



SOAP 1.2 Part 3: One-Way MEP

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Abstract

SOAP Version 1.2 Part 2 provides a request-response MEP and a response-only MEP. This, the SOAP 1.2 Part 3, provides a one-way MEP.

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1 Introduction

SOAP Version 1.2 Part 2 provides a request-response MEP and a response-only MEP. This, the SOAP 1.2 Part 3, provides a one-way MEP.

1.1 Notational Conventions

The keywords "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119 [[RFC 2119](#)].

With the exception of examples and sections explicitly marked as "Non-Normative", all parts of this specification are normative.

2 SOAP One-way Message Exchange Pattern

This section defines the message exchange pattern (MEP) called "One-way". The description is an abstract presentation of the operation of this MEP. It is NOT intended to describe a real implementation or to suggest how a real implementation should be structured.

2.1 SOAP Feature Name

This message exchange pattern is identified by the URI (see SOAP 1.2 Part 1 [\[SOAP Part 1\] SOAP Features](#)):

- "http://www.w3.org/2006/08/soap/mep/one-way/"

2.2 Description

The SOAP One-way MEP defines properties for the exchange of a SOAP message. In the absence of failure in the underlying protocol, this MEP consists of zero or more SOAP messages. The scope of a one-way MEP instance is limited to transmission of messages from one sending node to zero or more receiving SOAP node(s). The ImmediateSender and ImmediateDestination properties may differ among nodes. The envelope in the InboundMessage property at each successful receiver SHOULD be identical to the envelope in the OutboundMessage at the sender. Implementations MAY choose to support multiple MEPs at the same time.

The sending node MUST attempt to send, in a binding-specific manner, the SOAP Message provided in <http://www.w3.org/2003/05/soap/mep/OutboundMessage> to the node(s) identified by <http://www.w3.org/2003/05/soap/mep/ImmediateDestination>. If the sender has a means of detecting successful or unsuccessful transmission, it SHOULD fault in a binding-specific manner in the event that transmission failure is detected.

When a message is successfully received by a SOAP node, that node MUST populate <http://www.w3.org/2003/05/soap/mep/InboundMessage> with the received message and MUST process the message in <http://www.w3.org/2003/05/soap/mep/InboundMessage> according to the SOAP Processing Model (see SOAP 1.2 Part 1 [\[SOAP Part 1\] Processing SOAP messages](#)). A receiver MAY (though typically only in exceptional circumstances) treat as erroneous, or lost, a message that has been received intact. Typical reasons for making such decisions might include shortage of buffer space, network interface overruns, etc.. A receiver MAY fault in a binding-specific manner if some particular message is determined to have been unsuccessfully received (note, however, that in many cases where receipt is unsuccessful, information identifying the message or its sender may be unreliable, in which case there may be little if any value in reflecting a message-specific fault.)

2.3 Property Description

The One-way MEP defines a set of properties described below.

Property definitions for One-way MEP

Property Name	Property Description	Property Type
<p>http://www.w3.org/2003/05/soap/mep/InboundMessage</p>	<p>An abstract structure that represents the current inbound message in the message exchange. This abstracts both SOAP Envelope and any other information structures that are transferred along with the envelope. This property is populated if and only if the message is successfully received.</p>	<p>Not specified</p>
<p>http://www.w3.org/2003/05/soap/mep/OutboundMessage</p>	<p>An abstract structure that represents the current outbound message in the message exchange. This abstracts both SOAP Envelope and any other information structures that are transferred along with the envelope.</p>	<p>Not specified</p>
<p>http://www.w3.org/2003/05/soap/mep/ImmediateDestination</p>	<p>The identifier of the immediate destination of an outbound message. (NOTE: the URI supplied MAY be the identifier of a single destination SOAP node, or MAY be the identifier of a multicast group, which itself</p>	<p>xs:anyURI</p>

	consists of zero or more destination nodes. Whether multicast is supported is binding-dependent. This MEP specification provides no standard means for representing a multicast group, except to require that the group as a whole be designated by a URI.)	
http://www.w3.org/2003/05/soap/mep/ImmediateSender	The identifier of the immediate sender of an inbound message.	xs:anyURI

This MEP MAY be extended by later specifications. Such extensions MAY add additional properties to the ones listed above.

2.4 Fault Handling

Each SOAP node involved in the message exchange makes its own determination of successful completion of the message exchange. Each node MAY independently signal a fault in the case of abnormal operation. Determination of successful operation and disposition of faults are outside the scope of this specification.

