



Web Services Addressing 1.0 - Core

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Abstract<a>

Web Services Addressing provides transport-neutral mechanisms to address Web services and messages. Web Services Addressing 1.0 - Core (this document) defines a set of abstract properties and an XML Infoset [*XML Information Set [p.14]*] representation thereof to reference Web services and to facilitate end-to-end addressing of endpoints in messages. This specification enables messaging systems to support message transmission through networks that include processing nodes such as endpoint managers, firewalls, and gateways in a transport-neutral manner.

Status of this Document

This section describes the status of this document at the time of its publication. Other documents may supersede this document. A list of current W3C publications and the latest revision of this technical report can be found in the W3C technical reports index at <http://www.w3.org/TR/>.

This is the second Public Working Draft of the Web Services Addressing 1.0 - Core specification for review by W3C members and other interested parties. It has been produced by the Web Services Addressing Working Group (WG), which is part of the W3C Web Services Activity.

Short Table of Contents<a>

This Working Draft reflects the current position of the Working Group. A diff-marked version against the previous version of this document is available. For a detailed list of changes since the last publication of this document, please refer to appendix **B. Change Log** [p.15] . A list of remaining issues is also available.

Discussion of this document takes place on the public-ws-addressing@w3.org mailing list (public archive). Comments on this specification should be sent to this mailing list.

This document was produced under the 5 February 2004 W3C Patent Policy. The Working Group maintains a public list of patent disclosures relevant to this document; that page also includes instructions for disclosing [and excluding] a patent. An individual who has actual knowledge of a patent which the individual believes contains Essential Claim(s) with respect to this specification should disclose the information in accordance with section 6 of the W3C Patent Policy.

Per section 4 of the W3C Patent Policy, Working Group participants have 150 days from the title page date of this document to exclude essential claims from the W3C RF licensing requirements with respect to this document series. Exclusions are with respect to the exclusion reference document, defined by the W3C Patent Policy to be the latest version of a document in this series that is published no later than 90 days after the title page date of this document.

Publication as a Working Draft does not imply endorsement by the W3C Membership. This is a draft document and may be updated, replaced or obsoleted by other documents at any time. It is inappropriate to cite this document as other than work in progress.

Editorial note	
The Web Services Addressing Working Group has decided to use XML Schema, where appropriate, to describe constructs defined in this specification. Note that this restricts use of Web Services Addressing to XML 1.0.	

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Short Table of Contents<a>

1. Introduction [p.3]
 2. Endpoint References [p.5]
 3. Message Addressing Properties [p.9]
 4. References [p.14]
 - A. Acknowledgements [p.15] (Non-Normative)
 - B. Change Log [p.15] (Non-Normative)
-

>

Table of Contents<a>

1. Introduction [p.3]
 - 1.1 Notational Conventions [p.4]
 - 1.2 Namespaces [p.4]
2. Endpoint References [p.5]
 - 2.1 Information Model for Endpoint References [p.5]
 - 2.2 Endpoint Reference XML Infoset Representation [p.6]
 - 2.3 Endpoint Reference Comparison [p.8]
 - 2.4 Endpoint Reference Lifecycle [p.9]
3. Message Addressing Properties [p.9]
 - 3.1 XML Infoset Representation of Message Addressing Properties [p.11]
 - 3.2 Formulating a Reply Message [p.12]
4. References [p.14]

Appendices

- A. Acknowledgements [p.15] (Non-Normative)
 - B. Change Log [p.15] (Non-Normative)
 - B.1 Changes Since First Working Draft [p.15]
 - B.2 Changes Since Submission [p.16]
-

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>1. Introduction

Web Services Addressing (WS-Addressing) defines two constructs, message addressing properties and endpoint references, that normalize the information typically provided by transport protocols and messaging systems in a way that is independent of any particular transport or messaging system.

A Web service endpoint is a (referenceable) entity, processor, or resource to which Web service messages can be addressed. Endpoint references convey the information needed to address a Web service endpoint.

