differentiate:
Method for alignment - Transition to notification based on complexBTA information (i.e. Notification BT pattern: Business document + receipt ack)
5. Show enabled and disabled characteristic so conditional constraints are understood: preCondition(use enabled); postCondition(use disabled).

V3.0 TECHNICAL SPECIFICATION CHANGES:

1. Visibility use - Status Service URL: CPPA domain and Status signal

DocumentEnvelopeNotation and Work Item 21 (Conditional Constraints: beginsWhen, endsWhen, and pre- and post- conditions)

Note: See question from Anders Tell on episodic memory - how does an invoice relates to an order? Reference: <http://www.oasis-open.org/archives/ebxml-bp/200407/msg00014.html>.

Discussion:

- This is the concurrency issue we discussed 7 July 2004. We dictate to a lower ebMS layer that has conversationID to track this. Or, we have a SBDH to correlate. Or, we look at the PO number that is included in an invoice.
- Establish equality on the values of the business documents involved (order to invoice) for correlation.
- The BSI stores the business documents; the XPath can specify to that stored information. The rules can be in the BSI, and the BSI is fully stateful.
- The same recognition has occurred in BPEL - where they have pushed the correlation into the engine-managed realm.
- Use a guard to specify the order ID and invoice number correlate. The BSI won't store if one company stores an order ID and another translates that order ID into their own tracking number.
- Could use post-condition for this use case. Need to have the business rules in computable not just textual form. Wish to have the same view of the collaboration. It is a step forward. We need to business entities and memory.
- Do we need to formalize how we resolve the ambiguity between different instances. What about OCL to be able to deal with UML? In OCL, what is an object in BPSS? It is a document? If it is like a 'purchase order', and when I exchange I send a representation of state transfer and the 'purchase order'. How do I establish the relationship between objects and documents? OCL can't be used in BPSS unless we provide a new specification section. Need to abstract this idea of semantic from physical content. Populate the local variable. For post-conditions, we talk about these conditional constraints, the legal community can bind into a logical document. This allows a community to define their semantic content.

v2.0 TECHNICAL SPECIFICATION CHANGES:

1. Resolve how we disambiguate the different BPSS instances that correlate, for example, an applicable invoice and order. Business documents have a unique identifier per instance as

opposed to the message type only (nameID on the business document).

2. Create semantic element constructs (supports effective use of conditional constraints):

- a. <semanticElement name=originalPO expression=document (\$placeorder.bta.requestdocument,"/message/order/@ordernumber">beginsWhen expression='document (\$semanticElements,"SemanticElements/originalPO"=document(\$invoice.bta.requestdocument,"/message/invoice/order/@ordernumber)
- b. Specify this is an abstraction of a type of information from the location in the document. We have a variable that can be bound to a particular location in a document.
- c. Express the boundaries of the use of XPath and the use of the variable in this and other related cases.
- d. Allow to set an XPath variable.

Work Item 23 > 1 Bus Document or Attachment

V2.0 TECHNICAL SPECIFICATION CHANGES:

1. See attachment and business document schema changes. You can have metadata related to an attachment, such as an image. However, you can not validate the content of the image in business rules. The Response may or may not include a human component (i.e. An Attachment may be handled by a person).

Work Item 25 Multiple requests on a responding activity

Work Item 28 Legacy support

See changes for role and role changes in WI 23.

Work Item 74 isAuthorizationRequired

V2.0 SCHEMA AND TECHNICAL SPECIFICATION CHANGES:

1. Ensure that RA and AA are capable of communicating authorization failure.
2. Specify the BSI has to check that the partner is allowed to perform this transaction. Indicate this could be delegated to a directory service to check. Indicate this serves as a hint for the BSI. Want to surface any exceptions back to the Sender on which to act. This could happen when you try to: (1) apply rules, (2) persist the communication, or (3) submit message for processing (acceptance).
3. An exception occurs for an authorization reason on the RA or AA.

ACTIONS

WEBBER: Provide CAM example with specificationLocation for BusinessDocument (Work Item 11).

ST. AMAND: Identify tech spec areas related to include, package, and business document for potential change (Work Item 11, 23).

DUBRAY: Map MPC, using Boyer Australian use case (Work Items-Multiple).

MOBERG: Do we use XPath v2.0 (Work Item 21)?

MOBERG: Clarify with Martin Roberts why he has a SignalType and a SignalEnvelopeType (Work item 74).

MOBERG: Get general exception signal from Hima or in his archives (Work Item 60).

DUBRAY: Provide updated WSDL schema (Work Item 12).