



**IPC 2501 Profile of the
ebXML Message Service
Specification**



This document describes the possible ebXML message inclusion and related messaging requirements into the IPC 2501, currently under development. These messages and messaging requirements are part of a standard, the Message Service Specification (MSS) version 2.0 released on April 1, 2002 by the Organization for the Advancement of Structured Information Standards (OASIS).

In the table below are listed the ebXML specific messages by section number of the MSS, and four additional fields that indicate IPC 2501 inclusion status for the specific ebXML message or requirements. The specific logic for these entries is indicated below:

- Checking the "Yes" column indicates the functionality will be included as stated in the MSS standard,
- Checking the "No" column indicates this functionality will not be included
- Checking the "Concept" column indicates the functionality will be conceptually included but the implementation may not exactly meet the stated ebXML functional requirement,
- Checking the "TBD" column indicates this functionality is to-be determined as a functional addition to the IPC 2501 messages.

Part I. Core Functionality

MSS Section Number	ebXML Functionality	IPC 2501 Inclusion Status			
		YES	NO	Concept	TBD
2.0	ebXML with SOAP				
2.1	Packaging Specification				
2.1.1	SOAP Structural Conformance	√			
2.1.2	Message Package	√			
2.1.3	Header Container	√			
2.1.4	Payload Container	√			
2.1.5	Additional MIME Parameters	√			
2.1.6	Reporting MIME Errors	√			

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MSS Section Number	ebXML Functionality	IPC 2501 Inclusion Status			
		YES	NO	Concept	TBD
2.2	XML Prolog				
2.2.1	XML Declaration	√			
2.2.2	Encoding Declaration	√			
2.3	ebXML SOAP Envelope extensions				
2.3.1	Namespace pseudo attribute	√			
2.3.2	xsi:schemaLocation attribute	√			
2.3.3	SOAP Header Element	√			
2.3.4	SOAP Body Element	√			
2.3.5	ebXML SOAP Extensions	√			
2.3.6	#wildcard Element Content	√			
2.3.7	id attribute				√
2.3.8	version attribute				√
2.3.9	SOAP mustUnderstand attribute	√			
2.3.10	ebXML "Next MSH" actor URI		√		
2.3.11	ebXML "To Party MSH" actor URI		√		
3.0	Core Extension Elements				
3.1	MessageHeader Element				
3.1.1	From and To Elements			√	
3.1.2	CPAId Element			√	
3.1.3	ConversationId Element			√	
3.1.4	Service Element			√	
3.1.5	Action Element			√	
3.1.6	MessageData Element			√	
3.1.7	DuplicateElimination Element			√	
3.1.8	Description			√	
3.2	Manifest Element				
3.2.1	Reference Element	√			
3.2.2	Manifest Valid	√			
4	Core Modules				
4.1	Security Module				
4.1.1	Signature Element		√		
4.1.2	Security and Management		√		
4.1.3	Signature Generation		√		
4.1.4	Countermeasure Technologies		√		
4.1.5	Security Considerations		√		
4.2	Error Handling Module				
4.2.2	Types of Errors			√	
4.2.3	ErrorList Element	√			
4.2.4	Implementing Error Reporting and Handling			√	

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MSS Section Number	ebXML Functionality	IPC 2501 Inclusion Status			
		YES	NO	Concept	TBD
4.3	SyncReply Module				
4.3.1	SyncReply			√	
5	Combining ebXML SOAP Extension Elements				
5.1.1	MessageHeader Element Interaction				√
5.1.2	Manifest Element Interaction				√
5.1.3	Signature Element Interaction				√
5.1.4	ErrorList Element Interaction				√
5.1.5	SyncReply Element Interaction				√

Part II. Additional Features

MSS Section Number	ebXML Functionality	IPC 2501 Inclusion Status			
		YES	NO	Concept	TBD
6	Reliable Messaging Module				
6.1	Persistent Storage and System Failure			√	
6.2	Methods of Implementing Reliable Messaging				√
6.3	Reliable Messaging SOAP Header Extensions				√
6.3.1	AckRequested Element				√
6.3.2	Acknowledgment Element				√
6.4	Reliable Messaging Parameters				
6.4.1	DuplicateElimination	√			
6.4.2	AckRequested	√			
6.4.3	Retries	√			
6.4.4	RetryInterval	√			
6.4.5	TimeToLive	√			
6.4.6	PersistDuration	√			
6.4.7	syncReplyMode	√			
6.5	ebXML Reliable Messaging Protocol				
6.5.1	Sending Message Behavior	√			
6.5.2	Receiving Message Behavior	√			
6.5.3	Generating an Acknowledgment Message	√			
6.5.4	Resending Lost Application Messages	√			
6.5.5	Resending Acknowledgments	√			
6.5.6	Duplicate Message Handling	√			
6.5.7	Failed Message Delivery	√			
6.6	Reliable Messaging Combinations				√
7	Message Status Service				

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MSS Section Number	ebXML Functionality	IPC 2501 Inclusion Status			
		YES	NO	Concept	TBD
7.1	Message Status Messages				
7.1.1	Message Status Request Message			√	
7.1.2	Message Status Response Message			√	
7.1.3	Security Considerations			√	
7.2	StatusRequest Element			√	
7.2.1	RefToMessageId Element			√	
7.2.3	StatusRequest Element Interaction			√	
7.3	StatusResponse Element			√	
7.3.1	RefToMessageId Element			√	
7.3.2	Timestamp Element			√	
7.3.3	messageStatus attribute			√	
7.3.5	StatusResponse Element Interaction			√	
8	Message Service Handler Ping Service				
8.1	Message Service Handler Ping Message	√			
8.2	Message Service Handler Pong Message	√			
8.3	Security Considerations				√
9	MessageOrder Module				
9.1	MessageOrder Element				
9.1.1	SequenceNumber Element		√		
9.2	MessageOrder Element Interaction		√		
10	Multi-Hop Module				
10.1	Multi-hop Reliable Messaging				
10.1.1	AckRequested Sample		√		
10.1.3	Multi-Hop Acknowledgments		√		
10.1.4	Signing Multi-Hop Acknowledgments		√		
10.1.5	Multi-Hop Security Considerations		√		
10.2	Message Ordering and Multi-Hop		√		

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Part III. Normative Appendices

MSS Section Number	ebXML Functionality	IPC 2501 Inclusion Status			
		YES	NO	Concept	TDB
Appendix A	The ebXML SOAP Extension Elements Schema			√	
Appendix B	Communications Protocol Bindings				
B.2	HTTP	√			
B.2.1	Minimum level of HTTP protocol	√			
B.2.2	Sending ebXML Service messages over HTTP				√
B.2.3	HTTP Response Codes	√			
B.2.4	SOAP Error conditions and Synchronous Exchanges		√		
B.2.5	Synchronous vs. Asynchronous		√		
B.2.6	Access Control		√		
B.2.7	Confidentiality and Transport Protocol Level Security		√		
B.3	SMTP		√		
B.3.1	Minimum Level of Supported Protocols		√		
B.3.2	Sending ebXML Messages over SMTP		√		
B.3.3	Response		√		
B.3.4	Access Control		√		
B.3.5	Confidentiality and Transport Protocol Level Security		√		
B.3.6	SMTP Model		√		
B.4	Communication Errors during Reliable Messaging	√			
Appendix C	Supported Security Services		√		