This specification defines a family of message addressing properties that convey end-to-end message characteristics including references for source and destination endpoints and message identity that allows uniform addressing of messages independent of the underlying transport.

Both of these constructs are designed to be extensible and re-usable so that other specifications can build on and leverage endpoint references and message information headers.

The following example illustrates the use of these mechanisms in a SOAP 1.2 message being sent from <http://example.com/business/client1> to <http://example.com/fabrikam/Purchasing>:

Example 1-1. Use of message addressing properties in a SOAP 1.2 message.

```
(001) <S:Envelope xmlns:S="http://www.w3.org/2003/05/soap-envelope"
      xmlns:wsa="http://www.w3.org/2005/02/addressing">
(002)   <S:Header>
(003)     <wsa:MessageID>
(004)       http://example.com/6B29FC40-CA47-1067-B31D-00DD010662DA
(005)     </wsa:MessageID>
(006)     <wsa:ReplyTo>
(007)       <wsa:Address>http://example.com/business/client1</wsa:Address>
(008)     </wsa:ReplyTo>
(009)     <wsa:To>http://example.com/fabrikam/Purchasing</wsa:To>
(010)     <wsa:Action>http://example.com/fabrikam/SubmitPO</wsa:Action>
(011)   </S:Header>
(012)   <S:Body>
(013)     ...
(014)   </S:Body>
(015) </S:Envelope>
```

Lines (002) to (011) represent the header of the SOAP message where the mechanisms defined in the specification are used. The body is represented by lines (012) to (014).

Lines (003) to (010) contain the message information header blocks. Specifically, lines (003) to (005) specify the identifier for this message and lines (006) to (008) specify the endpoint to which replies to this message should be sent as an Endpoint Reference. Line (009) specifies the address URI of the ultimate receiver of this message. Line (010) specifies an Action URI identifying expected semantics.

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 [IETF RFC 2119 [p.14]].

When describing abstract data models, this specification uses the notational convention used by the XML Infoset [XML Information Set [p.14]]. Specifically, abstract property names always appear in square brackets (e.g., [some property]).

When describing concrete XML schemas [XML Schema Structures [p.14], XML Schema Datatypes [p.14]], this specification uses the notational convention of WS-Security [WS-Security [p.15]]. Specifically, each member of an element's [children] or [attributes] property is described using an XPath-like notation (e.g., /x:MyHeader/x:SomeProperty/@value1). The use of {any} indicates the presence of an element wildcard (<xs:any/>). The use of @{any} indicates the presence of an attribute wildcard (<xs:anyAttribute/>).

1.2 Namespaces

This specification uses a number of namespace prefixes throughout; they are listed in Table 1-1 [p.5]. Note that the choice of any namespace prefix is arbitrary and not semantically significant (see [XML Namespaces [p.14]]).

Table 1-1. Prefixes and Namespaces used in this specification

Prefix	Namespace
S	http://www.w3.org/2003/05/soap-envelope
S11	http://schemas.xmlsoap.org/soap/envelope
wsa	http://www.w3.org/2005/02/addressing
xs	http://www.w3.org/2001/XMLSchema

WS-Addressing may be used with SOAP [*SOAP 1.2 Part 1: Messaging Framework [p.15]*] as described in Web Services Addressing 1.0 - SOAP Binding [*WS-Addressing-SOAP [p.14]*]. WS-Addressing may be used with WSDL [*WSDL 2.0 [p.14]*] described services as described in Web Services Addressing 1.0 - WSDL Binding [*WS-Addressing-WSDL [p.14]*]. Examples in this specification use an XML 1.0 [*XML 1.0 [p.14]*] representation but this is not a requirement.

All information items defined by WS-Addressing are identified by the XML namespace URI [*XML Namespaces [p.14]*] "http://www.w3.org/2005/02/addressing". A normative XML Schema [*XML Schema Structures [p.14]*], [*XML Schema Datatypes [p.14]*] document can be obtained by dereferencing the XML namespace URI.

