

ISO/IEC 29361:2008-06 (E)

Information technology_ - Web Services Interoperability_ - WS-I Basic Profile Version_1.1

Contents

- Forewordviii
- 1 Scope and introduction 1
 - 1.1 Scope..... 1
 - 1.2 Relationships to Other Profiles..... 1
 - 1.3 Changes from Basic Profile Version 1.0.....2
 - 1.4 Guiding Principles 2
 - 1.5 Notational Conventions 3
 - 1.6 Profile Identification and Versioning 4
- 2 Profile Conformance 5
 - 2.1 Conformance Requirements 5
 - 2.2 Conformance Targets 6
 - 2.3 Conformance Scope 6
 - 2.4 Claiming Conformance..... 7
- 3 Messaging 7
 - 3.1 SOAP Envelopes 8
 - 3.1.1 SOAP Envelope Structure 8
 - 3.1.2 SOAP Envelope Namespace 9
 - 3.1.3 SOAP Body Namespace Qualification..... 9
 - 3.1.4 Disallowed Constructs 9
 - 3.1.5 SOAP Trailers..... 9
 - 3.1.6 SOAP encodingStyle Attribute..... 10
 - 3.1.7 SOAP mustUnderstand Attribute..... 10
 - 3.1.8 xsi:type Attributes 10
 - 3.1.9 SOAP1.1 attributes on SOAP1.1 elements 11

3.2 SOAP Processing Model.....	11
3.2.1 Mandatory Headers	11
3.2.2 Generating mustUnderstand Faults.....	11
3.2.3 SOAP Fault Processing	11
3.3 SOAP Faults	12
3.3.1 Identifying SOAP Faults.....	12
3.3.2 SOAP Fault Structure	12
3.3.3 SOAP Fault Namespace Qualification.....	13
3.3.4 SOAP Fault Extensibility.....	14
3.3.5 SOAP Fault Language.....	14
3.3.6 SOAP Custom Fault Codes	14
3.4 Use of SOAP in HTTP	15
3.4.1 HTTP Protocol Binding	16
3.4.2 HTTP Methods and Extensions	16
3.4.3 SOAPAction HTTP Header.....	16
3.4.4 HTTP Success Status Codes	17
3.4.5 HTTP Redirect Status Codes	17
3.4.6 HTTP Client Error Status Codes.....	18
3.4.7 HTTP Server Error Status Codes	18
3.4.8 HTTP Cookies	18
4 Service Description.....	19
4.1 Required Description.....	20
4.2 Document Structure	20
4.2.1 WSDL Schema Definitions	20

4.2.2 WSDL and Schema Import.....	21
4.2.3 WSDL Import location Attribute Structure.....	22
4.2.4 WSDL Import location Attribute Semantics.....	22
4.2.5 Placement of WSDL import Elements	23
4.2.6 XML Version Requirements.....	24
4.2.7 XML Namespace declarations.....	24
4.2.8 WSDL and the Unicode BOM.....	24
4.2.9 Acceptable WSDL Character Encodings	24
4.2.10 Namespace Coercion	24
4.2.11 WSDL documentation Element.....	25
4.2.12 WSDL Extensions.....	25
4.3 Types	26
4.3.1 QName References.....	26
4.3.2 Schema targetNamespace Structure.....	26
4.3.3 soapenc:Array	26
4.3.4 WSDL and Schema Definition Target Namespaces	28
4.4 Messages.....	28
4.4.1 Bindings and Parts	29
4.4.2 Bindings and Faults	30
4.4.3 Declaration of part Elements	31
4.5 Port Types.....	31
4.5.1 Ordering of part Elements	31
4.5.2 Allowed Operations	32
4.5.3 Distinctive Operations.....	32
4.5.4 parameterOrder Attribute Construction.....	32
4.5.5 Exclusivity of type and element Attributes	32

4.6 Bindings	33
4.6.1 Use of SOAP Binding	33
4.7 SOAP Binding	33
4.7.1 Specifying the transport Attribute.....	33
4.7.2 HTTP Transport.....	33
4.7.3 Consistency of style Attribute	34
4.7.4 Encodings and the use Attribute	34
4.7.5 Multiple Bindings for portType Elements	34
4.7.6 Operation Signatures.....	34
4.7.7 Multiple Ports on an Endpoint.....	35
4.7.8 Child Element for Document-Literal Bindings	35
4.7.9 One-Way Operations	35
4.7.10 Namespaces for soapbind Elements	36
4.7.11 Consistency of portType and binding Elements.....	36
4.7.12 Describing headerfault Elements	36
4.7.13 Enumeration of Faults.....	37
4.7.14 Type and Name of SOAP Binding Elements	37
4.7.15 name Attribute on Faults.....	38
4.7.16 Omission of the use Attribute.....	38
4.7.17 Default for use Attribute	38
4.7.18 Consistency of Envelopes with Descriptions	38
4.7.19 Response Wrappers	39
4.7.20 Part Accessors	39
4.7.21 Namespaces for Children of Part Accessors	39

4.7.22 Required Headers	41
4.7.23 Allowing Undescribed Headers.....	41
4.7.24 Ordering Headers	41
4.7.25 Describing SOAPAction.....	42
4.7.26 SOAP Binding Extensions	43
4.8 Use of XML Schema	43
5 Service Publication and Discovery	44
5.1 bindingTemplates.....	44
5.2 tModels	45
6 Security.....	46
6.1 Use of HTTPS	47
Appendix A: Referenced Specifications.....	49
Appendix B: Extensibility Points	50
Appendix C: Normative References	52
Appendix D: Defined Terms.....	53
Appendix E: Acknowledgements	55