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Information Exchange

agcXML GENERIC DOCUMENT DISTRIBUTION USE CASE



agcXML Use Case

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June 6, 2007

1. Name

Generic Information/Document Distribution

2. Summary Classifications

2.1. Type of transaction

A generic use case for the business collaboration (and its constituent business transactions) that takes place during a building design and construction project, and that includes the exchange of project information or documents among multiple parties.

2.2. Stage of project

All phases.

2.3. Discipline

All Disciplines.

2.4. Partners and roles

All Partners.

2.5. Data content

Any project information or document that needs to be exchanged between parties in the project. Typical examples include Requests for Information or Submittals, though there are many others. These transactions generally form part of the contractual obligations of the parties.

3. Purpose

The majority of business transaction standards in other industries involve an exchange of information between two parties. Because of the extensive virtual organizations commonly established for building design and construction projects, many transactions involve numerous parties from many different companies. Many information exchanges (various types of notifications, approvals, etc.) that would be “internal” in other industries—and thus outside of the scope of data exchange standards—take place between different companies in building design and construction and are therefore candidates for standardization.

This use case provides a generic version of the information/document distribution activity that is common throughout construction projects. It is intended to be specialized for other, more-specific use cases such as Requests for Information and submittals.

3.1. Description of the business processes (context)

This use case covers the exchange of information between two or more parties in a construction project. The information exchange relates to some formal obligation associated with the parties' roles on the project. The transaction generally has legal significance and may make up part of the design information for the project. This use case generally excludes informal or ad-hoc communications between parties.

The parties have a formal relationship with each other as defined by their contracts, although they do not necessarily have a contract with each other. For example, a building contractor may be required by an owner/contractor agreement to provide certain information to specified design consultants though the contractor has no direct contractual relationship with the consultants.

The use case describes customary practice and can be used to describe information exchange using paper or electronic documents. However, it also supports the information exchange based on building information models or other information technologies.

3.2. Purpose of the transaction

In the simplest case, one party wishes to provide some information/document to another party as part of their involvement in a construction project. Many variations may exist. A response may be required. The recipient may forward the request on to others to provide the response. The request/response may be sent to multiple other parties for information, for comment, for approval, etc. The transaction may be recorded in project logs or a project collaboration system.

The entire information distribution process can be decomposed into a series of two-party (request/response) transactions. However, the overall collection of two-party transactions should be managed together, since they generally are tightly interconnected. For example, many separate two-party transactions consist of the same information content, or may arise from a single "mailing list" transmission.

4. Actors and Roles

Requester: The party that initiates the transaction and sends the request to the responder. The request may have originated with this requester, or it may have been sent in a previous transaction to the requester, who then initiates the current transaction for further processing or distribution.

Responder: The party that receives the request and provides a response, if necessary. (For other possible roles, see the list of alternative flow of events in section 9).

5. Preconditions and Start point

All parties are already formally involved in the project in specified roles, either by contract or by a commercial (buyer/seller) relationship.

The transaction starts when the Requester, wishing to provide and/or request some information from the responder as part of the fulfillment of their obligations on the project, prepares the information/document to send to the responder.

6. End point

The transaction ends when the request has been received by all relevant parties and acknowledged (as necessary), and any resulting responses have been received by the relevant parties and acknowledged (as necessary).

7. Measurable Result

The relevant parties will have verifiably received the transaction information. The information will typically become part of the project record.

8. Flow of Events/Activity Descriptions

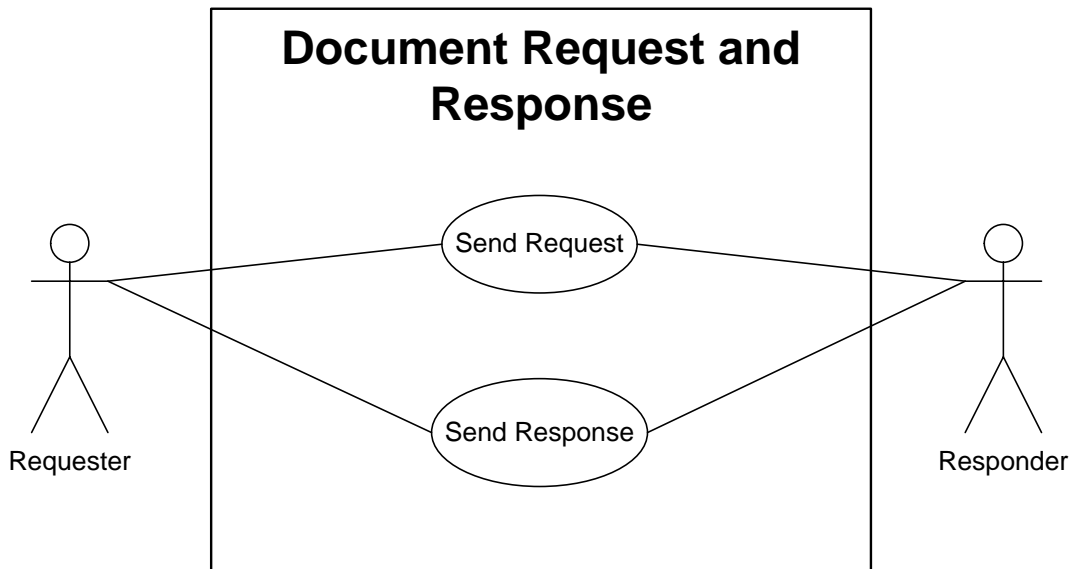
The following describes the basic business transaction that is the primary transaction involved in the generic information/document distribution. The terms “business transaction” and “business collaboration” are used in the sense specified in the ebXML Business Process Specification Schema.