2. Endpoint References

This section defines the information model and syntax of an endpoint reference.

This specification introduces the endpoint reference, a construct designed to support the following usage scenarios:

- Dynamic generation and customization of service endpoint descriptions.
- Referencing and description of specific service instances that are created as the result of stateful interactions.
- Flexible and dynamic exchange of endpoint information in tightly coupled environments where communicating parties share a set of common assumptions about specific policies or protocols that are used during the interaction.

2.1 Information Model for Endpoint References

An endpoint reference consists of the following abstract properties:

[address] : URI (mandatory)

An address URI for the endpoint. This may be a network address or a logical address.

[reference parameters] : xs:any (0..unbounded).

A reference may contain a number of individual parameters which are associated with the endpoint to facilitate a particular interaction. Reference parameters are element information items that are named by QName and are required to properly interact with the endpoint. Reference parameters are also provided by the issuer of the endpoint reference and are otherwise assumed to be opaque to consuming applications. The use of reference parameters is dependent upon the protocol binding and data encoding used to interact with the endpoint. Web Services Addressing 1.0 - SOAP Binding[*WS-Addressing-SOAP [p.14]*] describes the default binding for the SOAP protocol.

[selected interface] : QName (0..1)

A QName identifying a description of the sequences of messages that a service sends and/or receives, see Web Services Addressing 1.0 - WSDL Binding[*WS-Addressing-WSDL [p.14]*] for more details.

[service endpoint] : (QName, NCName (0..1)) (0..1)

A QName, NCName pair: the QName identifies a description of a set of endpoints at which a particular Web service is deployed; the NCName identifies one endpoint in particular. See Web Services Addressing 1.0 - WSDL Binding[*WS-Addressing-WSDL [p.14]*] for more details.

[policies] : xsd:any (0..unbounded)

A reference may contain a number of policies that describe the behavior, requirements and capabilities of the endpoint. Policies may be included in an endpoint to facilitate easier processing by the consuming application, or because the policy was dynamically generated. However, embedded policies are not authoritative and may be stale or incoherent with the policies associated with the endpoint at the time when the interaction occurs.

2.2 Endpoint Reference XML Infoset Representation

This section defines an XML Infoset-based representation for an endpoint reference as both an XML type (wsa:EndpointReferenceType) and as an XML element (<wsa:EndpointReference>).

The wsa:EndpointReferenceType type is used wherever a Web service endpoint is referenced. The following describes the contents of this type:

Example 2-1. Structure of the wsa:EndpointReference element.

```
<wsa:EndpointReference>
  <wsa:Address>xs:anyURI</wsa:Address>

  <wsa:ReferenceParameters>... </wsa:ReferenceParameters> ?
  <wsa:InterfaceName>xs:QName</wsa:InterfaceName> ?
  <wsa:ServiceName EndpointName="xs:NCName"?>xs:QName</wsa:ServiceName> ?
  <wsa:Policies> ... </wsa:Policies>?
  <xs:any/*>
</wsa:EndpointReference>
```

The following describes the attributes and elements listed in the schema overview above:

/wsa:EndpointReference

This represents some element of type `wsa:EndpointReferenceType`. This example uses the predefined `<wsa:EndpointReference>` element, but any element of type `wsa:EndpointReferenceType` may be used.

/wsa:EndpointReference/wsa:Address

This **REQUIRED** element (of type `xs:anyURI`) specifies the [address] property of the endpoint reference. This address may be a logical address for the service endpoint.

/wsa:EndpointReference/wsa:ReferenceParameters/

This **OPTIONAL** element contains the elements that convey the [reference parameters] of the reference.

/wsa:EndpointReference/wsa:ReferenceParameters/{any}

Each child element of `ReferenceParameters` represents an individual [reference parameter].

/wsa:EndpointReference/wsa:InterfaceName

This **OPTIONAL** element (of type `xs:QName`) specifies the value of the [selected interface] property of the endpoint reference, see *Web Services Addressing 1.0 - WSDL Binding* [*WS-Addressing-WSDL [p.14]*] for more details..

