

## **Drummond Special Newsletter Update**

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### **ebXML Transport, Routing and Packaging Work Group Adopts the SOAP Envelope Framework**

In an effort to more closely align with emerging standards, the OASIS and UN/CEFACT sponsored ebXML development team is proposing structural integration with the de facto industry standard – SOAP. SOAP v1.1, and the follow-on note SOAP with Attachments (SWA) by Microsoft and HP, encapsulate business documents within a MIME and XML data-structure which allows documents of any kind to be exchanged between trading partners in a transport independent manner. While SOAP concentrates on synchronous Internet transactions via HTTP, the structure is usable within any transport medium, including SMTP and FTP. This structure now (not with previous SOAP versions) ideally suits the needs of the ebXML Transport, Routing & Packaging WG.

SOAP's enveloping scheme imparts a simple mechanism within which any business or non-business document may be exchanged in any one of several transfer mechanisms. The ebXML team has chosen not to incorporate all potential aspects of the SOAP specification but rather to concentrate on the simple enveloping and XML packaging options – rather than pursue the RPC or the HTTP Mandatory Extension options. This effort will carry all TRP functionality forward into the SOAP envelope – giving the best of both worlds additional functionality required by TRP and the use of an industry standard, XML/MIME enveloping structure.

Although discussions along this line have been proceeding for some time, it has only been recently that the particular Intellectual Property Rights (IPR) issues have been worked out between the ebXML effort and the authors of the SOAP specifications. Once the way was cleared for unimpeded publication and use considerations, the ebXML team went into full gear to pursue consolidation of these two efforts. Since SOAP is so widely accepted by the industry and since many of the companies involved in the SOAP effort are also engaged within the ebXML endeavor, it seemed only logical to support this merger.

SOAP v1.1 and SWA is primarily comprised of an outer transport layer and a Multipart MIME structure within which an XML based SOAP-Envelope resides. Soap v1.1 and SWA are enhancements of SOAP 1.0 structures which, historically, were not usable for ebXML. The ebXML team has chosen to utilize the SWA extension to the specification thus eliminating the need for encoding of payloads, many of which may be in binary format. The previous ebXML specification defines a basic structure, which is quite similar to the SOAP framework. Both utilize transport-independent, industry prevalent MIME technology. Both create an XML Message Header structure within a MIME multipart/related bodypart. While SOAP does not dictate the contents of the Header element, the ebXML Header information already developed will merge nicely into the SOAP envelope structure.

Other systems incorporating the basic SOAP structure (systems such as BizTalk) have taken the approach of inserting routing headers, manifests, reliable messaging and other similar header-type information into the optional SOAP Envelope Header section while placing the payload document into the mandatory SOAP Envelope Body section. The ebXML team has decided there were too many disadvantages to this approach and has elected to follow the SWA scheme, placing the payload into one or more additional MIME bodyparts. This eliminates

the SOAP limitations on binary data which must be encoded as required within an XML structure. This also allows more granularity by splitting header, signature and routing type functionality (child elements of the SOAP Envelope Header) from the body type functions such as Manifest, Status and Error Lists (child elements of the SOAP Envelope Body).

Many issues have yet to be resolved such as the implications of the pending W3C adoption (and possible adjustment or amendment) of the SOAP framework currently called XP. How will the ebXML structure fit within the W3C environment and how closely will XP and ebXML TRP align in the future? What about the known issues with SOAP? What will it take for existing SOAP parsers to support ebXML? These issues are being studied and worked. It appears there are no insurmountable problems, except perhaps the extremely short time frames for publication of this "adjusted" document – March 26, 2001. Many industry leaders have pledged dedicated resources to examine and work these details. No matter how these issues progress, it promises to be a busy and exciting few weeks.

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Mr. Rik Drummond has led the Transport, Routing and Packaging team of the ebXML since its inception 15 months ago. This 18-month effort is nearing completion and the long awaited ebXML specifications will be release in the next few months.