

ISO/IEC 24824-2:2006-07 (E)

Information technology - Generic applications of ASN.1: Fast Web Services

Contents

Page

Reference number INTERNATIONAL STANDARD 24824-2 First edition 2006-07-01 Information technology -- Generic applications of ASN.1: Fast Web Services Technologies de l'information -- Applications génériques de ASN.1: Services web rapides PDF disclaimer This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area. Adobe is a trademark of Adobe Systems Incorporated. Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below. electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester. ISO copyright office Case postale 56 · CH-1211 Geneva 20 Tel. + 41 22 749 01 11 Fax + 41 22 749 09 47 E-mail copyright@iso.org Web www.iso.org Published in Switzerland CONTENTS 1 Scope 1

2	Normative references	1
2.1	Identical Recommendations	International Standards 1
2.2	Additional references	2
3	Definitions	3
3.1	Imported definitions	3
3.2	Additional definitions	3
4	Abbreviations	4
5	Notation	4
6	The processing of ASN.1 SOAP messages	5
7	Mapping components of the Envelope type to information items	7
7.1	General	7
7.2	Mapping of the Header type	7
7.3	Mapping of the Body type	7
7.4	Mapping of the Fault type	7
7.5	Mapping of the Content type	9
8	Mapping W3C SOAP message infosets to abstract values of the Envelope type	10
8.1	General	10
8.2	Mapping of a Header EII	10
8.3	Mapping of a Body EII	11
8.4	Mapping of a Fault EII	11
8.5	Mapping of a content EII to a value of the Content type	12
9	Extended SOAP processing of embedded ASN.1 encoded values	13
9.1	General	13
9.2	Identifying the ASN.1 type of an embedded ASN.1 encoded value	13
9.3	Generating an ASN.1 value from an identified embedded ASN.1 encoded value	14
9.4	Insertion of an ASN.1 value (with an identifier) into a W3C SOAP message	14

9.5	The "ASN.1 type not identifiable" fault	15
10	ASN.1 SOAP HTTP Binding	16
10.1	HTTP media type	16
10.2	Behavior of responding SOAP nodes	16
11	Fast infoset SOAP messages and the SOAP HTTP Binding	16
12	SOAP-oriented service descriptions supporting the ASN.1 SOAP interface binding	17
12.1	General	17
12.2	Schemas	17
12.3	Abstract interfaces and abstract operations	17
12.4	Interface bindings and operation bindings	18
12.5	RPC schema	19
13	Use of SOAP-oriented service descriptions with ASN.1 SOAP interface bindings	21
Annex A - ASN.1 module for ASN.1 SOAP		23
Annex B - MIME media types for Fast Web Services		25
B.1	The "application/fastsoap" media type	25
B.2	The "application/soap+fastinfoset" media type	26
Annex C - Tutorial on Fast Web Services		28
C.1	Advantages of Fast Web Services	28
C.2	Conceptual and optimized processing of ASN.1 SOAP messages	29
C.3	Service descriptions	32
Annex D - Common provision of services using Fast Web Services and XML Web services		34
D.1	Optimistic strategy	34
D.2	Pessimistic strategy	34
Annex E - SOAP-oriented service description in WSDL 1.1		36
E.1	SOAP-oriented service descriptions expressed in WSDL 1.1	36
E.2	Schema	36
E.3	Abstract interface and abstract operations	36
E.4	Interface bindings and operation bindings	37
Annex F - Assignment of object identifier values		40
BIBLIOGRAPHY		41