/wsa:EndpointReference/wsa:ServiceName

This **OPTIONAL** element (of type `xs:QName`) specifies the value of the [service endpoint] property, see *Web Services Addressing 1.0 - WSDL Binding* [*WS-Addressing-WSDL [p.14]*] for more details..

/wsa:EndpointReference/wsa:ServiceName/@EndpointName

This **OPTIONAL** attribute (of type `xs:NCName`) specifies the name of a particular endpoint, see *Web Services Addressing 1.0 - WSDL Binding* [*WS-Addressing-WSDL [p.14]*] for more details.

/wsa:EndpointReference/wsa:Policies

This **OPTIONAL** element contains policies that are relevant to the interaction with the endpoint.

/wsa:EndpointReference/wsa:Policies/{any}

Each child element of `Policies` represents an individual [policy].

/wsa:EndpointReference/{any}

This is an extensibility mechanism to allow additional elements to be specified.

/wsa:EndpointReference/@{any}

This is an extensibility mechanism to allow additional attributes to be specified. Some examples in this specification show use of this extensibility point to include a wsdlLocation[WSDL 2.0 [p.14]] attribute to provide a hint for the location of a WSDL description of the [selected interface] and [service endpoint] properties.

The following shows an example endpoint reference. This element references the [selected interface] "fabrikam:Inventory" at the endpoint URI "http://example.com/www.fabrikam/acct". Note the use of the WSDL[WSDL 2.0 [p.14]] wsdlLocation attribute.

Example 2-2. Example endpoint reference.

```
<wsa:EndpointReference
  xmlns:wsa="http://www.w3.org/2005/02/addressing"
  xmlns:fabrikam="http://example.com/fabrikam"
  xmlns:wsdli="http://www.w3.org/2004/08/wsdl-instance"
  wsdli:wsdlLocation="http://example.com/fabrikam
    http://example.com/fabrikam/fabrikam.wsdl">
  <wsa:Address>http://example.com/fabrikam/acct</wsa:Address>
  <wsa:InterfaceName>fabrikam:Inventory</wsa:InterfaceName>
</wsa:EndpointReference>
```

2.3 Endpoint Reference Comparison

During the course of Web services interactions applications may receive multiple endpoint references describing the endpoints it needs to interact with. Different copies of an endpoint reference may also be received over time.

The following rule clarifies the relation between the behaviors of the endpoints represented by two endpoint references with the same [address];

- The two endpoints accept the same sets of messages, and follow and require the same set of policies. That is, the XML Schema, WSDL, and policy and other metadata applicable to the two references are the same.

However, the metadata embedded in each of the EPRs MAY differ, as the metadata carried by an EPR is not necessarily a complete statement of the metadata pertaining to the endpoint. Moreover, while embedded metadata is necessarily valid at the time the EPR is initially created it may become stale at a later point in time.

To deal with conflicts between the embedded metadata of two EPRs, or between embedded metadata and metadata obtained from a different source, or to ascertain the current validity of embedded metadata, mechanisms that are outside of the scope of this specification, such as EPR life cycle information [see **2.4 Endpoint Reference Lifecycle** [p.9]] or retrieval of metadata from an authoritative source, SHOULD be used.

The [address] properties of two endpoint references are compared according to Section 6 of [RFC 3986 [p.14]].

Therefore, a consuming application should assume that different XML Schemas, WSDL definitions and policies apply to endpoint references whose addresses differ.

2.4 Endpoint Reference Lifecycle

This specification does not define a lifecycle model for endpoint references and does not address the question of time-to-live for endpoint references. Other specifications that build on or use WS-Addressing may define a lifecycle model for endpoint references created according to that specification.

3. Message Addressing Properties

This section defines the information model and syntax of message addressing properties.

