Web Services Description Language (WSDL) Version 2.0: Additional MEPs

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Abstract

This specification defines additional message exchange patterns (MEPs) to be used in WSDL 2.0 and are provided as examples of the extensibility of WSDL 2.0.

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 a W3C Working Group Note of Web Services Description Language (WSDL) Version 2.0: Additional MEPs. It has been produced by the Web Services Description Working Group, which is part of the W3C Web Services Activity.

This document contains additional MEPs that were previously defined in *Web Services Description Language (WSDL) Version 2.0 Part 2: Adjuncts* [*WSDL 2.0 Adjuncts [p.6]*].

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A diff-marked version against the previous version of this document is available.

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1. Introduction

The Web Services Description Language Version 2.0 (WSDL 2.0) [*WSDL 2.0 Core Language [p.5]*] provides a model and an XML format for describing Web services. WSDL 2.0 enables one to separate the description of the abstract functionality offered by a service from concrete details of a service description such as "how" and "where" that functionality is offered. This document defines additional message exchange patterns (MEPs) to be used in WSDL 2.0 and are provided as examples of the extensibility of WSDL 2.0. This document is the product of the Web Services Description Working Group, but its contents are non-normative.

2. Additional Message Exchange Patterns

Web Services Description Language (WSDL) [*WSDL 2.0 Adjuncts [p.6]*] defines several message exchange patterns (hereafter simply 'patterns'), as well as rules for defining additional patterns.

This specification defines several message exchange patterns for use with *WSDL Version 2.0 Part 1: Core Language* [*WSDL 2.0 Core Language [p.5]*]. The template defined in [*WSDL 2.0 Adjuncts [p.6]*] was used for the further contents of this document.

These patterns were originally intended for inclusion in *WSDL Version 2.0 Part 2: Adjunct* [*WSDL 2.0 Adjuncts [p.6]*]. The Working Group ultimately decided that including only those patterns which were referenced by the bindings defined in that specification was clearer for implementors and users, and resolved to publish these remaining patterns separately as a Note.

2.1 Fault Propagation Rules

These patterns use the fault propagation rulesets defined in [*WSDL 2.0 Adjuncts [p.6]*].

2.2 Message Exchange Patterns

WSDL patterns are described in terms of the WSDL component model, specifically the Interface Message Reference and Interface Fault Reference components.

2.2.1 In-Optional-Out message exchange pattern

The `in-optional-out` message exchange pattern consists of one or two messages, in order, as follows:

1. A message:
    - indicated by a Interface Message Reference component whose {message label} is "In" and {direction} is "in"
    - received from some node N
2. An optional message:
    - indicated by a Interface Message Reference component whose {message label} is "Out" and {direction} is "out"
    - sent to node N

The `in-optional-out` message exchange pattern uses the rule Message Triggers Fault.

An operation using this message exchange pattern has a {message exchange pattern} property with the value "http://www.w3.org/ns/wsdl/in-opt-out".

2.2.2 Out-Only message exchange pattern

The `out-only` message exchange pattern consists of exactly one message as follows:

1. A message:
    - indicated by a Interface Message Reference component whose {message label} is "Out " and {direction} is "out"
    - sent to some node N

The `out-only` message exchange pattern uses the rule No Fault.

An operation using this message exchange pattern has a {message exchange pattern} property with the value "http://www.w3.org/ns/wsdl/out-only".

2.2.3 Robust Out-Only message exchange pattern

The `robust out-only` message exchange pattern consists of exactly one message as follows:

1. message:
    - indicated by a Interface Message Reference component whose {message label} is "Out" and {direction} is "out"
    - sent to some node N

The `robust out-only` message exchange pattern uses the rule Message Triggers Fault.

An operation using this message exchange pattern has a {message exchange pattern} property with the value "http://www.w3.org/ns/wsdl/robust-out-only".

2.2.4 Out-In message exchange pattern

The `out-in` message exchange pattern consists of exactly two messages, in order, as follows:

1. A message:
    - indicated by a Interface Message Reference component whose {message label} is "Out" and {direction} is "out"
    - sent to some node N
2. A message:
    - indicated by a Interface Message Reference component whose {message label} is "In" and {direction} is "in"

- sent from node N

The `out-in` message exchange pattern uses the rule Fault Replaces Message.

An operation using this message exchange pattern has a {message exchange pattern} property with the value "http://www.w3.org/ns/wsdl/out-in".

2.2.5 Out-Optional-In message exchange pattern

The `out-optional-in` message exchange pattern consists of one or two messages, in order, as follows:

1. A message:
   - indicated by a Interface Message Reference component whose {message label} is "Out" and {direction} is "out"
   - sent to some node N
2. An optional message:
   - indicated by a Interface Message Reference component whose {message label} is "In" and {direction} is "in"
   - sent from node N

The `out-optional-in` message exchange pattern uses the rule Message Triggers Fault.

An operation using this message exchange pattern has a {message exchange pattern} property with the value "http://www.w3.org/ns/wsdl/out-opt-in".

2.3 Security Considerations

Security considerations are discussed in [*WSDL 2.0 Adjuncts [p.6]*].

3. References

3.1 Normative References

[WSDL 2.0 Core Language]
Web Services Description Language (WSDL) Version 2.0 Part 1: Core Language, R. Chinnici, J-J. Moreau, A. Ryman, S. Weerawarana, Editors. World Wide Web Consortium, 26 June 2007. This version of the "Web Services Description Language (WSDL) Version 2.0 Part 1: Core Language" Specification is available at http://www.w3.org/TR/2007/REC-wsdl20-20070626. The latest version of "Web Services Description Language (WSDL) Version 2.0 Part 1: Core Language" is available at http://www.w3.org/TR/wsdl20.

[WSDL 2.0 Adjuncts]
Web Services Description Language (WSDL) Version 2.0 Part 2: Adjuncts, R. Chinnici, H. Haas, A. Lewis, J-J. Moreau, D. Orchard, S. Weerawarana, Editors. World Wide Web Consortium, 26 June 2007. This version of the "Web Services Description Language (WSDL) Version 2.0 Part 2: Adjuncts" Specification is available at http://www.w3.org/TR/2007/REC-wsdl20-adjuncts-20070626. The latest version of "Web Services Description Language (WSDL) Version 2.0 Part 2: Adjuncts" is available at http://www.w3.org/TR/wsdl20-adjuncts.

A. Acknowledgements (Non-Normative)

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