The specific requirements for the contents of the transactions, the response, and the various alternative transactions are provided by the terms of agreement between the parties to the project, applicable regulations, and the judgment or discretion of the parties involved about who may need to be informed of a certain piece of information.

The requestor prepares the request, including information to identify the request, the distribution information, and the document content.

The requestor sends the information/document to the responder.

If a response is required, the responder prepares the response and replies by sending the response to the requestor.



Use Case Diagram: Document Distribution, Primary Transaction

9. Alternative Flow of Events

The following are alternative flows that may apply to the primary transaction described in Section 8 above:

Acknowledgements may be required for both the request and the response, as well as for all the other transactions listed below. Acknowledgements would typically not be required for traditional paper, fax, or email transactions, but would typically be required for transaction involving e-commerce systems.

Where a response is required, it may be permissible for the responder to defer the response by responding with a notification that the response is pending. This ends the current business transaction, but it then introduces the requirement for additional subsequent transactions to allow the responder to provide notification of a response, to allow the responder to provide notification of a change in status of the request, or to allow the requester to query the status of the response.

The following are alternative, two-party business transactions that may accompany the primary transaction described above (in any combination) as part of the overall information/document distribution business collaboration:

9.1. Notification/Information Distribution

Any party involved in the business collaboration may forward copies of the request and/or response to any other project stakeholder. All forwarding transactions belong to one of two possible categories: notification or information distribution. The categories are distinguished by whether or not the forwarding transaction is a contractual obligation or a discretionary act of the forwarding party.

When a recipient has a contractual obligation to forward a communication to others, the forwarding transaction is considered a “notification.” For example, a contract may require a general contractor to submit all RFI’s to the prime consultant with copies sent directly to the owner. If the forwarding transaction is undertaken at the discretion of the forwarding party, the transaction is considered to be an “information distribution.”

Though notifications and information distributions are similar in nature, they have a different legal status and therefore may have different requirements for transaction controls, such as verification of delivery and acknowledgement of receipt. Similarly, responses may be optional or required.

The recipient of a notification or information distribution may be a project collaboration system such as a project Web site used to store project document records in which the protocols for distribution to appropriate parties are embedded.

9.2. Logging

Any of the parties involved in any transaction of a business collaboration may log the transaction request and/or response. While this would typically be an internal function not within the scope of the transaction standards, there may be shared logs for various types of transactions (for example, as part of a project collaboration system) that require corresponding transaction definitions for submitting, querying, and so forth.

9.3. Delegation/Forwarding

Rather than preparing the response personally, a responding party may pass the request on to another party who will prepare the response. This may be a delegation to one or more parties, in which case the original responder has and maintains formal responsibility for the response, or it may be a forwarding, in which case the original responder does not carry the formal responsibility for the response, but only for the transmission of the request/response to/from the ultimate responder.

9.4. Approval

One or more additional transactions may be required to obtain approval for the primary transaction—typically for a response. For example, a contractor might submit an RFI to a design consultant, and the consultant prepares a response but must seek approval from the owner prior to returning the response to the contractor.

9.5. Iterative Transactions

Iterative transactions are not explicitly addressed in this use case; the elements of each transaction occur only once until the defined end point is reached. Should a response (or any of the other transactions listed) trigger an iteration of part or all of the information distribution process, the iteration is considered a new, separate transaction.

10. Use Case Relationships: Inclusion and Extension

This use case is intended to provide a generic resource to be re-used in other, more specific use cases.

11. Controls

The information/document distribution fulfills formal obligations with respect to the participants' roles on the project, and as such appropriate transaction controls will be required for security, authorization, timing, requirements for responses, and so forth. However, specific requirements are a function of the specific type of transaction and project context issues.

12. Data

Document identity information may include the project identification, type of document, a document name, a document ID/tracking number, a document creation date, and possibly various classification numbers such as work discipline or specification code.

The document distribution information includes the name and contact information for the requester and the responder. Distribution information for many of the secondary transactions listed in the alternative flows may take the form of “cc” names and contact information (along with quantity of copies and instructions as to the expected role/action of each receiver).

The responder may add document distribution information such as the name and contact information of the responder, the date of response, and additional “cc” information.

The data content of the information/document request and response is a function of the specific types of transactions that use this generic resource, and is outside of the scope of this use case.

13. Outstanding Issues

None at this time.