Message addressing properties provide references for the endpoints involved in an interaction. The use of these properties to support specific interaction is in general defined by both the semantics of the properties themselves and the implicit or explicit contract that governs the message exchange. If explicitly available, this contract can take different forms including but not being limited to WSDL MEPs and interfaces; business processes and e-commerce specifications, among others, can also be used to define explicit contracts between the parties. The basic interaction pattern from which all others are composed is "one way". In this pattern a source sends a message to a destination without any further definition of the interaction. "Request Reply" is a common interaction pattern that consists of an initial message sent by a source endpoint (the request) and a subsequent message sent from the destination of the request back to the source (the reply). A reply in this case can be either an application message, a fault, or any other message. Note, however, that reply messages may be sent as part of other message exchanges as well, and are not restricted to the usual single Request, single Reply pattern, or to a particular WSDL MEP. The contract between the interacting parties may specify that multiple or even a variable number of replies be delivered.

Message addressing properties collectively augment a message with the following abstract properties to support one way, request reply, and any other interaction pattern:

[destination] : URI (mandatory)

The address of the intended receiver of this message.

[source endpoint] : endpoint reference (0..1)

Reference of the endpoint where the message originated from.

[reply endpoint] : endpoint reference (0..1)

An endpoint reference for the intended receiver for replies to this message. If a reply is expected, a message **MUST** contain a [reply endpoint]. The sender **MUST** use the contents of the [reply endpoint] to formulate the reply message as defined in **3.2 Formulating a Reply Message** [p.12]. If this property is present, the [message id] property is **REQUIRED**.

3. Message Addressing Properties

[fault endpoint] : endpoint reference (0..1)

An endpoint reference for the intended receiver for faults related to this message. When formulating a fault message as defined in **3.2 Formulating a Reply Message** [p.12] , the sender **MUST** use the contents of the [fault endpoint], when present, of the message being replied to to formulate the fault message. If this property is present, the [message id] property is **REQUIRED**.

[action] : URI (mandatory)

An identifier that uniquely (and opaquely) identifies the semantics implied by this message.

It is **RECOMMENDED** that value of the [action] property is a URI identifying an input, output, or fault message within a WSDL port type. An action may be explicitly or implicitly associated with the corresponding WSDL definition. Web Services Addressing 1.0 - WSDL Binding[*WS-Addressing-WSDL [p.14]*] describes the mechanisms of association. Finally, if in addition to the [action] property, a SOAP Action URI is encoded in a request, the URI of the SOAP Action **MUST** be the same as the one specified by the [action] property.

[message id] : URI (0..1)

A URI that uniquely identifies this message in time and space. No two messages with a distinct application intent may share a [message id] property. A message **MAY** be retransmitted for any purpose including communications failure and **MAY** use the same [message id] property. The value of this property is an opaque URI whose interpretation beyond equivalence is not defined in this specification. If a reply is expected, this property **MUST** be present.

[relationship] : (URI, URI) (0..unbounded)

A pair of values that indicate how this message relates to another message. The type of the relationship is identified by a URI. The related message is identified by a URI that corresponds to the related message's [message id] property. The message identifier URI may refer to a specific message, or be the following well-known URI that means "unspecified message":

`http://www.w3.org/2005/02/addressing/id/unspecified`

This specification has one predefined relationship type as shown in Table 3-1 [p.10] .

Table 3-1. Predefined [relationship] values

URI	Description
<code>http://www.w3.org/2005/02/addressing/reply</code>	Indicates that this is a reply to the message identified by the URI.

A reply message **MUST** contain a [relationship] property consisting of the predefined reply URI and the message id property of the request message.

The dispatching of incoming messages is based on two message properties: the mandatory "destination" and "action" fields indicate the target processing location and the verb or intent of the message respectively.

Due to the range of network technologies currently in wide-spread use (e.g., NAT, DHCP, firewalls), many deployments cannot assign a meaningful global URI to a given endpoint. To allow these "anonymous" endpoints to initiate message exchange patterns and receive replies, WS-Addressing defines the following well-known URI for use by endpoints that cannot have a stable, resolvable URI:

`http://www.w3.org/2005/02/addressing/role/anonymous`

Requests whose [reply endpoint], [source endpoint] and/or [fault endpoint] use this address MUST provide some out-of-band mechanism for delivering replies or faults (e.g. returning the reply on the same transport connection). This mechanism may be a simple request/reply transport protocol (e.g., HTTP GET or POST). This URI MAY be used as the [destination] for reply messages and SHOULD NOT be used as the [destination] in other circumstances.