3 References

3.1 Normative References

SOAP Part 1

[*SOAP Version 1.2 Part 1: Messaging Framework \(Second Edition\)*](#), Martin Gudgin, Marc Hadley, Noah Mendelsohn, Jean-Jacques Moreau, Henrik Frystyk Nielsen, Anish Karmarkar, Yves Lafon, Editors. World Wide Web Consortium, 27 April 2007. This version is <http://www.w3.org/TR/2007/REC-soap12-part1-20070427/>. The [latest version](#) is available at <http://www.w3.org/TR/soap12-part1/>.

RFC 2119

[*Key words for use in RFCs to Indicate Requirement Levels*](#), S. Bradner, Editor. IETF, March 1997. This RFC is available at <http://www.ietf.org/rfc/rfc2119.txt>.

RFC 3986

[*Uniform Resource Identifiers \(URI\): Generic Syntax*](#), T. Berners-Lee, R. Fielding and L. Masinter, Editors. IETF, January 2005. *Obsoletes: RFC 2396, RFC 2732*. This RFC is available at <http://www.ietf.org/rfc/rfc3986.txt>.

3.2 Informative References

SOAP Part 0

[SOAP Version 1.2 Part 0: Primer \(Second Edition\)](#), Nilo Mitra, Yves Lafon, Editors. World Wide Web Consortium, 27 April 2007. This version is <http://www.w3.org/TR/2007/REC-soap12-part0-20070427/>. The [latest version](#) is available at <http://www.w3.org/TR/soap12-part0/>.

SOAP Part 2

[SOAP Version 1.2 Part 2: Adjuncts \(Second Edition\)](#), Martin Gudgin, Marc Hadley, Noah Mendelsohn, Jean-Jacques Moreau, Henrik Frystyk Nielsen, Anish Karmarkar, Yves Lafon, Editors. World Wide Web Consortium, 27 April 2007. This version is <http://www.w3.org/TR/2007/REC-soap12-part2-20070427/>. The [latest version](#) is available at <http://www.w3.org/TR/soap12-part2/>.

XMLP Comments

XML Protocol Comments Archive (See <http://lists.w3.org/Archives/Public/xmlp-comments/>.)

XMLP Dist-App

XML Protocol Discussion Archive (See <http://lists.w3.org/Archives/Public/xml-dist-app/>.)

XMLP Charter

XML Protocol Charter (See <http://www.w3.org/2000/09/XML-Protocol-Charter>.)

RFC 2045

IETF "RFC2045: Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies", N. Freed, N. Borenstein, November 1996. (See <http://www.ietf.org/rfc/rfc2045.txt>.)

RFC 2026

IETF "RFC 2026: The Internet Standards Process -- Revision 3", section 4.2.3, S. Bradner, October 1996. (See <http://www.ietf.org/rfc/rfc2026.txt>.)

A Change Log (Non-Normative)

Changes

Who	When	What
DBO	20041208	Initial Revision
DBO	20060330	2nd Revision
DBO	20060530	Adding sending and receiver MUSTs
DBO	20060720	Update date parts, checked into cvs, and moved abnormal operation paragraph to end of 2.2
DBO	20060803	Added InboundMessage property and text about populating, removed State property, other minor edits. Moved to xmlspec 2.10 dtd and xmlspec.xsl 1.54 (2005/10/13)
DBO	20060809	Removed failureReason property, explicit support for multicast by saying 0 or more nodes, changing "the receiver" to "a receiver" etc.
DBO	20060830	Some more clarifications on multicast, added ednote for feedback.
DBO	20070330	Did Mutiple fixes based on WSDL WG comments. Minutes at http://www.w3.org/2007/03/21-xmlprotocol-minutes.html , WSDL Comments at http://lists.w3.org/Archives/Public/xmlp-comments/2007Feb/0000.html . WG made decisions about 1, 5, 10, 11. Items 2,3 done at editors discretion.
DBO	20070425	Did 2 fixes, http://www.w3.org/Bugs/Public/show_bug.cgi?id=4404 , http://www.w3.org/Bugs/Public/show_bug.cgi?id=4407 . Minutes at http://www.w3.org/2007/04/25-xmlprotocol-minutes.html . Also removed Ed note.
DBO	20070516	Did 2 fixes, first 2 of Noah's comments from 5/4/2007 and moved error handling out of 2.2

Who	When	What
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