3.1 XML Infoset Representation of Message Addressing Properties

Message addressing properties provide end-to-end characteristics of a message that can be easily secured as a unit. These properties are immutable and not intended to be modified along a message path.

The following describes the XML Infoset representation of message addressing properties:

Example 3-1. XML Infoset representation of message addressing properties.

```
<wsa:MessageID> xs:anyURI </wsa:MessageID>
<wsa:RelatesTo RelationshipType="..."?>xs:anyURI</wsa:RelatesTo>
<wsa:To>xs:anyURI</wsa:To>
<wsa:Action>xs:anyURI</wsa:Action>
<wsa:From>endpoint-reference</wsa:From>
<wsa:ReplyTo>endpoint-reference</wsa:ReplyTo>
<wsa:FaultTo>endpoint-reference</wsa:FaultTo>
```

The following describes the attributes and elements listed in the schema overview above:

`/wsa:MessageID`

This OPTIONAL element (of type `xs:anyURI`) conveys the [message id] property. This element MUST be present if `wsa:ReplyTo` or `wsa:FaultTo` is present.

`/wsa:RelatesTo`

This OPTIONAL (repeating) element information item contributes one abstract [relationship] property value, in the form of a (URI, URI) pair. The [children] property of this element (which is of type `xs:anyURI`) conveys the [message id] of the related message. This element MUST be present if the message is a reply.

3.2 Formulating a Reply Message

/wsa:RelatesTo/@RelationshipType

This OPTIONAL attribute (of type `xs:anyURI`) conveys the relationship type as a URI. When absent, the implied value of this attribute is `http://www.w3.org/2005/02/addressing/reply`.

/wsa:ReplyTo

This OPTIONAL element (of type `wsa:EndpointReferenceType`) provides the value for the [reply endpoint] property. This element MUST be present if a reply is expected. If this element is present, `wsa:MessageID` MUST be present.

/wsa:From

This OPTIONAL element (of type `wsa:EndpointReferenceType`) provides the value for the [source endpoint] property.

/wsa:FaultTo

This OPTIONAL element (of type `wsa:EndpointReferenceType`) provides the value for the [fault endpoint] property. If this element is present, `wsa:MessageID` MUST be present.

/wsa:To

This OPTIONAL element (of type `xs:anyURI`) provides the value for the [destination] property. If this element is NOT present then the value of the [destination] property is `"http://www.w3.org/2005/02/addressing/role/anonymous"`. Otherwise the [children] of this element convey the value of this property.

/wsa:Action

This REQUIRED element of type `xs:anyURI` conveys the [action] property. The [children] of this element convey the value of this property.

3.2 Formulating a Reply Message

The reply to a WS-Addressing compliant request message MUST be compliant to WS-Addressing and be constructed according to the rules defined in this section.

The following example illustrates a request message using message information header blocks in a SOAP 1.2 message:

Example 3-2. Example request message.

```
<S:Envelope xmlns:S="http://www.w3.org/2003/05/soap-envelope"
  xmlns:wsa="http://www.w3.org/2005/02/addressing">
  <S:Header>
  <wsa:MessageID>http://example.com/someuniquestring
  </wsa:MessageID>
  <wsa:ReplyTo>
  <wsa:Address>http://example.com/business/client1</wsa:Address>
```

3.2 Formulating a Reply Message

```
</wsa:ReplyTo>
<wsa:To S:mustUnderstand="1">mailto:fabrikam@example.com</wsa:To>
<wsa:Action>http://example.com/fabrikam/mail/Delete</wsa:Action>
</S:Header>
<S:Body>
  <f:Delete xmlns:f="http://example.com/fabrikam">
    <maxCount>42</maxCount>
  </f:Delete>
</S:Body>
</S:Envelope>
```

This message would have the following property values:

[destination] The URI `mailto:fabrikam@example.com`

[reply endpoint] The endpoint with [address] `http://example.com/business/client1`

[action] `http://example.com/fabrikam/mail/Delete`

[message id] `http://example.com/someuniquestring`

The following example illustrates a reply message using message information header blocks in a SOAP 1.2 message:

Example 3-3. Example response message.

```
<S:Envelope
  xmlns:S="http://www.w3.org/2003/05/soap-envelope"
  xmlns:wsa="http://www.w3.org/2005/02/addressing">
  <S:Header>
    <wsa:MessageID>
      http://example.com/someotheruniquestring
    </wsa:MessageID>
    <wsa:RelatesTo>
      http://example.com/someuniquestring
    </wsa:RelatesTo>
    <wsa:To S:mustUnderstand="1">
      http://example.com/business/client1
    </wsa:To>
    <wsa:Action>http://example.com/fabrikam/mail/DeleteAck</wsa:Action>
  </S:Header>
  <S:Body>
    <f:DeleteAck xmlns:f="http://example.com/fabrikam"/>
  </S:Body>
</S:Envelope>
```

This message would have the following property values:

[destination] `http://example.com/business/client1`

[action] `http://example.com/fabrikam/mail/DeleteAck`

[message id] <http://example.com/someotheruniquestring>

[relationship] (wsa:Reply, <http://example.com/someuniquestring>)

4. References

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[XML Namespaces]

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[XML Information Set]

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A. Acknowledgements (Non-Normative)

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B. Change Log (Non-Normative)

B.1 Changes Since First Working Draft

B.2 Changes Since Submission

Date	Editor	Description
2005-01-23 @ 21:13	mgudgin	Incorporated resolution of issue i014; edits to Section 2.3
2005-01-23 @ 20:52	mgudgin	Incorporated resolution of issue i006; made wsa:To optional
2005-01-23 @ 19:32	mgudgin	Incorporated resolution of Issue i001 by removing Reference Properties
2005-01-17 @ 02:13	mgudgin	Incorporated Paco's proposal for resolving Issue 038
2005-01-16 @ 22:40	mgudgin	s/PortType/InterfaceName in certain examples
2004-12-17 @ 16:08	mhadley	Improved readability of introduction
2004-12-16 @ 18:20	mhadley	Added resolution to issue 19 - WSDL version neutrality
2004-12-16 @ 16:50	mhadley	Added issue 33 resolution
2004-12-14 @ 20:10	mhadley	Switched back to edcopy formatting
2004-12-14 @ 20:02	mhadley	Enhanced auto-changelog generation to allow specification of data ranges for logs. Split change log to show changes between early draft and first working draft and changes since first working draft.
2004-12-14 @ 18:13	mhadley	Added resolutions for issues 12 (EPR lifecycle), 37 (relationship from QName to URI) and 39 (spec name versioning)

B.2 Changes Since Submission

B.2 Changes Since Submission

Date	Editor	Description
2004-11-23 @ 21:38	mhadley	Updated titles of examples. Fixed table formatting and references. Replaced uuid URIs with http URIs in examples. Added document status.
2004-11-22 @ 15:40	mhadley	Removed reference to WS-Policy
2004-11-15 @ 19:43	mhadley	Fixed some inter and intra spec references.
2004-11-12 @ 21:19	mgudgin	Removed TBD sections
2004-11-11 @ 18:31	mgudgin	Added some TBD sections
2004-11-07 @ 02:03	mhadley	Second more detailed run through to separate core, SOAP and WSDL document contents. Removed dependency on WS-Policy. Removed references to WS-Trust and WS-SecurityPolicy
2004-11-02 @ 22:25	mhadley	Removed static change log and added dynamically generated change log from cvs.
2004-10-28 @ 17:05	mhadley	Initial cut of separating specification into core, soap and wsdl